



**MEDITERRANEAN ACTION PLAN**

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**UNITED NATIONS ENVIRONMENT PROGRAMME**

**DIRECTORY OF MEDITERRANEAN  
MARINE ENVIRONMENTAL CENTRES**

**Compiled by Athena Davaki**

**REPERTOIRES DES CENTRES RELATIFS  
AU MILIEU MARIN EN MEDITERRANEE**

**Compilé par Athena Davaki**

**MAP Technical Reports Series No. 65**

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This volume is the sixty fifth issue of the Mediterranean Action Plan Technical Reports Series.

This series contains selected reports resulting from the various activities performed within the framework of the components of the Mediterranean Action Plan: Pollution Monitoring and Research Programme (MED POL), Blue Plan (BP), Priority Actions Programme (PAP), Specially Protected Areas (SPA) and Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC).

Ce volume constitue le soixante cinquième numéro de la série des rapports techniques du Plan d'action pour la Méditerranée.

Cette série comprend certains rapports élaborés au cours des diverses activités menées dans le cadre des composantes du Plan d'action pour la Méditerranée: Programme de surveillance continue et de recherche en matière de pollution (MED POL), Plan Bleu (PB), Programme d'actions prioritaires (PAP), Aires spécialement protégées (ASP) et Centre régional méditerranéen pour l'intervention d'urgence contre la pollution marine accidentelle (REMPEC).

## INTRODUCTION

The third edition of the Directory of Mediterranean Marine Environmental Centres prepared by UNEP/FAO in 1985 proved to be, as had the earlier editions of 1976 and 1977, a useful source of reference and a successful tool for continued regional co-operation. In view of this, the UNEP/Co-ordinating Unit for the Mediterranean Action Plan (MEDU), with the support of the Oceans and Coastal Areas Programme (OCA/PAC) of UNEP, has prepared a new, updated edition of this Directory.

The new Directory contains up-to-date information on one hundred and forty two governmental, international, UN, private and other institutions, including their scientists and administrators, engaged in the research, monitoring, education, training and management of the Mediterranean marine environment.

The listings and information collected went into compiling the MARIN and MARPER computerized databases, managed and maintained at MEDU in Athens, which will continue to be updated as new information is contributed.

All marine environmental centres included in previous editions of the Directory, as well as others listed in the UNEP/Regional Seas Directory of Marine Scientists and Marine Environmental Centres in the Arab States, the UNEP/Regional Seas Directory of Organizations Co-operating with or Contributing to Action Plans and Global Activities of the UNEP Oceans Programme, the Fondation René Seydoux "Répertoire Méditerranéen", 1991, and those on the MEDU mailing list, were contacted. Questionnaires in English and French, along with comprehensive guidelines, were distributed, and those institutions which completed the questionnaire were invited to comment and verify the information prior to printing.

In this Directory, institutions are listed in alphabetical order within country. The name of the institution is cited in English and its original language or the transliterated form of that language, wherever provided. Francophone institutions appear in French.

An index of professional/scientific staff citing the last name, first name and speciality, arranged alphabetically within country, follows the main body of information.

Only institutions whose activities and specialities directly relate to the marine environment have been included. Every effort was made to prepare a complete, accurate and useful source of reference on Mediterranean marine environmental institutions, their objective, specialities, activities, programmes, equipment and staff. We invite institutions to communicate errors or omissions, together with their comments to:

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## INTRODUCTION

La troisième édition du Répertoire des centres méditerranéens de recherche marine établie par le PNUE et la FAO en 1985 s'est révélée, comme les éditions précédentes de 1976 et 1977, une source utile de référence et un outil précieux pour la coopération régionale. C'est pourquoi, l'Unité de coordination du Plan d'action pour la Méditerranée, avec l'aide du Programme pour les océans et les zones côtières du PNUE, a préparé une nouvelle édition à jour de ce Répertoire.

Le nouveau Répertoire contient des informations actualisées sur cent quarante deux organisations gouvernementales et internationales, les organisations des Nations Unies, les institutions privées et autres - y compris le personnel scientifique et administratif - qui s'occupent de recherche, de surveillance, d'éducation, de formation et de gestion dans le domaine de l'environnement marin méditerranéen.

Les listes et renseignements y figurant, proviennent de la compilation des bases de données MARIN et MARPER, gérées et entretenues par l'Unité de coordination d'Athènes, qui continuent à être mises à jour en fonction des nouveaux renseignements reçus.

Tous les centres de recherche marine figurant dans les éditions précédentes du Répertoire, ainsi que d'autres figurant dans le Répertoire des océanographes et des centres d'étude du milieu marin dans les Etats arabes du Programme pour les mers régionales du PNUE, dans le Répertoire des organismes coopérant et contribuant aux plans d'action et activités mondiales du Programme pour les océans du PNUE, dans le "Répertoire méditerranéen" de la Fondation René Seydoux de 1991 et sur la liste de diffusion de l'Unité de coordination, ont été contactés. Des questionnaires en anglais et français, accompagnés de directives détaillées, ont été distribués et les institutions qui les ont remplis ont été invitées à communiquer leurs observations et à vérifier les informations avant impression.

Dans le présent Répertoire, les institutions sont classées par ordre alphabétique à l'intérieur de chaque pays. Le nom de l'institution est donné en anglais, puis dans sa langue d'origine ou sous une forme translittérée dans cette langue, selon le cas. Le nom des institutions francophones est en français.

Le corps du texte est suivi d'un index alphabétique par pays du personnel scientifique et administratif, avec leurs noms, prénoms et spécialités.

Seules les institutions dont les activités et spécialités se rapportent directement à l'environnement marin figurent dans le Répertoire. On s'est efforcé d'établir une source de référence complète, exacte et utile des institutions travaillant dans le domaine de l'environnement marin méditerranéen, avec leurs objectifs, spécialités, activités, programmes, matériel et personnel. Nous invitons les institutions à signaler toute erreur ou omission et à communiquer leurs observations à l'adresse suivante:

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Leoforos Vassileos Konstantinou 48  
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### Acknowledgements

Credit is due to Mr. Adnan Aksel, Computer Operations Officer, MEDU, Athens, for his assistance and technical expertise without which this Directory would not have been possible; and to Mr. Kevin Grose, Head Librarian, UNEP, Nairobi, for the compilation of the questionnaire and his assistance and support in this project.

### Remerciements

Nous tenons à exprimer notre gratitude à M. Adnan Aksel, spécialiste du traitement des données à l'Unité de coordination d'Athènes, pour l'aide précieuse et l'appui technique qu'il nous a apportés et sans lesquels l'établissement de ce Répertoire n'aurait pas été possible. Nos remerciements vont également à M. Kevin Grose, bibliothécaire chef, PNUE, Nairobi, pour la compilation du questionnaire, et pour l'aide et l'appui qu'il a donnés au projet.



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# ALBANIA

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*Instituti Studimeve Projektiveve Teknologjise Kimike (ISPTK)*

Rr. M. Grameno  
Pall. 2, Shk. 2, Apt. 4  
Tirana  
ALBANIA

**Telephone** (355) 42 23466

**Executive officer** Mr Lirim SELFO, Chief of Cabinet for Environmental Protection

Governmental, national institution founded in 1983. Languages: Albanian; Italian; English

**Nature of activities** Research; Laboratory

**Purpose and objectives** Studies and projects in chemical technology and environmental protection

**Areas of speciality/activities** Chemical analysis of waste waters; Technological studies for the control or elimination of toxic and noxious compounds from chemical industry effluents

### **Research programmes/projects**

- Qualitative and quantitative estimation of effluents from the chemical industry

### **Co-operative research programmes/projects**

- UNEP/MED POL Phase II: Long-term programme for pollution monitoring and research in the Mediterranean Sea

**Staff** Professional 1; Technical 1

### **Information facilities**

**Publications** Buletini I.S.P.T.K

**Library** 910 volumes/reprints; 13 periodicals **Librarian** Petrit Ndroqi

**Physical facilities** 1500 m<sup>2</sup>

**Laboratories** 500 m<sup>2</sup> **Laboratory equipment** Thermostate; Kiln; Centrifuge; Stirrer; pH-meter; O<sub>2</sub>-meter; Balances (analytical and technical); Pilot plant for waste water treatment (Attisholz system)

**Conference/seminar facilities** for 50 participants

# ALBANIA

## Professional/Scientific staff

Name	Degree	Position	Specialization
Selfo, Lirim (Mr)		Chief of Cabinet	Protection of surface waters from industrial pollution; Chemical treatment of polluted waters from chemical industry
Strakosha, Bardhyl (Mr)			Protection of surface waters from industrial pollution; Chemical treatment of polluted waters from chemical industry

## Research Institute of Hygiene and Epidemiology

Tirana  
ALBANIA

**Telephone** (355) 42 33553

**Executive officer** Dr Qeramedin KODRA, Director

Governmental, national institution founded in 1969. Languages: Albanian; English; Italian; Russian

**Nature of activities** Research; Technical training; Laboratory; Academic/educational

**Purpose and objectives** Study of hygiene and epidemiology and the setting of hygiene-antiepidemic regulations and standards; Assistance to regional institutions in the methodology of preventive medicine; Production of vaccines

**Areas of speciality/activities** Analytical methodology; Waters; Marine microbiology; Parasitology; Toxicology; Monitoring and/or assessment; Pollution; Environmental impact assessment; Environmental education; Recreation/tourism

**Environments** Lakes; Brackishwater; Coastal zone; Rivers; Littoral zone; Lagoons

**Geographic areas** Adriatic Sea; Ionian Sea

### Co-operative research programmes/projects

- UNEP/MED POL: Monitoring station

**Staff** Professional 8; Technical 5; Other 4

### Information facilities

**Library** 1000 volumes/reprints; 12 periodicals **Co-operative programmes/projects** WHO; UNEP; Istituto Superiore di Sanita **Librarian** Adrian Dafa

**Computers** 1 PC (IBM); 1 Printer (Epson FX1050) **Applications** Database management; Graphics; Statistical; Word processing **Data exchange** 5.25"(DD) PC diskette; dBase, Lotus

### Physical facilities 2342 m<sup>2</sup>

**Laboratories** 123 m<sup>2</sup>; climate controlled **Laboratory equipment** Incubator Funken-stort, type 8; Incubator Funken-stort, type 4; Aerosteril STE 39/II; Autoclave MA 5402; Refrigerator-Gronland; Centrifuge-Janecky, T30; Vacuum pump DS-2; Fluorometer Spekker; Spectrophotometer, type 72; Aparatus BOD 5, mod. 212 and 214, BSB; TPN water sampler 581; Neocoparateur "Hellige", M57; Aerosteril "Chirana", STE 31; pH meter-autotitrator "Pye-Unicam" mod. 291 Mk2; Dissolved oxygen meter (for water). mod. 1010; FEK (photoelectric colorimeter), mod. 581; Spectrophotometer, mod. 2260; Melangeuse magnetique, MM 1; Maufle M5; Refrigerator Gronland; Incubator, type BS 104K; Incubator, type Hasse; Incubator, type Schulc No.6; Microscope, type Zeiss

**Facilities** for 4 visiting scientists; 4 students **Conference/seminar facilities** for 120 participants

### Professional/Scientific staff

Name	Degree	Position	Specialization
Angjeli, Valer (Mr)	PhD	Chief, Communal Hygiene Division	Hygiene; Potable and surface water hygiene
Azdurjan, Teuta (Ms)	PhD	Chief, Food Microbiological Laboratory	Microbiology; Microbiology of food
Bardhoshi, Adriana (Ms)	PhD	Chief, Food Hygiene Division	Hygiene; Food toxicology
Bukli, Ramazan (Mr)	PhD	Chief, Water Chemical Laboratory	Analytical chemistry; Water chemistry
Haxhi, Kristo (Mr)	MSc	Chief, Hygiene Sector	Hygiene; Food hygiene
Kodra, Qeramedin (Mr)	PhD	Director	
Leno, Luljeta (Ms)	PhD	Chief, Water Microbiological Laboratory	Microbiology; Microbiology of water
Qeribashi, Mustafa (Mr)	MSc	Chief, Food Toxological Laboratory	Food toxicology; Analytical toxicology of food
Tafaj, Lindita (Ms)	PhD	Chemist	Food toxicology; Analytical toxicology of food

## ALBANIA

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### **Tirana University Faculty of Natural Sciences Analytical Chemistry Chair**

Tirana  
ALBANIA

**Telephone** (355) 42 26372  
(355) 42 25805

**Telex** 2211 UNISITAB

**Executive officer** Dr Besnik B BARAJ, Chief

Governmental, national institution founded in 1957. Languages: Albanian; English; French

**Nature of activities** Research; Academic/educational

**Purpose and objectives** Teaching of analytical chemistry in different branches of the University; Introduction of new methods of analysis

**Areas of speciality/activities** Analytical methodology; Heavy metals; Sediments; Waters; Biota; Analysis of metals with SAA in blood, urine, etc.; Environmental samples (water, air, etc.); Underground waters (brine); Metallurgical samples

**Environments** Lakes; Brackishwater; Coastal zone; Rivers; Lagoons; Estuaries

**Geographic areas** Adriatic Sea; Ionian Sea

#### **Research programmes/projects**

- Studies on the determination of Hg with SAA of biological samples
- Studies on the determination of indicator metals in brines with optical methods
- Preparation and application of ion-selective electrodes
- Application of kinetic methods for trace analysis

#### **Co-operative research programmes/projects**

- Determination of heavy metals in river waters
- Ni-Co Plant, Elbasan: Chemical analysis of metallurgical products of nickel with SAA and various methods
- UNEP/MED POL: Programme for pollution monitoring and research in the Mediterranean Sea

#### **Training programmes**

- Nine-month postgraduate course in analytical chemistry
- Two-week training course for SAA (offered once every three years)

**Staff** Professional 10; Technical 2

**Information facilities**

**Publications** "Buletini i Shkencave ti Natyres" - quarterly, published by the Faculty of Natural Sciences; Monographs on analytical chemistry, instrumental analysis and laboratory practicum for student-use

**Library** 75000 volumes/reprints; 60 periodicals **Librarian** Vasilika Darku

**Computers** 1 PC (IBM); 1 Printer (Epson FX1050) **Applications** Scientific; Statistical **Data exchange** Statgraphics, Grapher, WordStar 2000 files

**Physical facilities** 400 m<sup>2</sup>

**Laboratories** 252 m<sup>2</sup> **Laboratory equipment** SAA (SP9-700, Pye Unicam); SFUV-VIS (SP6-550, Pye Unicam); Ionometer; Polarograph (Radelkis, Hungarian)

**Facilities** for 2 visiting scientists; 5 students **Conference/seminar facilities** available

**Professional/Scientific staff**

Name	Degree	Position	Specialization
<b>Baraj</b> , Besnik (Mr)	PhD	Chief	Optical methods of analysis
<b>Cabej</b> , Argjirulla (Ms)	PhD		Chromatographic methods of analysis
<b>Cela</b> , Valbona (Ms)			Optical methods of analysis
<b>Cullaj</b> , Algi (Mr)	PhD	Docent	Optical methods of analysis
<b>Dimo</b> , Marika (Ms)			Chromatographic methods of analysis
<b>Gercaliu</b> , Diana (Ms)		Research Assistant	Optical methods of analysis
<b>Kati</b> , Odeta (Ms)	PhD		Electrochemical methods of analysis
<b>Kellezi</b> , Fatos (Mr)		Laboratory Assistant	
<b>Lubouja</b> , Filip (Mr)	PhD		Electrochemical methods of analysis
<b>Matja</b> , Sefer (Mr)	PhD		Chromatographic methods of analysis
<b>Merkosi</b> , Arben (Mr)	PhD		Electrochemical methods of analysis
<b>Nati</b> , Roza (Ms)	PhD		Optical methods of analysis

## ALBANIA

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**Tirana University**  
**Faculty of Natural Sciences**  
**Organic Chemistry Chair**  
**Laboratory for Organic Instrumental Analysis**

Bulervardi Deslimoret e Kombit  
Tirana  
ALBANIA

**Telephone** (355) 42 25805

**Telex** 2211 UNISITAB

**Executive officer** Dr Kosta KOCI, Docent/Chief

Governmental, national institution founded in 1957. Languages: Albanian; English; French

**Nature of activities** Research; Academic/educational

**Purpose and objectives** Teaching of organic chemistry, instrumental organic analysis and spectroscopic methods (UV-VIS, IR, MS)

**Areas of speciality/activities** Analytical methodology; Organics; Sediments; Waters; Biota; Evaluation of Albanian organic natural resources (petroleum, essential oils, alcaloid plants, etc.); Pollution monitoring of hazardous organic substances

**Environments** Lakes; Brackishwater; Coastal zone; Rivers; Lagoons; Estuaries

**Geographic areas** Adriatic Sea; Ionian Sea

### **Research programmes/projects**

- Organic geochemistry of ancient sediments and petroleum
- Generics of petroleum and natural gas-correlation and maturation studies by biological markers
- Composition of essential oils
- Composition of alcaloids in alcaloid plants

### **Co-operative research programmes/projects**

- UNEP/MED POL: Monitoring station for the Mediterranean Action Plan

**Staff** Professional 6; Technical 4

### **Information facilities**

**Publications** "Buletini i Shkencave ti Natyres" - quarterly, published by the Faculty of Natural Sciences

**Library** 75000 volumes/reprints; 60 periodicals

**Librarian** Vasilika Darku

**Physical facilities** 250 m<sup>2</sup>

**Laboratories** 200 m<sup>2</sup> **Laboratory equipment** GCMS-QP1000 (Shimadzu); IR-spectrophotometer-377 (Perkin-Elmer); UV-VIS-spectrophotometer (Beckmann); HPLC (Pye-Unicam-Philips); Gas-chromatographs (Pye-Unicam, Carlo-Erba)

**Facilities** for 2 visiting scientists **Conference/seminar facilities** for 50 participants

**Professional/Scientific staff**

Name	Degree	Position	Specialization
<b>Biba</b> , Edmond (Mr)		Assistant	Organic analysis
<b>Damani</b> , Genci (Mr)	PhD	Teacher	Organic chemistry; Biochemistry; Alcaloids
<b>Koci</b> , Kosta (Mr)	PhD	Docent/Chief	Organic instrumental analysis
<b>Sazam</b> , Gerta (Ms)		Assistant	Pollution from organic substances
<b>Troja</b> , Pandeli (Mr)	PhD	Docent	Organic chemistry; Enzymes
<b>Vaso</b> , Kozeta (Ms)		Assistant	Organic synthesis



# ALGERIA

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## **Institut des Sciences de la Mer et de l'Aménagement du Littoral (ISMAL)**

Boîte Postale 54  
Sidi-Fredj 42321  
Wilaya de Tipaza  
Alger  
Algérie

**Téléphone** (213) 2 391913  
**Télex** 67526 ISMAL DZ  
63126 ISMAL DZ  
**Téléfax** (213) 2 393538

## **Université des Sciences et de la Technologie Houari Boumedienne Institut des Sciences de la Nature Laboratoire de Biologie et d'Ecologie Marines (USTHB-ISN)**

El Alia (Bab Ezzouar)  
Boîte Postale 39  
Alger 16111  
Wilaya d'Alger  
ALGERIE

**Téléphone** (213) 2 751285  
(213) 2 751054  
**Télex** 54835 DZ  
**Téléfax** (213) 2 764311

**Directeur** M. Ahmed AIDOUD, Directeur

Organisme gouvernemental, national créé en 1962. Langues de travail: Français

**Nature des activités** Recherche; Enseignement (universitaire)

**Objectifs/mandat** Formation supérieure en sciences de la nature dont biologie marine et océanologie biologique

**Domaines ou disciplines scientifiques/activités** Sédimentologie; Biologie marine et écologie; Phytoplancton; Zooplancton; Benthos; Poissons; Algues; Mollusques; Crustacés; Parasitologie; Taxinomie et systématiques; Productivité; Etudes des communautés et populations; Gestion des ressources; Etude des écosystèmes pélagiques de la région d'Alger; Etude de l'écosystème côtier; Ecologie et biologie de certains mollusques et algues; Etude de poissons d'intérêt économique

**Environnements** Eaux saumâtres; Zones côtières; Environnement pélagique; Environnement benthique; Zones littorales

**Zones géographiques** Mer Méditerranée; Bassin algéro-provençal

**Programmes/projets de recherche**

- Ecosystèmes pélagiques et benthiques
- Campagne programmée dans la région d'Alger et l'Algérie occidentale
- Etude de la biologie et de l'écologie des palourdes, moules, mollusques, céphalopodes
- Biologie et écologie des poissons, *Pagellus bogaraveo*, *Helicolenus dactylopterus*, *Sardinella aurita*, *Barbus callensis*, *Aristeus antennatus*

**Programmes de recherche menés en coopération**

- Campagne Medipro VI: Exploitation des résultats
- Campagne dans le Bassin algérien occidental avec l'ISMAL

**Programmes de formation/enseignement**

- Formation supérieure
- Diplôme d'études supérieures d'océanologie biologique-Ingénierat en aquaculture
- Formation hautement spécialisée en écologie marine
- Post-graduation

**Personnel** Scientifique 19; Technique 2; Autre 10

**Moyens d'information**

**Publications** Rapports d'activités

**Bibliothèque** 1148 volumes/tirés à part; 258 périodiques **Programmes/projets de coopération**  
Bibliothèque centrale de l'USTHB **Bibliothécaire** Fatiha Mahouch

**Ordinateurs** Micro-ordinateurs **Applications** Comptabilité, planification financière; Communications; Gestion de bases de données; Graphiques; Modélisation; Statistiques; Traitement de texte

**Installations**

**Equipements de laboratoire** Microscopes; Loupes binoculaires; Salières; Balance de précision; Etuve; Chambre froide; Centrifugeuse **Espèces entretenues** Larves de crustacés décapodes; Copépodes; *Perna perna*; Algues; Divers mollusques

**Bateaux/embarcations de recherche** Petite embarcation

**Possibilités d'accueil** pour 1 scientifique extérieur; 2 étudiants **Installations pour conférences/séminaires** pour 50 participants

# ALGERIA

## Personnel scientifique

Nom	Diplôme	Fonction	Spécialité
<b>Abada-Boudjema</b> , Yamina-Madiha (Mme)	Doctorat 3ème cycle	Chargée de Cours/Chargée de Recherche	Biologie marine et écologie; Dynamique et génétique des populations de moules
<b>Abada-Guerroui</b> , Halima (Mme)	Doctorat 3ème cycle	Chargée de Cours/Chargée de Recherche	Biologie et écologie marines; Milieux perturbés
<b>Aidoud</b> , Ahmed (M)		Directeur	
<b>Ait-Kaci</b> , Dalila (Mme)	DEA	Maître Assistante/Attachée de Recherche	Géologie marine; Sédimentologie
<b>Alili</b> , Djamel Eddine (M)	Thèse magistère	Maître Assistant/Attaché de Recherche	Biologie marine et écologie; Poissons
<b>Benmeradi</b> , Nasser (M)	Thèse magistère	Chargé de Cours/Chargé de Recherche	Biologie marine et écologie; Reproduction mollusques
<b>Bensalah</b> , Fawzia (Mme)	Doctorat 3ème cycle	Chargée de Cours/Attachée de Recherche	Biologie marine et écologie; Génétique de populations de mollusques
<b>Berkane-Maouche</b> , Samia (Mme)	Doctorat 3ème cycle	Chargée de Cours/Chargée de Recherche	Géologie marine; Sédimentologie
<b>Boukhroufa</b> , Faiçal (M)	Thèse magistère	Maître Assistant/Attaché de Recherche	Biologie marine; Cyto-histologie; Reproduction
<b>Boumendjel</b> , Myriam (Mme)	DES	Assistante/Attachée de Recherche	Biologie marine et écologie; Poissons: Reproduction
<b>Chalabi</b> , Lila (Mme)	Doctorat 3ème cycle	Chargée de Cours/Chargée de Recherche	Biologie et écologie marines; Populations de praires et palourdes
<b>Cherabi</b> , Omar (M)	Thèse magistère	Maître Assistant/Attaché de Recherche	Biologie et écologie marines; Poissons
<b>Djediat</b> , Chakib (M)	Thèse magistère	Maître Assistant/Attaché de Recherche	Biologie marine; Cyto-histologie; Reproduction
<b>Harchouche</b> , Kamel (M)	Thèse magistère	Maître Assistant/Attaché de Recherche	Biologie marine et écologie; Poissons
<b>Hemida</b> , Farid (M)	Thèse magistère	Maître Assistant/Attaché de Recherche	Biologie marine et écologie; Poissons
<b>Mouhoub</b> , Redouane (M)	Thèse magistère	Maître Assistant/Attaché de Recherche	Biologie marine et écologie; Poissons
<b>Nouar</b> , Ahmed (M)	Thèse magistère	Chargé de Cours/Chargé de Recherche	Biologie marine et écologie; Poissons; Pêches
<b>Samson-Kechacha</b> , Leila (Mme)	Doctorat 3ème cycle	Chargée de Cours/Chargée de Recherche	Biologie marine et écologie; Sels nutritifs; Phytoplancton; Systèmes perturbés
<b>Semroud</b> , Rachid (M)	Doctorat 3ème cycle	Chargé de Cours/Chargé de Recherche	Biologie marine et écologie; Herbiers à Posidonies
<b>Seridi</b> , Halima (Mme)	Thèse magistère	Maître Assistante/Attachée de Recherche	Biologie marine et écologie; Algologie; Taxonomie

## ALGERIA

Nom	Diplôme	Fonction	Spécialité
<b>Seridji</b> , Rabia (Mme)	Doctorat	Maître de Conférences	Biologie marine et écologie; Zooplancton; Larves de crustacés décapodes
<b>Yahiaoui</b> , Mokhtar (M)	Doctorat 3ème cycle	Chargé de Cours/Chargé de Recherche	Biologie marine et écologie; Crustacés; Pêche

# CROATIA

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## **Institute of Oceanography and Fisheries-Split Biological Institut-Dubrovnik (BIOINST)**

*Institut za Oceanografiju i Ribarstvo-Split  
Bioloski Zavod-Dubrovnik (IORBZDBK)*

12 Damjana Jude  
P.O. Box 39  
Dubrovnik 50000  
CROATIA

**Telephone** (38) 50 27937  
**Fax** (38) 50 25775

**Executive officer** Dr Frano KRSINIC, Scientist

Governmental, national institution founded in 1951. Languages: Croatian; English

**Nature of activities** Research

**Areas of speciality/activities** Nutrients; Phytoplankton; Zooplankton; Algae; Molluscs; Crustaceans; Marine microbiology; Productivity; Aquaculture; Monitoring and/or assessment; Pollution

**Environments** Coastal zone; Littoral zone; Estuaries

**Geographic areas** Adriatic Sea

### **Co-operative research programmes/projects**

- UNEP/MED POL monitoring programme

**Staff** Professional 16; Technical 2; Other 17

### **Information facilities**

**Library** 3785 volumes/reprints; 15 periodicals **Co-operative programmes/projects** Various

**Computers** PCs (IBM, Olivetti); Apple Macintosh II **Applications** Scientific; Statistical

**Physical facilities** 400 m<sup>2</sup>

**Laboratories** 250 m<sup>2</sup> **Aquariums** 27

**Facilities** for 4 visiting scientists; 10 students **Conference/seminar facilities** available

### **Professional/Scientific staff**

Name	Degree	Position	Specialization
<b>Batistic</b> , Mirna (Ms)	BA	Assistant	Plankton
<b>Benovic</b> , Adam (Mr)	PhD	Director	Oceanography
<b>Bolotin</b> , Jaksa (Mr)	MSc	Assistant Scientist	Mariculture
<b>Caric</b> , Marina (Ms)	PhD	Scientist	Chemistry
<b>Hecimovic</b> , Marija (Ms)	MSc	Assistant Scientist	Botany
<b>Hecimovic</b> , Stipe (Mr)	MSc	Assistant Scientist	Botany
<b>Jasprica</b> , Nemed (Mr)	MSc	Assistant Scientist	Phytoplankton
<b>Krsinic</b> , Frano (Mr)	PhD	Scientist/Executive Officer	Oceanography
<b>Lucic</b> , Davor (Mr)	PhD	Assistant Scientist	Microzooplankton
<b>Mikus</b> , Josip (Mr)	BA	Assistant	
<b>Musin</b> , Damir (Mr)	MSc	Assistant Scientist	Oceanography
<b>Njire</b> , Jakica (Ms)	MSc	Assistant Scientist	Mariculture
<b>Onofri</b> , Vladimir (Mr)	MSc	Assistant Scientist	Oceanography
<b>Radonicic</b> , Svjetlana (Ms)	BA	Assistant	Microbiology
<b>Skaramuca</b> , Bosko (Mr)	PhD	Scientist	Oceanography
<b>Vilicic</b> , Damir (Mr)	PhD	Scientist	Oceanography

## Institute of Oceanography and Fisheries

*Institut za Oceanografiju i Ribarstvo (IOR)*

63 Mose Pijade  
P.O. Box 500  
Split 58000  
CROATIA

**Telephone** (38) 58 46688  
(38) 58 46795

**Fax** (38) 58 46593

**Executive officer** Dr Ante BARIC, Director

Governmental, national institution founded in 1930. Languages: Croatian; English

**Nature of activities** Research; Technical training; Laboratory; Academic/educational

**Purpose and objectives** Study of the physical, chemical, biological and geological characteristics of the Adriatic; Study of fisheries

# CROATIA

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**Areas of speciality/activities** Physical oceanography; Water masses and circulation; Currents and dispersion; Waves, tides, surges and sea level; Modelling; Marine chemistry and geochemistry; Analytical methodology; Nutrients; Heavy metals; Organics (halogenated hydrocarbons, petroleum hydrocarbons, etc); Sediments; Waters; Suspended matter; Biota; Phytoplankton; Zooplankton; Benthos; Fish; Algae; Eutrophication; Plankton blooms; Molluscs; Crustaceans; Marine physiology; Marine microbiology; Toxicology; Taxonomy and systematics; Productivity; Community and population studies; Fisheries; Aquaculture; Marine meteorology and climatology; Monitoring and/or assessment; Coastal zone management; Pollution; Environmental impact assessment; Environmental education; Remote sensing; Assistance to the Government of Croatia in the management of living resources of the Adriatic; Pollution control measures; Sanitary quality control of coastal areas and beaches

**Environments** Brackishwater; Coastal zone; Pelagic environment; Benthic environment; Littoral zone; Estuaries

**Geographic areas** Adriatic Sea

## Research programmes/projects

- Influence of climatic change on water mass exchange and marine ecosystems
- Influence of natural and anthropogenic origin ecophysiology on marine aquaculture
- Management of renewable resources of the Adriatic Sea
- Organic pollutants in the Adriatic, red tide phenomena
- Experimental hatchery

## Co-operative research programmes/projects

- UNEP/MED POL: Monitoring station
- Correlation of some pathogens to bacterial indicator organisms in polluted recreational areas
- Climatological Atlas of the Adriatic Sea
- Extreme phytoplankton bloom in semi-enclosed coastal bays

## Training programmes

- Training course in fisheries for participants from developing countries

**Staff** Professional 47; Technical 15; Other 23

## Information facilities

**Publications** Acta Adriatica, journal; Reports; Notes; "Flora and Fauna of the Adriatic", monographs; Studies; Technical reports

**Library** 5000-8000 volumes/reprints; 290 periodicals **Librarian** Mrs Ankica Boksic

**Computers** Iskra Delta Adria 300/2 (DEC MicroVax/II)

**Physical facilities** 2100 m<sup>2</sup>

**Laboratories** 1000 m<sup>2</sup> **Laboratory equipment** AAS-Perkin Elmer; GC-Varian; Aanderaa current meters; Aanderaa thermistor chain; Techicon-autoanalyser; PAP-polarograph; 2 licensed SCUBA divers

**Research vessels/crafts** RV "Bios" (1953), fishing trawler, 27.74 m, 173 BRT, equipped with echosounder, trawling winch, satellite navigation system Transit, scientific sounder Simrad, 7 crew, accommodations for 13 scientists

**Facilities** for 5 visiting scientists **Conference/seminar facilities** for 30 participants

### Professional/Scientific staff

Name	Degree	Position	Specialization
<b>Alegria</b> , Veronika (Ms)	PhD	Senior Scientist	Fishery science; Populations dynamics; Ecology
<b>Alfirevic</b> , Slobodan (Mr)	PhD	Senior Scientist	Marine geology
<b>Antolic</b> , Boris (Mr)	PhD	Assistant	Marine biology; Taxonomy and ecology of seaweeds and seagrasses
<b>Baranovic</b> , Anamarija (Ms)	MSc	Assistant	Marine biology; Zooplankton ecology
<b>Baric</b> , Ante (Mr)	PhD	Director	Chemical oceanography; Nutrients
<b>Beg</b> , Gordana (Ms)	BA		Physical oceanography; Numerical modelling
<b>Bone</b> , Mario (Mr)	PhD	Scientist	Physical oceanography; Numerical modelling
<b>Cetinic</b> , Perica (Mr)	PhD	Senior Scientist	Fisheries Science; Fishing technique
<b>Dadic</b> , Vlado (Mr)	MSc	Assistant	Computer sciences; Data management
<b>Dujmov</b> , Jozo (Mr)	MSc	Research Officer	Marine chemistry; Organic pollutants
<b>Dulcic</b> , Jakov (Mr)	BA	Assistant	Marine biology (Fishery science); Ichthyoplankton, eggs, larvae, small pelagic fish
<b>Gacic</b> , Miroslav (Mr)	PhD	Senior Scientist	Physical oceanography; Coastal circulation; Climatic changes
<b>Glamuzina</b> , Branko (Mr)	MSc	Assistant	Fishery biology; Aquaculture; Toxicology
<b>Glavurtic</b> , Milos (Mr)	BA	Assistant	Informatics; Data management
<b>Grbec</b> , Branka (Ms)	MSc	Assistant	Physical oceanography; Data analysis; Coastal circulation
<b>Grubelic</b> , Ivana (Mr)	BA	Assistant	Marine biology; Zoobenthos ecology
<b>Jardas</b> , Ivan (Mr)	PhD	Senior Scientist	Marine biology (Fishery science); Ichthyology; Coastal fisheries
<b>Jug Dujakovic</b> , Jurica (Mr)	MSc	Assistant	Fishery biology; Aquaculture; Fishery ecology
<b>Jukic</b> , Stjepan (Mr)	PhD	Senior Scientist	Fishery science; Stock assessment and management



## CROATIA

Name	Degree	Position	Specialization
<b>Jurakic</b> , Antonio (Mr)	BA	Assistant	Fishery science; Stock assessment; Fisheries statistics
<b>Kacic</b> , Ivo (Mr)	PhD	Senior Scientist	Fishery science; Pelagic resources; Stock assessment (echodetection)
<b>Katavic</b> , Ivan (Mr)	PhD	Senior Scientist	Fishery biology; Mariculture; Environmental aspect of aquaculture; Culturing technique; Reproduction
<b>Kovacevic</b> , Vedrana (Ms)	MSc	Assistant	Physical oceanography; Coastal circulation; Data analysis
<b>Kraljevic</b> , Miro (Mr)	MSc	Assistant	Fishery biology; Mariculture; Nutrition and fish ecology
<b>Krstulovic</b> , Nada (Ms)	PhD	Senior Scientist	Marine biology; Marine microbiology; Sanitary bacteriology
<b>Kuspilic</b> , Grozdan (Mr)	MSc	Assistant	Chemical oceanography; Microconstituents of seawater
<b>Marasovic</b> , Ivona (Ms)	PhD	Senior Scientist	Marine biology; Phytoplankton ecology; Phytoplankton blooms
<b>Marsic</b> , Jasna (Ms)	BA	Assistant	Biochemistry; Aquaculture; Biotechnology
<b>Morovic</b> , Mira (Mr)	MSc	Assistant	Physical oceanography
<b>Odzak</b> , Niksa (Mr)	BA	Assistant	Chemical oceanography; Heavy metals
<b>Pallaoro</b> , Armin (Mr)	MSc	Assistant	Marine biology (Fishery science); Ichthyology; Coastal fisheries
<b>Petrovic</b> , Anđelka (Ms)	MSc	Assistant	Marine biology; Mariculture; Plankton
<b>Pucher-Petkovic</b> , Tereza (Ms)	PhD	Senior Scientist	Marine biology; Phytoplankton ecology, long-term fluctuations
<b>Regner</b> , Dubravka (Ms)	PhD	Senior Scientist	Marine biology; Zooplankton, copepods
<b>Regner</b> , Slobodan (Mr)	PhD	Senior Scientist	Marine biology; Ichthyoplankton, eggs, larvae, small pelagic fish
<b>Simunovic</b> , Ante (Mr)	MSc	Assistant	Marine biology; Benthic communities, molluscs
<b>Sinovic</b> , Gorenka (Ms)	MSc	Assistant	Fishery biology; Ichthyology, populations dynamics, small pelagic fish
<b>Solic</b> , Mladen (Mr)	MSc	Assistant	Marine biology; Marine microbiology; Sanitary bacteriology
<b>Span</b> , Ante (Mr)	PhD	Senior Scientist	Marine biology; Taxonomy and ecology of seaweeds; Biocoenology

Name	Degree	Position	Specialization
<b>Stojanoski</b> , Lambe (Mr)	MSc	Assistant	Chemical oceanography; Hydrography
<b>Sucevic</b> , Perica (Ms)	MSc	Assistant	Marine chemistry; Organic pollutants
<b>Tonkovic</b> , Miro (Mr)	MSc	Assistant	Fishery science; Stock assessment/management
<b>Tudor</b> , Mladen (Mr)	MSc	Assistant	Biochemistry; Aquaculture; Toxicology; Pollution
<b>Vucetic</b> , Tamara (Ms)	PhD	Senior Scientist	Marine biology; Zooplankton ecology, long-term fluctuations
<b>Vukadin</b> , Ilija (Mr)	MSc	Assistant	Chemical oceanography; Nutrients
<b>Zvonaric</b> , Tomislav (Mr)	PhD	Senior Scientist	Chemical oceanography; Heavy metals

**"Rudjer Boskovic" Institute**  
**Centre for Marine Research-Rovinj (CMR-R)**  
 Institut "Rudjer Boskovic"  
 Centar za istrazivanje mora-Rovinj (CIM-R)

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 CROATIA

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**Executive officer** Dr Nenad SMODLAKA, Director

Governmental, national institution founded in 1891. Languages: Croatian; English; Italian

**Nature of activities** Research; Academic/educational

**Purpose and objectives** Basic and applied marine research

**Areas of speciality/activities** Physical oceanography; Water masses and circulation; Currents and dispersion; Air-sea interaction; Marine chemistry and geochemistry; Nutrients; Heavy metals; Organics (halogenated hydrocarbons, petroleum hydrocarbons, etc); Radioactivity; Sediments; Waters; Suspended matter; Biota; Marine geology and geophysics; Sedimentology; Coastal and nearshore processes; Marine biology and ecology; Phytoplankton; Zooplankton; Benthos; Algae; Eutrophication; Plankton blooms; Molluscs; Crustaceans; Marine physiology; Marine biochemistry; Marine microbiology; Pathology of marine species; Toxicology; Taxonomy and systematics;

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Productivity; Community and population studies; Aquaculture; Marine environmental management; Monitoring and/or assessment; Coastal zone management; Pollution; Environmental impact assessment; Environmental education; Development policy/planning; Resources management; Assistance in planning the development of marine resources; Monitoring programmes; Determination of sites for marine sewage outfalls

**Environments** Coastal zone; Pelagic environment; Benthic environment; Estuaries

**Geographic areas** Adriatic Sea

## Research programmes/projects

- Study of main physical, chemical and biological process in the Adriatic ecosystem
- Ecotoxicology and ecophysiology of marine organisms
- Taxonomy and dynamics of benthic communities
- Analysis of genotoxicity and DNA damage in marine organisms under pollution

## Co-operative research programmes/projects

- Alpe-Adria: Study of the mucilage problem in the northern Adriatic
- UNEP/MED POL: Maintenance of monitoring stations
- Croatian/German co-operation in science: Transport of osmolytes and heavy metals across surfaces of marine organisms

## Training programmes

- Course work and research leading to
- MSc in oceanology and biology
  - PhD in chemistry and biology

**Staff** Professional 35; Technical 6; Other 15

## Information facilities

**Library** 12000 volumes/reprints; 300 periodicals **Co-operative programmes/projects** "Rudjer Boskovic" Institute Library **Librarian** Ms Branka Cerin

**Computers** 24 PCs (4 PC-286, 4 PC-386SX, 15 PC-386, 1 PC-486); 2 HP Laserjet III; Various Epson matrix printers (13 LQ500 series, 3 LQ1000 series, 2 FX80); 1 HP 7550+ plotter; 1 Epson GT4000 colour scanner **Applications** Accounting/financial planning; Database management; Graphics; Mapping; Scientific; Statistical; Word processing **Data exchange** 5.25"(HD)/3.5"(HD) PC diskettes; WordPerfect 5.1, Paradox, Quattro Pro, ASCII text files

**Physical facilities** 1700 m<sup>2</sup>

**Laboratories** 1000 m<sup>2</sup> **Laboratory equipment** SCUBA diving equipment for 10; Spectrophotometers; Fluorometers; Microspectrofluorometer; Centrifuges; Ultracentrifuges; Multichannel analyser; Beta-scintillating counter; Gas-chromatograph; AA-spectrometer; Autoanalyser; Various research microscopes; CTD, O<sub>2</sub>, pH, turbidity, fluorometer, probe; Quantameter-fluorometer probe; Current meters; Salinometers; pH meters **Aquariums** Public aquarium, 21 tanks: 1x40 m<sup>3</sup>; 1x10 m<sup>3</sup>; 2x2 m<sup>3</sup>; 14x1 m<sup>3</sup>; 3x0.5 m<sup>3</sup> **Visitors** 60000 annually

**Research vessels/crafts** RV "Vila Velebita" (1948), mine-sweeper, redesigned in 1971, 26.5 m, equipped with 30 m<sup>2</sup> laboratories, running seawater, A-frame, hydraulic crane, 12/24 DC, 220/380 VAC (2x40 kVA), Loran C, 2 radars, 2 VHF radiotelephones, satellite navigator, autopilot, depth recorder, trawler winch, 2 hydrowinches, 3-5 crew, accommodations for 8-10 scientists; RV "Burin" (1978), 9 m, equipped with A-frame, light trawler winch, radar, VHF radiotelephone, depth recorder, 2 crew

**Facilities** for 45 students

### Professional/Scientific staff

Name	Degree	Position	Specialization
<b>Batel</b> , Renato (Mr)	PhD		Molecular biology; DNA study
<b>Bihari</b> , Nevenka (Ms)	PhD		Molecular biology; DNA study
<b>Brana</b> , Josip (Mr)	PhD		Physical oceanography; Currents; Dynamics
<b>Brenko</b> , Mirjana (Ms)	PhD		Marine biology; Shellfish
<b>Degobbis</b> , Danilo (Mr)	PhD		Biological oceanography; Nutrients; Eutrophication
<b>Devescovi</b> , Massimo (Mr)	MSc		Ecotoxicology; Bacteria; Marine invertebrates
<b>Filipic</b> , Branka (Ms)	MSc		Biological oceanography; Phytoplankton
<b>Fuks</b> , Dragica (Ms)	MSc		Biological oceanography; Marine bacteriology
<b>Igic</b> , Ljubimka (Ms)	PhD		Marine biology; Fouling
<b>Ivancic</b> , Ingrid (Ms)	MSc		Oceanography; Nutrients
<b>Jaklin</b> , Andrej (Mr)	MSc		Marine biology; Benthic communities; Diving
<b>Jaksic</b> , Zeljko (Mr)	BS		Molecular biology; DNA study
<b>Jelisavcic</b> , Olga (Ms)	MSc		Biological oceanography; Radioactivity
<b>Krajcar</b> , Valter (Mr)	BS		Physical oceanography; Currents; Dynamics
<b>Labura</b> , Zeljka (Ms)	MSc		Marine biology; Pathology
<b>Loncar</b> , Zeljko (Mr)	BS		Biological oceanography; Nutrients
<b>Lucu</b> , Cedomil (Mr)	PhD		Marine biology; Ecophysiology; Ecotoxicology
<b>Medakovic</b> , Davorin (Mr)	MSc		Marine biology; Shellfish; Crystallography
<b>Najdek</b> , Mirjana (Ms)	PhD		Marine chemistry; Gas chromatography; Pesticides; Lipids
<b>Ozretic</b> , Bartolo (Mr)	PhD		Marine biology; Ecotoxicology
<b>Ozretic-Krajnovic</b> , Mirjana (Ms)	PhD		Marine biology; Ecotoxicology

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Name	Degree	Position	Specialization
<b>Pavicic</b> , Dijana (Ms)	BS		Marine biology; Ecophysiology; Radioecology
<b>Petrovic</b> , Sinisa (Mr)	MSc		Marine biology; Ecotoxicology
<b>Precali</b> , Robert (Mr)	MSc		Biological oceanography; Primary production; Eutrophication; Databank
<b>Puskaric</b> , Stasa (Mr)	PhD		Oceanography; Sedimentology
<b>Santini</b> , Mirjana (Ms)	BS		Biological oceanography; Phytoplankton
<b>Smodlaka</b> , Nenad (Mr)	PhD	Director	Biological oceanography; Primary production; Eutrophication
<b>Stevcic</b> , Zdravko (Mr)	PhD		Marine biology; Systematics; Crustacea
<b>Stipic</b> , Zeljko (Mr)	BS		Biological oceanography; Nutrients
<b>Supic</b> , Nastjenska (Ms)	BS		Physical oceanography; Thermodynamics
<b>Travizi</b> , Ana (Ms)	MSc		Marine biology; Nematodes
<b>Vukmirovic</b> , Milena (Ms)	BS		Molecular biology; DNA study
<b>Zahtila</b> , Elvis (Mr)	MSc		Marine biology; Taxonomy; Polychaeta
<b>Zavodnik</b> , Dusan (Mr)	PhD		Marine biology; Systematics; Benthic dynamics
<b>Zavodnik</b> , Nevenka (Ms)	PhD		Marine biology; Benthic algae

### "Rudjer Boskovic" Institute Centre for Marine Research-Zagreb (IRB-CMR-Z)

*Institut "Rudjer Boskovic"*

*Centar za istraživanje mora-Zagreb (IRB-CIM-Z)*

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**Executive officer** Dr Bozena M COSOVIC, Acting Director

Governmental, national institution founded in 1950. Languages: Croatian; English

**Nature of activities** Research; Laboratory; Academic/educational

**Purpose and objectives** Fundamental and applied research in marine, estuarine and freshwater systems

**Areas of speciality/activities** Physical oceanography; Currents and dispersion; Air-sea interaction; Waves, tides, surges and sea level; Modelling; Marine chemistry and geochemistry; Analytical methodology; Heavy metals; Organics (halogenated hydrocarbons, petroleum hydrocarbons, etc); Radioactivity; Sediments; Waters; Suspended matter; Biota; Marine geology and geophysics; Topography and morphology; Sedimentology; Coastal and nearshore processes; Marine biology and ecology; Phytoplankton; Benthos; Fish; Algae; Eutrophication; Plankton blooms; Molluscs; Marine physiology; Marine biochemistry; Marine microbiology; Parasitology; Pathology of marine species; Toxicology; Community and population studies; Fisheries; Aquaculture; Marine environmental management; Monitoring and/or assessment; Coastal zone management; Pollution; Nature conservation and/or restoration; Environmental impact assessment; Environmental education; Marine support services; Remote sensing; Data acquisition and telemetry; Ocean policy/Law of the sea; Development policy/planning; Recreation/tourism; Disaster preparedness and relief; Assistance to Croatian authorities in development planning, protection and use of marine resources; Guidance in water quality-control in Croatia; Monitoring of pollutants and quality-control in aquaculture

**Environments** Lakes; Coastal zone; Rivers; Littoral zone; Islands; Estuaries

**Geographic areas** Mediterranean Sea; Adriatic Sea

#### **Research programmes/projects**

- Physical chemistry of trace metals in water systems
- Organic substances and processes in natural waters
- Barotropic and baroclinic dynamics of the Adriatic shelf
- Eutrophication in a stratified estuary
- Immune response on viral antigen in insoluble immunocomplexes
- Digital modelling of physical and chemical processes in water and at geological and biological interface
- Fate of radionuclides and microconstituents in natural systems
- Genotoxic risk assessment in the water environment by molecular biomarkers
- Surface-electrochemical properties of metals and metal oxides
- Pollution and processes at the solid-liquid interface
- Pathology, genetics and nutritionism of water organisms
- Biogeographical distribution, mapping and development of the Croatian Karst ecosystems

#### **Co-operative research programmes/projects**

- EUROMAR/ELANI: Development of electroanalytical instrumentation for physico-chemical characterization of trace metals in the marine environment
- EC: Eutrophication processes in the stratified Krka estuary (East Adriatic). Importance of biogeochemical reactions at the halocline
- EC: Pollutant receiving capacity of selected areas of the Northern Adriatic
- UNEP/FAO/IAEA/IOC research projects
- UNEP/MED POL: National monitoring project
- ASCOP: Croatian-Italian monitoring of the Adriatic Sea
- Bilateral scientific co-operation with Germany, Italy, France, USA

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## Training programmes

- Course work and research leading to MSc and PhD in oceanology, marine biology, marine chemistry, marine physics and marine geology

**Staff** Professional 88; Technical 15; Other 5

## Information facilities

**Publications** V. Zutic (Ed.): Physical, chemical and biological processes in stratified estuaries, Marine Chemistry, 32(2-4):111-390, 1991; V. Pravdic (Ed.): Chemistry of solid/liquid interfaces, Croatica Chemica Acta, 42(2), 1970; 45(1), 1973; 48(4), 1976; 53(2), 1980; 56(4), 1983; 60(3), 1987; 63(3), 1990; M. Branica (Ed.): Chemistry of the Mediterranean, Marine Chemistry, 18(2-4), 1986; 22(2-4), 1987; 28(1-3):1-266; 36(1-4):1-38, 1991; Annual reports

**Library** 29200 volumes; 373 periodicals **Librarian** Ms Vlasta Topolcic

**Computers** 1 DEC 4000/200; 1 DEC VAX 11/730; Various PCs **Applications**

Accounting/financial planning; Communications; CAD/CAM/CAE; Database management; Desktop publishing; Geographic Information Systems (GIS); Graphics; Library/documentation; Mathematical; Mapping; Modelling; Network access; Scientific; Statistical; Word Processing **Data exchange** 5.25"/3.5" PC diskettes; Tape; CD-ROM; dbase, MS-Word, AUTOCAD files

## Physical facilities

**Laboratories** 1330 m<sup>2</sup> **Laboratory equipment** AAS (Hewlett Packard); HPLC (LKB); GC (Perkin Elmer); GCMS (Hewlett Packard); TOC analyser (Shinadzu); Electrochemical instruments; Automatised microelectrophoresis S-3000 (PEN-KEM); Aminoanalyser (Tecator); UV VIS spectrophotometer (Perkin Elmer); Ultracentrifuges; Alpha-beta-gamma radiospectrometry (Canberra); B-liquid scintillation spectrometer; Diving equipment for 7 licensed divers **Aquariums** Under construction

**Species maintained** *Oncorhynchus mykiss*; *Cyprinus carpio* L.; *Oncorhynchus kisutch*; *Pecten jacobaeus*; *Mytilus galloprovincialis*; *Ostrea edulis*

**Research vessels/crafts** Several boats for estuarine research

**Facilities** for 5 visiting scientists; 30 students **Conference/seminar facilities** for 30 participants

## Professional/Scientific staff

Name	Degree	Position	Specialization
Ahel, Marijan (Mr)	PhD	Research Associate	Aquatic organic chemistry; Biogeochemistry of pollutants and natural products
Barisic, Delko (Mr)	MSc	Research Assistant	Radiochemistry; Radioecology; Environment
Batina, Nikola (Mr)	PhD	Research Associate	Chemistry; Electroanalysis; Adsorption
Biscan, Jasenka (Ms)	PhD	Research Associate	Chemistry; Surface chemistry

Name	Degree	Position	Specialization
<b>Bosnar</b> , Darko (Mr)	BS	Graduate Assistant	Electrical engineering; Computer sciences; Modelling; Information systems; Communication
<b>Bozic</b> , Davor (Mr)	BS	Graduate Assistant	Mathematics; Ecological modelling
<b>Branica</b> , Marko (Mr)	PhD	Senior Scientist	Marine chemistry; Physico-chemical characterization of trace metals
<b>Britvic</b> , Smiljana (Ms)	PhD	Research Associate	Ecotoxicology; Water ecotoxicology
<b>Cerovecki</b> , Ivana (Ms)	BS	Graduate Assistant	Physical oceanography; Sea level, tides and surges
<b>Ciglenceki</b> , Irena (Ms)	BS	Graduate Assistant	Chemistry; Sulphur chemistry in marine environment
<b>Cosovic</b> , Bozena (Ms)	PhD	Senior Scientist/Acting Director	Aquatic and interfacial chemistry; Electroanalysis; Adsorption; Surface active substances
<b>Coz-Rakovac</b> , Rozalinda (Ms)	MSc	Research Assistant	Aquaculture; Histology
<b>Culjak</b> , Ivan (Mr)	BS	Graduate Assistant	Electroanalytical chemistry; Metal speciation
<b>Cukman</b> , Dunja (Ms)	PhD	Research Associate	Chemistry; Physical chemistry; Electrochemistry
<b>Dogic</b> , Renata (Ms)	PhD	Research Assistant	Chemistry; Physico-chemical characterization of uranium (VI) in natural waters
<b>Ecimovic-Merle</b> , Martina (Ms)	BS	Graduate Assistant	Biology; Immunology
<b>Erk</b> , Marijana (Ms)	BS	Graduate Assistant	Environmental chemistry; Speciation of metals in natural waters and their interaction with organic matter; Interaction of radionuclides with particulate matter
<b>Gasparovic</b> , Blazenka (Ms)	MSc	Research Assistant	Chemistry; Interaction of organic pollutants with natural organic matter
<b>Grahek</b> , Zeljko (Mr)	BS	Graduate Assistant	Radiochemistry; Radioecology; Environment
<b>Hacmanjek</b> , Mato (Mr)	MSc	Research Assistant	Aquaculture; Pathology of aquatic organisms; Parasitology
<b>Hodko</b> , Dalibor (Mr)	PhD	Research Assistant	Chemistry; Physical chemistry; Electrochemistry
<b>Hrsak</b> , Dubravka (Ms)	PhD	Research Associate	Microbiology; Organic chemistry; Biodegradation of organic compounds
<b>Juros</b> , Suzana (Ms)	MSc	Research Assistant	Chemistry; Immunochemistry; Molecular virology



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Name	Degree	Position	Specialization
<b>Kniewald</b> , Goran (Mr)	PhD	Research Assistant	Geochemistry; Geology; Inorganic marine geochemistry (trace elements, redox systems)
<b>Komorsky-Lovric</b> , Sebojka (Ms)	PhD	Research Associate	Chemistry; Analytical chemistry of marine system
<b>Konrad</b> , Zdenka (Ms)	PhD	Research Associate	Environmental chemistry; Speciation of metals in natural waters and their interaction with organic matter; Interaction of radionuclides with particulate matter
<b>Kosutic</b> , Katarina (Ms)	MSc	Research Assistant	Radiochemistry; Radioecology; Environment
<b>Kovac</b> , Solveg (Ms)	BS	Graduate Assistant	Oceanography; Electroanalysis of marine particles and colloids
<b>Kovac</b> , Tatjana (Ms)	BS	Graduate Assistant	Water pollution; Determination of organic pollutants
<b>Kozar</b> , Sonja (Ms)	MSc	Research Assistant	Chemistry; Trace metals in the environment; Distribution of metals between particulate and dissolved phase
<b>Kozarac</b> , Zlata (Ms)	PhD	Senior Research Associate	Chemistry; Interfacial processes in marine environment
<b>Krca</b> , Sanja (Ms)	PhD	Research Assistant	Ecotoxicology; Water ecotoxicology
<b>Krznic</b> , Damir (Mr)	PhD	Research Associate	Chemistry; Adsorption studies in environment
<b>Kurelec</b> , Branko (Mr)	PhD	Senior Scientist	Ecotoxicology; Genotoxicity
<b>Kuzmic</b> , Milivoj (Mr)	MSc	Research Assistant	Physical oceanography; Currents and circulation; Mathematical modelling
<b>Kvastek</b> , Kresimir (Mr)	PhD	Research Associate	Chemistry; Radioecology; Hydrogeology; Electrochemistry
<b>Kvestak</b> , Renata (Ms)	BS	Graduate Assistant	Aquatic organic chemistry; Synthetic surfactants
<b>Lazalic</b> , Katica (Ms)	MSc	Research Assistant	Radiochemistry; Radioecology; Environment
<b>Legovic</b> , Tarzan (Mr)	PhD	Senior Scientist	Marine research; Modelling
<b>Limic</b> , Nedzad (Mr)	PhD	Senior Scientist	Mathematics; Transport processes of pollutants in the sea
<b>Lovric</b> , Andrija-Zeljko (Mr)	MSc	Research Assistant	Botany; Karst ecology; Xerophytes; Endemics
<b>Lovric</b> , Milivoj (Mr)	PhD	Senior Research Associate	Chemistry; Theory of electrochemistry in marine environment
<b>Lugaric</b> , Jasmina (Ms)	BS	Graduate Assistant	Marine chemistry; Marine electrochemistry

Name	Degree	Position	Specialization
<b>Lulic</b> , Stipe (Mr)	PhD	Research Associate	Radiochemistry; Nuclear chemistry; Radioecology; Environment
<b>Malnar</b> , Leon (Mr)	MSc	Research Assistant	Aquaculture; Bacteriology; Virology
<b>Margus</b> , Drago (Mr)	PhD	Research Assistant	Aquaculture, Shellfish culture
<b>Marijan</b> , Drazen (Mr)	BS	Graduate Assistant	Chemistry; Electrochemistry
<b>Martincic</b> , Darko (Mr)	PhD	Research Assistant	Analytical chemistry; Distribution of trace metals between water, sediments and mussels
<b>Mihelcic</b> , Goran (Mr)	BS	Graduate Assistant	Marine geology; Recent sediments; Anoxic processes
<b>Mikac</b> , Nevenka (Ms)	PhD	Research Assistant	Chemistry; Biogeochemical cycle of trace metals in the environment; Organometallic compounds
<b>Milunovic</b> , Momir (Mr)	BS	Technical Assistant	Electrical engineering
<b>Mlakar</b> , Marina (Ms)	PhD	Research Assistant	Chemistry; Electrochemistry of trace metals; Electroanalysis
<b>Modrusan</b> , Zvonko (Mr)	MSc	Research Assistant	Aquaculture; Fish biology
<b>Musani</b> , Ljerka (Ms)	PhD	Research Associate	Environmental chemistry; Speciation of metals in natural waters and their interaction with organic matter; Interaction of radionuclides with particulate matter
<b>Pasaric</b> , Zoran (Mr)	MSc	Research Assistant	Mathematics; Data analysis; Mathematical modelling
<b>Pavicic</b> , Jasenka (Ms)	MSc	Research Assistant	Marine biochemistry; Toxicology of marine organisms; Induction of metallothionein in <i>Mytilus galloprovincialis</i>
<b>Pecar</b> , Jadranka (Ms)	BS	Graduate Assistant	Electrical engineering; Computer sciences; Modelling; Information systems; Communication
<b>Picer</b> , Mladen (Mr)	PhD	Research Associate	Water pollution; Determination of organic pollutants
<b>Picer</b> , Nena (Ms)	PhD	Research Associate	Water pollution; Determination of organic pollutants
<b>Pivcevic</b> , Branka (Ms)	BS	Graduate Assistant	Ecotoxicology; Genotoxicity
<b>Pizeta</b> , Ivanka (Ms)	MSc	Research Assistant	Electrochemistry; Development of new methods; Processing of data
<b>Plavsic</b> , Marta (Ms)	PhD	Research Associate	Chemistry; Interaction of trace metals with organics in marine environment
<b>Pokric</b> , Biserka (Ms)	PhD	Senior Research Associate	Chemistry; Immunochemistry

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Name	Degree	Position	Specialization
<b>Pravdic</b> , Velimir (Mr)	PhD	Senior Scientist	Chemistry; Physical chemistry; Environmental science
<b>Rac</b> , Mladen (Mr)	MSc	Research Assistant	Botany; Mountain ecology; Alpine plants; Bioclimatology
<b>Raspor</b> , Biserka (Ms)	PhD	Senior Research Associate	Marine chemistry; Speciation of essential and toxic trace metals; Complexation of Cd, Cu, Pb, Zn with the organic matter
<b>Ruzic</b> , Ivica (Mr)	PhD	Senior Scientist	Environmental chemistry; Modelling; Dispersion of pollutants; Information systems (GIS)
<b>Sekulic</b> , Bogdan (Mr)	PhD	Senior Research Associate	Marine ecology; Land base sources; Biometrical characteristics of Nephropidae
<b>Smrkulj</b> , Bojan (Mr)	BS	Graduate Assistant	Aquaculture
<b>Sondi</b> , Ivan (Mr)	BS	Graduate Assistant	Geology; Environmental science; Geochemistry
<b>Stipanicev</b> , Vesna (Ms)	BS	Graduate Assistant	Chemistry; Oceanography; Trace metals in seawater
<b>Skrivanic</b> , Ante (Mr)	MSc	Research Assistant	Geology; Marine geology and geochemistry
<b>Strunjak-Perovic</b> , Ivancica (Ms)	BS	Graduate Assistant	Aquaculture
<b>Svetlicic</b> , Vesna (Ms)	PhD	Senior Research Associate	Marine chemistry; Interfacial processes and phase transitions; New sensors
<b>Surija</b> , Budimir (Mr)	BS	Graduate Assistant	Geology; Geochemistry; Trace metals in sediments
<b>Sustra</b> , Anita (Ms)	BS	Graduate Assistant	Aquaculture
<b>Terzic</b> , Senka (Ms)	MSc	Research Assistant	Aquatic organic chemistry; Synthetic surfactants in the marine environments; Pigments
<b>Teskeredzic</b> , Emin (Mr)	PhD	Senior Research Associate	Aquaculture; Biotechnology; Genetics
<b>Teskeredzic</b> , Zlatica (Ms)	PhD	Research Associate	Aquaculture; Nutritionism
<b>Tomaic</b> , Jadranka (Ms)	PhD	Research Associate	Marine chemistry; Characterization of organic matter and organic aggregates in the sea
<b>Tomas</b> , Branko (Mr)	BS	Graduate Assistant	Computer simulation; Transport of substances in the sea
<b>Tomec</b> , Marija (Ms)	PhD	Research Assistant	Aquaculture; Phytoplankton
<b>Vdovic</b> , Neda (Ms)	MSc	Research Assistant	Geology; Environmental science; Geochemistry
<b>Vertacnik</b> , Astrea (Ms)	MSc	Research Assistant	Radiochemistry; Radioecology; Environment

Name	Degree	Position	Specialization
<b>Vojvodic</b> , Vjerocka (Ms)	PhD	Research Assistant	Marine and freshwater chemistry; Dissolved and colloid organic matter
<b>Vukovic</b> , Marijan (Mr)	PhD	Senior Research Associate	Chemistry; Physical chemistry; Electrochemistry
<b>Zelic</b> , Marina (Ms)	PhD	Research Assistant	Chemistry; Species equilibria; Electrochemistry
<b>Zutic</b> , Vera (Ms)	PhD	Senior Scientist	Marine chemistry; Estuarine processes; Eutrophication; Electroanalysis

**University of Zagreb**  
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**Executive officer** Dr Ivan PENZAR, Professor

Governmental, national institution founded in 1861. Languages: Croatian; English

**Nature of activities** Research; Academic/educational

**Purpose and objectives** Research and education in physics of the atmosphere, the sea and the earth's interior

**Areas of speciality/activities** Physical oceanography; Currents and dispersion; Air-sea interaction; Waves, tides, surges and sea level; Modelling; Marine geology and geophysics; Seismology; Marine meteorology and climatology; Seismological service to the Republic of Croatia

**Environments** Coastal zone; Estuaries

**Geographic areas** Mediterranean Sea; Adriatic Sea

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## Research programmes/projects

- Atmosphere/ocean interaction and recent climatic changes
- Physical processes in the earth's interior

## Co-operative research programmes/projects

- Centre for Marine Research, "Rudjer Boskovic" Institute, Zagreb: Barotropic and baroclinic dynamics of the Adriatic shelf
- Marine Biological Station, Piran: Subinertial sea level variations in the Mediterranean and related currents
- Novogradnja, Zagreb: Urban meteorology
- Centre for Marine Research, "Rudjer Boskovic" Institute, Zagreb: Participation in Eurotrac

## Training programmes

- Course work leading to BS in geophysics and meteorology
- Course work and research leading to MSc and PhD in physics of the atmosphere, the sea, and the earth's interior

**Staff** Professional 18; Technical 4; Other 6

## Information facilities

**Publications** Geofizika, journal

**Library** 24000 volumes/reprints; 198 periodicals **Librarian** Ms Katarina Gajic

**Computers** 2 PCs (386 and 286); 5 Atari STs; 1 Laptop (286); Printers (5 Epson dot matrix, 1 HP Laserjet III) **Applications** Communications; Education; Graphics; Mapping; Modelling; Scientific; Statistical; Word processing **Data exchange** 5.25"(HD)/3.5"(HD) PC diskettes; WordStar, WordPerfect, ChiWriter, Lotus 1-2-3, ASCII text files

**Physical facilities** 1500 m<sup>2</sup>

**Laboratories** 250 m<sup>2</sup> **Laboratory equipment** Tide-gauge station in Bakar; Meteorological station in Zagreb (Horvatovac); Seismological stations in Zagreb, Puntijarka, Rijeka and Hvar

**Facilities** for 2 visiting scientists; 15 students **Conference/seminar facilities** for 60 participants

## Professional/Scientific staff

Name	Degree	Position	Specialization
Allegretti, Ivo (Mr)	MSc	Research Assistant	Seismology; Seismological instrumentation
Grisogono, Branko (Mr)	MSc	Assistant	Meteorology; Boundary; Layer meteorology
Grubisic, Vanda (Ms)	BS	Graduate student	Meteorology; Dynamic meteorology
Herak, Davorka (Ms)	MSc	Research Assistant	Seismology; Microseismicity

<b>Name</b>	<b>Degree</b>	<b>Position</b>	<b>Specialization</b>
<b>Herak</b> , Marijan (Mr)	MSc	Assistant	Seismology; Computational seismology
<b>Juras</b> , Josip (Mr)	MSc	Assistant	Meteorology; Climatology
<b>Kuk</b> , Vlado (Mr)	MSc	Research Assistant	Seismology; Seismic risk
<b>Lisac</b> , Inga (Ms)	PhD	Assistant Professor	Meteorology; Dynamic meteorology
<b>Maric</b> , Kresimir (Mr)	MSc	Research Assistant	Seismology; Seismological instrumentation
<b>Milosevic</b> , Anđelka (Ms)	MSc	Research Assistant	Seismology; Microseismicity
<b>Orlic</b> , Mirko (Mr)	PhD	Assistant Professor	Physical oceanography; Coastal oceanography
<b>Penzar</b> , Ivan (Mr)	PhD	Professor/Executive Officer	Meteorology; Physical meteorology
<b>Sinik</b> , Nadezda (Ms)	PhD	Associate Professor	Meteorology; Dynamic meteorology
<b>Skoko</b> , Dragutin (Mr)	PhD	Professor	Seismology; Seismotectonics

# CYPRUS

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## Ministry of Agriculture and Natural Resources

### Department of Fisheries

*Tmima Aliias*

13 Eolou Street  
Nicosia  
CYPRUS

**Telephone** (357) 2 303279

**Cable** FISHERIESMINAGRI

**Fax** (357) 2 365955

**Executive officer** Mr Andreas D DEMETROPOULOS, Director

Governmental, national institution founded in 1964. Languages: Greek; English

**Nature of activities** Research; Laboratory; Policy and planning; Information/public awareness

**Purpose and objectives** Fisheries/aquaculture, research, development, management; Marine pollution research, monitoring, control; Oceanographic, marine biological and ecological research; Conservation of marine species

**Areas of speciality/activities** Physical oceanography; Water masses and circulation; Currents and dispersion; Air-sea interaction; Marine chemistry and geochemistry; Nutrients; Heavy metals; Organics (halogenated hydrocarbons, petroleum hydrocarbons, etc); Sediments; Waters; Suspended matter; Biota; Marine biology and ecology; Benthos; Fish; Algae; Eutrophication; Molluscs; Crustaceans; Marine mammals; Taxonomy and systematics; Community and population studies; Fisheries; Aquaculture; Marine environmental management; Monitoring and/or assessment; Pollution; Nature conservation and/or restoration; Environmental impact assessment; Environmental education; Artificial reefs; Development policy/planning; Recreation/tourism; Disaster preparedness and relief; Resources management; Physical planning; Pollution research, monitoring and combating; Conservation work on aquatic species and habitats; Hydrography; Development of recreational fishing (angling); Law enforcement

**Environments** Coastal zone; Pelagic environment; Benthic environment; Rivers; Littoral zone; Lagoons; Estuaries; Reservoirs

**Geographic areas** Mediterranean Sea; Levantine Sea

#### Research programmes/projects

- Monitoring of fish stocks
- Pollution monitoring (petroleum, pesticides and heavy metals) in the aquatic environment
- Research on the effects of pollution in marine ecology
- Environmental impact assessment of the Limassol Central Sewerage System sea outfall, on fish farms
- Breeding of marine fish
- Turtle conservation/hatchery techniques/coastal ecology

#### Co-operative research programmes/projects

- UNEP/MED POL monitoring and research programme

## Training programmes

- Summer courses in turtle conservation techniques

**Staff** Professional 13; Technical 30; Other 6

## Information facilities

**Publications** Annual Report of the Fisheries Department and the Cyprus Fisheries (until 1989); Fisheries Bulletin (irregular)

**Library** 4000 volumes/reprints; 30 periodicals **Co-operative programmes/projects** Various

**Computers** 7 IBM PCs (5 AT, 2 XT); 7 IBM PS/2s (3 Model 60, 4 Model 30); 1 Apple Macintosh IIe computer; Printers (1 Epson FX100, 2 EX1000, 3 LQ1050, 2 IBM Proprinter XL24, 1 Brother 2024L, 2 laser printers); Plotters (HP 7470A, HP 7475A, Hitachi 672/XD) **Applications** Accounting/financial planning; Database management; Modelling; Scientific; Statistical; Word processing

**Physical facilities** 1300 m<sup>2</sup>

**Laboratories** 300 m<sup>2</sup>; climate controlled **Laboratory equipment** AAS; Gas chromatograph; UV chromatograph; CID; Aanderaa current meters and decoders; Microscopes; Reversing bottles; Dredges; Aqualungs and DPVs; Compressors (3 divers) **Species maintained** Chelonia mydas; Caretta caretta; Pseudemys caspica; Dicentrarchus labrax Chrysophryaurata; Pagrus major; Puntazzo puntazzo; Siganus rivulatus

**Research vessels/crafts** RV "Triton", equipped with 16 m oal trawlers, winches, echosounders, radar, radio; "Alkyon" (multipurpose vessel), equipped with 13 m winch echosounders, radar, radio, planning hull; F3 (multipurpose vessel), 12 m, displacement hull, equipped with echosounders, radio and winch

## Professional/Scientific staff

Name	Degree	Position	Specialization
Anastassiades, George (Mr)	BS	Fisheries Officer	Freshwater aquaculture; Trout farming
Athanasiadou, Lina (Ms)	BS	Fisheries Officer	Oceanography; Physical oceanography; Heavy metals (AAS) pollution; Pesticides
Demetropoulos, Andreas (Mr)	MSc	Director	Fisheries; Marine environment; Fisheries management; Marine ecology; Turtles; Pollution effects/combating
Economou, Emilios (Mr)	MSc	Senior Fisheries Officer	Fisheries; Pelagic fisheries; Sponge fisheries; Fisheries development programmes
Georgiou, George (Mr)	BS	Fisheries Officer A	Mariculture; Hatchery technology
Hadjichristophorou, Myroula (Ms)	MSc	Fisheries Officer	Marine ecology; Conservation; Turtles; Wetlands
Hadjistephanou, Nicos (Mr)	PhD	Fisheries Officer	Stock assessment; Crustaceans; Brine shrimp



## CYPRUS

Name	Degree	Position	Specialization
<b>Konteatis</b> , Demetris (Mr)	BS	Fisheries Officer	Fisheries development; Pelagic fish; Sponge fishery; Fisheries development
<b>Loizides</b> , Loizos (Mr)	MSc	Fisheries Officer	Pollution; Petroleum hydrocarbons; Oil pollution combatting; Marine chemistry
<b>Loucaides</b> , Zanettos (Mr)	BS	Fisheries Officer A	Fishing harbours
<b>Stephanou</b> , Daphne (Ms)	BS	Fisheries Officer A	Aquaculture; Marine and freshwater aquaculture; Recreational use of dams; Inland waters management

### Ministry of Agriculture and Natural Resources Geological Survey Department

Nicosia  
CYPRUS

**Telephone** (357) 2 302338  
(357) 2 302337

**Telex** 5533 WDD CY

**Fax** (357) 2 445019

**Executive officer** Dr George CONSTANTINO, Director

Governmental, national institution founded in 1952. Languages: Greek; English

**Nature of activities** Research; Policy and planning

**Purpose and objectives** Geological study of inland and coastal Cyprus; Evaluation and proper exploitation of all mineral resources

**Areas of speciality/activities** Biota; Marine geology and geophysics; Topography and morphology; Sedimentology; Coastal and nearshore processes; Paleontology; Ocean policy/law of the Sea; Development policy/planning; Resources management; Mineral resources; Determination of the seabed morphology, nature and distribution of sediments; Determination of the nature and structure of the oceanic crust and causes of seismicity in the seas around Cyprus; Coastal areas studies for the evaluation of man's impact on coastal processes

**Environments** Lakes

**Geographic areas** Gulf of Sirte

**Co-operative research programmes/projects**

- USSR Academy of Sciences: Geological, geophysical, seismological and hydrographic studies in the sea areas south of Cyprus

**Staff** Professional 18; Technical 35; Other 80

**Information facilities**

**Publications** Annual report; Monographs; Memoirs; Bulletins; Coloured maps

**Library** 20000 volumes/reprints; 4 periodicals **Co-operative programmes/projects** Various

**Librarian** Mrs Nitsa Rousou

**Computers** PCs (386, AT, XT); Printers **Applications** Database management; Graphics **Data exchange** 5.25"(HD)/3.5"(HD) PC diskettes

**Physical facilities** 2000 m<sup>2</sup>

**Laboratories** 200 m<sup>2</sup>; climate controlled **Laboratory equipment** Atomic absorption spectrophotometer for chemical analysis

**Professional/Scientific staff**

Name	Degree	Position	Specialization
Constantinou, George (Mr)		PhD	Director
Eleftheriou, Serghis (Mr)		PhD	Geological Officer, Class A Seismics; Seismology; Hydrography
Panayiotou, Andreas (Mr)		PhD	Senior Geological Officer Mineral and energy resources
Xenophontos, Costas (Mr)		PhD	Geological Officer, Class A Marine Geology

**Ministry of Health**  
**Medical and Public Health Services**  
**Environmental Health Section**

Ministry of Health  
 Nicosia  
 CYPRUS

**Telephone** (357) 2 302425

**Fax** (357) 2 303498

**Executive officer** Dr George MALLIOTIS, Director

Governmental, national institution founded in 1878. Languages: Greek; English

**Nature of activities** Public health services

## CYPRUS

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**Purpose and objectives** Safeguarding of public health and protection of the sea from pollution

**Areas of speciality/activities** Monitoring and/or assessment; Pollution; Environmental education; Recreation/tourism; Monitoring of the bacteriological quality of sea water along the coastal zone of Cyprus

**Environments** Coastal zone

**Geographic areas** Mediterranean Sea

**Staff** Professional 23; Technical 60

### Information facilities

**Publications** Annual report

**Library** 1000 volumes/reprints; 75 periodicals **Co-operative programmes/projects** Various in Cyprus and abroad **Librarian** Mr Andreas Savva

**Computers** DEC VAX 4000/200; Various IBM PC compatibles **Applications** Statistical **Data exchange** Remote access; 5.25"/3.5" PC diskettes; dBase, Lotus 1-2-3, Quattro, Foxbase, WordPerfect 5.1, Volkswriter 3.4 files

### Physical facilities

**Research vessels/crafts** Vessels are made available by the Department of Fisheries, Ministry of Agriculture and Natural Resources, whenever required

**Conference/seminar facilities** for 50 participants

### Professional/Scientific staff

Name	Degree	Position	Specialization	
Agrotou, Androulla (Ms)		MDMPH	Senior Medical Officer	Public health; Health education
Anthousis, Sophoclis (Mr)		BS	Chief Health Inspector	Environmental sanitation; Environmental health legislation; Public health administration
Charalambous, Andreas (Mr)		RSH	Senior Health Inspector	Environmental sanitation
Chrysostomou, Kyriacos (Mr)		RSH	Senior Health Inspector	Environmental sanitation
Demetriades, Melanthios (Mr)		RSH	Senior Health Inspector	Environmental sanitation
Demetriou, Stavroulla (Ms)		MDMPH	Senior Medical Officer	Public health; Health education; Epidemiology of communicable diseases
Dioghenous, Andreas (Mr)		MD	Chief Medical Officer	Public health administration; Environmental sanitation
Eliades, Panayiotis (Mr)		MD	Chief Medical Officer	Public health administration; Environmental sanitation

Name	Degree	Position	Specialization
<b>Georgiou</b> , Andreas (Mr)	MD/MSc	Medical Officer, Class I	Public health; Occupational health; Environmental health
<b>Hadjianastasiou</b> , Chrystalla (Ms)	MD/MSc	Medical Officer, Class I	Public health
<b>Hadjisavvas</b> , Costas (Mr)	RSH	Senior Health Inspector	Environmental sanitation
<b>Ioannou</b> , Pavlos (Mr)	RSH	Senior Health Inspector	Environmental sanitation
<b>Komodiki</b> , Charitini (Ms)	MD/DPHMA	Chief Health Officer	Public health; Health services administration
<b>Kyriacou</b> , Anastasia (Ms)	MPH	Health Inspector	Public health; Environmental sanitation
<b>Lakatamitis</b> , Spyros (Mr)	MD	Chief Medical Officer	Public health administration; Environmental sanitation
<b>Malliotis</b> , Costas (Mr)	MD	Chief Medical Officer	Public health administration; Environmental sanitation
<b>Malliotis</b> , George (Mr)	MD	Director	Public health; Administration; Environmental sanitation
<b>Mallis</b> , Costas (Mr)	MD	Chief Medical Officer	Public health administration; Environmental sanitation
<b>Michaelides</b> , Modestos (Mr)	RSH	Senior Health Inspector	Environmental sanitation
<b>Papantoniou</b> , Laura (Ms)	MD/MSc	Medical Officer, Class I	Public health; Epidemiology
<b>Pavlidis</b> , Pavlos (Mr)	RSH	Health Inspector	Environmental sanitation
<b>Polynekis</b> , Andreas (Mr)	MD/MPH	Senior Medical Officer	Public health; Health systems research
<b>Theophanous</b> , Phedias (Mr)	MD	Chief Medical Officer	Public health administration; Environmental health

## State General Laboratory

*Yenikon Chimion tou Kratous*

44 Kimonos Street  
Nicosia 138  
CYPRUS

**Telephone** (357) 2 305124  
(357) 2 305076

**Fax** (357) 2 316434

**Executive officer** Constandia AKKELIDOU, Director

Governmental, national institution founded in 1910. Languages: Greek; English

**Nature of activities** Research; Laboratory; Policy and planning; Information/public awareness

## CYPRUS

**Purpose and objectives** The laboratory, one of the largest and best equipped in Cyprus, carries out research in applied analytical chemistry, provides scientific advice and participates in international programmes

**Areas of speciality/activities** Analytical methodology; Nutrients; Heavy metals; Organics (halogenated hydrocarbons, petroleum hydrocarbons, etc); Waters; Marine microbiology; Toxicology; Monitoring and/or assessment; Pollution; Environmental impact assessment;

**Environments** Coastal zone; Littoral zone; Islands

**Geographic areas** Mediterranean Sea

### Research programmes/projects

- Chemical and microbiological analysis of seawater (general analysis, pollutants)
- Chemical and microbiological analysis of fish

### Co-operative research programmes/projects

- UNEP/MED POL programme
- Research programmes in co-operation with the Fisheries Department

**Staff** Professional 28; Technical 10; Other 9

### Information facilities

**Publications** Annual report

**Library** 1350 volumes/reprints; 13 periodicals **Co-operative programmes/projects** FAO, WHO libraries **Librarian** Mrs Yiota Horaitou

**Computers** 8 PCs (Acer 915, AT/XT); Printers (1 Canon LBP 8 III laser, 5 OKI 393, 1 Star); 1 Plotter (Roland DXY1200) **Applications** Database management; Graphics; MIS; Statistical; Word processing **Data exchange** 5.25"(HD) PC diskettes; dBase, VolksWriter files

### Physical facilities

**Laboratories** climate controlled **Laboratory equipment** GLC's fitted with various kinds of detectors, autosamplers and data processors; Shimatzu HPLC's UV (variable); Fluorescence and diode array detector-waters; Atomic absorption spectrometers (for flame and flameless techniques, HGA, Pye-Unicam, Perkin Elmer, Jarell-Ash); IR spectrometers (Pye-Unicam); UV-VIS scanning spectrophotometers (Perkin Elmer, Shimatzu)

### Professional/Scientific staff

Name	Degree	Position	Specialization
Akkelidou, Constandia (Ms)	MSc	Director	Chemistry; Analytical chemistry
Aletrari, Maria (Ms)	BS	Analyst I	Chemistry
Anastassi, Agathi (Ms)	BS	Technician 2nd Class	Biochemical engineering; Computers

Name	Degree	Position	Specialization
<b>Argyrides</b> , Renos (Mr)	PhD	Senior Analyst	Chemistry; Specific analysis in foodstuffs
<b>Christodoulidou</b> , Maro (Ms)	BS	Analyst II	Chemistry; Analysis of foodstuffs; Contaminants
<b>Constantinidou</b> , Elena (Ms)	BS	Technician 2nd Class	Chemistry; Toxicology
<b>Demetriou</b> , Eleni (Ms)	BS	Technician 2nd Class	Chemistry; Drugs analysis
<b>Eleftheriadou</b> , Mary (Ms)	MSc	Technician 2nd Class	Food microbiology; Dairy microbiology
<b>Empedokli</b> , Olympiada (Ms)	BS	Technician 2nd Class	Chemistry
<b>Hadjigeorgiou</b> , Militsa (Ms)	BS	Technician 2nd Class	Chemistry; Toxicology; Forensic science
<b>Ioannou</b> , Eleni (Ms)	MSc	Analyst I	Microbiology; Food, water, drug microbiology
<b>Kakouri</b> , Eleni (Ms)	PhD	Analyst I	Chemistry; Specific analysis in foodstuffs; Food additives; Contaminants
<b>Kanari</b> , Popi (Ms)	PhD	Senior Analyst	Chemistry; Toxicology; Forensic science
<b>Kathidjiotis</b> , Georghis (Mr)	MSc	Analyst I	Water analysis
<b>Kavaliero</b> , Anastasia (Ms)	MSc	Technician 2nd Class	Chemistry; Organic chemistry
<b>Kokkinofta</b> , Rebecca (Ms)	BS	Technician 2nd Class	Chemistry; Drugs analysis
<b>Konari</b> , Katharine (Ms)	BS	Analyst II	Forensic science; Toxicology
<b>Kontoghiorghe</b> , Katerina (Ms)	MSc	Technician 2nd Class	Chemistry; Construction material; Industrial material
<b>Kyriakidou</b> , Panayiota (Ms)	BS	Technician 2nd Class	Chemistry; Toxicology; Drug monitoring; Forensic science
<b>Loizou</b> , Evdokia (Ms)	MSc	Technician 2nd Class	Chemical engineering; Petrochemistry
<b>Michael</b> , Costas (Mr)	PhD	Senior Analyst	Chemistry; Instrument analysis; Environment; Food toxicology
<b>Michaelidou-Canna</b> , Stella (Ms)	PhD	Analyst I	Chemistry; Food toxicology; Environmental/water pollution
<b>Papageorgiou</b> , Georgios (Mr)	BS	Technician 2nd Class	Microbiology; Sewage parasitology; Food, water, drug microbiology
<b>Partasidou</b> , Dora (Ms)	MSc	Technician 2nd Class	Chemistry; Food technology; Drugs and food analysis
<b>Pissarides</b> , Nicholas (Mr)	MSc	Technician 2nd Class	Biochemical engineering
<b>Poliniki</b> , Irene (Ms)	MSc	Analyst II	Chemistry; Drugs analysis
<b>Prokopiou</b> , Eleni (Ms)	BS	Technician 2nd Class	Chemistry; Analysis of foodstuffs; Food additives; Contaminants
<b>Vatiliotou</b> , Evgenia (Ms)	BS	Technician 2nd Class	Chemistry
<b>Yiannopoulos</b> , Stelios (Mr)	PhD	Analyst II	Chemistry

## CYPRUS

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<b>Name</b>	<b>Degree</b>	<b>Position</b>	<b>Specialization</b>
<b>Zanopoulos</b> , Nicos Christou (Mr)	MPh	Analyst I	Chemistry; Petrochemicals; Building material; Industrial products
<b>Ziegler</b> , Pinelopi (Ms)	PhD	Analyst I	Chemistry; Pesticide residues and other toxic substances in food, water and environment

# EGYPT

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**Alexandria University**  
**Faculty of Science**  
**Department of Oceanography**

Moharram Bey  
Alexandria  
EGYPT

**Telephone** (20) 48 22918  
(20) 48 22919  
**Telex** 54467 UNIVY UN

**Executive officer** Dr Massoud A SAAD, Professor

Governmental, national institution founded in 1948. Languages: Arabic; English; French

**Nature of activities** Research; Academic/educational

**Purpose and objectives** Teaching and research. It is the only institution in Egypt which awards degrees in marine science in four disciplines, both at the undergraduate and graduate level

**Areas of speciality/activities** Physical oceanography; Water masses and circulation; Currents and dispersion; Waves, tides, surges and sea level; Modelling; Marine chemistry and geochemistry; Nutrients; Heavy metals; Organics (halogenated hydrocarbons, petroleum hydrocarbons, etc); Sediments; Waters; Suspended matter; Biota; Marine geology and geophysics; Sedimentology; Coastal and nearshore processes; Paleontology; Marine biology and ecology; Phytoplankton; Zooplankton; Benthos; Fish; Algae; Eutrophication; Plankton blooms; Molluscs; Crustaceans; Marine physiology; Marine biochemistry; Marine microbiology; Taxonomy and systematics; Productivity; Community and population studies; Fisheries; Aquaculture; Marine environmental management; Monitoring and/or assessment; Pollution; Environmental impact assessment; Disaster preparedness and relief; Mineral resources; Marine archaeology; Studies of the chemistry, biology, productivity and oceanography of the Mediterranean coastal waters of Egypt, particularly of the Nile Delta area; Limnological studies of the Egyptian coastal lagoons and lakes; Geology of the Red Sea and the Mediterranean; Fishery biology in Egyptian waters; Pollution studies (monitoring and cycles), heavy metals and oil; Modelling and ecosystems

**Environments** Lakes; Brackishwater; Coastal zone; Pelagic environment; Benthic environment; Rivers; Littoral zone; Lagoons; Coral reefs and atolls; Estuaries

**Geographic areas** Mediterranean Sea; Algero-Provencal Basin; Balearic Sea; Arab Gulf

**Research programmes/projects**

- National Monitoring Network-EEAA/Alexandria University/MED POL: Monitoring of pollutants in coastal waters off Alexandria
- Alexandria University funded programme: Biogeochemical cycle of selected trace metals in coastal waters
- Hypersaline deposits in the Mediterranean
- Study of Lake Qaram (limnology)
- Algal community in Alexandria Posidonia beds
- Facies model of Red Sea reef sediments
- Oil pollution in Alexandria



# EGYPT

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## Co-operative research programmes/projects

- Study of the wastewater disposal of Alexandria (Mediterranean)
- Alexandria University/Bordeaux University: Environmental impact and future reuse of wastewater in reforestation and agriculture (in preparatory phase)

## Training programmes

- Courses leading to BS, MSc and PhD in oceanography (physical, geological, chemical, biological)

**Staff** Professional 31; Technical 10; Other 7

## Information facilities

**Publications** Contributions to the Bulletin of the Faculty of Science, Alexandria University (annual); Papers published in the world scientific literature

**Library** 800 textbooks; 32 periodicals **Co-operative programmes/projects** Various **Librarian** Mr A Saleh

**Computers** Remote access to faculty mainframe computer; 15 PCs **Applications** Accounting/financial planning; Desktop publishing; Education; Graphics; Library/documentation; Modelling; Scientific; Statistical; Word processing

## Physical facilities

**Laboratories** climate controlled **Laboratory equipment** 2 sets of diving gear; Bottles (air tanks); Masks; Fins

**Research vessels/crafts** 2 Zodiac boats with outboard engines; 1 maintenance craft

**Facilities** for 3 visiting scientists; 40 students **Conference/seminar facilities** for 40 participants

## Professional/Scientific staff

Name	Degree	Position	Specialization
Abdallah, Abdallah (Mr)	PhD	Lecturer	Physical oceanography; Dynamics; Modelling
Abdelaziz, El Sayeda (Ms)	PhD	Assistant Professor	Ichthyology; Physiology
Abdul Moti, Alaa (Mr)	PhD	Lecturer	Chemical oceanography; Heavy metal pollution
Aboul Dahab, Ossama (Mr)	PhD	Lecturer	Chemical oceanography; Heavy metal pollution
Abu El Kassem, Tarek (Mr)	MSc	Assistant Lecturer	Chemical oceanography; Nutrients
Aleem, Anwar (Mr)	DSc	Professor Emeritus	Biological oceanography; Ecology
Ali, Baher (Ms)	PhD	Lecturer	Geological oceanography; Geochemistry

Name	Degree	Position	Specialization
<b>Atta</b> , Monal (Ms)	PhD	Lecturer	Biological oceanography; Bottom fauna
<b>Awad</b> , Hassan (Mr)	PhD	Professor	Chemical oceanography; Oil pollution
<b>Dorgham</b> , Mohamed (Mr)	PhD	Assistant Professor	Biological oceanography; Plankton
<b>Dowidar</b> , Naim (Mr)	PhD	Professor	Biological oceanography; Ecology
<b>Eid</b> , Fahmy (Mr)	PhD	Lecturer	Physical oceanography; Sea level
<b>El Gindy</b> , Ahmed (Mr)	PhD	Assistant Professor	Physical oceanography; Dynamics
<b>El Moghraby</b> , Ali (Mr)	PhD	Professor Emeritus	Biological oceanography; Zooplankton
<b>El Nadi</b> , Fatma (Ms)	PhD	Lecturer	Chemical oceanography; Nutrients
<b>El Rashidi</b> , Hoda (Ms)	MSc	Assistant Lecturer	Biological oceanography; Ichthyoplankton
<b>El Rayis</b> , Osman (Mr)	PhD	Assistant Professor	Chemical oceanography; Heavy metals pollution
<b>El Sabrout</b> , Mohamed (Mr)	PhD	Assistant Professor	Geological oceanography; Sedimentology
<b>El-Sammak</b> , Amr (Mr)	MSc	Assistant Lecturer	Geological oceanography; Reef sedimentology
<b>El-Sayed</b> , Abdel Fattah (Mr)	PhD	Lecturer	Fisheries; Aquaculture
<b>El-Sayed</b> , Mahmoud (Mr)	PhD	Professor	Geological oceanography; Sedimentology; Pollution
<b>Ezzat</b> , Altaf (Ms)	PhD	Professor	Fisheries; Physiology
<b>Halim</b> , Youssef (Mr)	PhD	Professor Emeritus	Biological oceanography; Ecology; Pollution
<b>Hamza</b> , Wahid (Mr)	MSc	Assistant Lecturer	Biological oceanography; Plankton
<b>Hemeida</b> , Engi (Ms)	MSc	Assistant Lecturer	Limnology; Chemistry of brackish waters
<b>Hosny</b> , Chehat (Mr)	PhD	Lecturer	Fisheries; Stock assessment
<b>Khalil</b> , Abdel Ghani (Mr)	PhD	Professor	Biological oceanography; Algae pollution
<b>Mustafa</b> , Hesham (Mr)	MSc	Assistant Lecturer	Biological oceanography; Posidonia
<b>Nour El Din</b> , Nehad (Ms)	MSc	Assistant Lecturer	Biological oceanography
<b>Saad</b> , Massoud (Mr)	PhD	Professor/Executive Officer	Chemical oceanography; Chemistry of coastal and brackish waters; Pollution
<b>Sharaf El Din</b> , Sayed (Mr)	PhD	Professor	Physical oceanography; Dynamics; Sea level

## EGYPT

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### **Alexandria University Institute of Graduate Studies and Research (UNARC)**

163 Horreya Road  
P.O. Box 832  
Alexandria  
EGYPT

**Telephone** (20) 3 4225007  
**Telex** 54467 UNIVY UN

**Executive officer** Dr Mohamed E EL-RAEY, Professor/Vice Dean

Governmental, national institution founded in 1983. Languages: English; Arabic

**Nature of activities** Research; Technical training; Laboratory; Academic/educational; Information/public awareness

**Purpose and objectives** Postgraduate multidisciplinary education, research and consultation

**Areas of speciality/activities** Physical oceanography; Water masses and circulation; Waves, tides, surges and sea level; Modelling; Nutrients; Heavy metals; Organics (halogenated hydrocarbons, petroleum hydrocarbons, etc); Radioactivity; Sediments; Waters; Suspended matter; Sedimentology; Coastal and nearshore processes; Phytoplankton; Algae; Eutrophication; Monitoring and/or assessment; Coastal zone management; Pollution; Environmental impact assessment; Environmental education; Remote sensing; Data acquisition and telemetry; Disaster preparedness and relief; Resources management; Mineral resources; Energy resources; Physical planning; Remote sensing of coastal processes; Monitoring of water pollution, air pollution and socioeconomic parameters; Development of an environmental information network in Alexandria

**Environments** Lakes; Coastal zone; Littoral zone; Lagoons; Coral reefs and atolls; Islands

**Geographic areas** Mediterranean Sea; Alboran Sea; Algero-Provencal Basin; Ionian Sea; Levantine Sea; Strait of Gibraltar; Tyrrhenian Sea

#### **Research programmes/projects**

- Monitoring of pollution along the shores of Alexandria by remote sensing
- Monitoring of heavy metal pollution in the bottom sediments of the coastal waters of Alexandria
- Interstitial water in marine sediments
- Speciation of heavy metals in marine sediments
- Erosion and accretion processes along the Nile Delta

#### **Co-operative research programmes/projects**

- University of Maryland, USA: Impact of global climatic changes on the Alexandria coast
- Moscow University, USSR: Interstitial water pollution of marine sediments in the Mediterranean, Red Sea, Black Sea and the Atlantic Ocean

#### **Training programmes**

- Post-graduate courses in remote sensing, environmental monitoring and environmental awareness

**Staff** Professional 15; Technical 12; Other 6

### Information facilities

**Publications** Proceedings of the biannual environmental symposia

**Library** 50 periodicals **Co-operative programmes/projects** Various **Librarian** Mrs Faiza Foad

**Computers** PCs (IBM) **Applications** Education; Engineering; Geographic Information Systems (GIS); Graphics; LAN; Mathematical; Mapping; Modelling; Scientific; Statistical; Word processing

**Data exchange** PC media

**Physical facilities** 10000 m<sup>2</sup>

**Laboratories** 1000 m<sup>2</sup>; climate controlled **Laboratory equipment** Remote sensing unit/Microcomputers; Air pollution laboratory and meteorological station; Alpha-gamma ray spectrometer

**Facilities** for 5 visiting scientists; 150 students **Conference/seminar facilities** for 300 participants

### Professional/Scientific staff

Name	Degree	Position	Specialization
Amin, Mervat (Ms)	MSc	Assistant Lecturer	Air pollution; Monitoring and analysis
Balba, Mahmoud (Mr)	MSc	Senior Specialist	Air pollution; Instrumentation
El-Demerdash, Fatma (Ms)	MSc	Assistant Lecturer	Chemistry; Air pollution; Water pollution
El-Gamal, Ayman (Mr)	MSc	Specialist	Radiation in the marine environment; Gamma ray spectroscopy
El-Hattab, Mamdouh (Mr)	BS	Specialist	Coastal geology; Remote sensing and erosion/GIS
El-Kaffas, Saleh (Mr)	MSc	Assistant Lecturer	Remote sensing; Image processing
El-Raey, Mohamed (Mr)	PhD	Professor/Vice Dean	Environmental physics; Remote sensing/GIS; Remote sensing of marine pollution; Environmental information
Farag, Magdy (Mr)	PhD	Assistant Lecturer	Remote sensing; Marine environment
Ghattas, Zikry (Mr)	BS	Instructor	Environmental physics; Gamma ray spectrometry
Gurguis, Shawkat (Mr)	PhD	Lecturer	Computer science; Modelling
Khairy, Ahmed (Mr)	PhD	Associate Professor	Analytical chemistry
Nasr, Samir (Mr)	PhD	Associate Professor	Marine geology; Sedimentology; Geochemistry of interstitial water pollution of marine sediments

## EGYPT

Name	Degree	Position	Specialization
Shalaby, El-Said (Mr)	PhD	Assistant Lecturer	Monitoring; Heavy metals in air and water
Zahran, Ashraf (Mr)	Doctorate	Specialist	Air pollution; Instrumentation
Zaki, Hesham (Mr)	PhD	Lecturer	Pesticide chemistry; Environmental monitoring

### Coastal Research Institute (CRI)

15 Faraana Street  
El-Shalallat  
Alexandria 21514  
EGYPT

**Telephone** (20) 3 4829582 (20) 3 4821208

**Telex** 54467 UNIVY UN

**Fax** (20) 3 4829582

**Executive officer** Dr Ahmed Abdel Wahab KHAFAGY, Professor/Director

Governmental, national institution founded in 1971. Languages: Arabic; English

**Nature of activities** Research; Technical training; Laboratory; Academic/educational

**Purpose and objectives** Protection of the coastal area; Monitoring of the shoreline evolution

**Areas of speciality/activities** Physical oceanography; Currents and dispersion; Waves, tides, surges and sea level; Modelling; Marine chemistry and geochemistry; Analytical methodology; Sediments; Waters; Suspended matter; Marine geology and geophysics; Topography and morphology; Sedimentology; Coastal and nearshore processes; Paleontology; Marine meteorology and climatology; Marine environmental management; Monitoring and/or assessment; Coastal zone management; Environmental impact assessment; Shoreline changes; Coastal erosion studies; Hydrodynamic factors affecting the Nile Delta coast; Sediment drift; Grain size distribution; Heavy mineral studies; Beach profiles; Beach nourishment

**Environments** Lakes; Brackishwater; Coastal zone; Pelagic environment; Rivers; Littoral zone; Lagoons; Estuaries

**Geographic areas** Mediterranean Sea

#### Research programmes/projects

- Shoreline evolution along the Nile Delta coast
- Sea level changes and their impact
- Littoral current measurements
- Sediment transport using fluorescent sand tracers
- Volumetric changes of accretion and erosion areas of nearshore zone
- Wave measurements

**Co-operative research programmes/projects**

- Egyptian General Authority for Shore Protection: Shoreline changes at Rosetta
- Egyptian General Authority for Fishing: Design of protection works for Bardaweel Lake outlets
- Delft Hydraulics Inc.: Impacts of sea level rise on the Nile Delta coast

**Staff** Professional 29; Technical 38; Other 33

**Information facilities**

**Publications** Annual report; Technical reports and papers

**Library** 3000 volumes/reprints; 5 periodicals **Co-operative programmes/projects** Water Research Centre library, Cairo **Librarian** Mrs Soad Fathy El-Shenawi

**Computers** 1 DEC Microvax II; PCs (1 NCR 386, 1 AT, 2 XTs); 2 IBM PS/2s (Model 80 and Model 55); 1 Zenith portable; Printers (1 HP Laserjet, 1 Epson FX86E, 2 Star LC24-10, 1 Star XB 24-15)

**Applications** Communications; Database management; Engineering; Graphics; Mathematical; Modelling; Network access; Project management; Scientific; Statistical; Word processing

**Physical facilities** 2000 m<sup>2</sup>

**Laboratories** 500 m<sup>2</sup>; climate controlled **Laboratory equipment** Sediment laboratory; Physical oceanography laboratory; Directional wave recorders; Sea level gauges; Current meters; Salinity measurements; Shakers and sieving analysis; Clay analysis; Spectrophotometer; Vibro-corers; Hand-corers; Marine survey equipment (mini ranger, positioning system, echo-sounding); Calcinometers; Heavy mineral and shape analysis of grains

**Research vessels/crafts** 1 Vessel and 10 rubber boats

**Facilities** for 10 visiting scientists; 10 students **Lodging** for 10

**Professional/Scientific staff**

Name	Degree	Position	Specialization
Abdel Kader, Ahmed Ismail (Mr)	MSc	Assistant Director of Works	Civil engineering; Beach profiles
Abdel-Khader, Ahmed Hassan (Mr)	BS	Specialist III	Physical oceanography; Marine positioning system
Abdel-Khalek, Mohamed Nagib (Mr)	MSc	Specialist II	Geology; Subsurface geology
Abdel-Motaleb, Fathy Sayed (Mr)	BS	Assistant Researcher	Civil engineering; Soil mechanics
Abdel-Rahman, Farid Mohamed (Mr)	MSc	Specialist II	Physical oceanography; Littoral currents
Abu El-Magd, Hamid Attia (Mr)	MSc	Specialist II	Geology; Coastal geology
Abu Zeid, Abu Bakr El-Seidik (Mr)	MSc	Assistant Researcher	Physical oceanography; Currents and waves
Aly, Medhat Abdel-Mohsen (Mr)	BS	Engineer III	Civil engineering; Beach profiles

## EGYPT

Name	Degree	Position	Specialization
<b>Awad</b> , Ahmed Ezat (Mr)	BS	Specialist II	Geology; Grain size and heavy minerals
<b>Badr</b> , Abdel-Moneim (Mr)	PhD	Specialist II	Marine geology; Coastal geology
<b>Bahnasy</b> , Kamal El-Sayed (Mr)	BS	Specialist II	Physics; Mathematics; Data processing
<b>Darahem</b> , Ghada Ibrahim (Ms)	MSc	Assistant Researcher	Computer science; Data processing
<b>El-Bana</b> , Mahmoud Mahmoud (Mr)	MSc	Specialist II	Geology; Coastal geology
<b>El-Fishawi</b> , Nabil Mohamed (Mr)	PhD	Assistant Professor	Marine geology; Sediment drift
<b>Fanos</b> , Alfy Morcos (Mr)	PhD	Professor/Head, Hydrodynamics	Civil engineering; Ocean dynamics; Coastal engineering
<b>Frihy</b> , Omran El-Sayed (Mr)	PhD	Assistant Professor	Marine geology; Sedimentology
<b>Gewelli</b> , Youssef Mohamed (Mr)	BS	Assistant Researcher	Civil engineering; Hydrodynamics
<b>Helmy</b> , Essam El-Din (Mr)	BS	Assistant Researcher	Civil engineering; Hydrodynamics
<b>Kadib</b> , Abdalla Mohamed (Mr)	BS	Engineer III	Civil Engineering; Hydrodynamics
<b>Khafagy</b> , Ahmed Abdel-Wahab (Mr)	PhD	Professor/Director	Civil engineering; Design of coastal protection; Modelling
<b>Lotfy</b> , Morad Fahmy (Mr)	PhD	Senior Researcher	Geology; Coastal geology
<b>Mahar</b> , Khaled Mohamed (Mr)	MSc	Assistant Researcher	Computer science; Data processing
<b>Mohamed</b> , Saad El-Din Ahmed (Mr)	BS	Director of Works	Civil engineering; Beach profiles
<b>Morsy</b> , Amal Mahmoud (Ms)	MSc	Researcher	Civil engineering; Water resources
<b>Nafaa</b> , Mary Georgy (Ms)	PhD	Senior Researcher	Civil engineering; Hydrodynamics
<b>Seyd-Ahmed</b> , Shehata Mohamed (Mr)	BS	Specialist II	Physical oceanography; Littoral currents
<b>Shereet</b> , Samy Mohamed (Mr)	MSc	Specialist III	Physical oceanography; Hydrodynamics
<b>Werasa</b> , Abdel-Aziz Mohamed (Mr)	BS	Specialist II	Physical oceanography; Beach profiles

**National Institute of Oceanography and Fisheries (NIOF)**

101 Kasr El-Ainy Street  
Cairo  
EGYPT

(Alexandria Branch)  
Kayet Bey  
Alexandria

**Telephone** (20) 2 3556785  
(20) 3 801553 (Alexandria)  
**Telex** 93069 ASRT UN  
**Fax** (20) 2 3551381

**Executive officer** Dr Hussein K BADAWI, Professor/President

Governmental, national institution founded in 1920. Languages: Arabic; English

**Nature of activities** Research; Technical training; Laboratory

**Purpose and objectives** Research and studies in oceanography, fisheries, marine sciences and freshwater and man-made lakes

**Areas of speciality/activities** Physical oceanography; Instruments and methods; Water masses and circulation; Currents and dispersion; Air-sea interaction; Waves, tides, surges and sea level; Modelling; Marine chemistry and geochemistry; Analytical methodology; Nutrients; Heavy metals; Organics (halogenated hydrocarbons, petroleum hydrocarbons, etc); Radioactivity; Sediments; Waters; Suspended matter; Biota; Marine geology and geophysics; Topography and morphology; Sedimentology; Coastal and nearshore processes; Paleontology; Seismology; Marine biology and ecology; Phytoplankton; Zooplankton; Benthos; Fish; Algae; Eutrophication; Plankton blooms; Molluscs; Crustaceans; Marine mammals; Marine birds; Marine physiology; Marine biochemistry; Marine microbiology; Parasitology; Pathology of marine species; Toxicology; Taxonomy and systematics; Productivity; Community and population studies; Fisheries; Aquaculture; Monitoring and/or assessment; Coastal zone management; Pollution; Nature conservation and/or restoration; Environmental impact assessment; Environmental economics; Environmental education; Artificial reefs; Marine support services; Marine technology; Remote sensing; Data acquisition and telemetry; Ocean policy/law of the Sea; Development policy/planning; Recreation/tourism; Disaster preparedness and relief; Resources management; Mineral resources; Marine archaeology; Sensitive/protected areas mapping of the Egyptian coast; Management and development of the different bodies of water and their natural resources; Drafting of measures for the protection of the aquatic environment; Co-ordinating and supervising research programmes to ensure better management of the country's natural resources

**Environments** Lakes; Brackishwater; Coastal zone; Mangrove swamps; Pelagic environment; Benthic environment; Rivers; Littoral zone; Lagoons; Coral reefs and atolls; Islands; Estuaries

**Geographic areas** Mediterranean Sea; Levantine Sea; Red Sea; Suez Canal



# EGYPT

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## Research programmes/projects

- Artificial breeding, fish stock assessment in lakes
- Fish nutrition, survey of ponds and other bodies of water suitable for fish farming
- Fisheries development in Bardaweel Lake
- Farming of coastal lagoons in the Red Sea
- Development of jelly-fish-control gear in Lake Manzala
- Monitoring of pollutants in the Mediterranean

## Co-operative research programmes/projects

- USA/Israel/Egypt Co-operative Marine Technology Programme: Lake management; Wastewater re-use; Seafood toxins; Artificial breeding of grey mullet -IDRC: Cage culture
- Water circulation in the Levantine Sea

## Training programmes

- Marine ecology of the Red Sea
- Computer languages
- Analytical chemistry instrumentation
- Statistics and data analysis
- Aquaculture

**Staff** Professional 512; Technical 125; Other 400

## Information facilities

**Publications** Bulletin; Annual report; Monographs; Technical reports

**Library** 10000 volumes/reprints; 150 periodicals **Co-operative programmes/projects** Various

**Computers** Various **Applications** Accounting/financial planning; Database management; Education; Graphics; Library/documentation; Mathematical; Mapping; Modelling; Project management; Scientific; Statistical; Word processing

**Physical facilities** 4000 m<sup>2</sup>

**Laboratories** 3000 m<sup>2</sup> **Laboratory equipment** AAS; XRD; HPLC; GC; Current metres; Water-level recorders; Weather station; Fluorometers; Spectrophotometers; Mercury analyser; Liquid scintillator; Polarograph; Electrophoresis

**Facilities** for visiting scientists **Conference/seminar facilities** available **Lodging** available

## Professional/Scientific staff

Name	Degree	Position	Specialization
Abbas, Mohamed M (Mr)	PhD		
Abd-El Hamid, Omayma H (Ms)	PhD		Marine chemistry
Abd-El Razek, Fatma (Ms)	PhD	Assistant Professor	Marine biology; Invertebrates
Abdallah, Aly M (Mr)	PhD		

Name	Degree	Position	Specialization
<b>Abdel-Malek</b> , Samir (Mr)	PhD	Professor	Marine biology; Fish nutrition
<b>Abdel-Moneim</b> , Mahmoud A (Mr)	PhD		Marine pollution
<b>Abdelkawy</b> , Samira M (Ms)	MSc		
<b>Abdelmohsen</b> , Hala A (Ms)	BS	Research Assistant	Pollution; Effects of lake pollution on fish
<b>Abdelsalam</b> , Khaled M (Mr)	BS	Research Assistant	Limnology; Freshwater invertebrates; Ecology
<b>Abed-El-Salam</b> , Cherief M (Mr)	BS		Marine pollution
<b>Abed-El-Wahab</b> , Ola E (Ms)	BS		Marine pollution
<b>Abo-El-Naga</b> , Wafika M (Ms)	PhD		Marine chemistry
<b>Abu-Shagar</b> , El-Sayeda M (Ms)	MSc		Marine geology
<b>Ahmed</b> , Adel A (Mr)	BS	Research Assistant	Limnology; Freshwater invertebrates; Ecology
<b>Ahmed</b> , Doaa H (Ms)	BS		Marine pollution
<b>Ahmed</b> , Nehad K (Ms)	BS	Research Assistant	Limnology; Freshwater invertebrates; Ecology
<b>Aly</b> , Ahmed M (Mr)	BS		Physical oceanography
<b>Aly</b> , Manal M (Ms)	BS		Marine pollution
<b>Asem</b> , Hanae (Mr)	PhD	Assistant Professor	Marine biology; Ichthyology
<b>Awad</b> , Morad B (Mr)	PhD		Geophysics
<b>Awad</b> , Talat (Mr)	PhD	Assistant Professor	Limnology; Freshwater chemistry
<b>Badawi</b> , Hussein K (Mr)	PhD	Professor/President	Marine biology; Fish physiology
<b>Basyony</b> , Mohamed (Mr)	PhD	Researcher	Limnology; Freshwater chemistry; Biochemistry
<b>Botros</b> , Aida R (Ms)	PhD		Marine chemistry; Antifouling
<b>Deghedy</b> , Esam M (Mr)	PhD		Sedimentology; Geochemistry
<b>Draze</b> , Souzan E (Ms)	MSc		Marine geology
<b>Ebeid</b> , Maha H (Ms)	BS		Marine chemistry
<b>Ebrahim</b> , Ahmed M (Mr)	PhD		
<b>Eisawy</b> , Ahmed (Mr)	PhD	Professor	Marine biology; Fish farming
<b>El-Batikhy</b> , Nabil N (Mr)	MSc	Assistant Lecturer	Physical oceanography
<b>El-Beltagy</b> , Ali I (Mr)	PhD	Professor	Marine geochemistry; Chemistry; Geochemistry; Pollution
<b>El-Chenawy</b> , Mohamed A (Mr)	PhD		Marine pollution
<b>El-Deek</b> , Mohamed S (Mr)	PhD		Marine chemistry
<b>El-Mamoney</b> , Mohamed H (Mr)	MSc	Assistant Lecturer	Marine geology
<b>El-Maradny</b> , Amr A (Mr)	MSc		Marine chemistry; Trace metals

## EGYPT

Name	Degree	Position	Specialization
<b>El-Naggar</b> , Manal M (Ms)	BS		Marine pollution
<b>El-Naggar</b> , Mona F (Ms)	BS		Marine chemistry
<b>El-Said</b> , Mohamed A (Mr)	PhD		Marine chemistry; Trace metals
<b>El-Sarnagay</b> , Dief (Mr)	PhD	Assistant Professor	Veterinary; Fish disease and pathology
<b>El-Says</b> , Abdo (Mr)	PhD	Assistant Professor	Geology; Marine geology
<b>El-Sersy</b> , Nermen A (Ms)	BS		Marine pollution
<b>El-Sharkawy</b> , Salama M (Mr)	MSc		Physical oceanography
<b>El-Sherif</b> , Ramdan (Mr)	PhD	Professor	Economics; Fish stock assessment
<b>El-Skely</b> , Amany M (Ms)	MSc		Marine pollution
<b>El-Tabakh</b> , Tahany E (Ms)	MSc		Marine pollution
<b>Elbassat</b> , Randa A (Ms)	BS	Research Assistant	Limnology; Freshwater invertebrates; Ecology
<b>Elewa</b> , Abdelsame (Mr)	PhD	Assistant Professor/Head, Freshwater Chemistry Laboratory	Freshwater chemistry
<b>Elsarraf</b> , Wagdy M (Mr)	PhD		Marine pollution; Amino acids; Microbial activity
<b>Elshabrawy</b> , Gamal (Mr)	BS	Research Assistant	Limnology; Freshwater invertebrates; Ecology
<b>Emara</b> , Hosni I (Mr)	PhD	Assistant Professor	Marine chemistry; Hydrocarbons
<b>Ezat</b> , Hanan M (Ms)	BS		Marine pollution
<b>Fahmy</b> , Mamdoh A (Mr)	PhD		Marine chemistry
<b>Faragalla</b> , Hayat M (Ms)	MSc		Marine chemistry
<b>Gendy</b> , Hoda R (Ms)	MSc		Marine pollution
<b>Gerges</b> , Makram A (Mr)	PhD	UNESCO Expert	Physical oceanography
<b>Gerges</b> , Shokry K (Mr)	PhD	Assistant Professor/Head, Laboratory of Aquatic Animals	Freshwater zooplankton
<b>Ghareeb</b> , Sameha (Ms)	MSc	Assistant Lecturer	Limnology; Phytoplankton
<b>Hafez</b> , Hoda H (Ms)	MSc		Marine pollution
<b>Hamdona</b> , Samia Kh (Ms)	PhD		Marine chemistry
<b>Hanafy</b> , Thana M (Ms)	PhD		Marine chemistry
<b>Hanna</b> , Mona K (Ms)	BS		Marine geology
<b>Hassan</b> , Hassan M (Mr)	PhD		Physical oceanography
<b>Hassan</b> , Khamis (Mr)	PhD	Professor	Marine biology; Marine fisheries
<b>Hehyawy</b> , Mohamed L (Mr)	PhD		
<b>Hemada</b> , Hoda E (Ms)	PhD		Marine chemistry
<b>Ibrahem</b> , Ezzat A (Mr)	PhD	Professor/Director, Inland Water & Fish Farm Institute	Phytoplankton

Name	Degree	Position	Specialization
<b>Ibrahem</b> , Soad S (Ms)	BS	Research Assistant	Limnology; Freshwater invertebrates; Ecology
<b>Kamel</b> , Mohamed S (Mr)	MSc		Physical oceanography
<b>Kenawy</b> , Samira M (Ms)	PhD		Marine chemistry; Biochemistry
<b>Khaled</b> , Azza M (Ms)	MSc		Marine pollution
<b>Khedr</b> , Amany M (Ms)	PhD		Marine chemistry
<b>Kottb</b> , Sonia M (Ms)	MSc		Marine chemistry
<b>Mahmoud</b> , Manal G (Ms)	BS		Marine chemistry
<b>Maiya</b> , Ibrahim A (Mr)	PhD		Physical oceanography
<b>Misiha</b> , Refat (Mr)	PhD	Assistant Professor	Chemistry; Marine chemistry
<b>Mohamed</b> , Hassan (Mr)	PhD	Assistant Professor	Geology; Physical oceanography
<b>Mohamed</b> , Reda (Mr)	BS	Research Assistant	Limnology; Freshwater invertebrates; Ecology
<b>Mohammed</b> , Ebtessam E (Ms)	PhD		Physical oceanography
<b>Moursy</b> , Zeinb A (Ms)	PhD		Physical oceanography
<b>Mousa</b> , Atef A (Mr)	PhD		Sedimentology; Geochemistry
<b>Mousa</b> , Khaled A (Mr)	BS		Marine geology
<b>Nawar</b> , Ahmed H (Mr)	PhD		Sedimentology; Mineralogy
<b>Nessim</b> , Ramzy B (Mr)	PhD		Marine chemistry
<b>Okba</b> , Mohamed A (Mr)	MSc		Marine chemistry
<b>Ramadan</b> , Sherif E (Mr)	PhD	Researcher	Marine biology; Marine ecology; Coastal ecology; Limnology; Invertebrates
<b>Rifaat</b> , Ahmed E (Mr)	PhD	Lecturer	Marine geology; Geochemistry of marine sediments
<b>Rodwan</b> , Ahmed (Mr)	BS		Physical oceanography
<b>Rofail</b> , Feby (Ms)	BS		Marine chemistry
<b>Saed</b> , Mahmoud M (Mr)	PhD		Marine pollution
<b>Said</b> , Mohamed A (Mr)	PhD		Physical oceanography
<b>Saleh</b> , Hamed H (Mr)	PhD	Professor/Head, Freshwater & Lakes Branch	Pollution
<b>Saman</b> , Amin (Mr)	PhD	Professor	Marine biology; Fish physiology
<b>Shaath</b> , Fatma S (Mr)	BS		Marine geology
<b>Shabban</b> , Yasser A (Mr)	BS		
<b>Shaker</b> , Hanan H (Ms)	BS		Marine chemistry
<b>Shakwir</b> , Laila (Ms)	MSc		Marine chemistry
<b>Shata</b> , Mohamed A (Mr)	PhD		Marine geology
<b>Sheradah</b> , Mohamed A (Mr)	PhD		Marine chemistry
<b>Shhyon</b> , Alys H (Ms)	PhD		Physical oceanography

## EGYPT

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<b>Name</b>	<b>Degree</b>	<b>Position</b>	<b>Specialization</b>
<b>Soad</b> , El-Ghohary E (Mr)	MSc		Marine chemistry
<b>Soliman</b> , Gerges F (Mr)	PhD		Physical oceanography
<b>Tayel</b> , Fathy T (Mr)	PhD		Marine pollution
<b>Zaki</b> , Hermin R (Ms)	BS		Marine chemistry
<b>Zaki</b> , Magda (Ms)	PhD	Professor	Marine biology; Marine fisheries
<b>Zazou</b> , Sameha M (Ms)	PhD		Paleontology

# FRANCE

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## Centre d'Etude et de Recherche d'Océanographie Médicale (CERBOM)

1 Avenue Jean Lorrain  
Nice 06300  
FRANCE

**Téléphone** (33) 93 897249

(33) 93 893292

**Téléfax** (33) 93 266227

**Directeur** Professeur Maurice AUBERT, Directeur

Organisme gouvernemental, local créé en 1960. Langues de travail: Français

**Nature des activités** Recherche; Laboratoire; Enseignement (universitaire)

**Objectifs/mandat** Etude des pollutions, de leur impact sur la vie marine et de leurs conséquences sanitaires; Utilisation des produits d'origine marine; Etudes des mécanismes de productivité planctonique et des processus d'eutrophisation; Recherche appliquée en matière de rejet en mer des eaux usées, de surveillance de l'aquaculture, de restructuration et d'aménagement du littoral

**Domaines ou disciplines scientifiques/activités** Masses d'eau et circulation; Courants et dispersion; Modélisation; Substances nutritives; Métaux lourds; Composés organiques (hydrocarbures halogènes, hydrocarbures pétroliers, etc.); Eaux; Matière en suspension; Biomasse; Biologie marine et écologie; Phytoplancton; Eutrophisation; Floraison du plancton; Biochimie marine; Microbiologie marine; Toxicologie; Aquaculture; Surveillance continue et/ou évaluation; Gestion des zones côtières; Pollution; Conservation et/ou régénération des ressources naturelles; Evaluation de l'impact sur l'environnement; Economies de l'environnement; Education relative à l'environnement; Politique pour les océans/Droit de la Mer; Recherches en microbiologie marine, en toxicologie, en chimie des eaux et sédiments; Surveillance de la qualité des eaux; Recherche sur l'utilisation médicale de substances d'origine planctonique et sédimentaire; Surveillance de la qualité chimique et microbiologique des eaux méditerranéennes; Surveillance des eaux et produits utilisés en thalassothérapie; Etablissement de tests de toxicité de produits chimiques rejetés en milieu marin; Enquête sur les conséquences sanitaires des proliférations de Dinoflagellés; Etude des conséquences écologiques des fermes aquacoles

**Environnements** Eaux saumâtres; Zones côtières; Environnement benthique; Zones littorales; Iles; Estuaires

**Zones géographiques** Mer Méditerranée; Mer Adriatique; Mer Egée; Mer d'Alboran; Dardanelles; Golfe du Lion; Mer Ionienne; Mer de Ligurie; Déroit de Sicile; Déroit de Gibraltar; Déroit d'Otrante; Mer Tyrrhénienne; Océan Atlantique; Bosphore; Mer de Marmara; Mer Noire

### Programmes/projets de recherche

- Surveillance de la qualité chimique et microbiologique des eaux méditerranéennes
- Etude des causes et conséquences sanitaires de l'eutrophisation
- Surveillance des eaux et produits utilisés en Thalassothérapie
- Analyse des résultats acquis au cours des campagnes océanographiques
- Etudes des mécanismes de l'eutrophisation marine
- Etude des apports de la mer Noire à la mer Méditerranée

## FRANCE

### Programmes de recherche menés en coopération

- Ministère de l'Environnement, France: Etude de la qualité des eaux méditerranéennes
- RAMOGE: Etude de la qualité des eaux côtières de la zone Ligure Provençale
- Université de Messine pour MED POL: Etude des transferts de polluants à travers le détroit de Messine
- Institut National de Consommation: Etude de la toxicité des détergents

### Programmes de formation/enseignement

- DESCA, Université de Nice: Environnement marin et économie maritime
- DUR, Université de Nice: Environnement marin et économie maritime
- COI-UNESCO: Ecologie marine et économie maritime

**Personnel** Scientifique 14; Technique 6; Autre 4

### Moyens d'information

**Publications** Revue Internationale d'Océanographie Médicale (trimestrielle); Rapports de campagne océanographique; Rapports d'études techniques maritimes; Traité d'Océanographie Médicale; Métaux lourds dans les mers d'Europe; Protection juridique du milieu marin

**Bibliothèque** 500 volumes/tirés à part; 60 périodiques

**Ordinateurs** Micro-ordinateur Apple Macintosh Plus **Applications** Comptabilité, planification financière; Gestion de bases de données; Graphiques; Statistiques; Traitement de texte

**Installations** 1100 m<sup>2</sup>

**Laboratoires** 900 m<sup>2</sup> **Equipements de laboratoire** pH mètre; Salinomètre; Oxymètre; Spectrophotomètre; UV visible; Spectrophotomètre atomique; Appareils de filtration; Etuves bactériologiques; Salle de culture de plancton; Fluorimètres; Microscopes **Aquariums** 5x40 m<sup>3</sup>  
**Espèces entretenues** Dicentrarchus labrax; Mytilus galloprovincialis; Nereis diversicolor; Carcinus maenas; Phytoplankton (15 souches)

**Bateaux/embarcations de recherche** Bateau "Noeric III" (45 tx) équipé de sondeurs, de treuils hydrauliques, de matériel de positionnement (radar, Loran, Satnav, GPS), un laboratoire à bord et canots annexes à moteur

**Possibilités d'accueil** pour 3 scientifiques extérieurs; 3 étudiants **Installations pour conférences/séminaires** pour 25 participants

### Personnel scientifique

Nom	Diplôme	Fonction	Spécialité
Aubert, Jacqueline (Mme)	Doctorat	Directeur de Recherche INSERM	Microbiologie marine; Bactériologie
Aubert, Maurice (M)	Doctorat	Professeur/Directeur	
Bernigaud, Jean (M)	Doctorat	Chef du Département Juridique	Droit et économie maritime et littorale; Etudes juridiques et économiques

Nom	Diplôme	Fonction	Spécialité
<b>Billard</b> , Pierre (M)	Doctorat		Pharmacologie des produits marins; Thalassothérapie
<b>Drai</b> , Philippe (M)	Doctorat	Chef de Laboratoire (Attaché)	Sciences naturelles; Aquaculture; Physiologie des êtres marins
<b>Dubreuil</b> , Alain (M)	Doctorat	Chargé de Recherches INSERM	Cultures cellulaires
<b>Elatau</b> , Gilles Nicolas (M)	Doctorat	Chargé de Recherches INSERM	Chimie
<b>Gauthier</b> , Michel Joseph (M)	Doctorat	Directeur de Recherches INSERM	Microbiologie
<b>Girard</b> , Jean-Pierre (M)	Doctorat	Professeur de l'Université de Nice	Physiologie animale; Physiologie des êtres marins
<b>Guillemaut-Drai</b> , Caroline (Mme)	Doctorat	Chef de Laboratoire	Sciences naturelles; Microbiologie marine; Ecologie
<b>Lahlou</b> , Brahim (M)	Doctorat	Professeur de l'Université de Nice/Directeur d'Unité CNRS	Physiologie cellulaire; Physiologie des êtres marins
<b>Madhyoun</b> , Ferhydoun (M)	Doctorat	Maître de Conférence	Biologie végétale
<b>Pietri-Jehl</b> , Chantal (Mme)	Doctorat	Chargé de Recherches INSERM	Virologie
<b>Revillon</b> , Pierre (M)	Ingénieur	Chef de Laboratoire	Etudes de la dynamique des eaux; Océanographie physique

**Centre d'Océanologie de Marseille  
Observatoire des Sciences de l'Université d'Aix Marseille II  
Unité Associée au CNRS 41 (COM)**

Station Marine d'Endoume  
Rue de la Batterie des Lions  
Marseille 13007  
FRANCE

**Téléphone** (33) 91 041600  
**Téléfax** (33) 91 041635

**Directeur** Professeur François BLANC, Directeur du COM et de l'OSU

Organisme gouvernemental, national créé en 1889. Langues de travail: Français

**Nature des activités** Recherche; Enseignement (universitaire)

**Objectifs/mandat** Enseignement et recherche en matière d'océanologie



## FRANCE

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**Domaines ou disciplines scientifiques/activités** Océanographie physique; Masses d'eau et circulation; Courants et dispersion; Interaction air/mer; Modélisation; Chimie marine et géochimie; Méthodologie analytique; Substances nutritives; Métaux lourds; Composés organiques (hydrocarbures halogènes, hydrocarbures pétroliers, etc.); Radioactivité; Dépôts; Eaux; Matière en suspension; Biomasse; Géologie marine et géophysique; Topographie et morphologie; Sédimentologie; Formation des côtes et franges côtières; Paléontologie; Biologie marine et écologie; Phytoplancton; Zooplancton; Benthos; Poissons; Algues; Eutrophisation; Floraison du plancton; Mollusques; Crustacés; Physiologie marine; Biochimie marine; Microbiologie marine; Toxicologie; Taxinomie et systématiques; Productivité; Etudes des communautés et populations; Pêches; Aquaculture; Gestion de l'environnement marin; Surveillance continue et/ou évaluation; Gestion des zones côtières; Pollution; Evaluation de l'impact sur l'environnement; Education relative à l'environnement; Récifs artificiels; Télédétection; Gestion des ressources;

**Environnements** Eaux saumâtres; Zones côtières; Mangroves; Environnement pélagique; Environnement benthique; Zones littorales; Lagunes; Récifs coralliens/atolls; Estuaires

**Zones géographiques** Mer Méditerranée; Mer d'Alboran; Bassin algéro-provençal; Mer des Baléares; Golfe du Lion; Déroit de Sicile; Déroit de Gibraltar; Océan Atlantique; Mer Rouge; Antarctique; Océan Indien; Océan Pacifique; Océan Arctique

### Programmes/projets de recherche

- Production océanique, microorganismes marins
- Flux particulières et biotransferts
- Réseaux trophiques dans les milieux littoraux
- Histoire des espèces et des océans-écosystèmes profonds et coralliens

### Programmes de recherche menés en coopération

- PFO/JGOFS: Campagnes Frontalet Eumeli
- PRIMO
- COST 647 (CEE)
- Coopération avec des laboratoires suisses, grecs et italiens
- CCE/MAST: EROS 2000
- WMCE (COI/UNESCO): Western Mediterranean Circulation Experiment
- COI/CIEM: PRIMO
- CCE: Medmodel
- PNUE/MED-POL/FAO
- PNDR CNRS/IFREMER: Programme National Déterminisme du Recrutement
- PRCO INSU/ORSTOM: Programme récifs coralliens
- PICS Franco-Australien: Récifs coralliens
- Actions intégrées: Franco-Espagnole, Franco-Portugaise
- Contract CCE 87-89 612F: Ecotoxicologie environnement
- Groupement scientifique CNRS/PIREN/SNEA Université: Dégradation de la matière organique en milieu littoral
- ATP: Ecotoxicologie environnement
- PNOC (Programme National d'Océanologie Côtière)
- WOCE (World Ocean Circulation Experiment)

**Programmes de formation/enseignement**

- Maîtrise de géoscience avec tronc commun, option biologie-chimie, option physique et stage final
- DEA d'Océanologie: 1) Océanologie biologique, 2) Gestion des ressources vivantes, 3) Biotechnologies marines, 4) Génie de l'environnement marin-stage de recherche de 6 mois
- Doctorat en océanographie

**Personnel** Scientifique 60; Technique 48; Autre 27

**Moyens d'information**

**Publications** Publications dans revues internationales

**Bibliothèque** 6000 ouvrages; 1000 thèses; 16000 tirés à part et microfiches; 1250 périodiques

**Programmes/projets de coopération** Prêts inter-universitaires **Bibliothécaire**  
Mme Yolande Bentosela

**Ordinateurs** Mini-ordinateur HP 9000/835; Station de travail HP 9000/350; Poste de traitement d'image; Réseau; Micro-ordinateurs (PC et Apple Macintosh); Imprimantes diverses **Applications** Comptabilité, planification financière; Gestion de bases de données; Publication assistée par ordinateur; Enseignement; Graphiques; Bibliothèque/documentation; Cartes; Modélisation; Scientifique; Statistiques; Traitement de texte **Echange de données** Divers

**Installations** 6000 m<sup>2</sup>

**Laboratoires** climatisés **Equipements de laboratoire** Analyseur CHN LECO 800; HPLC; Spectrophotomètres; Chaines d'analyse automatique Technicon; Chromatographes phase gazeuse; Compteurs électroniques de particules de type multisizer; Spectromètre de masse; Microscope électronique à balayage; Filets à plancton; Pièges à particules; Carottiers; Benne Flucha; Sondeurs acoustiques; Zodiacs et bostons; Compresseur et bouteilles de plongée; Véhicules **Espèces entretenues** Souches de micro-algues

**Bateaux/embarcations de recherche** Accès aux bateaux gérés par le CIRMED (Comité Inter-régional Méditerranéen)-tailles comprises entre 15 et 25 m; Accès aux moyens nationaux gérés par GENAVIRE (IFREMER); Petites embarcations de Station (de 5 à 9 m)

**Possibilités d'accueil** pour 10 scientifiques extérieurs; 20 étudiants **Installations pour conférences/séminaires** pour 24 participants **Logement** disponible

**Personnel scientifique**

Nom	Diplôme	Fonction	Spécialité
Alliot, Elizabeth (Mme)	Doctorat	Chercheur	Ecophysiologie; Poissons; Mollusques
Arfi, Robert (M)	Doctorat	Chercheur	Hydrobiologie; Etangs; Lagunes; Côtier
Arnaud, Patrick (M)	Doctorat	Chercheur	Biologie marine; Benthos; Antarctique; Mollusques
Bellan, Gérard (M)	Doctorat	Chercheur	Biologie marine; Pollution; Polychètes

## FRANCE

Nom	Diplôme	Fonction	Spécialité
<b>Bellan-Santini</b> , Denise (Mme)	Doctorat	Chercheur	Biologie marine; Benthos; Pollution; Amphipodes
<b>Berland</b> , Brigitte (Mme)	Doctorat	Chercheur	Biologie marine; Microalgues; Efflorescences planctoniques
<b>Bertrand</b> , Jean-Claude (M)	Doctorat	Enseignant/Chercheur	Microbiologie marine; Cycles biogéochimiques; Hydrocarbures
<b>Blanc</b> , François (M)	Doctorat	Enseignant/Chercheur/ Directeur	Océanographie biologique; Traitement des données
<b>Blanc</b> , Jean-Joseph (M)	Doctorat	Enseignant/Chercheur	Géologie marine; Sédimentologie
<b>Bonin</b> , Daniel (M)	Doctorat	Enseignant/Chercheur	Biologie marine; Phytoplancton
<b>Bonin</b> , Patricia (Mme)	Doctorat	Chercheur	Microbiologie marine; Cycle de l'azote
<b>Bourcier</b> , Michel (M)	Doctorat	Chercheur	Biologie marine; Benthos
<b>Bourdillon</b> , André (M)	Doctorat	Enseignant/Chercheur	Biologie marine; Migrations du zooplancton
<b>Boury-Esnault</b> , Nicole (Mme)	Doctorat	Chercheur	Biologie marine; Eponges
<b>Castelbon</b> , Christian (M)	Doctorat	Enseignant/Chercheur	Biologie marine; Migrations du zooplancton
<b>Champalbert</b> , Gisèle (Mme)	Doctorat	Chercheur	Biologie marine; Zooplancton
<b>Coste</b> , Bernard (M)	Doctorat	Chercheur	Océanographie biologique; Production primaire
<b>Degiovanni</b> , Claude (M)	Doctorat	Enseignant/Chercheur	Géologie marine; Sédimentologie; Géochimie
<b>Dekeyser</b> , Ivan (M)	Doctorat	Enseignant/Chercheur	Océanographie physique; Numéricien; Dynamique des fluides
<b>Denis</b> , Michel (M)	Doctorat	Chercheur	Biophysique; Systèmes respiratoires
<b>Durbec</b> , Jean-Pierre (M)	Doctorat	Enseignant/Chercheur	Statistiques; Traitement des données
<b>Elkaim</b> , Richard (M)	Doctorat	Chercheur	Biologie marine; Ecotoxicologie
<b>Emig</b> , Christian (M)	Doctorat	Chercheur	Zoologie marine; Lophophoriens; Paléoécologie
<b>Fauque</b> , Guy (M)	Doctorat	Chercheur	Biologie cellulaire; Systèmes respiratoires
<b>Gaudy</b> , Raymond (M)	Doctorat	Chercheur	Biologie marine; Ecophysiologie; Zooplancton
<b>Gilewicz</b> , Michèle (Mme)	Doctorat	Enseignant/Chercheur	Microbiologie; Enzymologie
<b>Goutx</b> , Madeleine (Mme)	Doctorat	Chercheur	Biochimie marine; Lipides
<b>Guerin</b> , Jean-Pierre (M)	Doctorat	Enseignant/Chercheur	Biologie marine; Meroplancton
<b>Harmelin</b> , Jean-Georges (M)	Doctorat	Chercheur	Biologie marine; Benthos; Bryozoaires; Poissons

Nom	Diplôme	Fonction	Spécialité
<b>Harmelin-Vivien</b> , Mireille (Mme)	Doctorat	Chercheur	Biologie marine; Récifs; Poissons
<b>Kerambrun</b> , Pierre (M)	Doctorat	Enseignant/Chercheur	Biologie marine; Polymorphisme enzymatique
<b>Le Champion</b> , Joel (M)	Doctorat	Enseignant/Chercheur	Biologie marine; Phoraminifères planctoniques
<b>Le Champion</b> , Thérèse (Mme)	Doctorat	Chercheur	Biologie marine; Cyanophycées; Récifs
<b>Leveau</b> , Michel (M)	Doctorat	Enseignant/Chercheur	Océanographie biologique; Hydrobiologie
<b>Macquart-Moulin</b> , Claude (M)	Doctorat	Chercheur	Biologie marine; Migrations du zooplancton
<b>Massé</b> , Henri (M)	Doctorat	Chercheur	Biologie marine; Benthos
<b>Millet</b> , Bertrand (M)	Doctorat	Enseignant/Chercheur	Océanographie physique; Modélisation physique et biologique
<b>Millot</b> , Claude (M)	Doctorat	Chercheur	Océanographie physique; Circulation océanique
<b>Minas</b> , Hans Joachim (M)	Doctorat	Chercheur	Océanographie biologique; Production primaire
<b>Minas</b> , Monique (Mme)	Doctorat	Chercheur	Océanographie biologique; Production primaire
<b>Pagano</b> , Marc (M)	Doctorat	Chercheur	Hydrobiologie; Etangs; Lagunes
<b>Passelaigue</b> , Françoise (Mme)	Doctorat	Enseignant/Chercheur	Biologie marine; Migrations du zooplancton
<b>Patrity</b> , Gilbert (M)	Doctorat	Chercheur	Biologie marine; Zooplancton
<b>Peyrot</b> , Mireille (Mme)	Doctorat	Chercheur	Biologie marine; Récifs
<b>Plante</b> , Marie-Reine (Mme)	Doctorat	Chercheur	Biologie marine; Microphytobenthos
<b>Plante</b> , Raphaël (M)	Doctorat	Enseignant/Chercheur	Biologie marine; Benthos
<b>Raimbault</b> , Patrick (M)	Doctorat	Chercheur	Océanographie biologique; Chimie marine
<b>Reys</b> , Jean-Pierre (M)	Doctorat	Enseignant/Chercheur	Biologie marine; Benthos; Traitement des données
<b>Romano</b> , Jean-Claude (M)	Doctorat	Chercheur	Océanographie biologique; Biochimie; Interface air-mer
<b>Roux</b> , Max (M)	Doctorat	Enseignant/Chercheur	Géologie marine; Sédimentologie
<b>Salen</b> , Chantal (Mme)	Doctorat	Chercheur	Biologie marine; Benthos
<b>Slawyk</b> , Gerd (M)	Doctorat	Chercheur	Océanographie biologique; Production primaire
<b>Stora</b> , Georges (M)	Doctorat	Chercheur	Biologie marine; Benthos; Pollution

## FRANCE

Nom	Diplôme	Fonction	Spécialité
<b>Taupier-Letage</b> , Isabelle (Mme)	Doctorat	Chercheur	Océanographie biologique; Production primaire; Télédétection
<b>Thomassin</b> , Bernard (M)	Doctorat	Chercheur	Biologie marine; Récifs coralliens
<b>Travers</b> , Marc (M)	Doctorat	Enseignant/Chercheur	Biologie marine; Phytoplancton
<b>Vacelet</b> , Jean (M)	Doctorat	Chercheur	Biologie marine; Eponges
<b>Weydert</b> , Pierre (M)	Doctorat	Enseignant/Chercheur	Géologie marine; Sédimentologie
<b>Zibrowius</b> , Helmut (M)	Doctorat	Chercheur	Biologie marine; Benthos; Biogéographie

### Centre de Documentation, de Recherche et d'Expérimentation sur les Pollutions Accidentelles des Eaux (CEDRE)

Boîte Postale 72  
Plouzane 29280  
FRANCE

**Téléphone** (33) 98 491266  
**Télex** 940145 F  
**Téléfax** (33) 98 496446

**Directeur** Dr Marthe MELGUEN, Directeur

Organisme privé (sans but lucratif) créé en 1979. Langues de travail: Français; Anglais

**Nature des activités** Recherche; Formation spécialisée; Information, vulgarisation

**Objectifs/mandat** Informer ses partenaires des études, recherches et expérimentations effectuées pour améliorer la préparation de la lutte contre les pollutions accidentelles des eaux; Faire progresser les équipements et techniques de lutte; Conseiller les administrations dans l'élaboration de leur politique d'investissement en moyens de lutte; Assister les autorités tant au niveau de la préparation à la lutte que des interventions sur le terrain en assurant un rôle d'expert à leurs côtés; Promouvoir les équipements et techniques de lutte français

**Domaines ou disciplines scientifiques/activités** Pollution; Télédétection; Prévision et remèdes aux catastrophes; Assistance aux gouvernements de pays étrangers en préparation (MALTE) et en intervention (Task Force CEE: Italie, Golfe Persique) antipollution; Prestation de service en assistance et conseils pour raffineries, ports autonomes, agences financières de bassin

**Environnements** Lacs; Eaux saumâtres; Zones côtières; Mangroves; Rivières; Zones littorales; Lagunes; Récifs coralliens/atolls; Iles; Estuaires

**Zones géographiques** Toutes les mers

**Programmes/projets de recherche**

- Amélioration des techniques de lutte
- Brûlage des nappes
- Perte de conteneurs
- Guide de reconnaissance aérienne
- Guide de l'absorbant
- Amélioration de la lutte sur le littoral
- Oxygénation
- Guide d'ancrage des barrages
- Analyse du trafic et des accidents

**Programmes de formation/enseignement**

- Lutte contre les pollutions par hydrocarbures (en mer, sur le littoral)
- Lutte contre les pollutions par substances dangereuses
- Stages pour CEE, Administrations Françaises, Ministères de la Mer, de la Défense, de l'Intérieur et de l'Industrie

**Personnel** Scientifique 15; Technique 2; Autre 10

**Moyens d'information**

**Publications** Rapports annuels; Bulletin trimestriel activités du CEDRE; Rapports techniques et manuels; Guides pratiques d'intervention sur les hydrocarbures et les produits chimiques

**Bibliothèque** 2500 volumes/tirés à part; 50 périodiques **Programmes/projets de coopération** Centre de Documentation de l'IFREMER; Centres de Documentation du Ministère de l'Environnement; Centres de Documentation des Agences de Bassin **Bibliothécaire** Mme Marie-Lise Petit

**Ordinateurs** Plusieurs PC (Sedasis-386SX, 2 Olivetti-286, 4 Kenitex-286, Epson-386SX); Portables (Toshiba-386, Sedasis-386SX, Sedasis-286); Imprimantes diverses (HP LaserJet III Si, HP PaintJet, 2 QMS 810, 1 Epson LQ 500); Table traçante (HP 7475A); Scanner (Epson GT600); CD-ROM (Hitachi)

**Applications** Comptabilité, planification financière; Gestion de bases de données; Publication assistée par ordinateur; Graphiques; Bibliothèque/documentation; Modélisation; Traitement de texte

**Installations** 600 m<sup>2</sup>

**Laboratoires** 50 m<sup>2</sup>; climatisés **Equipements de laboratoire** Caractérisation physique des polluants (point Eclair, viscosité, densité, teneur en eau, indice de pénétration); Tests spécialisés sur l'efficacité des produits de lutte (dispersants, absorbants, produits de lavage, désémulsifiants); Tests de toxicité (CL 50 sur crevettes)

**Possibilités d'accueil** pour 1 scientifique extérieur; 5 étudiants **Installations pour conférences/séminaires** pour 25 participants

## FRANCE

### Personnel scientifique

Nom	Diplôme	Fonction	Spécialité
<b>Cabioc'H</b> , François (M)	DEA	Ingénieur Recherche Expérimentations	Chimie analytique; Pollutions industrielles des eaux
<b>Fauvre</b> , Daniel (M)	Ingénieur	Ingénieur Recherche Expérimentations	Méthodes de lutte en eaux intérieures; Pollution des eaux intérieures
<b>François</b> , Atilio (M)	Doctorat	Responsable Informatique	Informatique appliquée; Systèmes d'information appliqués à la gestion des pollutions
<b>Kantin</b> , Roger (M)	Doctorat	Responsable du Service Intervention	Océanologie; Protection de l'environnement; Intervention antipollution
<b>Kerambrun</b> , Loic (M)	Doctorat	Ingénieur Recherche Expérimentations	Equipements et méthodes de lutte; Pollutions accidentelles des eaux
<b>Kremer</b> , Xavier (M)	Officier de Marine	Chargé de mission	Equipements de lutte en mer; Sécurité industrielle
<b>Melguen</b> , Marthe (Mme)	Doctorat	Directeur	Pollutions marines
<b>Merlin</b> , François (M)	Maîtrise	Ingénieur Recherche Expérimentations	Produits de traitement des polluants; Pollutions des eaux
<b>Peigne</b> , Georges (M)	Ingénieur	Responsable du Service Recherche Expérimentations	Equipements et méthodes de lutte; Pollutions des eaux
<b>Pellen</b> , Robert (M)	Maîtrise	Officier Marine	Planification des interventions; Plans d'intervention antipollution
<b>Refloch</b> , Hervé (M)	Ingénieur	Directeur Administratif et Financier	Lutte antipollution; Gestion des interventions antipollution et direction des projets
<b>Rousseau</b> , Christophe (M)	Licence	Responsable Relations Publiques/Formation	Pollutions marines; Formation et gestion des interventions
<b>Sparfel</b> , Jean (M)	Licence	Directeur Technique	Prévention et gestion des pollutions marines
<b>Tiercelin</b> , Claudine (Mme)	Doctorat	Adjoint Formation	Risques de pollution des eaux; Pollutions des eaux, hydrocarbures et produits chimiques

**Centre National de la Recherche Scientifique  
Commissariat à l'Energie Atomique  
Centre des Faibles Radioactivités (CNRS-CEA-CFR)**

Avenue de la Terrasse  
Gif-sur-Yvette 91198 Cedex  
FRANCE

**Téléphone** (33) 1 69823526  
**Télex** 601137 F  
**Télégrammes** CNRS GIF F  
**Téléfax** (33) 1 69823568  
**Courrier élect.** (OMNET) CFR.GIF

**Directeur** Dr Jean-Claude DUPLESSY, Directeur

Organisme gouvernemental, national. Langues de travail: Français

**Nature des activités** Recherche

**Objectifs/mandat** Appliquer les méthodes modernes de la physique et de la chimie aux sciences de la terre selon les grandes orientations ci-après: Physico-chimie du système océan-atmosphère; Paléoclimatologie et paléo-océanologie; Géophysique couplée à la géologie; Géochronologie nucléaire appliquée au quaternaire, à l'archéologie et à la préhistoire

**Domaines ou disciplines scientifiques/activités** Chimie marine et géochimie; Méthodologie analytique; Métaux lourds; Radioactivité; Matière en suspension; Biomasse; Sédimentologie; Paléontologie; Météorologie marine et climatologie; Pollution; Evaluation de l'impact sur l'environnement; Télédétection

**Environnements** Environnement pélagique

**Zones géographiques** Mer Méditerranée; Mer d'Alboran; Mer Tyrrhénienne; Océan Atlantique

**Programmes/projets de recherche**

- Flux des matières en milieu océanique
- Géochimie des métaux lourds
- Sédimentologie et paléo-océanographie
- Apports de matière voie atmosphérique

**Programmes de recherche menés en coopération**

- Programme DYFAMED (France-JGOFS): Dynamique des flux atmosphériques en Méditerranée
- Leur évolution dans la colonne d'eau
- Programme climatique et programme environnement de la CEE

**Programmes de formation/enseignement**

- DEA de géochimie, sédimentologie et océanographie dans le cadre des universités de Paris, Brest et Pau (France)

**Personnel** Scientifique 30; Technique 30



## FRANCE

### Moyens d'information

**Publications** Rapports annuels/revues; Rapports techniques

**Bibliothèque** 2000 volumes/tirés à part; 100 périodiques **Programmes/projets de coopération**  
Catalogue Collectif National (Bu Orsay); Météo. Paris; CEN-Saclay/Jussieu/Museum Paris/Sté.  
Géologique de France/Ecole des Mines **Bibliothécaire** Mme Spyridakis

**Ordinateurs** Divers

### Personnel scientifique

Nom	Diplôme	Fonction	Spécialité
<b>Buat-Ménard</b> , Patrick (M)	Doctorat	Directeur de Recherche	Flux particulaires; Flux de matière particulaire dans le système atmosphère-océan; Aérosols
<b>Dulac</b> , François (M)	Doctorat	Ingénieur CEA	Géochimie atmosphérique; Aérosols; Télédétection; Modélisation
<b>Duplessy</b> , Jean-Claude (M)	Doctorat	Directeur	
<b>Labeyrie</b> , Laurent (M)	Doctorat	Directeur de Recherche	Paléoclimatologie; Paléo-océanographie; Géochimie isotopique
<b>Lambert</b> , Claude Elizabeth (Mme)	Doctorat	Chargé de Recherche	Flux particulaires; Flux de matière particulaire dans le système atmosphère-océan; Aérosols
<b>Reyss</b> , Jean-Louis (M)	Doctorat	Directeur de Recherche	Dynamique de l'interface eau-sédiment; Hydrothermalisme; Sédimentation profonde

### Centre National de la Recherche Scientifique Institut National des Sciences de l'Univers (CNRS-INSU)

77 Avenue Denfert Rochereau  
Paris 75014  
FRANCE

**Téléphone** (33) 1 40512148  
**Télex** 270070 PARIS  
**Téléfax** (33) 1 40512101

**Directeur** Professeur André BERROIR, Directeur

Organisme gouvernemental, national créé en 1985. Langues de travail: Français

**Nature des activités** Politique/planification

**Objectifs/mandat** Agence de moyens de la communauté géophysique française: gestion scientifique de ce secteur de recherche

**Domaines ou disciplines scientifiques/activités** Océanographie physique; Instruments et méthodes; Masses d'eau et circulation; Courants et dispersion; Interaction air/mer; Vagues, marées, houles et niveau de la mer; Modélisation; Chimie marine et géochimie; Méthodologie analytique; Substances nutritives; Métaux lourds; Composés organiques (hydrocarbures halogènes, hydrocarbures pétroliers, etc.); Radioactivité; Dépôts; Eaux; Matière en suspension; Biomasse; Géologie marine et géophysique; Topographie et morphologie; Sédimentologie; Formation des côtes et franges côtières; Paléontologie; Sismologie; Biologie marine et écologie; Phytoplancton; Zooplancton; Benthos; Poissons; Algues; Eutrophisation; Floraison du plancton; Mollusques; Crustacés; Mammifères marins; Physiologie marine; Biochimie marine; Microbiologie marine; Parasitologie; Pathologie des espèces marines; Productivité; Etudes des communautés et populations; Météorologie marine et climatologie; Gestion de l'environnement marin; Surveillance continue et/ou évaluation; Pollution; Technologie marine; Télédétection; Acquisition des données par télémétrie; Astronomie/Astrophysique; Océan/Atmosphère; Sciences de la Terre

**Environnements** Lacs; Eaux saumâtres; Zones côtières; Mangroves; Environnement pélagique; Environnement benthique; Rivières; Zones littorales; Lagunes; Récifs coralliens/atolls; Iles; Estuaires

**Zones géographiques** Mer Méditerranée; Mer d'Alboran; Bassin algéro-provençal; Mer des Baléares; Golfe du Lion; Mer de Ligurie; Détroit de Sicile; Détroit de Gibraltar; Mer Tyrrhénienne; Océan Atlantique; Mer Rouge

#### **Programmes/projets de recherche**

- Océanographie grande échelle: observations, modélisation
- Océanographie côtière
- Participation a TOGA, WOCE, JGOFS (IGEP)

#### **Programmes de recherche menés en coopération**

- CEE: Eurometmodel
- Flux Manche
- EROS 2000

**Personnel** Scientifique 5; Technique 60

#### **Moyens d'information**

**Publications** Rapport annuel; Soutien à la publication de monographies

**Ordinateurs** Divers **Applications** Comptabilité, planification financière

#### **Installations**

**Bateaux/embarcations de recherche** 9 bateaux, taille 15-22 m; 10 embarcations, 10 m

**Possibilités d'accueil** pour 50 scientifiques extérieurs; 50 étudiants **Installations pour conférences/séminaires** pour 50 participants **Logement** pour 50 personnes

## FRANCE

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**Centre National de la Recherche Scientifique**  
**Ministère Education Nationale**  
**Université de Perpignan**  
**Laboratoire de Sédimentologie et Géochimie Marines (LSGM)**

52 Avenue de Villeneuve  
Perpignan 66860  
FRANCE

**Téléphone** (33) 68 662088  
**Télex** 505005 UNIPERP  
**Téléfax** (33) 68 662096

**Directeur** M. André A MONACO, Directeur

Organisme gouvernemental, national créé en 1982. Langues de travail: Français

**Nature des activités** Recherche; Laboratoire; Enseignement (universitaire)

**Objectifs/mandat** Recherches sur les environnements sédimentaires côtiers et profonds

**Domaines ou disciplines scientifiques/activités** Chimie marine et géochimie; Métaux lourds; Dépôts; Matière en suspension; Géologie marine et géophysique; Topographie et morphologie; Sédimentologie; Gestion de l'environnement marin; Pollution; Evaluation de l'impact sur l'environnement

**Environnements** Zones côtières; Environnement pélagique; Environnement benthique; Rivières; Estuaires

**Zones géographiques** Mer Méditerranée; Mer Egée; Mer d'Alboran; Bassin algéro-provençal; Golfe du Lion; Océan Atlantique

### **Programmes/projets de recherche**

- Recherches sur les écosystèmes de marges (Programme ECOMARGE): Flux de matière et d'énergie, transfert côte-large et vers l'écosystème benthique
- Stratigraphie séquentielle des corps sédimentaires sur les marges continentales

### **Programmes de recherche menés en coopération**

- EURECOMARGE: Recherches sur les écosystèmes des marges européennes de Méditerranée avec la Grèce (NCMR Athènes), Italie (Univ.Bologne, Univ.Gênes), Espagne (Univ.Barcelone), Algérie (UHTB-Alger) et Maroc (Univ.Melenés), dans le cadre d'échanges interuniversitaires et avec le CNRS

### **Programmes de formation/enseignement**

- ERASMUS: Licence et maîtrise d'océanologie appliquée
- Universités de Perpignan et de Barcelone

**Personnel** Scientifique 12; Technique 2; Autre 5

**Moyens d'information**

**Publications** Recueil des travaux du LSGM; Triple numéro de "Continental Shelf Research" en 1990, consacré à la phase 1 du programme ECOMARGE

**Bibliothèque** 1000 volumes/tirés à part; 10 périodiques **Programmes/projets de coopération** Divers avec bibliothèques universitaires

**Ordinateurs** 4 PC; 3 micro-ordinateurs Apple Macintosh **Applications** Comptabilité, planification financière; Enseignement; Graphiques; Scientifique; Statistiques; Traitement de texte **Echange de données** Disquettes 3.5"

**Installations** 400 m<sup>2</sup>

**Laboratoires** 200 m<sup>2</sup>; climatisés **Equipements de laboratoire** Diffractomètre; Microscope électronique; Spectromètre AB.At; Doseur de carbone; Doseur carbone dissous; Spectro UV visibles; Gamma densitomètre; Pièges à particules; Courantomètres; Transmissomètres

**Possibilités d'accueil** pour 2 scientifiques extérieurs; 2 étudiants **Installations pour conférences/séminaires** pour 100 participants **Logement** disponible

**Personnel scientifique**

Nom	Diplôme	Fonction	Spécialité
Aloisi, J C (M)	Doctorat	Maître de Conférence	Sédimentologie; Lithoacoustique
Buscail, R (Mme)	Doctorat 3ème cycle	Chargée de Recherche CNRS	Géochimie; Matière organique
Cauwet, G (M)	Doctorat	Ingénieur CNRS	Géochimie; Matière organique, carbone
Deniaux, B (Mme)	Doctorat 3ème cycle	Ingénieur CNRS	Sédimentologie; Microscopie
Gadel, F (M)	Doctorat	Chargé de Recherche CNRS	Géochimie; Matière organique
Gensous, B (M)	Doctorat 3ème cycle	Maître Assistant	Sédimentologie; Faciès dépôts récents
Got, H (M)	Doctorat	Professeur	Sédimentologie; Géophysique
Heussner, S (M)	Doctorat 3ème cycle	Chargé de Recherche CNRS	Sédimentologie; Flux biogènes
Monaco, A (M)	Doctorat	Directeur de Recherche CNRS	Géochimie; Sédimentologie; Eléments métalliques; Flux matière
Naudin, J J (M)	Doctorat	Chargé de Recherche CNRS	Sédimentologie; Suspensions
Paul, H (M)	Doctorat 3ème cycle	Maître de Conférence	Sédimentologie; Suspensions
Tesson, M (M)	Doctorat 3ème cycle	Maître de Conférence	Sédimentologie; Stratigraphie séquentielle

## FRANCE

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### **Centre National du Machinisme Agricole, du Génie Rural, des Eaux et des Forêts (CEMAGREF)**

CEMAGREF Groupement de Bordeaux,  
50 Avenue de Verdun  
Boîte Postale 3  
Cestas-Gazinet 33610  
FRANCE

**Téléphone** (33) 56 360940  
**Télex** 540003 F  
**Téléfax** (33) 56 367511

**Directeur** M. Jacques J J BORIES, Chef de la Division, Aquaculture et Pêche

Organisme gouvernemental, national créé en 1981. Langues de travail: Français

**Nature des activités** Recherche; Recherche appliquée

**Objectifs/mandat** Recherches appliquées dans le domaine des pêches continentales (estuaires, fleuves, lacs), de l'aquaculture en eau douce et saumâtre; Mission de formation, information et développement

**Domaines ou disciplines scientifiques/activités** Pêches; Aquaculture; Surveillance continue et/ou évaluation; Gestion des zones côtières; Conservation et/ou régénération des ressources naturelles; Evaluation de l'impact sur l'environnement; Appui technique aux ministères chargés des problèmes d'environnement et de la gestion des pêches continentales; Appui technique au ministère de l'agriculture pour le secteur de l'aquaculture et pour la valorisation et l'aménagement des zones rurales; Assistance technique à certains professionnels de l'aquaculture ou à leurs structures représentatives

**Environnements** Lacs; Eaux saumâtres; Zones côtières; Rivières; Zones littorales; Estuaires

**Zones géographiques** Océan Atlantique

#### **Programmes/projets de recherche**

- Etudes et recherches sur la biologie des espèces d'intérêt halientique, dulçaquicoles ou amphihalines
- Recherche sur la gestion des stocks et la gestion des pêcheries continentales
- Mise au point de techniques d'aquacultures extensives en eau saumâtre ou douce
- Etude de la gestion de l'eau en élevage intensif d'eau douce et des modalités de traitement des effluents
- Programme esturgeon particulier visant à restaurer les stocks et à développer la pisciculture des acipenséridés

#### **Programmes de recherche menés en coopération**

- Valorisation des zones littorales pour la pêche et l'aquaculture menée en collaboration avec le Muséum d'Histoire Naturelle, l'université et l'IFREMER

**Programmes de formation/enseignement**

- Encadrement de thésards
- Réalisation de conférences, de cours dans des écoles de techniciens ou d'ingénieurs

**Personnel** Scientifique 14; Technique 7; Autre 3

**Moyens d'information**

**Publications** Divers; Catalogue des publications mis à jour périodiquement

**Bibliothèque** 15000 volumes/tirés à part; 70 périodiques **Programmes/projets de coopération** Université; INRA; IFREMER **Bibliothécaire** Mme Chantal Gardes; Mlle Marie Pierre Maleyran

**Ordinateurs** 2 ordinateurs DEC VAX; 10 micro-ordinateurs (PC et Apple Macintosh) **Applications** Comptabilité, planification financière; Communications; Gestion de bases de données; Graphiques; Bibliothèque/documentation; Statistiques; Traitement de texte **Echange de données** Divers

**Installations** 300 m<sup>2</sup>

**Laboratoires** 40 m<sup>2</sup> **Equipements de laboratoire** Un chalutier d'estuaire pour pêche scientifique; Une vedette rapide avec matériel scientifique embarqué; Engins de pêche, et engins de prélèvement; Une centrale de mesure; Une pisciculture expérimentale en eau douce; Une station de terrain en aquaculture extensive (40 ha). **Aquariums** 3x1.5 m<sup>3</sup> **Espèces entretenues** *Acipenser baeri*; *Acipenser ruthenus*; *Acipenser sturio*; *Hucho hucho*; *Anguilla anguilla*; *Mugil* (sp)

**Bateaux/embarcations de recherche** "Chalutier", 13 m, pêche artisanale, équipage 2, 2 scientifiques; "Vedette", 8 m, pêche artisanale

**Possibilités d'accueil** pour 2 scientifiques extérieurs; 2 étudiants **Installations pour conférences/séminaires** pour 60-80 participants

**Personnel scientifique**

Nom	Diplôme	Fonction	Spécialité
Babin, Didier (M)	DEA	Géographe	Socio-économie des pêcheries continentales
Bories, Jacques J J (M)		Chef, Division Aquaculture et Pêche	
Brun, Jean Remy (M)	Ingénieur	Pathologiste	Pathologie et prophylaxie des esturgeons; Prophylaxie pathologie des Acipenséridés
Castelnaud, Gérard (M)	Doctorat		Gestion des pêcheries continentales; Suivi des stocks d' <i>Acipenser sturio</i> ; Attaché à l'équipe PMPC
Clement, Olivier (M)	Ingénieur	Socio-économiste (Animateur de l'équipe Marais Atlantique et Aquaculture)	

## FRANCE

Nom	Diplôme	Fonction	Spécialité
<b>Duret</b> , Jean (M)	Ingénieur	Animateur de l'équipe salmoniculture et élevage intensif (SEI)	Technologie Aquacole; Gestion de l'eau en élevage intensif
<b>Elie</b> , Pierre (M)	Doctorat	Hydrobiologiste (Animateur de l'Équipage Poissons Migrateurs et Pêche Continentale PMPC)	Spécialiste notamment de l'anguille ( <i>Anguilla anguilla</i> )
<b>Funten</b> , Eric (M)	DEA	Hydrobiologiste	Valorisation de zones humides littorales
<b>Jatteau</b> , Philippe (M)	DEA	Hydrobiologiste	Elevages intensifs en eau douce; Diversification aquacole; Gestion informatisée des piscicultures
<b>Massé</b> , Jacques (M)	Ingénieur	Agronome	Aquaculture; Aménagement aquacole en zone littorale; Aquaculture extensive en eau douce et saumâtre
<b>Rigaud</b> , Christian (M)	Ingénieur	Hydrobiologiste (Spécialiste de l'anguille et des espèces inféodées aux zones saumâtres)	
<b>Rochard</b> , Eric (M)	DEA	Hydrobiologiste	Dynamique des populations d'espèce Amphitalines
<b>Rovault</b> , Thierry (M)	Ingénieur	Technologue en Aquaculture	Technologie aquacole; Conception des équipements; Sursaturation gazeuse
<b>Salin</b> , Dominique (M)	Ingénieur	Physiologiste	Physiologie; Excrétion azotée des esturgeons; Toxicité ammoniacale
<b>Sertier</b> , Michel (M)	Ingénieur	Halieute	Evaluation des impacts de la pollution; Impact sur le milieu estuarien des activités anthropiques, industrielles ou halieutiques
<b>Taverny</b> , Catherine (Mme)	DEA	Hydrobiologiste	Dynamique des populations d'Alose
<b>Williot</b> , Patrick (M)	Ingénieur	Hydrobiologiste (Animateur de l'équipe Esturgeon)	Physiologie de la reproduction

**Centre National du Machinisme Agricole, du Génie Rural, des Eaux et des Forêts (CEMAGREF)**

361 Rue J.F. Breton  
Boîte Postale 5095  
Montpellier 34033 Cedex 1  
FRANCE

**Téléphone** (33) 67 524343  
**Télex** 490990 F  
**Téléfax** (33) 67 635795

**Directeur** M. Christian ALBIGES, Chef de la Division, Aquaculture et Pêche de Montpellier

Organisme gouvernemental, national créé en 1981. Langues de travail: Français

**Nature des activités** Recherche

**Objectifs/mandat** Recherche appliquée dans le domaine de l'aquaculture continentale en eaux tempérées; Gestion des milieux lagunaires méditerranéens

**Domaines ou disciplines scientifiques/activités** Poissons; Algues; Eutrophisation; Pêches; Aquaculture; Surveillance continue et/ou évaluation; Gestion des zones côtières; Pollution; Conservation et/ou régénération des ressources naturelles; Evaluation de l'impact sur l'environnement; Mise au point de filière d'élevage aquacole sur des espèces nouvelles; Appui technique aux Ministères, professionnels, en matière de pisciculture en eau douce; Etude des milieux lagunaires méditerranéens (pêche-eutrophisation); Appui technique à l'Etat ou aux collectivités territoriales pour la gestion des lagunes

**Environnements** Lacs; Eaux saumâtres; Zones côtières; Zones littorales

**Zones géographiques** Mer Méditerranée

**Programmes/projets de recherche**

- Développement des filières piscicoles Silure glane et Sandre
- Etude de l'eutrophisation des lagunes méditerranéennes peu profondes
- Etude de l'anguille (biologie, halieutisme, production) en Méditerranée

**Programmes de recherche menés en coopération**

- Idem avec universités ou autres organismes de recherche nationaux

**Programmes de formation/enseignement**

- Participation à des formations en aquaculture
- Encadrement d'étudiants 3ème cycle ou autres

**Personnel** Scientifique 5; Technique 1; Autre 2

**Moyens d'information**

**Publications** Rapports annuels/revues; Rapports techniques



## FRANCE

**Bibliothèque** 1000 volumes/tirés à part; 30 périodiques **Programmes/projets de coopération**  
CEMAGREF de Bordeaux; CIDARC Montpellier **Bibliothécaire** Mme Vannobel

**Ordinateurs** 3 micro-ordinateurs Apple Macintosh; 4 PC **Applications** Gestion de bases de données; Graphiques; Bibliothèque/documentation; Statistiques; Traitement de texte **Echange de données** Divers

**Installations** 150 m<sup>2</sup>

**Laboratoires** 60 m<sup>2</sup> **Equipements de laboratoire** Embarcations et matériel de pêche et de prélèvement pour étude des milieux lagunaires; Matériel d'analyse des eaux; Matériel de pisciculture (bacs, cuve de transport de poissons vivants); Laboratoire d'aquaculture **Espèces entretenues** *Silurus glanis*; *Stizostedion lucioperca*; *Tinca tinca*

**Bateaux/embarcations de recherche** Matériel léger pour étude de milieux peu profonds

**Possibilités d'accueil** pour 2 scientifiques extérieurs; 2 étudiants **Installations pour conférences/séminaires** pour 20 participants

### Personnel scientifique

Nom	Diplôme	Fonction	Spécialité
Albiges, Christian (M)	Ingénieur	Chef, Division Aquaculture et Pêche	Aquaculture
Fillit, Muriel (Mme)	DEA	Thésard	Milieux lagunaires; Eutrophisation; Macro végétaux; Télédétection
Lieutaud, Anne (Mme)	Ingénieur	Ingénieur	Milieux lagunaires
Panfili, Jacques (M)	DEA	Thésard	Biologie; Lecture de l'âge des poissons; Automatisation
Proteau, Jean-Pierre (M)	Doctorat	Ingénieur	Aquaculture
Schlumberger, Olivier (M)	Doctorat	Ingénieur	Hydrobiologie; Aquaculture
Ximenes, Marie Claude (Mme)	Ingénieur	Ingénieur	Milieux lagunaires; Halieutisme

### Commissariat à l'Energie Atomique Département de Biologie Cellulaire et Moléculaire Laboratoire Jean Maetz (CEA)

La Darse  
Boîte Postale 68  
Villefranche-sur-Mer 06230  
FRANCE

**Téléphone** (33) 93 019565  
**Téléfax** (33) 93 766017

**Directeur** Professeur René J MOTAIS, Directeur

Organisme para-public que créé en 1964. Langues de travail: Français

**Nature des activités** Recherche

**Objectifs/mandat** Recherche fondamentale: Biologie et physiologie cellulaire (perméabilité des membranes biologiques)

**Domaines ou disciplines scientifiques/activités** Physiologie marine; Perméabilité ionique; Transduction d'énergie; Transport membranaire; Cinétique isotopique

**Environnements** Rivières; Zones littorales

**Zones géographiques** Mer Méditerranée; Mer Adriatique; Mer Egée; Mer d'Alboran; Dardanelles; Golfe du Lion; Mer Ionienne; Mer de Ligurie; Déroit de Sicile; Déroit de Gibraltar; Déroit d'Otrante; Mer Tyrrhénienne; Océan Atlantique; Bosphore; Mer de Marmara; Mer Noire

**Programmes/projets de recherche**

- Mécanisme de transduction d'énergie chez les bactéries
- Etude de la perméabilité ionique des épithéliums
- L'érythrocyte nucléé du poisson: Un modèle pour l'étude de la régulation hormonale de la perméabilité membranaire

**Programmes de formation/enseignement**

- Stages de DEA: Pharmacologie cellulaire et moléculaire
- Formation de chercheurs (thèse)

**Personnel** Scientifique 15; Technique 7

**Moyens d'information**

**Bibliothèque** 25 périodiques

**Ordinateurs** Divers **Applications** Graphiques; Bibliothèque/documentation; Scientifique; Traitement de texte

**Installations** 1000 m<sup>2</sup>

**Laboratoires** 700 m<sup>2</sup>; climatisés **Equipements de laboratoire** HPLC; Electrophorèse; Centrifugeuses; Compteur bêta et gamma; Spectrophotomètre; Matériel biologie moléculaire  
**Espèces entretenues** Escherichia coli; Culture A6; Salmo gairdneri

**Possibilités d'accueil** pour 3 scientifiques extérieurs

**Personnel scientifique**

Nom	Diplôme	Fonction	Spécialité
Bassilana, Martine (Mme)	Doctorat	Chargée Recherche	Biologie cellulaire; Bactérie

## FRANCE

Nom	Diplôme	Fonction	Spécialité
<b>Borgese</b> , Franck (M)	Doctorat	Chargé Recherche	Biologie cellulaire; Erythrocyte
<b>Cappodoro</b> , Marina (Mme)	DEA	Chercheur	Biologie moléculaire; Erythrocyte
<b>Ehrenfeld</b> , Jordi (M)	Doctorat	Professeur/Chercheur	Biologie cellulaire; Epithélium
<b>Fievet</b> , Bruno (M)	Doctorat	Chercheur	Biologie cellulaire; Erythrocyte
<b>Garcia-Romeu</b> , Federico (M)	Doctorat	Directeur de Recherche	Biologie cellulaire; Erythrocyte
<b>Guizouarn</b> , Hélène (Mme)	DEA	Chercheur	Biologie cellulaire; Erythrocyte
<b>Harvey</b> , Brian (M)	PhD	Chargé Recherche	Biologie cellulaire; Electrophysiologie; Epithélium
<b>Lacoste</b> , Isabelle (Mme)	DEA	Chercheur	Biologie cellulaire; Epithélium
<b>Leblanc</b> , Gerard (M)	Doctorat	Chercheur	Biologie cellulaire; Bactérie
<b>Lindenthal</b> , Sabine (Mme)	PhD	Chercheur	Biologie cellulaire; Erythrocyte
<b>Lirbach</b> , Valérie (Mme)	DEA	Chercheur	Biologie cellulaire; Epithélium
<b>Motais</b> , René (M)	Doctorat	Professeur/Chercheur/ Directeur	Biologie cellulaire; Erythrocyte
<b>Pourcher</b> , Thierry (M)	Doctorat	Chercheur	Biologie moléculaire; Bactérie
<b>Zani</b> , Marie-Louise (Mme)	DEA	Chercheur	Biologie cellulaire; Bactérie

### Commissariat à l'Energie Atomique Département de Protection de l'Environnement et des Installations Station d'Etudes Radioécologiques Méditerranée (CEA-DPEI-SERM)

CEA/SERM chez IFREMER-CT  
Boîte Postale 330  
La Seyne-sur-Mer 83500  
FRANCE

**Téléphone** (33) 94 304829  
**Télex** 400662 F  
**Téléfax** (33) 94 301372

**Directeur** Sabine Sylvie Claude CHARMASSON, Responsable de la Station d'Etudes Radioécologiques Méditerranée

Organisme gouvernemental, national créé en 1979. Langues de travail: Français; Anglais

**Nature des activités** Recherche

**Objectifs/mandat** Etude du comportement dans l'environnement des produits polluants utilisés ou créés dans les installations

**Domaines ou disciplines scientifiques/activités** Radioactivité; Eaux; Matière en suspension; Benthos; Poissons; Algues; Mollusques; Crustacés; Surveillance continue et/ou évaluation; Evaluation de l'impact sur l'environnement; Technologie marine; Politique pour les océans/Droit de la Mer; Etudes préliminaires à l'aménagement d'une installation nucléaire

**Environnements** Environnement benthique; Zones littorales

**Zones géographiques** Mer Méditerranée; Océan Atlantique

#### Programmes/projets de recherche

- En Méditerranée: Bilan et impact des radionucléides d'origine rhodanienne
- Etude du recyclage des polluants au niveau des installations mytilicoles
- En Atlantique: Etude des sites d'immersion de déchets de faible activité en Atlantique nord

#### Programmes de recherche menés en coopération

- Programme DYPOL (ministère environnement): Dynamique et pollution dans le golfe du Lion
- ECOMARGE (Institut National des Sciences de l'Univers-INSU): Etudes des marges continentales
- AIEA: Source of radioactivity in the marine environment and their relative contributions to overall dose assessment from marine radioactivity
- INSU: Programme flux océaniques opération EUMELI

**Personnel** Scientifique 3; Technique 2

#### Moyens d'information

**Bibliothèque** Oui

**Ordinateurs** Ordinateur HP 1000/A600; 3 PC (HP Vectra, Toshiba 3200-SX) **Applications** Communications; Gestion de bases de données; Bibliothèque/documentation; Scientifique; Statistiques; Traitement de texte

**Installations** 250 m<sup>2</sup>

**Laboratoires** 80 m<sup>2</sup>; climatisés **Equipements de laboratoire** Métrologie-spectrométrie: 1 détecteur Germanium hyper pur 7pct type P; 1 détecteur Germanium hyper pur 30pct type N; Granulométrie laser cilas 715

**Possibilités d'accueil** pour 1 scientifique extérieur; 2 étudiants

#### Personnel scientifique

Nom	Diplôme	Fonction	Spécialité
Arnaud, Mireille (Mme)	Maîtrise	Chercheur	Sédimentologie; Océanographie; Radioécologie
Charmasson, Sabine (Mme)	Doctorat 3ème cycle	Chercheur/Directeur	Océanographie biologie; Radioécologie
Gontier, Gilles (M)	Doctorat 3ème cycle	Chercheur	Biologie; Etudes expérimentales transfert radioactivité

## FRANCE

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### **Commission Océanographique Intergouvernementale de l'UNESCO (COI)** *Intergovernmental Oceanographic Commission of UNESCO (IOC)*

7 Place de Fontenoy  
Paris 75700  
FRANCE

**Téléphone** (33) 1 45681000  
**Télex** 204461 PARIS  
**Télégrammes** UNESCO PARIS  
**Téléfax** (33) 1 40569316  
**Courrier électr.** (OMNET) IOC.SECRETARIAT

**Directeur** Professeur Gunnar E B KULLENBERG, Secrétaire

Organisation des Nations Unies créé en 1960. Langues de travail: Anglais; Français; Espagnol; Russe; Arabe; Chinois

**Nature des activités** Recherche; Formation spécialisée; Politique/planification; Information, vulgarisation

**Objectifs/mandat** Coopération internationale dans le domaine de la recherche scientifique concernant les océans; élaborer, recommander et coordonner des programmes océaniques internationaux

**Domaines ou disciplines scientifiques/activités** Océanographie physique; Instruments et méthodes; Masses d'eau et circulation; Courants et dispersion; Interaction air/mer; Vagues, marées, houles et niveau de la mer; Modélisation; Chimie marine et géochimie; Méthodologie analytique; Substances nutritives; Métaux lourds; Composés organiques (hydrocarbures halogènes, hydrocarbures pétroliers, etc.); Radioactivité; Eaux; Matière en suspension; Biomasse; Géologie marine et géophysique; Topographie et morphologie; Sédimentologie; Formation des côtes et franges côtières; Sismologie; Biologie marine et écologie; Phytoplancton; Zooplancton; Benthos; Poissons; Algues; Eutrophisation; Floraison du plancton; Mollusques; Crustacés; Mammifères marins; Physiologie marine; Biochimie marine; Microbiologie marine; Toxicologie; Taxinomie et systématiques; Etudes des communautés et populations; Pêches; Aquaculture; Météorologie marine et climatologie; Gestion de l'environnement marin; Surveillance continue et/ou évaluation; Gestion des zones côtières; Pollution; Evaluation de l'impact sur l'environnement; Education relative à l'environnement; Assistance marine; Technologie marine; Télédétection; Acquisition des données par télémétrie; Politique pour les océans/Droit de la Mer; Prévision et remèdes aux catastrophes; Gestion des ressources; Ressources minérales; Le Système mondial d'observation du niveau de la mer (GLOSS), qui comprend un réseau mondial de marégraphes et des systèmes d'échange et de traitement des données de niveau moyen de la mer; Le Système d'échange international des données et de l'information océanographiques (IODE) qui a pour objectif principal de rassembler, traiter, archiver, retrouver et échanger des données océanographiques sur le plan mondial; Le Système d'accès aux informations des données sur le milieu marin (MEDI); Le Groupe international de coordination pour le Système d'alerte aux tsunamis dans le Pacifique (ITSU)

**Environnements** Zones côtières; Mangroves; Environnement pélagique; Environnement benthique; Rivières; Zones littorales; Lagunes; Récifs coralliens/atolls; Iles; Estuaires

**Zones géographiques** Mer Méditerranée; Mer Adriatique; Mer Egée; Mer d'Alboran; Bassin algéro-provençal; Mer des Baléares; Dardanelles; Golfe du Lion; Golfe de Sirte; Mer Ionienne; Mer Levantine; Mer de Ligurie; Détroit de Sicile; Détroit de Gibraltar; Détroit d'Otrante; Mer Tyrrhénienne; Océan Atlantique; Bosphore; Mer de Marmara; Mer Noire; Mer Rouge; Canal de Suez

**Programmes/projets de recherche**

- L'océanologie et les ressources vivantes (OSLR)
- L'océanologie et les ressources non vivantes (OSNLR)
- Etude mondiale de la pollution dans le milieu marin (GIPME) qui comprend la recherche en pollution marine, les études de base et le développement d'un système mondial de surveillance de la pollution marine
- Cartographie des océans: La Carte bathymétrique internationale de la Méditerranée (IBCM) a été achevée et imprimée en 1981

**Programmes de recherche menés en coopération**

- Programme mondial de recherches sur le climat (PMRC) avec l'OMM et le CIUS
- Système mondial d'observation de l'océan (GOOS) en coopération avec l'OMM
- Système mondial intégré des services océaniques (SMISO) en coopération avec la COI et l'OMM
- Programme mixte FAO/COI/ONU (OETB) chargé d'étudier le Système d'information sur les sciences aquatiques et la pêche (ASFIS)

**Programmes de formation/enseignement**

- La Commission poursuit son action dans le domaine de la formation, l'enseignement et l'assistance mutuelle. Elle a adapté les structures des pays en développement dans le domaine des sciences de la mer
- Océanographie côtière et mouvements des eaux

**Personnel** Scientifique 25; Technique 20; Autre 10

**Moyens d'information**

**Publications** Rapports annuels/revues; Rapports de réunions de travail; Manuels et guides; Séries techniques

**Bibliothécaire** Mme Nicole Levy

**Ordinateurs** Divers **Applications** Comptabilité, planification financière; Communications; Gestion de bases de données; Publication assistée par ordinateur; Enseignement; Graphiques; Bibliothèque/documentation; Mathématique; Gestion de projet; Statistiques; Traitement de texte

**Echange de données** Divers

**Ecole Normale Supérieure  
Institut de Biogéochimie Marine  
Unité Associée au CNRS 386 (ENS-IBM)**

1 Rue Maurice Arnoux  
Montrouge 92120  
FRANCE

**Téléphone** (33) 1 46571286 Ext.612  
**Téléfax** (33) 1 46570497

## FRANCE

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**Directeur** Dr Jean-Marie MARTIN, Directeur

Organisme gouvernemental, national créé en 1986. Langues de travail: Français; Anglais

**Nature des activités** Recherche; Laboratoire; Enseignement (universitaire)

**Objectifs/mandat** Recherches sur le comportement biogéochimique des oligoéléments stables et radioactifs en milieu estuarien et côtier; Flux advectifs à l'océan, zone côtière, cycles globaux

**Domaines ou disciplines scientifiques/activités** Chimie marine et géochimie; Méthodologie analytique; Métaux lourds; Radioactivité; Dépôts; Eaux; Matière en suspension; Etudes biogéochimiques en Méditerranée occidentale; Recherches géochimiques sur l'environnement arctique (Mer de Laptev et estuaire de la Lena); Apports atmosphériques; Modélisation

**Environnements** Eaux saumâtres; Zones côtières; Rivières; Zones littorales; Estuaires

**Zones géographiques** Mer Méditerranée; Mer Adriatique; Golfe du Lion; Déroit de Sicile; Déroit de Gibraltar; Océan Atlantique

### Programmes de recherche menés en coopération

- Programme EROS 2000 (European River Ocean System)
- Programme SPASIBA (Scientific Programme on Arctic and Siberian Aquatorium)
- GDR ICO (Groupement de Recherches Interaction Continent Océan)
- Programme francoyougoslave sur l'estuaire de Krka

### Programmes de formation/enseignement

- 8 thèses en cours

**Personnel** Scientifique 20; Technique 7; Autre 4

### Moyens d'information

**Publications** Rapports annuels/revues; Rapports techniques

**Bibliothèque** 500 volumes/tirés à part; 32 périodiques

**Ordinateurs** Divers **Applications** Comptabilité, planification financière; Communications; Publication assistée par ordinateur; Graphiques; Modélisation; Scientifique; Statistiques; Traitement de texte **Echange de données** Communication par le réseau EARN

**Installations** 750 m<sup>2</sup>

**Laboratoires** 250 m<sup>2</sup>; climatisés **Equipements de laboratoire** Spectromètre alpha et gamma; INAA; AAS; Polarographie; Autoanalyseur; Cytomètre de flux; Microcalorimétrie; SSA; MEB

**Possibilités d'accueil** pour 5 scientifiques extérieurs; 5 étudiants **Installations pour conférences/séminaires** pour 20-30 participants **Logement** disponible

**Personnel scientifique**

<b>Nom</b>	<b>Diplôme</b>	<b>Fonction</b>	<b>Spécialité</b>
<b>Brun-Cottan</b> , Jean-Claude (M)	Doctorat	Chargé de Recherche	Géochimie marine; Modélisation; Sédimentologie
<b>Chevalet</b> , Jean (M)	Doctorat	Directeur de Recherche	Chimie marine; Electrochimie
<b>Elbaz-Poulichet</b> , Françoise (Mme)	Doctorat	Chargée de Recherche	Géochimie marine; Métaux traces
<b>Garnier</b> , Jean-Marie (M)	Doctorat	Chargé de Recherche	Géochimie marine; Interaction solide-liquide
<b>Guieu</b> , Cécile (Mme)	Doctorat	Ingénieur d'Etudes	Geochemie marine; Apports atmosphériques
<b>Lepeteur</b> , Muriel (Mme)	DEA		Biologie marine
<b>Li</b> , Zhanhua (Mme)	DEA		Hydrodynamique; Modélisation
<b>Loye-Pilot</b> , Marie-Dominique (Mme)		Maître de Conférences	Géochimie marine; Apports atmosphériques
<b>Martin</b> , Jean-Marie (M)	Doctorat	Directeur de Recherche	Géochimie marine; Cycles biogéochimiques; Eléments traces
<b>Moreira-Turcq</b> , Patricia (Mme)	DEA	Attachée de Recherche	Géochimie marine
<b>Morelli</b> , Jacques (M)	Doctorat	Chargé de Recherche	Apports atmosphériques
<b>Mouchel</b> , Jean-Marie (M)	Doctorat	Chargé de Recherche	Géochimie marine; Interaction solides-liquides; Modélisation
<b>Nguyen</b> , Dan (M)		Maître de Conférences	Hydrodynamique; Modélisation
<b>Rosset</b> , Marie (Mme)		Maître de Conférences	Biologie marine
<b>Sioud</b> , Khaled (M)	DEA	Stagiaire	Géochimie marine
<b>Thomas</b> , Alain J (M)		Maître de Conférences	Géochimie marine; Radionuclides artificiels
<b>Yoon</b> , Yi Yong (M)	DEA	Assistant	Géochimie marine

**Institut Français de Recherche et d'Exploitation de la Mer  
Département Milieu et Ressources (IFREMER)**

Centre de Nantes  
Rue de l'Île d'Yeu  
Boîte Postale 1049  
Nantes 44700 Cedex 1  
FRANCE

**Téléphone** (33) 40 374000  
**Télex** 711196  
**Téléfax** (33) 40 374073



## FRANCE

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**Directeur** M. Claude J L ALZIEU, Directeur de Département

Organisme gouvernemental, national créé en 1985. Langues de travail: Français

**Nature des activités** Recherche; Information, vulgarisation

**Objectifs/mandat** Promouvoir et développer les recherches nécessaires à l'exploitation et la protection des ressources marines

**Domaines ou disciplines scientifiques/activités** Chimie marine et géochimie; Méthodologie analytique; Métaux lourds; Composés organiques (hydrocarbures halogènes, hydrocarbures pétroliers, etc.); Dépôts; Matière en suspension; Biomasse; Biologie marine et écologie; Phytoplancton; Floraison du plancton; Mollusques; Crustacés; Biochimie marine; Toxicologie; Surveillance continue et/ou évaluation; Pollution; Evaluation de l'impact sur l'environnement;

**Environnements** Eaux saumâtres; Zones côtières; Zones littorales; Estuaires

**Zones géographiques** Mer Méditerranée; Golfe du Lion; Océan Atlantique; Manche

### Programmes/projets de recherche

- Efflorescences phytoplanctoniques toxiques
- Surveillance (contamination chimique-effets biologiques)
- Contamination par le cadmium (géochimie diagénèse précoce)
- Spéciation du mercure en milieu estuarien
- Flux de contaminants (pesticides, métaux)

### Programmes de recherche menés en coopération

- MAST, Communauté Européenne: Flux de métaux en Manche
- PNUE/MED POL: Flux de pesticides (triazines) en Méditerranée

**Personnel** Scientifique 12; Technique 14; Autre 3

### Moyens d'information

**Publications** Participation aux revues IFREMER: "Equinoxe", "Aquatic Living Resources"; Rapports techniques

**Bibliothèque** 37000 volumes/tirés à part; 980 périodiques **Programmes/projets de coopération**  
Bibliothèques d'universités, du CNRS et de l'étranger **Bibliothécaire**  
Mme Michèle l'Excellent

**Ordinateurs** 12 micro-ordinateurs **Applications** Comptabilité, planification financière; Communications; Gestion de bases de données; Graphiques; Scientifique; Statistiques; Traitement de texte

**Installations** 1400 m<sup>2</sup>

**Laboratoires** 1300 m<sup>2</sup>; climatisés **Equipements de laboratoire** Spectrophotomètres d'absorption atomique; Chromatographes en phase gazeuse; Chromatographes liquide haute pression; Salles de culture; Microscopes; Coulter counter; Analyse d'image **Espèces entretenues** Prorocentrum lima; Prorocentrum micans; Alexandrium tamarense; A. minutum; Dunaliella tertiolecta; Tetraselmis suecica; Skeletonema costatum; Chaetoceros gracile; Phaeodactylum tricornutum; Tigriopus brevicornis

**Bateaux/embarcations de recherche** 1 embarcation légère; Navires IFREMER

**Possibilités d'accueil** pour 5 étudiants **Installations pour conférences/séminaires** pour 200 personnes

### Personnel scientifique

Nom	Diplôme	Fonction	Spécialité
Alzieu, Claude J L (M)		Directeur	
Boutier, Bernard (M)	Ingénieur	Chercheur	Agronomie; Géochimie; Métaux; Sédiments
Chiffolleau, Jean-François (M)	DEST	Chercheur	Productions agroalimentaires; Géochimie; Métaux
Cossa, Daniel (M)	Doctorat	Chercheur	Géochimie; Mercure (spéciation)
Gonzales, Jean-Louis (M)	DEA	Boursier	Diagénèse des métaux; Cadmium; Mercure
Michel, Pierre (M)	Ingénieur	Chef de Laboratoire	Chimie; Géochimie; Arsenic; Organoétains
Thibaud, Yves (M)	Doctorat	Chercheur	Contamination par les métaux; Mercure
Tronczynski, Jacek (M)	Doctorat	Chercheur	Géochimie; Polluants organiques

### Institut Français de Recherche pour l'Exploitation de la Mer (IFREMER)

155 Rue Jean-Jacques Rousseau  
Issy les Moulineaux 92138 Cedex  
FRANCE

**Téléphone** (33) 1 46482100  
**Télex** 631912  
**Téléfax** (33) 1 46482248

**Directeur** M. Pierre PAPON, Président/Directeur Général

Organisme gouvernemental, national créé en 1984. Langues de travail: Français

# FRANCE

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## **Nature des activités** Recherche

**Objectifs/mandat** Recherche fondamentale et appliquée; Développement technologique et industriel appliqués à la mise en valeur et à l'exploitation des océans

**Domaines ou disciplines scientifiques/activités** Océanographie physique; Instruments et méthodes; Masses d'eau et circulation; Courants et dispersion; Interaction air/mer; Vagues, marées, houles et niveau de la mer; Modélisation; Chimie marine et géochimie; Méthodologie analytique; Substances nutritives; Métaux lourds; Composés organiques (hydrocarbures halogènes, hydrocarbures pétroliers, etc.); Dépôts; Eaux; Matière en suspension; Biomasse; Géologie marine et géophysique; Topographie et morphologie; Sédimentologie; Sismologie; Biologie marine et écologie; Phytoplancton; Zooplancton; Benthos; Poissons; Algues; Eutrophisation; Floraison du plancton; Mollusques; Crustacés; Physiologie marine; Biochimie marine; Microbiologie marine; Parasitologie; Pathologie des espèces marines; Toxicologie; Productivité; Etudes des communautés et populations; Pêches; Aquaculture; Gestion de l'environnement marin; Surveillance continue et/ou évaluation; Gestion des zones côtières; Pollution; Evaluation de l'impact sur l'environnement; Assistance marine; Technologie marine; Télédétection; Politique pour les océans/Droit de la Mer; Gestion des ressources; Ressources minérales

**Environnements** Zones côtières; Environnement pélagique; Environnement benthique; Zones littorales; Lagunes; Estuaires

**Zones géographiques** Mer Méditerranée; Golfe du Lion; Océan Atlantique; Océan Pacifique

## **Programmes/projets de recherche**

- Océanographie physique et dynamique
- Océanographie biologique pélagique et benthique
- Géosciences marines
- Environnement littoral
- Aquaculture et pêche
- Technologie marine
- Télédétection

## **Programmes de recherche menés en coopération**

- Projet HALIOS lancé en 1988 dans le cadre de la procédure EUREKA
- Programmes pluriannuels en coopération internationale et européenne

## **Programmes de formation/enseignement**

- Cours de formation relatifs à l'introduction de programmes de l'Institut
- Formation aux nouvelles technologies et nouveaux programmes pour le personnel

**Personnel** Scientifique 591; Technique 625

## **Moyens d'information**

**Publications** Rapports annuels/revues; Rapports techniques

**Bibliothèque** 40000 volumes/tirés à part; 400 périodiques **Programmes/projets de coopération**  
Divers **Bibliothécaire** M. R Piboubes; Mme M L'Excellent

**Ordinateurs** Ordinateurs (Bull DSP/7000, CDC 992); Réseau de station de travail SUN  
**Applications** Comptabilité, planification financière; Communications; Gestion de bases de données; Publication assistée par ordinateur; Génie maritime; Système d'information géographique ("GIS"); Graphiques; Bibliothèque/documentation; Cartes; Modélisation; Télématic; Gestion de projet; Scientifique; Statistiques; Traitement de texte **Echange de données** Divers

### Installations

**Equipements de laboratoire** Matériels de laboratoire et de mesure à la mer

**Bateaux/embarcations de recherche** 9 navires dont "L'Atalante", "Nereis" et "Nop"; 2 submersibles

**Installations pour conférences/séminaires** disponibles

### Personnel scientifique

Nom	Diplôme	Fonction	Spécialité
Cailliau, Etienne (M)	Ingénieur	Directeur des Recherches Océaniques	Océanographie hauturière et côtière
De Loof, Jean-Pierre (M)	Ingénieur	Directeur de l'Ingénierie, de la Technologie et de l'Informatique	Développements technologiques; Instrumentation scientifique
Fontana, André (M)	Doctorat	Directeur des Ressources Vivantes	Océanographie biologique; Pêche et aquaculture
Girard, Dominique (M)	Ingénieur	Directeur des Opérations et Moyens Navals	
Grizel, Henri (M)	Doctorat	Directeur d'Objectifs	Substances et biotechnologies marines; Valorisation des substances et biotechnologies marines
Herrouin, Guy (M)	Ingénieur	Directeur d'Objectifs	Intervention sous marine
Jarmache, Elie (M)	Doctorat	Directeur d'Objectifs	Etudes juridiques et socio-économie de la mer
Laubier, Lucien (M)	Doctorat	Directeur	Relations et coopération internationales
Madelain, François (M)	Doctorat	Directeur d'Objectifs	Environnement et aménagement littoral
Massoud, Zaher (M)	Doctorat	Directeur Scientifique	
Merckelbagh, Alain (M)	Ingénieur	Directeur de l'Environnement et de l'Aménagement Littoral	Océanographie côtière
Papon, Pierre (M)		President/Directeur Général	
Voituriez, Bruno (M)	Doctorat	Directeur d'Objectifs	Programmes internationaux géosphères

## FRANCE

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### **Institut Français de Recherche pour l'Exploitation de la Mer Service "Environnement Méditerranéen" Centre de Toulon-La-Seyne (IFREMER)**

Zone Portuaire de Brégaillon  
Boîte Postale 330  
La Seyne-sur-Mer 83507  
FRANCE

**Téléphone** (33) 94 304800  
(33) 94 304902  
**Télex** 400662  
**Téléfax** (33) 94 301372

**Directeur** M. Louis Alexandre ROMANA, Chercheur Scientifique

Organisme gouvernemental, national créé en 1985. Langues de travail: Français; Anglais; Italien; Espagnol

**Nature des activités** Recherche; Laboratoire; Information, vulgarisation

**Objectifs/mandat** Recherche finalisée pour l'acquisition de connaissances de base et le développement d'outils scientifiques nécessaires à l'élaboration des réponses aux problèmes d'environnement

**Domaines ou disciplines scientifiques/activités** Océanographie physique; Masses d'eau et circulation; Courants et dispersion; Modélisation; Chimie marine et géochimie; Dépôts; Eaux; Matière en suspension; Biomasse; Topographie et morphologie; Sédimentologie; Eutrophisation; Mollusques; Surveillance continue et/ou évaluation; Gestion des zones côtières; Evaluation de l'impact sur l'environnement; Technologie marine; Politique de développement et planification; Prévision et remèdes aux catastrophes; Gestion des ressources; Aménagement du territoire; Suivi et surveillance de sites de rejet de grandes métropoles; Impact des rejets urbains dans le cadre de projets d'assainissement; Qualité des eaux lagunaires (eutrophisation-prolifération végétales)

**Environnements** Eaux saumâtres; Zones côtières; Environnement pélagique; Environnement benthique; Zones littorales; Iles; Estuaires

**Zones géographiques** Mer Méditerranée; Golfe du Lion; Océan Atlantique

#### **Programmes/projets de recherche**

- Programme pluridisciplinaire appliqué à la problématique méditerranéenne des dépôts particuliers contaminés issus de grandes métropoles et d'élevages conchylicoles intensifs
- Modélisation de la qualité de l'eau (en estuaire notamment)

#### **Programmes de recherche menés en coopération**

- Italie/Espagne/Grèce/Tunisie: Toxicologie
- Modélisation hydrodynamique
- Pollution marine

**Programmes de formation/enseignement**

- Cours-DUST Environnement/DEA Génie Environnement Accueil de Stagiaires: Sujets divers
- Thésards: Boursiers en modélisation mathématique et qualité des eaux

**Personnel** Scientifique 8; Technique 4; Autre 4

**Moyens d'information**

**Publications** Rapport annuel; Revue "Equinoxe"; Nombreuses publications scientifiques et techniques. Thèmes principaux: Rejets urbains, lagunes côtières, grands estuaires

**Bibliothèque** 150 volumes/tirés à part; 4 périodiques **Programmes/projets de coopération** Centre de documentation centralisé IFREMER de Brest **Bibliothécaire** Mme Bernadette Berthe

**Ordinateurs** 1 ordinateur scientifique CYBER; Réseau de stations de travail SUN; Plusieurs PC **Applications** Comptabilité, planification financière; Gestion de bases de données; Graphiques; Bibliothèque/documentation; Mathématique; Cartes; Modélisation; Scientifique; Statistiques; Traitement de texte **Echange de données** Communications par le réseau TRANSPAC; Bandes (1600 BPI); Disquettes DOS

**Installations** 300 m<sup>2</sup>

**Laboratoires** 400 m<sup>2</sup> **Equipements de laboratoire** Analyseur CNS; Fluorimètre; Mesure DBO; Salinomètre BECKMAN; Sondes multiparamètres; Station météorologique ANDERAA; Turbidimètre; Coulter-counter; Tamiseuse; Calcimètre BERNARD; Courantomètres; Chaînes de thermistances; Pièges à sédiment

**Bateaux/embarcations de recherche** Bateaux de toutes tailles pour investigations de différents milieux et outils sous-marins

**Possibilités d'accueil** pour 2 scientifiques extérieurs; 2 étudiants **Installations pour conférences/séminaires** pour 30 participants

**Personnel scientifique**

Nom	Diplôme	Fonction	Spécialité
Arnal, Olivier (M)	DEA	Chercheur	Océanographie environnement; Qualité du milieu marin; Pollution; Effets biologiques
Denis, Jacques (M)		Ingénieur	Pollution marine; Technologie de lutte
Desious-Paoli, Jean-Marc (M)	Thèse 3ème cycle	Chercheur	Océanographie biologique et environnement; Qualité du milieu marin; Ecophysiologie
Landrein, Sonia (Mme)	Thèse Université	Chercheur	Océanographie biologique et environnement; Hydrobiologie
Loarer, Ronan (M)	DEA	Chercheur	Littoral; Sédimentologie
Pichot, Paul (M)	Licence	Chercheur	Océanographie biologique et environnement; Qualité du milieu marin

## FRANCE

Nom	Diplôme	Fonction	Spécialité
Romana, Louis Alexandre (M)	Doctorat	Chercheur/Directeur	Océanographie environnement; Protection et gestion de l'environnement marin côtier; Modélisation
Thouvenin, Bénédicte (Mme)	Thèse 3ème cycle	Chercheur	Océanographie physique et qualité de l'eau; Modélisation hydrodynamique et qualité de l'eau
Tournier, Henri (M)	Licence	Chercheur	Océanographie biologique et environnement; Hydrobiologie

### Institut Français du Pétrole (IFP)

1 et 4, Avenue de Bois Préau  
Boîte Postale 311  
Rueil-Malmaison 92506  
FRANCE

**Téléphone** (33) 1 47490214  
**Télex** IFP A 203050 F  
**Téléfax** (33) 1 47490411

**Directeur** M. Pierre JACQUARD, Directeur Général

Organisme para-public créé en 1944. Langues de travail: Français

**Nature des activités** Recherche; Enseignement (universitaire)

**Objectifs/mandat** Recherches et études pour le développement des connaissances scientifiques et techniques industrielles concernant le pétrole, ses dérivés et substituts; Documentation des pouvoirs publics, des scientifiques et des entreprises sur ces connaissances et techniques

**Domaines ou disciplines scientifiques/activités** Chimie marine et géochimie; Méthodologie analytique; Métaux lourds; Composés organiques (hydrocarbures halogènes, hydrocarbures pétroliers, etc.); Dépôts; Matière en suspension; Géologie marine et géophysique; Sédimentologie; Sismologie; Télédétection; Ressources énergétiques; Assistance au CEDRE (Centre de Documentation de Recherche et d'Expérimentations sur les pollutions accidentelles des eaux); Mise à disposition de matériel d'analyse pour contrôle des pollutions marines et continentales; Assistance aux Pouvoirs Publics (conseils, expertises)

#### Programmes/projets de recherche

- Prévention de la pollution (épuration des effluents, moteurs propres, etc.)
- Restauration du milieu pollué (dispersants, produits tensio-actifs)

**Programmes de recherche menés en coopération**

- Conventions pluriannuelles bilatérales, associations à partenariat multiple, consortiums scientifiques avec de nombreux pays d'Amérique Latine et du Nord, d'Asie du Sud-Est et du Moyen-Orient
- Projets multilatéraux soutenus par la CEE

**Programmes de formation/enseignement**

- Formation d'ingénieurs dans le cadre de l'Ecole nationale Supérieure du Pétrole, formation permanente et stages dans les directions de recherche

**Personnel** Scientifique 6; Technique 15; Autre 4

**Moyens d'information**

**Publications** Revue de l'IFP; "Profils IFP"; "Cedigaz News Report"; "Le gaz naturel dans le monde"; Livres, thèses et actes de colloques publics chaque année par les éditions Technio de l'IFP

**Bibliothèque** 10000 volumes/tirés à part; 100 périodiques **Programmes/projets de coopération**  
Divers **Bibliothécaire** Mme Anne Girard

**Ordinateurs** Ordinateur DEC Vax Cray **Applications** Comptabilité, planification financière; Enseignement; Bibliothèque/documentation; Mathématique; Modélisation; Gestion de projet; Scientifique; Traitement de texte

**Installations**

**Installations pour conférences/séminaires** disponibles

**Personnel scientifique**

Nom	Diplôme	Fonction	Spécialité
<b>Bratu</b> , Christian (M)	Ingénieur	Directeur de Recherche	Production en mer; systèmes polyphasiques
<b>Fail</b> , Jean-Pierre (M)	Ingénieur Civil des Mines	Directeur de Division	Géophysique; Sismique marine
<b>Jacquard</b> , Pierre (M)		Directeur Général	
<b>Molin</b> , Bernard (M)	Docteur Ingénieur	Ingénieur de recherche principal	Hydrodynamique navale
<b>Montadert</b> , Lucien (M)	Ingénieur ENSPM	Directeur Exploration	Géologie marine
<b>Pelet</b> , Régis (M)	Ingénieur Civil des Mines	Conseiller Scientifique	Géochimie organique marine



## FRANCE

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### **Institut National de la Santé et de la Recherche Médicale**

#### **"Mer et Santé"**

#### **Unité Associée au CNRS 303 (INSERM)**

La Darse  
Boîte Postale 3  
Villefranche-sur-Mer 06230  
FRANCE

**Téléphone** (33) 93 763870

**Téléfax** (33) 93 763877

**Directeur** Professeur Simone PUISEUX-DAO, Directeur Unité INSERM 303

Organisme gouvernemental, national. Langues de travail: Français

**Nature des activités** Recherche; Enseignement (universitaire)

**Objectifs/mandat** Recherche en rapport avec la santé humaine

**Domaines ou disciplines scientifiques/activités** Métaux lourds; Phytoplancton; Zooplancton; Poissons; Algues; Mollusques; Biochimie marine; Microbiologie marine; Toxicologie; Pollution; Toxines marines; Polluants minéraux en milieu marin; Microorganismes pathogènes en milieu marin

**Environnements** Zones côtières; Environnement pélagique; Environnement benthique; Zones littorales; Estuaires

**Zones géographiques** Mer Méditerranée; Mer de Ligurie; Mer Tyrrhénienne; Océan Atlantique

#### **Programmes/projets de recherche**

- Thèmes toxicologiques et écotoxicologiques: Développement de nouveaux antifongiques (agrochimie, aquaculture, santé humaine), anticancéreux, immunomodulateurs
- Participation aux programmes nationaux et internationaux sur les phycotoxines (épidémiologie, mode d'action des toxines)
- Participation à des campagnes en mer soit pour la récolte de nouveaux producteurs de substances actives, soit pour des études "in situ" sur la pollution (recherche de marqueurs de stress toxique)
- Thèmes microbiologie marine: Connaissance des mécanismes de résistance des bactéries pathogènes dans l'environnement marin. Amélioration des méthodes de détection et dénombrement dans les eaux et coquillages par méthodes moléculaires

#### **Programmes de recherche menés en coopération**

- UA-CNRS 651/Université de Nice: Modèles toxicologiques: cytotoxicité, embryotoxicité (oursin, algues, cellules animales en culture) et promotion des cancers (poisson)

#### **Programmes de formation/enseignement**

- DEA de Toxicologie option "Environnement" à l'Université Paris 7
- DEA d'Océanologie de l'Université de Marseille

**Personnel** Scientifique 11; Technique 4; Autre 3

**Moyens d'information**

**Publications** Rapports annuels/revues; Rapports techniques

**Bibliothèque** 15 périodiques **Programmes/projets de coopération** Bibliothèque Université de Nice; Observatoire Océanologique de Villefranche/Mer; Musée de Monaco; INIST CNRS (Plan National)

**Ordinateurs** Divers **Applications** Comptabilité, planification financière; Gestion de bases de données; Publication assistée par ordinateur; Graphiques; Statistiques; Traitement de texte

**Installations** 485 m<sup>2</sup>

**Equipements de laboratoire** Analyse chimique: HPLC, AAS, FAAS, DPASV; Centrifugeuses réfrigérées; Ultracentrifugeuse; Hottes à flux laminaires; Etuves régulées; Four microondes programmable; Polarographe; Spectroscopie d'absorption atomique; Matériel de plongée **Espèces entretenues** 60 souches de phytoplancton marin en culture (algorithme); Cellules animales (fibroblastes BHK, 3T3); Bactéries marines et entériques

**Bateaux/embarcations de recherche** Utilisation possible du N.O. "Korotneff" de l'Observatoire Océanologique de Villefranche/Mer

**Possibilités d'accueil** pour 5 scientifiques extérieurs; 5 étudiants **Logement** Dans le cadre de l'Observatoire Océanologique de Villefranche/Mer

**Personnel scientifique**

Nom	Diplôme	Fonction	Spécialité
Dubreuil, Alain (M)	DEA	Chargé de Recherche	Biologie cellulaire; Toxicologie
Durand-Clément, Monique (Mme)	Thèse 3ème cycle	Chargée de Recherche	Toxines marines; Toxicologie
Flatau, Gilles (M)	Doctorat	Chargé de Recherche	Microbiologie; Bactériologie marine
Gauthier, Michel (M)	Doctorat	Directeur de Recherche	Microbiologie; Bactériologie marine
Gnassia-Barelli, Mauricette (Mme)	Doctorat 3ème cycle	Chargée de Recherche	Polluants minéraux; Toxicologie; Pollution; Environnement
Mallea, Monique (Mme)	Doctorat	Chargée de Recherche	Biologie; Mycologie
Munro, Patrick (M)	Doctorat	Chargé de Recherche	Microbiologie; Bactériologie marine
Pesando, Danielle (Mme)	Doctorat	Chargée de Recherche	Biochimie; Toxicologie marine
Pietri, Chantal (Mme)	Thèse Université	Chargée de Recherche	Virologie; Virologie marine
Puiseux-Dao, Simone (Mme)	Professeur	Directeur de l'Unité 303	Toxicologie
Roméo, Michèle (Mme)	Doctorat	Chargée de Recherche	Polluants minéraux; Toxicologie; Pollution; Environnement

## FRANCE

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### **Ministère de l'Environnement Laboratoire Régional du Ministère de la Santé Laboratoire Municipal**

6 Avenue François Cuzin  
Toulon 83000  
FRANCE

**Téléphone** (33) 94 363230

**Directeur** Dr Sylvie CAMPENIO, Directeur

Organisme gouvernemental, local créé en 1889. Langues de travail: Français

**Nature des activités** Laboratoire

**Objectifs/mandat** Analyse de l'eau des divers milieux aquatiques

**Domaines ou disciplines scientifiques/activités** Métaux lourds; Composés organiques (hydrocarbures halogènes, hydrocarbures pétroliers, etc.); Eaux; Matière en suspension; Microbiologie marine; Surveillance continue et/ou évaluation; Pollution; Loisirs/tourisme; Essentiellement d'analyses d'eau, qu'il s'agisse: D'eaux douces destinées à la consommation humaine; D'eaux "récréatives": rivières, lacs, piscines; D'eau de mer-contrôle de la salubrité des zones de baignade; De rejets: stations d'épuration, rejets industriels; Eaux thermales-eaux minérales

**Environnements** Lacs; Zones côtières; Rivières; Zones littorales; Iles

**Zones géographiques** Mer Méditerranée

#### **Programmes/projets de recherche**

- Essai de mise en place d'un protocole d'analyse pour les eaux de mer (Commission "eau"-Bruxelles)

#### **Programmes de recherche menés en coopération**

- Participation à différentes commissions-de l'AFNOR en particulier-sur les Légionella
- Etudes menées au sein de l'association des Directeurs de Laboratoires Régionaux
- Etudes menées par le Ministère de la Santé

**Personnel** Scientifique 7; Technique 7; Autre 17

#### **Moyens d'information**

**Publications** Rapports annuels aux organismes de tutelle

**Bibliothèque** 300 volumes/tirés à part; 30 périodiques **Programmes/projets de coopération**  
Réseau OREDIC

**Installations** 1000 m<sup>2</sup>

**Laboratoires** climatisés

**Personnel scientifique**

Nom	Diplôme	Fonction	Spécialité
<b>Augras</b> , Gérard (M)	Doctorat	Assistant	Chimie
<b>Belaude</b> , Bérengère (Mme)	Doctorat	Assistant	Biologie; Bactériologie
<b>Binet</b> , Françoise (Mme)		Assistante	Bactériologie
<b>Campenio</b> , Sylvie (Mme)	Doctorat	Directeur	
<b>Fretton</b> , Robert (M)	Maîtrise	Assistant	Bactériologie
<b>Medail</b> , André (M)	Doctorat	Chef de Travaux	Bactériologie

**Muséum National d'Histoire Naturelle**  
**Centre National d'Etude des Mammifères Marins**  
**Département Outre-Mer (CNEMM-DOM)**

55 Rue de Buffon  
Paris 75005  
FRANCE

**Téléphone** (33) 1 40793298  
**Télex** 202641 MUSNAHN F  
**Téléfax** (33) 1 40793484

**Directeur** Professeur Daniel ROBINEAU, Directeur

Organisme gouvernemental, national créé en 1982. Langues de travail: Français

**Nature des activités** Recherche; Formation spécialisée

**Objectifs/mandat** Etude des mammifères marins

**Domaines ou disciplines scientifiques/activités** Mammifères marins; Gestion des ressources;

**Environnements** Zones côtières; Environnement pélagique

**Zones géographiques** Bassin algéro-provençal; Océan Indien

**Programmes/projets de recherche**

- Recherches sur les cétacés de l'océan Indien
- Etude du tissu osseux des mammifères marins

**Programmes de recherche menés en coopération**

- Université d'Oran: Recherches sur les mammifères marins des côtes d'Algérie

**Personnel** Scientifique 2

## FRANCE

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### Moyens d'information

**Bibliothèque** 500 volumes/tirés à part; 4 périodiques **Programmes/projets de coopération**  
Bibliothèque Central du Muséum National d'Histoire Naturelle

**Ordinateurs** 2 PC **Applications** Gestion de bases de données; Scientifique; Traitement de texte

**Installations** 100 m<sup>2</sup>

**Equipements de laboratoire** Radiographie; Microtomes; Microscopes

**Possibilités d'accueil** pour 1 scientifique extérieur; 1 étudiant

### Personnel scientifique

Nom	Diplôme	Fonction	Spécialité
De Buffrénil, Vivian (M)	Doctorat	Enseignant Chercheur	Tissu osseux des mammifères marins
Robineau, Daniel (M)	Doctorat	Directeur	Anatomie; Systématique; Biologie; Ecologie des mammifères marins

### Muséum National d'Histoire Naturelle Ichthyologie Générale et Appliquée (MNHN-IGA)

43 Rue Cuvier  
Paris 75231 Cedex 5  
FRANCE

**Téléphone** (33) 1 4079  
**Télex** 202641 MUSNAHN F  
**Téléfax** (33) 1 40793484  
**Courrier électr.** (BITNET) HUREAURMNH11

**Directeur** Professeur Roland BILLARD, Directeur du Laboratoire

Organisme gouvernemental, national créé en 1635. Langues de travail: Français

**Nature des activités** Recherche; Enseignement (universitaire); Information, vulgarisation

**Objectifs/mandat** Recherche dans les domaines suivants: le poisson dans les écosystèmes; le poisson dans l'évolution des vertébrés; le poisson comme ressource

**Domaines ou disciplines scientifiques/activités** Biologie marine et écologie; Zooplancton; Poissons; Taxinomie et systématiques; Etudes des communautés et populations; Pêches; Gestion de l'environnement marin; Conservation et/ou régénération des ressources naturelles; Gestion des ressources

**Environnements** Lacs; Eaux saumâtres; Zones côtières; Environnement pélagique; Environnement benthique; Rivières; Lagunes; Récifs coralliens/atolls; Iles

**Zones géographiques** Mer Méditerranée; Océan Atlantique; Antarctique

#### **Programmes/projets de recherche**

- Ecophases juvéniles et facteurs de l'environnement, structure des peuplements dans les systèmes fluviaux, dynamique des populations, systématique moléculaire, cytogénétique

#### **Programmes de recherche menés en coopération**

- Programmes de diversité génétique des poissons:
- PEDALO
- BIOMASS
- CCAMLR
- EPOS
- EASIZ
- ICOKER
- COPEC

#### **Programmes de formation/enseignement**

- DEA "Océanographie Biologique" de l'Université Paris 6
- "Evolution et Biodiversité chez les Métazoaires" (Université Paris &, Museum et Paris 11)

**Personnel** Scientifique 29; Technique 11

#### **Moyens d'information**

**Publications** "CYBIUM" ISSN 0399-0974; Revue Européenne d'Ichtyologie (trimestrielle)

**Bibliothèque** 5000 volumes/tirés à part; 275 périodiques **Programmes/projets de coopération** Catalogue Collectif National (CCN); Catalogue Collectif du Muséum (en liaison avec la Bibliothèque Centrale); Catalogue Collectif International (OCLC) **Bibliothécaire** Mme Françoise Nadot

**Ordinateurs** 9 micro-ordinateurs Apple Macintosh; 10 PC **Applications** Communications; Gestion de bases de données; Graphiques; Bibliothèque/documentation; Mathématique; Télématique; Scientifique; Statistiques; Traitement de texte **Echange de données** Communication par le réseau BITNET

**Installations** 1000 m<sup>2</sup>

**Laboratoires** 600 m<sup>2</sup> **Equipements de laboratoire** Atelier de séquençage de gènes; Electrophorèse; Matériel pour cytogénétique; Matériel informatique **Aquariums** 7x4 m<sup>3</sup> **Espèces entretenues** Cyprinus carpio

**Possibilités d'accueil** pour 3 scientifiques extérieurs; 3 étudiants **Installations pour conférences/séminaires** pour 15-20 participants

## FRANCE

### Personnel scientifique

Nom	Diplôme	Fonction	Spécialité
<b>Bataille-Benguigui, M C (Mme)</b>	DEA	Assistante	Ethnologie des pêches; Pêches dans le Pacifique
<b>Baumann, E (Mme)</b>	DEA	Chargée de Recherche ORSTOM	Ethnoscience; Populations humaines et ressources
<b>Billard, R (M)</b>	Doctorat	Professeur/Directeur	Reproduction poissons eaux douces; Motilité des spermatozoïdes
<b>Dingerkus, G (M)</b>	PhD	Maître de Conférences	Hydrobiologie; Systématique des poissons d'eau douce
<b>Duhamel, G (M)</b>	Doctorat	Professeur/Sous-Directeur	Océanographie biologique; Dynamique des populations de poissons marins
<b>Galgani, François (M)</b>	Doctorat	Chercheur	Biochimie; Biomarqueurs; Biologie moléculaire; Ecotoxicologie
<b>Geistdoerfer, A (Mme)</b>	Doctorat	Chargée de Recherche au CNRS	Ethnoscience; Relations pêcheurs, poissons marins
<b>Geistdoerfer, P (M)</b>	Doctorat	Directeur de Recherche au CNRS	Océanographie biologique; Poissons des grandes profondeurs
<b>Goy, J (Mme)</b>	Doctorat 3ème cycle	Maître de Conférences	Océanographie biologique; Etude des méduses en Méditerranée
<b>Hureau, J C (M)</b>	Doctorat	Professeur/Sous-Directeur	Océanographie biologique; Systématique des poissons marins
<b>Koubbi, P (M)</b>	DEA	Allocataire de Recherche	Océanographie biologique; Ichtyoplancton
<b>Lassus, Patrick (M)</b>	Doctorat 3ème cycle	Chef de Laboratoire	Phytoplancton; Dinoflagellés toxiques
<b>Le Baut, Claire (Mme)</b>	Maîtrise	Chercheur	Phytoplancton; Biotoxines
<b>Lecointre, G (M)</b>	DEA	Assistant	Ichtyologie; Séquences de DNA chez les Perciformes
<b>Meniger-Desoutter, M (Mme)</b>	DEA	Assistante	Ichtyologie; Systématique des Soléidés
<b>Morlaix, Martine (Mme)</b>	DEA	Boursière	Phytoplancton; Dinoflagellés toxiques
<b>Oberdorff, T (M)</b>	DEA	Allocataire de Recherche	Hydrobiologie; Structure des peuplements de poissons d'eau douce
<b>Rausch de Traubenberg, Catherine (Mme)</b>	DEA	Boursière	Microbiologie; Phytoplancton; Biotoxines
<b>Sevrin-Reyssac, J (Mme)</b>	Doctorat	Chargée de Recherche au CNRS	Hydrobiologie; Influence des facteurs de l'environnement sur les peuplements de poissons

**Observatoire Océanologique de Banyuls-sur-Mer**  
**Laboratoire Arago**  
**Unité Associée au CNRS 117**

Banyuls-sur-Mer 66650  
FRANCE

**Téléphone** (33) 68 880040  
**Télex** ARAGOB 502020  
**Téléfax** (33) 68 881699

**Directeur** M. Alain GUILLE, Directeur

Organisme gouvernemental, national créé en 1882. Langues de travail: Français

**Nature des activités** Recherche; Laboratoire; Enseignement (universitaire)

**Objectifs/mandat** Enseignement, recherche et accueil en océanologie

**Domaines ou disciplines scientifiques/activités** Substances nutritives; Phytoplancton; Zooplancton; Benthos; Algues; Floraison du plancton; Mollusques; Crustacés; Biochimie marine; Microbiologie marine; Taxinomie et systématiques; Productivité; Etudes des communautés et populations; Evaluation de l'impact sur l'environnement; Océanographie biologique; Ecologie terrestre et marine; Biologie cellulaire et moléculaire

**Environnements** Eaux saumâtres; Zones côtières; Environnement pélagique; Environnement benthique; Zones littorales

**Zones géographiques** Mer Méditerranée; Mer d'Alboran; Mer des Baléares; Golfe du Lion; Mer de Ligurie; Océan Atlantique; Antarctique

**Programmes/projets de recherche**

- Processus biologiques dans les flux de matières océaniques
- Stratégies de reproduction et de dispersion des populations marines et terrestres
- Taxonomie, phylogénie et évolution
- Structure du génome, biologie du développement

**Programmes de recherche menés en coopération**

- JGOFS

**Programmes de formation/enseignement**

- DEA "Océanographie biologique", maîtrise

**Personnel** Scientifique 34; Technique 61; Autre 8

**Moyens d'information**

**Publications** Revue "Vie et Milieu" (trimestrielle); Faune marine des Pyrénées Orientales; Faune terrestre et d'eau douce des Pyrénées Orientales; Fascicules à thèmes; Suppléments périodiques



## FRANCE

**Bibliothèque** 50000 volumes/tirés à part; 2100 périodiques **Programmes/projets de coopération** Bibliothèques universitaires ou spécialisées en France et à l'étranger **Bibliothécaire** Marie-Thérèse Panouse

**Ordinateurs** 30 micro-ordinateurs Apple Macintosh; 20 PC (PC-286, and PC-386); 4 imprimantes laser; 30 imprimantes (aiguilles et jet d'encre); 1 traceur A4; 2 numériseurs **Applications** Comptabilité, planification financière; Communications; Gestion de bases de données; Publication assistée par ordinateur; Enseignement; Graphiques; Bibliothèque/documentation; Mathématique; Modélisation; Scientifique; Statistiques; Traitement de texte **Echange de données** Communications par le réseau TRANSPAC

**Installations** 6820 m<sup>2</sup>

**Laboratoires** 1900 m<sup>2</sup> **Equipements de laboratoire** Cytofluorimètre Brücker ACR 1000; Autoanalyseur Technicon; Gaydyser tricarb; Ultramicrotomes; Cryo-ultramicrotome; Appareil à point critique; Métaliseur; Microscope électronique (Hitachi H600/3); Microscopes photoniques; Analyse d'image; HPLC; Electrophorèse; Chromatographie gaz; Spectrophotomètre; Spectrofluorimètre; Ultracentrifugeuses; Lyophilisateur; Compteur à scintillations liquide; Plongée: 2 professionnels, compresseur 220 bars **Aquariums** 36 **Visiteurs** 60000 annuels **Espèces entretenues** 12 espèces de Diatomophyceae; 7 Dinophyceae; 4 Prymnesiophyceae; 2 Cryptophyceae; 3 Chlorophyceae; 2 Prasinophyceae; 1 Raphidophyceae; 1 Cyanophyceae; Amphioxus; Astropecten aranciatus; Marthasterias glacialis; Sphaerechinus granularis; Sepia officinalis; Octopus vulgaris; Eupolyornia Nebulosa

**Bateaux/embarcations de recherche** "Prof. George Petit", 20 m, 6 équipages et 16 scientifiques; "Néréis", 12 m, 4 équipages et 12 scientifiques; "Ruffi II", 7 m, 2 équipages et 2 scientifiques; Equipement classique de navires océanographiques et chalut bennes, dragues, filets à plancton, bathysonde

**Possibilités d'accueil** pour 14 scientifiques extérieurs; 62 étudiants **Installations pour conférences/séminaires** pour 80 participants **Logement** pour 40-80 personnes

### Personnel scientifique

Nom	Diplôme	Fonction	Spécialité
Amouroux, J Michel (M)	Doctorat	CR-1	Benthos; Approche expérimentale et modélisation transferts dans écosystèmes littoraux
Bhaud, Michel (M)	Doctorat	DR-2	Plancton larvaire; Etude de l'environnement physique sur le recrutement du plancton larvaire
Bhaud, Yvonne (Mme)	Doctorat	CR-1	Biologie cellulaire; Cycle cellulaire des dinoflagellés
Binche, Françoise (Mme)	Doctorat	DR-2	Symbiose des acariens; Incendies de forêts
Bodiou, J Yves (M)	DEA	MC-1	Ecologie benthique; Meiobenthos copépodes harpacticoïdes

Nom	Diplôme	Fonction	Spécialité
<b>Boletzky</b> , Sigurd (M)	Doctorat	CR-1	Zoologie; Biologie; Biologie du développement des céphalopodes
<b>Boutiere</b> , Henri (M)	DES	MC-1	Biologie lagunaire; Ichthyologie
<b>Cahet</b> , Guy (M)	Doctorat	MC-1	Océanographie biologique; Ecologie microbienne; Biogéochimie
<b>Coineau</b> , Nicole (Mme)	Doctorat	DR-2	Faune intersticielle; Evolution phylogénie et écologie
<b>De Bovee</b> , Francis (M)	Doctorat	CR-1	Benthos; Méibenthos; Nématofaune
<b>Dinet</b> , Alain (M)	Doctorat	CR-1	Benthos; Biologie et écologie benthos abyssal, particulièrement de la méiofaune
<b>Dinet</b> , M Jose (Mme)	Doctorat	CR-1	Phytoplancton; Systématique et écologie du phytoplancton, groupes nemoplanctoniques
<b>Duchene</b> , J Claude (M)	Doctorat	CR-1	Benthos larvaire; Formation précoce des populations benthiques en relation avec l'environnement
<b>Feral</b> , J Pierre (M)	Doctorat	DR-2	Diversité biologique et évolution; Phylogénie moléculaire des invertébrés marins
<b>Fiala</b> , Aline (Mme)	Doctorat	MC-1	Benthos; Biologie et physiologie de la macrofaune abyssale
<b>Fiala</b> , Michel (M)	Doctorat	CR-1	Phytoplancton; Structure du phytoplancton océanique
<b>Fons</b> , Roger (M)	Doctorat	CR-1	Biologie évolutive; Ecologie parasitaire; Micromammifères
<b>Garrigues</b> , A Marie (Mme)	Doctorat	CR-1	Biologie cellulaire et moléculaire; Etude de la régulation du cycle cellulaire chez les eucaryotes
<b>Giraud</b> , M Madeleine (Mme)		MC-1	Etude du cytosquelette; Assemblages cristallins liquides du collagène
<b>Gremare</b> , Antoine (M)	Doctorat	CR-1	Réseau trophique benthique; Nutrition des dépositivores
<b>Gros</b> , Chantal (Mme)		CR-1	Phytoplancton; Voie de fixation du carbone par le phytoplancton et autres communautés végétales
<b>Guille</b> , Alain (M)		Directeur	
<b>Jacques</b> , Guy (M)		DR-1	Productivité primaire; Fonctionnement écosystème pélagique, notamment antarctique

## FRANCE

Nom	Diplôme	Fonction	Spécialité
<b>Knoepffler</b> , Michèle (Mme)	Doctorat	MC-1	Phytobenthos; Ecologie des algues benthiques en milieu littoral
<b>Lafargue</b> , Françoise (Mme)		CR-1	
<b>Lebaron</b> , Philippe (M)	Doctorat	MC-2	Microbiologie
<b>Marthy</b> , Jurg (M)	Doctorat	CR-1	Biologie du développement; Embryologie cellulaire
<b>Neveua</b> , Jacques (M)	Doctorat	CR-1	Océanographie biologique; Phytoplancton/production primaire, pigments
<b>Picard</b> , André (M)	Doctorat	DR-2	Biologie cellulaire et moléculaire; Etude de la régulation du cycle cellulaire chez les eucaryotes
<b>Prodon</b> , Roger (M)	Doctorat	MC-1	Ecologie terrestre; Dynamique des écosystèmes terrestres
<b>Razouls</b> , Claude (M)	Doctorat	MC-1	Zooplancton; Systématique et répartition des copépodes
<b>Razouls</b> , Syzanne (Mme)	Doctorat	CR-1	Zooplancton; Métabolisme; Reproduction du zooplancton
<b>Riaua</b> , Catherine (Mme)	Doctorat	CR-1	Océanographie biologique; Microphytobenthos
<b>Soyer</b> , M Odile (Mme)	Doctorat	DR-1	Biologie cellulaire; Dinoflagellés
<b>Trave</b> , Joseph (M)		DR-1	Ecologie terrestre; Systématique des acariens

### Observatoire Océanologique de Villefranche-sur-Mer

*Organismes de rattachement: Université Pierre et Marie Curie (Paris VI)  
(CNRS-INSU)*

Boîte Postale 28  
Villefranche-sur-Mer 06230  
FRANCE

**Téléphone** (33) 93 763890  
**Téléfax** (33) 93 763893

**Directeur** M. Jacques SOYER, Directeur

Organisme gouvernemental, national créé en 1885. Langues de travail: Français

**Nature des activités** Recherche; Enseignement (universitaire)

**Objectifs/mandat** Recherche et enseignement

**Domaines ou disciplines scientifiques/activités** Océanographie physique; Instruments et méthodes; Masses d'eau et circulation; Courants et dispersion; Modélisation; Chimie marine et géochimie; Méthodologie analytique; Substances nutritives; Métaux lourds; Matière en suspension; Biomasse; Géologie marine et géophysique; Topographie et morphologie; Sismologie; Biologie marine et écologie; Phytoplancton; Zooplancton; Benthos; Algues; Floraison du plancton; Mollusques; Crustacés; Biochimie marine; Toxicologie; Taxinomie et systématiques; Etudes des communautés et populations; Météorologie marine et climatologie; Surveillance continue et/ou évaluation; Télédétection; Etude de la marge continentale et de l'océan; Physique et chimie marines; Ecologie du plancton; Océanographie biochimique et écologie; Biologie cellulaire marine

**Environnements** Environnement pélagique; Environnement benthique; Zones littorales; Iles

**Zones géographiques** Mer Méditerranée; Mer d'Alboran; Bassin algéro-provençal; Golfe du Lion; Mer de Ligurie; Détroit de Sicile; Détroit de Gibraltar; Mer Tyrrhénienne; Océan Atlantique; Mer Rouge

### Programmes/projets de recherche

- Etude de la marge continentale et de l'océan: Riftogénèse et mouvements de la lithosphère, marges transformantes, messages sédimentaires et morphologiques, convergence-collision-inversion structurale
- Physique et chimie marines: Cycle du CO<sub>2</sub> dans l'océan, chimie et biochimie organiques marines, modélisation des cycles géochimiques, rayonnement et océan, fronts géostrophiques, circulation et production primaire
- Ecologie du plancton: Structure de l'écosystème pélagique, distribution spatiale, régulation de la production, fluctuations à long terme, analyse des séries temporelles, modélisation
- Océanographie biochimique et écologie: Liaison océanographie biochimique et géochimie, analyse des causes biologiques de la variabilité et de la plasticité des écosystèmes marins; Flux interface eau-sédiment (marge continentale); Relations flux de matière et activités biologiques benthiques et pélagiques; Dynamique de populations-modélisation; Génétique des populations naturelles et exploitées; Cytogénétique, polymorphisme enzymatique et moléculaire des mollusques pélagiques et benthiques
- Biologie cellulaire marine: Biologie du développement (Ascidies, Oursins, Beroe)-fécondation et ségrégation ooplasmique-régulation des gènes au cours du développement; Motilité cellulaire (Dinoflagellés, Acanthaires); Evolution et phylogénie (ARN ribosomique)

### Programmes de recherche menés en coopération

- ODP
- IST
- DBT
- ECORS
- JGOFS-France
- EROS 2000
- PNEDC
- PNDR
- EPOS

### Programmes de formation/enseignement

- Enseignement lié aux programmes de l'université Pierre et Marie Curie (Paris 6). Deux stages inter-universitaires
- Biologie marine méditerranéenne
- Analyse de données en écologie
- Accueil de stages d'autres universités françaises et étrangères

## FRANCE

**Personnel** Scientifique 50; Technique 71; Autre 30

### Moyens d'information

**Publications** Recueil des publications effectuées par les chercheurs de l'Observatoire

**Bibliothèque** 7300 volumes/tirés à part; 250 périodiques **Programmes/projets de coopération**  
Divers **Bibliothécaire** Mme Martine Fioroni

**Ordinateurs** Ordinateurs (HP 9000/835, HP 9000-370, 2 HP 1000, HP 9360); Plusieurs ordinateurs (IBM compatibles, Compaq, HP, et Apple Macintosh) **Applications** Comptabilité, planification financière; Enseignement; Bibliothèque/documentation; Modélisation; Scientifique; Traitement de texte

**Installations** 6910 m<sup>2</sup>

**Equipements de laboratoire** Equipement classique pour l'océanographie physique et chimique (sondes multiparamétriques, préleveurs d'échantillons); Matériel d'hydrologie et de prélèvements (bouteilles Niskin et Go Flow, Isaackid, filet pompe, filet multi-nappes Bioness, filets à plancton divers); Matériel de prélèvements de sédiment (carottier Kullenberg, bennes Flucha et Shipack Techmation); Equipement sismique haute résolution-flûte, canon à air pour sismique monotrace; Appareils spécialisés pour la mesure à diverses profondeurs des propriétés optiques et de la lumière solaire résiduelle; SHET (sonde poisson pour mesures en continu des paramètres chimiques et physiques); Service de microscopie électronique (cryofactures, coupes, ombrage rotatif, congélation rapide); Service de microscopie optique (fluorescence, vidéoscopie, traitement d'images); Laboratoire de manipulations des radio-isotopes (flux et marquage); Laboratoire d'électrophysiologie (microélectrodes, cellules perfusées, patch clamp); Laboratoire de biologie moléculaire (clonage, biochimie des protéines); Laboratoire de chimie pour la mesure du CO<sub>2</sub> et des éléments métalliques "traces" (spectrophotomètres, absorption atomique, voltampérémètre); Salles d'analyses des sels nutritifs et des particules (chromatographes en phase gazeuse, autoanalyseurs Technicon, CHN, HPLC, spectrophotomètres, fluorimètres Turner, compteurs de particules HIAC et Coulter); Chambres froides et fraîches; Salles de cultures d'algues **Espèces entretenues** En fonction des recherches en cours

**Bateaux/embarcations de recherche** "Catherine Laurence", 21 m (dragage, carottage, études sismiques); "Korotneff", 19.7 m (hydrologie, pêche pélagique, bathysonde); "Sagitta", 10 m; "Veille", 8 m; 1 Zodiac

**Possibilités d'accueil** pour 25 étudiants **Logement** Dortoir et 12 chambres

### Personnel scientifique

Nom	Diplôme	Fonction	Spécialité
Andersen, Valérie (Mme)	Doctorat 3ème cycle	Chargée de Recherche	Ecologie du plancton; Modélisation
Bellaiche, Gilbert (M)	Doctorat	Directeur de Recherche	Etude de la marge continentale
Beslier, Marie-Odile (Mme)	Doctorat	Chargée de Recherche	Etude de la marge continentale
Bethoux, Jean-Pierre (M)	Doctorat	Directeur de Recherche	Physique et chimie marines; Rayonnement et océan
Boillot, Annie (Mme)	Doctorat	Maître de Conférences	Biologie cellulaire marine; Développement
Boillot, Gilbert (M)	Doctorat	Professeur	Etude de la marge continentale

Nom	Diplôme	Fonction	Spécialité
<b>Braconnot</b> , Jean-Claude (M)	Doctorat	Chargé de Recherche	Ecologie du plancton
<b>Bricaud</b> , Annick (Mme)	Doctorat	Chargée de Recherche	Physique et chimie marines; Rayonnement et océan
<b>Cachon</b> , Monique (Mme)	Doctorat	Directeur de Recherche	Biologie cellulaire marine
<b>Carlotti</b> , François (M)	Doctorat	Chargé de Recherche	Ecologie du plancton; Modélisation
<b>Carre</b> , Claude (M)	Doctorat 3ème cycle	Maître de Conférence	Ecologie du plancton
<b>Carre</b> , Danièle (Mme)	Doctorat	Directeur de Recherche	Biologie cellulaire marine; Développement
<b>Christen</b> , Richard (M)	Doctorat	Directeur de Recherche	Biologie cellulaire marine; Evolution
<b>Claustre</b> , Hervé (M)	Doctorat	Chargé de Recherche	Physique et chimie marines
<b>Copin-Montegut</b> , Claire (Mme)	Doctorat	Chargée de Recherche	Physique et chimie marine; Cycle du CO <sub>2</sub>
<b>Copin-Montegut</b> , Gérard (M)	Doctorat	Maître de Conférences	Physique et chimie marines; Cycle géochimiques
<b>Cosson</b> , Jacky (M)	Doctorat	Chargé de Recherche	Biologie cellulaire marine; Motilité
<b>Cuzin</b> , Janine (Mme)	Doctorat	Maître de Conférence	Biologie; Physiologie; Ecologie; Crustacés
<b>Dallot</b> , Serge (M)	Doctorat 3ème cycle	Maître de Conférences	Ecologie du plancton marin
<b>Deverchere</b> , Jacques (M)	Doctorat	Maître de Conférences	Etude de la marge continentale
<b>Droz</b> , Laurence (Mme)	Doctorat	Chargée de Recherche	Etude marge continentale
<b>Febvre</b> , Colette (Mme)	Doctorat	Maître de Conférences	Biologie cellulaire marine; Motilité
<b>Febvre</b> , Jean (M)	Doctorat	Maître de Conférences	Biologie cellulaire marine; Motilité
<b>Gostan</b> , Jacques (M)	Doctorat	Directeur de Recherche	Ecologie du plancton marin
<b>Goudeau</b> , Henri (M)	Doctorat	Professeur	Biologie cellulaire marine; Développement
<b>Goudeau</b> , Marie (Mme)	Doctorat	Professeur	Biologie cellulaire marine; Développement
<b>Guidi</b> , Laurence (Mme)	Doctorat 3ème cycle	Chargée de Recherche	Benthologie
<b>Huitorel</b> , Philippe (M)	Doctorat	Chargé de Recherche	Biologie cellulaire marine; Motilité
<b>Ibanez</b> , Frédéric (M)	Doctorat	Maître de Conférences	Ecologie du plancton marin; Modélisation
<b>Labat</b> , Jean-Philippe (M)	Doctorat	Maître de Conférences	Crustacés; Modélisation
<b>Laval</b> , Philippe (M)	Doctorat	Chargé de Recherche	Ecologie du plancton marin
<b>Lemoine</b> , Marcel (M)	Doctorat	Directeur de Recherche	Etude de la marge continentale

## FRANCE

Nom	Diplôme	Fonction	Spécialité
<b>Lepage</b> , Thierry (M)	Doctorat	Chargé de Recherche	Biologie cellulaire marine
<b>Marty</b> , Jean-Claude (M)	Doctorat	Directeur de Recherche	Physique et chimie marines; Cycles géochimiques
<b>Mascle</b> , Jean (M)	Doctorat	Directeur de Recherche	Etude de la marge continentale
<b>Mayzaud</b> , Patrick (M)	Doctorat	Directeur de Recherche	Océanographie biochimique
<b>Michaud</b> , François (M)	DEA	Maître de Conférences	Etude de la marge continentale
<b>Migon</b> , Claude (M)	Doctorat	Maître de Conférences	Physique et chimie marines
<b>Morel</b> , André (M)	Doctorat	Professeur	Physique et chimie marines; Rayonnement et océan
<b>Nival</b> , Paul (M)	Doctorat	Professeur	Ecologie du plancton; Modélisation
<b>Prieur</b> , Louis (M)	Doctorat	Directeur de Recherche	Physique et chimie marines; Fronts géostrophiques, circulation et production primaire
<b>Rassoulzadegan</b> , Ferreidoun (M)	Doctorat	Directeur de Recherche	Ecologie du plancton; Boucle microbienne
<b>Royer</b> , Jean-Yves (M)	Doctorat	Chargé de Recherche	Etude de la marge continentale
<b>Sardet</b> , Christian (M)	Doctorat	Directeur de Recherche	Biologie cellulaire marine
<b>Sardou</b> , Jacques (M)	Doctorat 3ème cycle	Maître de Conférences	Ecologie du plancton marin
<b>Sciandra</b> , Antoine (M)	Doctorat	Chargé de Recherche	Ecologie du plancton marin; Modélisation
<b>Soyer</b> , Jacques (M)	Doctorat	Professeur/Directeur	Benthos
<b>Thiriou</b> , Catherine (Mme)	Doctorat	Directeur de Recherche	Génétique bivalves
<b>Turin</b> , Luca (M)	Doctorat	Chargé de Recherche	Biologie cellulaire marine

### Programme des Nations Unies pour l'Environnement Département Industrie et Environnement (PNUE-DIE)

*United Nations Environment Programme  
Industry and Environment Office (UNEP-IEO)*

Tour Mirabeau  
39/43 Quai André Citroën  
Paris 75739 Cedex 15  
FRANCE

**Téléphone** (33) 1 40588850  
**Télex** 204997 UNITERA F  
**Télégrammes** UNITERRA PARIS  
**Téléfax** (33) 1 40588874

**Directeur** Mme Jacqueline ALOISI DE LARDEREL, Directeur

Organisation des Nations Unies créé en 1975. Langues de travail: Français; Anglais

**Objectifs/mandat** Prévenir les accidents technologiques et leurs conséquences en incitant les responsables et les spécialistes à améliorer l'information de la population sur les risques industriels et à préparer des plans d'urgence

**Domaines ou disciplines scientifiques/activités** Gestion de l'environnement marin; Pollution; Conservation et/ou régénération des ressources naturelles; Evaluation de l'impact sur l'environnement; Economies de l'environnement; Education relative à l'environnement; Politique de développement et planification; Loisirs/tourisme; Prévision et remèdes aux catastrophes; Gestion des ressources; Ressources minérales; Ressources énergétiques; Les programmes APELL; Produire Plus Propre; Gestion des déchets dangereux; Publication de documentation technique; Favoriser l'utilisation des technologies propres et sûres; Stimuler les échanges d'information et d'expérience; Encourager la prise en compte des critères d'environnement dans les plans et projets de développement industriel

#### **Programmes de formation/enseignement**

- Sessions de formation ou séminaires APELL pour des participants de haut niveau avec présentation du programme et d'études de cas

**Personnel** Technique 10; Autre 9

#### **Moyens d'information**

**Publications** Rapport annuel; Revue trimestrielle "Industry and Environment"; Bulletins semestriels "Produire Plus Propre" et "APELL"; UNEP/IEO Technical Reports Series; Des manuels ont été publiés en anglais, espagnol et français

**Bibliothèque** 12000 volumes/tirés à part; 248 périodiques **Programmes/projets de coopération** Divers avec d'autres bibliothèques **Bibliothécaire** M. Benyoucef Megherbi

**Ordinateurs** 1 mini-ordinateur Wang OIS 40; PC (1 Memorex-286, 6 Compaq-286); Imprimantes (1 Memorex 2824, 2 OKI Microlinc 390, 1 QMS 820, 1 Kyocera F1000, 1 Imprimante Wang DW/05-55)

**Applications** Gestion de bases de données; Bibliothèque/documentation; Traitement de texte

**Echange de données** PC disquettes 5.25"(HD)/3.5"(HD)

**Installations** 320 m<sup>2</sup>

### **Station de Recherches Sous-Marins et Océanographiques (STARESO S.A.)**

Pointe de la Revellata  
Boîte Postale 33  
Calvi 20260  
FRANCE

**Téléphone** (33) 95 650618

**Téléfax** (33) 95 650134



## FRANCE

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**Directeur** M. Daniel BAY, Directeur

Organisme privé (commercial) créé en 1965. Langues de travail: Français; Anglais

**Nature des activités** Recherche; Formation spécialisée; Laboratoire; Enseignement (universitaire); Information, vulgarisation

**Objectifs/mandat** Recherche scientifique fondamentale et appliquée, pédagogie, activité commerciale

**Domaines ou disciplines scientifiques/activités** Océanographie physique; Masses d'eau et circulation; Courants et dispersion; Interaction air/mer; Vagues, marées, houles et niveau de la mer; Métaux lourds; Sédimentologie; Formation des côtes et franges côtières; Phytoplancton; Zooplancton; Benthos; Poissons; Algues; Microbiologie marine; Productivité; Etudes des communautés et populations; Pêches; Gestion de l'environnement marin; Gestion des zones côtières; Pollution; Conservation et/ou régénération des ressources naturelles; Evaluation de l'impact sur l'environnement; Education relative à l'environnement; Loisirs/tourisme; Etudes impacts sur l'environnement: Ouvrages d'art en mer; Emissaire; Recul de plage bilans écologiques; Courantologie; Bactériologie

**Environnements** Eaux saumâtres; Zones côtières; Environnement benthique; Zones littorales; Iles

**Zones géographiques** Mer Méditerranée; Bassin algéro-provençal; Mer de Ligurie

### Programmes de recherche menés en coopération

- Cycle des carbonates
- Dynamique de l'herbier de posidonie
- Dégradation des coquilles
- Ethologie des poissons
- Bactériologie et virologie dans la colonne d'eau
- Planctologie du bassin ligure

### Programmes de formation/enseignement

- Formation plongeurs, sportifs, gestionnaires de réserves marines, moniteurs de plongée

**Personnel** Scientifique 2; Technique 5

### Moyens d'information

**Publications** 30 rapports techniques sur la période 1979-1991

**Ordinateurs** 4 IBM PCs; 3 Apple Macintosh PCs **Applications** Communications; Publication assistée par ordinateur; Génie maritime

### Installations

**Equipements de laboratoire** Compresseur humide; Compresseur de plongée; 30 équipements plongeurs; 4 véhicules; Matériel de prises de vues sous-marines; Courantomètres; 1 chaîne de thermistors; Marégraphe **Aquariums** 15x15 m<sup>3</sup>

**Bateaux/embarcations de recherche** 2 vedettes rapides, 150CV, 8 personnes; 1 Zodiac, 20CV, 4 personnes; 2 barges aluminium, 40CV, 5 personnes; 1 catamaran océanographique, 22 m, équipé pour la recherche océanographique et la plongée

**Possibilités d'accueil** pour 40 scientifiques extérieurs **Installations pour conférences/séminaires** pour 40 participants **Logement** pour plusieurs, tout confort, 1 salle de conférence

### Personnel scientifique

Nom	Diplôme	Fonction	Spécialité
Bay, Daniel (M)	Doctorat	Directeur	Océanographie; Dynamique des populations; Herbiers de posidonies
Lejeune, Pierre (M)	Doctorat	Directeur Opérationnel	Ethologie; Poissons labridés

### Université de Bordeaux I Unité Associée au CNRS 348

351 Cours de la Libération  
Talence 33405 Cedex  
FRANCE

**Téléphone** (33) 56 846305

(33) 56 848732

**Téléfax** (33) 56 846645

**Directeur** Dr Philippe Paul Louis Georges GARRIGUES, Chargé de Recherche

Organisme gouvernemental, national créé en 1974. Langues de travail: Français; Anglais

**Nature des activités** Recherche; Enseignement (universitaire)

**Objectifs/mandat** Recherche en chimie de l'environnement et océanographie

**Domaines ou disciplines scientifiques/activités** Méthodologie analytique; Métaux lourds; Composés organiques (hydrocarbures halogènes, hydrocarbures pétroliers, etc.); Dépôts; Eaux; Matière en suspension; Sédimentologie; Poissons; Mollusques; Biochimie marine; Toxicologie; Surveillance continue et/ou évaluation; Pollution; Evaluation de l'impact sur l'environnement

**Environnements** Lacs; Eaux saumâtres; Zones côtières; Environnement pélagique; Environnement benthique; Rivières; Zones littorales; Estuaires

**Zones géographiques** Mer Méditerranée; Golfe du Lion; Océan Atlantique

## FRANCE

### Programmes/projets de recherche

- Devenir des composés organiques et métalliques dans les systèmes aquatiques
- Mise au point d'une méthodologie pour l'évaluation de la qualité des eaux du littoral aquitain

### Programmes de recherche menés en coopération

- PNUE/MED POL: Etudes des composés aromatiques dans l'environnement côtier méditerranéen
- Groupe Interface Chimie Biologie des Ecosystèmes Marins (GICGEM)

### Programmes de formation/enseignement

- Université Paris VII: DEA National de Toxicologie
- Université Bordeaux I: DEA des Environnements Océaniques
- Ecole Nationale Supérieure de Chimie et Physique de Bordeaux I

**Personnel** Scientifique 10; Technique 2

### Moyens d'information

**Publications** Rapports annuels/revues; Rapports techniques

**Bibliothèque** Oui **Programmes/projets de coopération** Divers

**Ordinateurs** Divers **Applications** Gestion de bases de données; Publication assistée par ordinateur; Graphiques; Bibliothèque/documentation; Scientifique; Statistiques **Echange de données** Divers

**Installations** 90 m<sup>2</sup>

**Laboratoires** 90 m<sup>2</sup>; climatisés **Equipements de laboratoire** 1 monitair CHAS; Plongée: Bouteilles; Compresseurs; Bouteille de prélèvement in situ; Chromatographes en phase gazeuse et liquide; Absorption atomique; Spectromètre de masse

**Bateaux/embarcations de recherche** disponibles

**Possibilités d'accueil** pour 2 scientifiques extérieurs; 4 étudiants **Installations pour conférences/séminaires** pour 40 participants **Logement** disponible

### Personnel scientifique

Nom	Diplôme	Fonction	Spécialité
Donard, Olivier (M)	Doctorat	Chargé de Recherche	Océanographie; Biogéochimie; Composés organométalliques dans l'environnement marin
Garrigues, Philippe (M)	Doctorat	Chargé de Recherche	Biogéochimie marine; Toxicologie; Composés organiques biogènes et anthropiques dans l'environnement

**Université de Toulon et du Var**  
**Laboratoire de Sondages Electromagnétiques de l'Environnement Terrestre**  
**(LSEET)**

83 La Garde (F)  
Boîte Postale 132  
La Garde 83957 Cedex  
FRANCE

**Téléphone** (33) 94 082828  
**Téléfax** (33) 94 080262

**Directeur** Professeur Pierre BROCHE, Enseignant/Chercheur

Organisme gouvernemental, national créé en 1976. Langues de travail: Français

**Nature des activités** Recherche; Enseignement (universitaire)

**Objectifs/mandat** Recherche universitaire; Formation à et par la recherche

**Domaines ou disciplines scientifiques/activités** Océanographie physique; Instruments et méthodes; Masses d'eau et circulation; Courants et dispersion; Interaction air/mer; Vagues, marées, houles et niveau de la mer; Modélisation; Télédétection; Etude dynamique des décharges fluviales en mer sans marées; Télédétection par radars VHF; Télédétection spatiale par SAR; Assimilation de données dynamiques; Modélisation

**Environnements** Zones côtières; Zones littorales; Estuaires

**Zones géographiques** Mer Méditerranée; Golfe du Lion

**Programmes/projets de recherche**

- Etude des images SAR d'ERS 1

**Programmes de recherche menés en coopération**

- Participation à EROS 2000 (European River Ocean System)

**Personnel** Scientifique 7; Technique 4; Autre 5

**Moyens d'information**

**Publications** Rapports bisannuels au CNRS

**Bibliothèque** Oui **Programmes/projets de coopération** Bibliothèque de l'Université de Toulon

**Ordinateurs** Divers **Applications** Publication assistée par ordinateur; Enseignement; Graphiques; Mathématique; Modélisation; Scientifique; Statistiques; Traitement de texte

**Installations** 200 m<sup>2</sup>

**Laboratoires** 100 m<sup>2</sup> **Equipements de laboratoire** Radars VHS Cohérents

## FRANCE

**Possibilités d'accueil** pour 5 étudiants **Installations pour conférences/séminaires** pour 100 participants hors période scolaire

### Personnel scientifique

Nom	Diplôme	Fonction	Spécialité
Broche, Pierre (M)	Doctorat	Enseignant/Chercheur/ Directeur	Téledétection océanique
Caccia, Jean-Luc (M)	Doctorat	Maître de Conférences	Radar météorologie
Crochet, Michel (M)	Doctorat	Professeur	Téledétection atmosphérique
De Maistre, J Charles (M)	Doctorat	Maître de Conférences	Systèmes radars
Devenon, Jean-Luc (M)	Doctorat	Maître de Conférences	Modélisation côtière
Forget, Philippe (M)	Doctorat	Chargé de Recherche	Téledétection océanique
Hanuise, Christian (M)	Doctorat	Directeur de Recherche	Physique de l'ionosphère

### Université Montpellier II Sciences et Techniques Laboratoire d'Ichthyologie

Place E. Bataillon  
Montpellier 34095 Cedex 5  
FRANCE

**Téléphone** (33) 67 143616  
**Télex** 490944 F  
**Téléfax** (33) 67 543079

**Directeur** Professeur Jean-Pierre QUIGNARD, Directeur

Organisme gouvernemental, national créé en 1975. Langues de travail: Français

**Nature des activités** Recherche; Enseignement (universitaire)

**Objectifs/mandat** Ichthyologie; Biologie des populations; Stratégies et tactiques adaptatives; Pêche, gestion, conservation des espèces

**Domaines ou disciplines scientifiques/activités** Biologie marine et écologie; Poissons; Etudes des communautés et populations; Pêches; Biologie des populations de certains Téléostéens; Systématique écologie et biologie des sélaciens

**Environnements** Eaux saumâtres; Zones littorales

**Zones géographiques** Mer Méditerranée; Golfe du Lion

**Programmes/projets de recherche**

- Biologie des populations des poissons lagunaires sédentaires et migrateurs
- Age et croissance: Techniques d'étude
- Stratégie et tactiques de la reproduction chez les Téléostéens et Sélaciens

**Programmes de recherche menés en coopération**

- Ministère Education, Tunisie/Ministère Affaires Etrangères, France: Ecologie lac Ichkeul Tunisie
- Corse Ministère Environnement: Inventaire des poissons et suivi des populations dans la réserve des îles Carcales et Lavezzi
- Ministère Affaires Etrangères, France/Ministère Recherche, Yougoslavie: Atlas des poissons méditerranéens

**Programmes de formation/enseignement**

- Maîtrise: Biologie des organismes et des populations aquatiques
- DESS: Activités et aménagements littoraux et maritimes

**Personnel** Scientifique 5; Technique 2; Autre 3

**Moyens d'information**

**Publications** Rapports annuels/revues; Rapports techniques

**Bibliothèque** Oui

**Ordinateurs** 2 micro-ordinateurs Apple Macintosh SE; 1 PC (Zenith); 1 imprimante laser; 1 scanner

**Applications** Gestion de bases de données; Enseignement; Graphiques; Bibliothèque/documentation; Scientifique; Statistiques; Traitement de texte

**Installations** 500 m<sup>2</sup>

**Laboratoires** 500 m<sup>2</sup> **Equipements de laboratoire** 3 Loupes binoculaires Wild avec prise de vues et chambre claire; 1 Microscope Leitz; 2 Trébuchets sartorius; 1 Balance Mettler; 1 Balance Precisa; 2 Equipements de plongée, filets de pêche, etc. **Aquariums** 6 **Espèces entretenues** Lipophrys pavo; Pomatoschistus microps; Pomatoschistus minutus; Syngnathus abaster

**Bateaux/embarcations de recherche** 1 Chalutier "G. Petit" pour l'ensemble de la côte méditerranéenne française

**Possibilités d'accueil** pour 2 scientifiques extérieurs; 2 étudiants **Installations pour conférences/séminaires** au niveau de l'Université **Logement** au niveau de l'Université

**Personnel scientifique**

Nom	Diplôme	Fonction	Spécialité
Bouchereau, Jean-Claude (M)	Doctorat	Maître de Conférence	Biologie marine et lagunaire; Ichthyologie (Téléostéens, Gobiidés)
Capapé, Christian (M)	Doctorat	Maître de Conférence	Biologie marine; Ichthyologie (Sélaciens)

## FRANCE

Nom	Diplôme	Fonction	Spécialité
Joyeux, (M)	Doctorat	Chercheur	Biologie marine et lagunaire; Ichthyologie (Téléostéens, Gobiidés)
Quignard, Jean-Pierre (M)	Doctorat	Professeur/Directeur	Biologie marine et lagunaire; Ichthyologie (Sélaciens, Téléostéens)
Ruchon, François (M)	Doctorat	Chercheur	Biologie marine et lagunaire; Ichthyologie (Téléostéens, Blenniidés)
Tomasini, Jean-Antoine (M)	Doctorat	Maître de Conférence	Biologie marine et lagunaire; Ichthyologie (Téléostéens, Syngnathidés)
Trabelsi, Monia (Mme)	Doctorat	Assistante	Biologie marine et lagunaire; Ichthyologie (Athérinidés)

### Université Paris Laboratoire de Physico-Chimie de l'Atmosphère Unité de Physico-Chimie de l'Atmosphère (LPCA)

2 Place Jussieu  
LPCA - Tour 44.45, 5ème étage  
Paris 75251 Cedex 5  
FRANCE

**Téléphone** (33) 1 44273640  
**Téléfax** (33) 1 44275709

**Directeur** Dr Gérard MOUVIER, Professeur

Organisme gouvernemental, national créé en 1970. Langues de travail: Français; Anglais

**Nature des activités** Recherche; Laboratoire; Enseignement (universitaire)

**Objectifs/mandat** Recherche fondamentale

**Domaines ou disciplines scientifiques/activités** Instruments et méthodes; Interaction air/mer; Substances nutritives; Métaux lourds; Dépôts; Pollution; Evaluation de l'impact sur l'environnement; Apports atmosphériques à la Méditerranée Occidentale (DYFAMED); Apports atmosphériques à l'Atlantique Tropical Nord; Chimie des masses d'air Atlantique

**Environnements** Iles

**Zones géographiques** Mer Méditerranée; Mer de Ligurie; Océan Atlantique

**Programmes/projets de recherche**

- Géochimie des apports atmosphériques à la Méditerranée Occidentale (DYFAMED)
- Retombée de poussières désertiques sur l'Atlantique Tropical Nord
- Chimie des masses d'air atlantique (OCEANO NOX)

**Programmes de recherche menés en coopération**

- Programme Franco-Germano-Britannique: OCEANO NOX
- Programme copératif français: DYFAMED

**Programmes de formation/enseignement**

- DEA et formation doctorale "Chimie de la Pollution Atmosphérique et Physique de l'Environnement" (3ème cycle)
- Formation continue en environnement et analyse

**Personnel** Scientifique 10; Technique 6; Autre 10

**Moyens d'information**

**Publications** Articles scientifiques dans des revues internationales; Publication de thèses

**Bibliothèque** 300 volumes/tirés à part; 10 périodiques

**Ordinateurs** 16 PC **Applications** Comptabilité, planification financière; Gestion de bases de données; Publication assistée par ordinateur; Enseignement; Graphiques; Modélisation; Gestion de projet; Scientifique; Statistiques; Traitement de texte

**Installations** 800 m<sup>2</sup>

**Laboratoires** 500 m<sup>2</sup> **Equipements de laboratoire** Appareils d'analyses: Absorption atomique; XRF; Chromatographie; Polarographie; Salle dépoussiérée

**Possibilités d'accueil** pour 3 scientifiques extérieurs; 10 étudiants **Installations pour conférences/séminaires** pour 20 participants

**Personnel scientifique**

Nom	Diplôme	Fonction	Spécialité
Bergametti, Gilles (M)	Doctorat	Chercheur CNRS	Chimie atmosphère; Géochimie des aérosols
Carlier, Patrick (M)	Doctorat	Chercheur CNRS	Chimie atmosphère; Réactivité chimique dans l'atmosphère
Colin, Jean-Louis (M)	Doctorat	Maître de Conférence	Chimie atmosphère; Chimie des précipitations
Fresnet, Paul (M)	Doctorat	Maître de Conférence	Chimie analytique; Chimie chromatographie
Losno, Rémi (M)	Doctorat	Maître de Conférence	Chimie atmosphère; Chimie des précipitations



## FRANCE

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Nom	Diplôme	Fonction	Spécialité
<b>Mouvier</b> , Gérard (M)	Doctorat	Professeur/Directeur	Chimie atmosphère; Réactivité chimique dans l'atmosphère
<b>Quisefit</b> , Jean-Paul (M)	Doctorat	Maître de Conférence	Chimie analytique; XRF
<b>Steiner</b> , Effroim (M)	Doctorat 3ème cycle	Maître de Conférence	Chimie analytique; Traitement informatique

# GREECE

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**Aristotelian University of Thessaloniki**  
**Chemistry Department**  
**Environmental Pollution Control Laboratory**  
*Aristotelio Panepistimio Thessalonikis*  
*Tmima Chimias*  
*Ergastirio Elenchou Rypansis Perivallondos*

Thessaloniki 54006  
GREECE

**Telephone** (30) 31 991483  
**Telex** 412181 AUTH GR  
**Fax** (30) 31 206138

**Executive officer** Dr Themistokles A KOUIMTZIS, Professor

Governmental, national institution founded in 1925. Languages: Greek; English

**Nature of activities** Research; Laboratory; Academic/educational

**Purpose and objectives** Education; Basic and applied research

**Areas of speciality/activities** Analytical methodology; Nutrients; Heavy metals; Organics (halogenated hydrocarbons, petroleum hydrocarbons, etc); Sediments; Waters; Suspended matter; Assistance to the government in the establishment of quality standards for waters disposed into the Thermaikos Gulf and other developed areas of marine resources

**Environments** Lakes; Coastal zone; Rivers; Estuaries

**Geographic areas** Aegean Sea

## **Research programmes/projects**

- Chemical characterization of underground and surface water
- Heavy metals in marine organisms, seawater and sediments

## **Co-operative research programmes/projects**

- Eutrophication modelling of the Thermaikos Gulf

## **Training programmes**

- Course work and research leading to PhD in water pollution control

**Staff** Professional 5; Technical 2; Other 5

## **Information facilities**

**Library** 4 periodicals **Co-operative programmes/projects** Various

## GREECE

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**Computers** Various **Applications** Accounting/financial planning; Graphics; Library/documentation; Scientific; Statistical; Word processing

**Physical facilities** 600 m<sup>2</sup>

**Laboratories** 400 m<sup>2</sup>

**Facilities** for 2 visiting scientists; 4 students

### Professional/Scientific staff

Name	Degree	Position	Specialization
<b>Fytianos</b> , Constantinos (Mr)	PhD	Associate Professor	Environmental chemistry; Marine chemistry
<b>Kouimtzis</b> , Themistokles (Mr)	PhD	Professor/Executive Officer	Environmental chemistry; Analytical methodology; Nutrients; Heavy metals; Organics; Sediments; Waters; Suspended matter
<b>Misailides</b> , Panagiotis (Mr)	PhD	Associate Professor	Radiochemistry; Radioactivity
<b>Samara</b> , Constantini (Ms)	PhD	Lecturer	Environmental chemistry; Analytical methodology; Nutrients; Heavy metals; Sediments; Waters; Suspended matter
<b>Zoumpoulis</b> , Anastasios (Mr)	PhD	Lecturer	Chemical technology; Water treatment

### Aristotelian University of Thessaloniki

#### School of Biology

#### Department of Zoology

*Aristotelio Panepistimio Thessalonikis*

*Tmima Viologias*

*Tomeas Zoologias*

P.O. Box 134  
Thessaloniki 54006  
GREECE

**Telephone** (30) 31 991426

**Telex** 412181

**Fax** (30) 31 206138

**Executive officer** Dr Panos S ECONOMIDES, Professor

Governmental, national institution founded in 1928. Languages: Greek; English; French

**Nature of activities** Research; Academic/educational

**Purpose and objectives** Research in marine pollution, systematics and zoogeography of marine invertebrates and fishes, benthic ecology and marine zooplankton

**Areas of speciality/activities** Marine biology and ecology; Zooplankton; Benthos; Fish; Eutrophication; Molluscs; Crustaceans; Marine birds; Taxonomy and systematics; Productivity; Community and population studies; Fisheries; Aquaculture

**Environments** Lakes; Brackishwater; Coastal zone; Pelagic environment; Benthic environment; Littoral zone; Lagoons; Islands; Estuaries

**Geographic areas** Mediterranean Sea; Aegean Sea; Ionian Sea

#### Research programmes/projects

- Study of the Kavala Gulf ecosystem
- Study of Porto Lago (Vistonis) estuaries

#### Co-operative research programmes/projects

- Research leading to PhD in marine biology/ichthyology

**Staff** Professional 15; Other 6

#### Information facilities

**Library** 16000 volumes/reprints; 40 periodicals

**Computers** 2 PCs; 8 Apple Macintosh **Applications** Scientific; Statistical; Word processing

**Physical facilities** 900 m<sup>2</sup>

**Laboratories** 250 m<sup>2</sup>; climate controlled **Laboratory equipment** Diving equipment for six persons

**Aquariums** 3x0.5 m<sup>3</sup>; 1x1 m<sup>3</sup>

**Research vessels/crafts** 3 boats

**Facilities** for 4 visiting scientists; 10 students

#### Professional/Scientific staff

Name	Degree	Position	Specialization
Chintiroglou, Chariton (Mr)	PhD	Assistant Professor	Marine biology; Cnidaria systematics
Economidis, Panos (Mr)	PhD	Professor/Executive Officer	Ichthyology; Systematics
Koukouras, Athanassios (Mr)	PhD	Associate Professor	Marine biology; Benthic pollution; Decapod systematics; Community structure
Sinis, Apostolos (Mr)	PhD	Assistant Professor	Ichthyology; Life cycles

## GREECE

Name	Degree	Position	Specialization
Voultsiadou-Koukoura, Eleni (Ms)	PhD	Assistant Professor	Marine biology; Sponges systematics; Community structure

**Aristotelian University of Thessaloniki**  
**School of Biology**  
**Institute of Botany**  
*Aristotelio Panepistimio Thessalonikis*  
*Tmima Viologias*  
*Ergastirio Votanikis*

P.O. Box 109  
Thessaloniki 54006  
GREECE

**Telephone** (30) 31 991402  
**Telex** 412181  
**Fax** (30) 31 206138

**Executive officer** Dr Ioannes TSEKOS, Professor

Governmental, national institution founded in 1928. Languages: Greek; English; German

**Nature of activities** Research; Academic/educational

**Purpose and objectives** Teaching and scientific research in several disciplines of general botany (cytology, morphology, anatomy, ecophysiology, cytogenetics) and in ecology, systematic phytosociology and physiology of marine and freshwater algae

**Areas of speciality/activities** Nutrients; Heavy metals; Waters; Suspended matter; Biota; Phytoplankton; Benthos; Algae; Eutrophication; Plankton blooms; Taxonomy and systematics; Productivity; Community and population studies; Pollution; Environmental education; Guidance in nature conservation; Quality control for fish processing

**Environments** Lakes; Brackishwater; Coastal zone; Pelagic environment; Benthic environment; Rivers; Estuaries

**Geographic areas** Mediterranean Sea; Aegean Sea; Ionian Sea

### Research programmes/projects

- Hellenic General Secretariat of Research and Technology: Structure, differentiation and development of red algal cell
- Hellenic Ministry of Agriculture: Qualitative and quantitative composition of phytoplankton of the north Aegean Sea

**Co-operative research programmes/projects**

- Volkswagenwerk Foundation/Zellenlehre University of Heidelberg/University of Athens, department of general botany: Cytomorphogenesis, cytoskeleton and structure of the cell
- Alexander von Humboldt Foundation/Zellenlehre University of Heidelberg: Structure and differentiation of red algal cell
- Hellenic Ministry of Agriculture/University of Thessaloniki, laboratory of zoology: Hydrobiological study of Lake Mikri Prespa

**Training programmes**

- Course work and research leading to MSc and PhD in marine botany (phycology and oceanography)

**Staff** Professional 14; Technical 5; Other 2

**Information facilities**

**Publications** Scientific papers and reports in reviewed journals

**Library** 16000 volumes/reprints; 25 periodicals **Librarian** Ms Areti Kiratzidou-Dimopoulou

**Computers** 1 IBM 4381; 1 DEC VAX 9000; 1 HP 9000; 3 PCs; 3 Apple computers (2 Macintosh Plus, 1 Macintosh IICx); Printers (1 LaserWriter, 2 Epson) **Applications** Communications; Library/documentation; Network access; Scientific; Statistical; Word processing **Data exchange** Remote access via network (BITNET); VM/CMS, VMS TK50 cartridges, ASCII text file

**Physical facilities** 900 m<sup>2</sup>

**Laboratories** 250 m<sup>2</sup>; climate controlled **Laboratory equipment** Atomic absorption spectrophotometer (Perkin Elmer); Spectrophotometers (Zeiss PM Q II and LKB); Electron microscope; Ultramicrotome **Species maintained** Tetraselmis suecica; Prorocentrum micans; Thalassiosira sp.; Coscinochicus granii; Ditylum brightwellii; Chlorogloeopsis fritschii; Plectonema boryanum; Anabaena variabilis; Chlamydomonas spp.; Microcystis spp.

**Facilities** for 5 visiting scientists; 15 students

**Professional/Scientific staff**

Name	Degree	Position	Specialization
Bosabalidis, Artemios (Mr)	PhD	Associate Professor	Anatomy and cytology of plant tissues; Development, differentiation and function
Delivopoulos, Stylianos (Mr)	PhD	Assistant Professor	Biology of marine algae; Ultrastructure, function and differentiation of algal cells
Diannelidou, Barbara (Ms)	PhD	Lecturer	Biology of marine algae; Red algae: Life cycles, ultrastructure, histo-cytochemistry
Eleftheriou, Eleftherios (Mr)	PhD	Associate Professor	Anatomy and cytology of plant tissues; Phloem structure; Plant cytoskeleton

## GREECE

Name	Degree	Position	Specialization
<b>Haritonidis</b> , Savas (Mr)	PhD	Associate Professor	Bionomy and taxonomy of marine algae; Marine algae as pollution indices
<b>Karataglis</b> , Stylianos (Mr)	PhD	Professor	Cytology; Cytotaxonomy/chemotaxonomy; Ecological and physiological aspects of heavy metal tolerance; Toxicity in plants
<b>Lanaras</b> , Thomas (Mr)	PhD	Assistant Professor	Carbon metabolism; Localisation of photosynthetic enzymes; Carbon metabolism; Photosynthetic microorganisms; Cyanobacterial toxins
<b>Malea</b> , Paraskevi (Ms)	BA	Research Fellow	Heavy metals; Accumulation of heavy metals by marine algae and sea grasses
<b>Moustaka-Gouni</b> , Maria (Ms)	PhD	Lecturer	Biology of plankton algae; Plankton ecology and taxonomy
<b>Moustakas</b> , Michael (Mr)	PhD	Lecturer	Cytogenetics and ecophysiology of Graminae; Karyotype analysis; Seed protein electrophoresis; Heavy metal tolerance
<b>Nikolaidis</b> , Georgios (Mr)	PhD	Lecturer	Biology of algae; Life cycles and ecology of marine microalgae
<b>Sawidis</b> , Thomas (Mr)	PhD	Lecturer	Anatomy and cytology of plant tissues; Fine structure and function of plant glands; Heavy metal and radionuclide uptake by plants
<b>Symeonidis</b> , Lazaros (Mr)	PhD	Assistant Professor	Cytogenetics; Chemotaxonomy; Ecophysiology of Graminae
<b>Tsekos</b> , Ioannes (Mr)	PhD	Professor/Executive Officer	Cell biology; Ecology of marine algae; Fine and supramolecular structure of algal cells

**Aristotelian University of Thessaloniki****School of Health Sciences****Laboratory of Hygiene***Aristotelio Panepistimio Thessalonikis**Tmima Epistimon Hygeias**Ergastirio Hygeias*

Thessaloniki 54006

GREECE

**Telephone** (30) 31 235841

(30) 31 991339

**Telex** 412181**Fax** (30) 31 206138**Executive officer** Professor Vassilios KATSOUYIANNOPOULOS, Director

Governmental, national institution founded in 1965. Languages: Greek; English; French

**Nature of activities** Research; Technical training; Laboratory; Academic/educational**Purpose and objectives** Training of medical students in environmental hygiene and eco-epidemiology; Research projects and routine work**Areas of speciality/activities** Heavy metals; Waters; Marine microbiology; Pollution; Environmental impact assessment; Environmental education; Development policy/planning; The Laboratory serves as adviser to the local authorities on pollution problems of fresh water and on the quality of water for bathing and coastal recreation**Environments** Lakes; Coastal zone; Rivers**Geographic areas** Mediterranean Sea; Aegean Sea**Research programmes/projects**

- Bacteriological investigation of potable water in the areas of Macedonia and Thrace
- Chemical analysis of potable water in special regions and analysis of refreshments
- Heavy metals in the waters of Thermaikos Gulf

**Co-operative research programmes/projects**

- UNEP/MED POL Phase II research project: Detection of enteric pathogens in shellfish and their relation to the presence of indicator microorganisms
- Greek Ministry of Health: Detection of *Campylobacter*, *Yersinia*, *Cryptosporidium* and *Giardia lamblia* in waters

**Training programmes**

- Eco-epidemiology, third-year medical students (four-week course)
- Bacteriology and hygiene of water, third-year medical students (four-week course)

**Staff** Professional 7; Technical 8; Other 2



## GREECE

### Information facilities

**Publications** Monographs; Technical reports

**Library** 2350 volumes/reprints; 1 periodical **Co-operative programmes/projects** University Central Library; National Documentation Centre; WHO-Regional Office for Europe **Librarian** Ms Elpiniki Kouridou

**Computers** PCs (IBM, APRICOT, SORD); 1 Laser printer **Applications** Database management; Education; Graphics; Library/documentation; Mapping; Modelling; Scientific; Statistical; Word processing **Data exchange** SPSS, BMDP, EXCEL files

**Physical facilities** 850 m<sup>2</sup>

**Laboratories** 700 m<sup>2</sup>; climate controlled **Laboratory equipment** Atomic absorption; Liquid chromatographer; Spectrometer **Species maintained** Mice; Guinea pigs

**Facilities** for 3 visiting scientists; 6 students **Conference/seminar facilities** available

### Professional/Scientific staff

Name	Degree	Position	Specialization
Delidou, Kyriaki (Ms)	MD	Assistant Professor of Hygiene	Eco-epidemiology
Gregoriadou, Anthoula (Ms)	MD	Assistant Professor of Hygiene	Environmental microbiology
Katsouyiannopoulos, Vassilios (Mr)	MD/PhD	Professor of Hygiene and Epidemiology/Director	Probability and statistics in bacteriology
Pegadas, Alkis (Mr)	MD	Lecturer	Environment pollution
Stathopoulos, George (Mr)	MD	Assistant Professor of Hygiene	Water bacteriology
Tsoumparis, Paraschos (Mr)	MD	Lecturer	Chemistry of water; Heavy metals in the environment
Vagionas, Tania (Ms)	MD	Lecturer	Water bacteriology

### Aristotelian University of Thessaloniki

#### School of Veterinary Medicine

#### Laboratory of Ecology and Protection of the Environment

*Aristotelio Panepistimio Thessalonikis*

*Tmima Ktiniatrikis*

*Ergastirio Ecologias & Prostrasias Perivallondos*

P.O. Box 404  
Thessaloniki 54006  
GREECE

**Telephone** (30) 31 991304

**Executive officer** Dr Stylianos KILIKIDIS, Professor

Governmental, national institution founded in 1980. Languages: Greek; English

**Nature of activities** Research; Laboratory; Academic/educational

**Purpose and objectives** Education in ecology, environmental protection and research

**Areas of speciality/activities** Analytical methodology; Nutrients; Organics (halogenated hydrocarbons, petroleum hydrocarbons, etc); Sediments; Waters; Suspended matter; Eutrophication; Toxicology; Monitoring and/or assessment; Coastal zone management; Pollution; Nature conservation and/or restoration; Environmental impact assessment; Environmental education; Resources management

**Environments** Lakes; Brackishwater; Coastal zone; Rivers; Lagoons; Estuaries

**Geographic areas** Mediterranean Sea; Aegean Sea

**Co-operative research programmes/projects**

- UNEP/MED POL programme

**Training programmes**

- Research leading to PhD in water pollution and water pollution management

**Staff** Professional 3; Technical 1

**Information facilities**

**Library** 100 volumes/reprints; 4 periodicals

**Computers** 1 PC (XT); Printer (IBM Proprinter X24) **Applications** Database management; Graphics; Statistical; Word processing **Data exchange** 5.25" PC diskettes; WordStar 2000+, dBase files

**Physical facilities** 200 m<sup>2</sup>

**Laboratories** 150 m<sup>2</sup> **Laboratory equipment** Gas chromatograph (Varian 3600); Polarograph (Metrophy); Spectrophotometer (Simachu); Water quality analyser (Martek); Refrigerated incubator (Forma Sci.); Oxygen-Temperature-BOD analyser (YSI); Portable water analyser (Huch) **Aquariums** 4x1.5 m<sup>3</sup>

**Facilities** for 1 visiting scientists **Conference/seminar facilities** with 4-language interpretation for 300 participants

**Professional/Scientific staff**

Name	Degree	Position	Specialization
Kamarianos, Athanasios (Mr)	PhD	Assistant Professor	Ecology; Environmental protection; Water pollution; Eutrophication

## GREECE

Name	Degree	Position	Specialization
Karamanlis, Xanthippos (Mr)	PhD	Lecturer	Ecology; Environmental protection
Kilikidis, Stylianos (Mr)	PhD	Professor/Laboratory Director	Ecology; Environmental protection

### Benaki Phytopathological Institute (BPI)

*Institut Phytopathologique Benaki*

*Benakeio Phytopathologico Istituto*

8 Delta Street, Kifissia  
Athens 14561  
GREECE

**Telephone** (30) 1 8070239

**Fax** (30) 1 8077506

**Executive officer** Dr Anna MANOUILIDIS-CHITZANIDIS, Director

Parastatal institution founded in 1929. Languages: Greek; English

**Nature of activities** Research

**Purpose and objectives** Research on plant protection problems (fungi, viruses, bacteria, non-parasitic diseases, pests, weeds, biological control, pesticides and control measures)

**Areas of speciality/activities** Nutrients; Organics (halogenated hydrocarbons, petroleum hydrocarbons, etc); Toxicology; Monitoring and/or assessment; Pollution; Determination of pesticide residues in plant and animal tissues and toxicological studies to evaluate their significance as pollutants of plant and animal life; Diagnostic work on plant pests and pathogens

**Geographic areas** Aegean Sea

#### Research programmes/projects

- Research aiming at reducing environmental pollution caused by pesticide residues and other pollutants
- Research on plant disease, pests, weeds and pesticides

**Staff** Professional 44; Technical 40; Other 28

#### Information facilities

**Publications** Annales de l'Institut Phytopathologique Benaki; Technical reports; Various

**Library** 60000 volumes/reprints; 820 periodicals **Co-operative programmes/projects** Various

**Librarian** Ms Stella Chatzimari

**Computers** PCs (4 Tulip PC, 2 IBM PC); 4 Printers (3 Star LC24/15, 1 HP Laserjet); 1 Scanner (Eizo Flexscan 8060S) **Applications** Accounting/financial planning; Communications; Database management; Graphics; Library/documentation; Scientific; Word processing **Data exchange** WordPerfect file

**Physical facilities** 20000 m<sup>2</sup>

**Laboratories** 4000 m<sup>2</sup> **Laboratory equipment** 2 microscopes; 1 GL-chromatograph Varian 3700; 1 histokinette; 1 spectrophotometer Shimatza; 1 clinical analyser **Aquariums** 17x1 m<sup>3</sup> **Species maintained** *Gambusia* sp

**Facilities** for 4 visiting scientists; 10 students

#### Professional/Scientific staff

Name	Degree	Position	Specialization
Machera, K (Ms)	PhD		Biochemistry; Toxicology; Pesticide toxicology
Manouilidis-Chitzanidis, Anna (Ms)	PhD	Director	

#### Children's Hospital "Aglaia Kyriakou"

##### Poison Control Centre

*Nosokomio Paedon "Aglaia Kyriakou"*

*Kendro Delitiriaseon*

Thivon and Levadias  
Goudi  
Athens 11527  
GREECE

**Telephone** (30) 1 7793777

**Telex** 7774127

**Executive officer** Dr Pavlos VLACHOS, Professor

Governmental, national institution founded in 1975. Languages: Greek; English

**Nature of activities** Information/public awareness

**Purpose and objectives** Poisoning: treatment, prevention, information

**Areas of speciality/activities** Toxicology; Public health

**Environments** Coastal zone

**Geographic areas** Mediterranean Sea

## GREECE

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### Co-operative research programmes/projects

- UNEP/MED POL Phase II

**Staff** Professional 2

### Information facilities

**Publications** Annual report

**Computers** Various **Applications** Statistical; Word processing

**Physical facilities** 30 m<sup>2</sup>

### Professional/Scientific staff

Name	Degree	Position	Specialization
Mermiga, Dora (Ms)	Pharmacist		
Vlachos, Pavlos (Mr)	PhD	Professor MD/Executive Officer	Clinical toxicology

## Institute of Marine Biology of Crete (IMBC)

*Instituto Thalassias Viologias Cretes*

Eleftheriou Venizelou Avenue  
P.O. Box 2214  
Iraklion 71110  
Crete  
GREECE

**Telephone** (30) 81 242022  
(30) 81 241992

**Telex** 262268 IMBC GR  
**Fax** (30) 81 241882

**Executive officer** Professor Anastasios ELEFTHERIOU

Governmental, national institution founded in 1987. Languages: English; French

**Nature of activities** Research; Technical training; Laboratory; Academic/educational; Policy and planning; Commercial; Information/public awareness

**Purpose and objectives** Promotion and co-ordination of pure applied research programmes in selected sectors of marine biology with high RND

**Areas of speciality/activities** Water masses and circulation; Nutrients; Heavy metals; Organics (halogenated hydrocarbons, petroleum hydrocarbons, etc); Sediments; Waters; Suspended matter; Biota; Phytoplankton; Zooplankton; Benthos; Fish; Algae; Eutrophication; Molluscs; Crustaceans; Marine mammals; Marine physiology; Marine microbiology; Parasitology; Pathology of marine species; Toxicology; Taxonomy and systematics; Productivity; Community and population studies; Fisheries; Aquaculture; Monitoring and/or assessment; Pollution; Environmental impact assessment; Environmental education; Remote sensing; Development policy/planning; Recreation/tourism; Disaster preparedness and relief; Resources management; Food chain studies in the continental shelf of the Aegean Sea; Stock assessment of pelagic fish resources (sardines, anchovies); Pollution studies (effects from domestic effluents, heavy metals, hydrocarbon, etc.); Studies of the deep sea ecosystem of the Greek seas; Aquaculture research in commercial species of fish

**Environments** Coastal zone; Pelagic environment; Benthic environment; Littoral zone; Islands

**Geographic areas** Mediterranean Sea; Aegean Sea; Ionian Sea; Levantine Sea

#### **Research programmes/projects**

- Pollution studies in the Cretan shelf
- Assessment of the red-coral stocks and management for its exploitation
- Study of the secondary production of the coastal areas in the Aegean
- The ecosystem of the continental shelf of Southern Aegean
- Assessment of pelagic fish resources in the Greek seas by hydroacoustic methods
- Stock assessment of the benthopelagic fish of the Cretan shelf
- Introduction of new species in marine aquaculture (red sea bream, sheepshead bream, groupers): their biology and behaviour under farming conditions

#### **Co-operative research programmes/projects**

- UNEP/MED POL: Monitoring station
- EEC MAST I (University of Hamburg/Plymouth Marine Laboratory, U.K./Helsingor Marine Laboratory/University of Copenhagen): Sulphide and methane-based ecosystems
- University of Hamburg/Seckenberg Hist. Frankfurt/University of Genova: The deep sea ecosystem of Eastern Mediterranean
- University of Crete: Hydroacoustic research of the marine environment
- IFREMER, Lyon/IMBC, Aberdeen: Development of a wide-band frequency echosounder for species identification
- IMBC, Ancona: Improvement of fish calibration techniques
- St. Mar. Biol. de Sete, Montpellier: Research on the effectiveness of the mesocosms as early larval stages of marine fish rearing system
- University L. Pasteur, Strasbourg: Comparison of 4 feeding techniques for sea bass and sea bream
- University L. Pasteur, Strasbourg: Sea bass food preferences concerning colour, size and energy content

#### **Training programmes**

- Training courses for graduates of technical colleges in the theory and practice of marine aquaculture
- Training courses for laboratory technicians and local authority employees in methodology and techniques in environmental pollution

**Staff** Professional 31; Technical 4; Other 18

# GREECE

## Information facilities

**Publications** IMBC Marine Research Reports/IMBC Marine Technical Reports, Series A: Fisheries; Series B: Marine ecology; Series C: Aquaculture

**Library** 2000 volumes/reprints; 3 periodicals **Co-operative programmes/projects** NCMR

**Computers** 2 SUN Sparc-4 workstation; Apple Macintosh computers (4 SE 30, 1 MAC II, 1 SE, 3 Classics); IBM PCs and compatibles (2 PC-386, 4 PC-AT); Apple Printers (1 Laserwriter, 4 Image Writers, 1 Image Writer LQ); Various printers (4 HP Desk Writer, 2 NEC P5, 2 IBM Proprinter, 2 HP Laserjet II, 1 HP Paintjet XL); Plotter (HP 7475A); Scanner (Apple)

**Applications** Accounting/financial planning; Communications; CAD/CAM/CAE; Database management; Desktop publishing; Education; Geographic Information Systems (GIS); Graphics; Library/documentation; LAN; Mathematical; MIS; Mapping; Modelling; Network access; Project management; Scientific; Statistical; Word processing **Data exchange** Network access (E-mail); 5.25"/3.5" PC diskettes; Excell, Atlas, dBase, Lotus 123, and ASCII text files

**Physical facilities** 3300 m<sup>2</sup>

**Laboratories** 964 m<sup>2</sup>; climate controlled **Laboratory equipment** Electronic: SBE CTD with dissolved oxygen meter; Ospray CCD camera; Benthos minirover MKII ROV; Sony U-matic recorders and editing suite; Various CCD land cameras; 2 Nikons U/W still cameras; Diving: SCUBA 6 sets and 6 qualified divers; Analytical equipment: Chemistry: PE 2400 CHN analyser; Turner fluorometer; Lumac biocounter; Beckmann DU 6 spectrophotometer; Beckmann GP centrifuge; SB4 freeze dryer; Endecott sieve shaker; Mettler AE 163 (X3) & Mettler PJ 3000 (X3) balance; Buhler SM25 shaker; Ovens; Carbolite furnace; Freezers; pH; Eh; Sulphide electrodes and meters; Water baths with immersion heaters and cooler; Micros: 18 stereoscopes; 13 compound microscopes with photomicrography **Aquariums** 64x2 m<sup>3</sup>; 51x0.5 m<sup>3</sup>; 24x10 m<sup>3</sup>; 6x33 m<sup>3</sup>; 4x60 m<sup>3</sup> **Species maintained** Sparus aurata; Dicentrachus labrax; Pagrus pagrus; Puntazzo puntazzo; Epinephelus aenus

**Research vessels/crafts** RV "Philia" (1986), 26 m, 200 ton, equipped with echosounder, trawling winch, satellite navigator system, 7 crew, accommodations for 6 scientists; RV "Niki" (1987), fishing boat, 8 m, 4 ton, equipped with echosounder, compass, radar, sailor VHF and speed log, 2 crew; Several inflatables and small launches

**Facilities** for 10 visiting scientists; 10 students **Conference/seminar facilities** for 30 participants

## Professional/Scientific staff

Name	Degree	Position	Specialization
Bazigos, George (Mr)	PhD	Consultant	Fisheries; Fishery statistics; Fishery resources; Hydroacoustic surveys
Boulet, Madone (Ms)	BS	Research Scientist	Aquaculture; Zooplankton; Phytoplankton
Charalambakis, Gregory (Mr)	MSc	Research Scientist	Aquaculture; Fish pathology
Dafnomili, Eleni (Ms)	BS	Research Assistant	Marine chemistry; Nutrients

Name	Degree	Position	Specialization
<b>Divanach</b> , Pascal (Mr)	PhD	Research Scientist	Aquaculture; Marine physiology
<b>Dounas</b> , Costas (Mr)	PhD	Research Scientist	Marine ecology; Benthic ecology
<b>Economaki</b> , Katerina (Ms)	BS	Research Assistant	Genetics; Population genetics
<b>Economou</b> , Alkiviades (Mr)	PhD	Research Scientist	Fisheries; Fisheries research
<b>Eleftheriou</b> , Anastasios (Mr)	PhD	Professor/Executive Officer	Biological oceanography; Benthic ecology
<b>Georgakarakos</b> , Efstratios (Mr)	PhD	Research Scientist	Fisheries; Hydroacoustics
<b>Godes</b> , Constantinos (Mr)	MSc	Research Scientist	Fisheries; Population dynamics
<b>Hatziathanasiou</b> , Antigoni (Ms)	BS	Research Assistant	Aquaculture; Rotifers
<b>Hughes</b> , James Alan (Mr)	BS	Research Scientist	Benthic ecology; Population studies and taxonomy
<b>Kallianotis</b> , Argyris (Mr)	BS	Research Scientist	Fisheries; Population studies
<b>Kapantagakis</b> , Argyris (Mr)	BS	Research Assistant	Fisheries; Electronic engineering
<b>Kentouri</b> , Maroudio (Ms)	PhD	Associate Professor	Aquaculture; Fish behaviour
<b>Kottoulas</b> , George (Mr)	PhD	Research Scientist	Genetics; Population genetics
<b>Leahy</b> , Yvonne (Ms)	PhD	Research Scientist	Benthic ecology; Community and population studies
<b>Magoulas</b> , Antonios (Mr)	PhD	Research Scientist	Genetics; Population genetics
<b>Pagonis</b> , Minos (Mr)	MSc	Research Scientist	Aquaculture; Broodstock and cage management
<b>Papadopoulou</b> , Konstantia Nadia (Ms)	BS	Research Scientist	Marine ecology; Benthic ecology and taxonomy
<b>Papandroulakis</b> , Nikolaos (Mr)	MSc	Research Assistant	Mathematic models; Fish growth models in aquaculture
<b>Plaiti</b> , Wanda (Ms)	BS	Research Scientist	Benthic ecology; Crustacean taxonomy
<b>Smith</b> , Christopher James (Mr)	PhD	Research Scientist	Marine ecology; Benthic ecology
<b>Stefanou</b> , Evripides (Mr)	PhD	Associate Professor	Analytical chemistry; Organic pollution
<b>Tselepidis</b> , Anastasios (Mr)	MSc	Research Scientist	Biological oceanography; Deep sea ecology
<b>Tserpes</b> , George (Mr)	MSc	Research Scientist	Fisheries; Fish population dynamics
<b>Tsimenides</b> , Nikolaos (Mr)	PhD	Associate Professor	Fisheries; Fish pollution dynamics
<b>Vlachonis</b> , George (Mr)	BS	Research Scientist	Marine chemistry; Heavy metals; Pollution
<b>Zivanovic</b> , Snezana (Ms)	BS	Research Scientist	Marine chemistry; Nutrients; Waters



## GREECE

Name	Degree	Position	Specialization
Zouros, Eleftherios (Mr)	PhD	Associate Professor	Genetics; Population genetics

### National Centre for Marine Research (NCRM)

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Athens 16604  
GREECE

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(30) 1 9820211

**Telex** 224135

**Fax** (30) 1 9833095

**Executive officer** Dr Nikolaos FRILIGOS, Acting Director

Governmental, national institution founded in 1965. Languages: Greek; English; French

**Nature of activities** Research; Technical training; Laboratory; Academic/educational; Information/public awareness

**Purpose and objectives** Implementation of national development programmes; Scientific research and applications; Consultant services to public and private institutions

**Areas of speciality/activities** Physical oceanography; Water masses and circulation; Currents and dispersion; Waves, tides, surges and sea level; Modelling; Marine chemistry and geochemistry; Nutrients; Heavy metals; Organics (halogenated hydrocarbons, petroleum hydrocarbons, etc); Sediments; Waters; Suspended matter; Biota; Marine geology and geophysics; Topography and morphology; Sedimentology; Coastal and nearshore processes; Paleontology; Marine biology and ecology; Phytoplankton; Zooplankton; Benthos; Fish; Algae; Eutrophication; Plankton blooms; Molluscs; Crustaceans; Marine physiology; Marine biochemistry; Parasitology; Pathology of marine species; Toxicology; Taxonomy and systematics; Productivity; Community and population studies; Fisheries; Aquaculture; Marine meteorology and climatology; Marine environmental management; Monitoring and/or assessment; Pollution; Environmental impact assessment; Environmental education; Marine support services; Remote sensing; Data acquisition and telemetry; Dynamic, physical, chemical and biological state of the aquatic and marine environment; Ecology of the sea, lakes and rivers; Geology and geophysics of the sea-floor and coastal areas; Fisheries; Aquaculture developments

**Environments** Lakes; Brackishwater; Coastal zone; Pelagic environment; Benthic environment; Rivers; Littoral zone; Lagoons; Islands; Estuaries

**Geographic areas** Mediterranean Sea; Adriatic Sea; Aegean Sea; Ionian Sea; Levantine Sea; Strait of Otranto

**Research programmes/projects**

- Oceanographic and environmental study of sewage discharge of the city of Kerkyra
- Oceanographic study of the coastal waters of Kalamitsi, Preveza
- Biogeochemical cycle of carbon dioxide in the Eastern Mediterranean
- Modular instrument package and its application in Mediterranean hydrothermal research (MIRAMEHR)
- Pollution effects on plankton composition and spatial distribution near the sewage outfall of Athens
- Effects of sewage on the distribution of benthic fauna in Saronikos Gulf
- Impact of eutrophication on the sea-urchins of Amvrakikos Gulf
- Research on the vulnerability of Mediterranean benthic ecosystems
- Physiological responses of marine indicator organisms to global pollution
- Environmental study of the north Evoikos Gulf
- Oceanographic study of Phaliron Bay
- Study of the biology and ecology of an endemic fresh water fish of Rhodos (Gherane)
- Hydrobiological study of Lake Trichonis (western Greece)
- Environmental protection and fishery management study of the Mornos reservoir
- Assessment of pelagic resources in the Greek seas
- Infections and feeding diseases in marine aquaculture

**Co-operative research programmes/projects**

- EURECOMARGE
- MAST I
- POEM
- EUROMAR
- OSNLR, COCDYF (IOC programmes)
- ODP
- NATO
- FAR (EEC)
- UNEP/MED POL (Phase II)

**Staff** Professional 35; Technical 40; Other 58

**Information facilities**

**Publications** "Thalassographica", journal; Technical reports; Monographs

**Library** 2750 volumes; 2736 reprints; 440 periodicals **Co-operative programmes/projects**  
Various **Librarian** Ms Sofia Goulala

**Computers** HP 3000; HP 9000/825; PCs **Applications** Accounting/financial planning; Database management; Desktop publishing; Graphics; Library/documentation; Mathematical; Mapping; Modelling; Scientific; Statistical; Word processing

**Physical facilities** 2100 m<sup>2</sup>

**Laboratories** 550 m<sup>2</sup>; climate controlled **Laboratory equipment** Technikon; Gas and liquid chromatographs; Atomic absorption spectrophotometers; Polarograph; Elemental analyser; CTDs; Rosette units; Tide gauges; Currentmeters; Acoustic releasers; Liquid scintillation counter; X-Ray diffractometer; Sparker-air-gun hydrophones; Lyophilisator-microtome-cool incubator; Water and sediment samplers; Salinometers **Aquariums** 40x82 m<sup>3</sup> **Visitors** 200000 annually **Species maintained** Ladigesosypris ghigii (endemic species)

## GREECE

**Research vessels/crafts** RV "Aegaio", 51.1 m, 9.6 m beam, 597 ton, 13 knots, 22 crew, 16 research personnel

**Facilities** for 16 visiting scientists; 15 students

### Professional/Scientific staff

Name	Degree	Position	Specialization
<b>Alexandri</b> , Stamatina (Ms)	BS	Scientific Staff	Marine geology and geophysics; Topography and morphology; Coastal and nearshore processes
<b>Alexi</b> , Maria (Ms)	PhD	Senior Scientific Officer	Marine biology and ecology; Fish; Marine physiology; Marine biochemistry; Aquaculture
<b>Anagnostou</b> , Christos (Mr)	PhD	Senior Scientific Officer	Marine geology and geophysics; Sedimentology; Coastal and nearshore processes; Pollution
<b>Anastasakis</b> , George (Mr)	PhD	Scientific Staff	Marine geology and geophysics; Topography and morphology; Coastal and nearshore processes
<b>Balopoulos</b> , Efstathios (Mr)	PhD	Principal Scientific Officer	Physical oceanography; Watermasses and circulation; Modelling
<b>Barbetsea</b> , Helen (Ms)	BS		Marine geology and geophysics
<b>Barbetseas</b> , Stavros (Mr)	BS	Scientific Officer	Physical oceanography; Water masses and circulation
<b>Catsiki</b> , Vasiliki (Ms)	PhD	Higher Scientific Officer	Marine biology and ecology; Benthos; Fish; Heavy metals; Toxicology; Monitoring and assessment; Pollution; Environmental impact assessment
<b>Christianidis</b> , Savvas (Mr)	MSc	Scientific Staff	Physical oceanography; Marine meteorology and climatology; Water masses and circulation; Currents and dispersion
<b>Christou</b> , Epaminondas (Mr)	PhD	Scientific Staff	Marine biology and ecology; Zooplankton; Eutrophication; Plankton blooms; Taxonomy and systematics; Community and population studies

Name	Degree	Position	Specialization
<b>Chronis</b> , George (Mr)	PhD	Principal Scientific Officer	Marine geology and geophysics; Topography and morphology; Coastal and nearshore processes
<b>Daoulas</b> , Charalambos (Mr)	PhD	Principal Scientific Officer	Marine biology and ecology; Fish; Taxonomy and systematics; Productivity; Community and population studies; Fisheries; Aquaculture
<b>Diapoulis</b> , Aristidis (Mr)	PhD	Principal Scientific Officer	Marine biology and ecology; Algae; Taxonomy and systematics; Community and population studies; Environmental impact assessment
<b>Filippas</b> , Dimitrios (Mr)	BS	Scientific Staff	Marine geology and geophysics; Topography and morphology
<b>Friligos</b> , Nikolaos (Mr)	PhD	Senior Principal Scientific Officer/Acting Director	Marine chemistry and geochemistry; Nutrients; Waters; Eutrophication; Pollution
<b>Georgakopoulos</b> , Ephrosini (Ms)	BS	Scientific Officer	Marine chemistry and geochemistry; Organics; Waters; Biota
<b>Georgopoulos</b> , Dimitrios (Mr)	MSc	Higher Scientific Officer	Physical oceanography; Water masses and circulation; Remote sensing
<b>Gotsi</b> , Olympia (Ms)	PhD	Senior Scientific Officer	Marine biology and ecology; Phytoplankton; Eutrophication; Plankton blooms; Taxonomy and systematics; Community and population studies; Environmental impact assessment
<b>Karagitsou</b> , Elektra (Ms)	MSc	Higher Scientific Officer	Marine biology and ecology; Fish; Taxonomy and systematics; Community and population studies; Fisheries
<b>Karanikolas</b> , Kyriakos (Mr)	MSc	Scientific Officer	Marine biology and ecology; Fish; Marine physiology; Parasitology; Pathology of marine species; Toxicology
<b>Klaoudatos</b> , Spiridon (Mr)	PhD	Principal Scientific Officer	Marine biology and ecology; Aquaculture
<b>Korsini-Foka</b> , Maria (Ms)	BS	Scientific Officer	Marine biology; Phytoplankton; Fish; Taxonomy; Aquaculture

## GREECE

Name	Degree	Position	Specialization
<b>Kousouris</b> , Theodoros (Mr)	MSc	Principal Scientific Officer	Marine biology and ecology; Phytoplankton; Eutrophication; Plankton blooms; Taxonomy and systematics
<b>Likousis</b> , Vasilis (Mr)	PhD	Scientific Staff	Marine geology and geophysics; Topography and morphology; Sedimentology; Coastal and nearshore processes
<b>Mitilinaiou</b> , Chrisoula (Ms)	MSc	Scientific Officer	Marine biology and ecology; Fish; Taxonomy; Community and population studies; Fisheries
<b>Nakopoulou</b> , Chrisanthe (Ms)	MSc	Scientific Staff	Marine chemistry and geochemistry; Heavy metals; Waters; Suspended matter; Pollution
<b>Pagou</b> , Kalliopi (Ms)	MSc	Scientific Staff	Marine biology and ecology; Phytoplankton; Eutrophication; Plankton blooms; Taxonomy and systematics; Productivity; Community and population studies
<b>Panayotidis</b> , Panayotis (Mr)	PhD	Senior Scientific Officer	Marine biology and ecology; Algae; Taxonomy and systematics; Community and population studies; Monitoring and assessment; Environmental impact assessment; Environmental education
<b>Pankoutsis</b> , Maria-Antonella (Ms)	MSc	Scientific Staff	Marine biology and ecology; Benthos; Zooplankton; Eutrophication; Taxonomy; Community and population studies
<b>Papageorgiou</b> , Emanouil (Mr)	BS	Scientific Officer	Physical oceanography; Currents and dispersion
<b>Papakonstantinou</b> , Konstantinos (Mr)	PhD	Principal Scientific Officer	Marine biology and ecology; Fish; Taxonomy and systematics; Productivity; Community and population studies; Fisheries
<b>Papathanassiou</b> , Evangelos (Mr)	PhD	Principal Scientific Officer	Marine biology and ecology; Toxicology; Pollution; Environmental impact assessment

Name	Degree	Position	Specialization
<b>Pavlakis</b> , Peter (Mr)	MSc	Scientific Staff	Marine geology and geophysics; Topography; Coastal and nearshore processes; Seismology
<b>Petrakis</b> , George (Mr)	BS	Scientific Officer	Marine biology and ecology; Fish; Taxonomy; Community and population studies; Fisheries
<b>Psarras</b> , Theodoros (Mr)	BS	Scientific Officer	Marine biology and ecology; Fish; Taxonomy; Community and population studies; Fisheries; Aquaculture
<b>Psilidou</b> , Roza (Ms)	BS	Scientific Staff	Marine geology and geophysics; Organics; Biota; Waters
<b>Roussakis</b> , Gregory (Mr)	BS	Scientific Staff	Marine geology and geophysics; Topography and morphology
<b>Simpoura</b> , Nomiki (Ms)	MSc	Scientific Staff	Marine biology and ecology; Benthos; Crustaceans; Taxonomy and systematics
<b>Siokou</b> , Joan (Ms)	MSc	Higher Scientific Officer	Marine biology and ecology; Zooplankton; Eutrophication; Plankton blooms; Taxonomy; Monitoring and assessment; Pollution
<b>Sioulas</b> , Andreas (Mr)	PhD	Senior Scientific Officer	Marine geology and geophysics; Topography; Sedimentology; Coastal and nearshore processes; Environmental impact assessment
<b>Souvermezoglou</b> , Katerina (Ms)	PhD	Senior Scientific Officer	Marine chemistry and geochemistry; Nutrients; Waters; Pollution
<b>Stavrakakis</b> , Spiridon (Mr)	BS	Scientific Officer	Marine geology and geophysics; Sedimentology; Coastal and nearshore processes
<b>Taliadouri-Voutsinou</b> , Fani (Ms)	PhD	Principal Scientific Officer	Marine chemistry and geochemistry; Heavy metals; Sediments; Pollution
<b>Theocharis</b> , Alexandros (Mr)	BS	Senior Scientific Officer	Physical oceanography; Watermasses and circulation
<b>Tziavos</b> , Christos (Mr)	MSc	Senior Scientific Officer	Marine geology and geophysics; Coastal and nearshore processes; Paleontology
<b>Vassilopoulou</b> , Vasiliki (Ms)	MSc	Scientific Officer	Marine biology and ecology; Fish; Taxonomy; Community and population studies; Fisheries

## GREECE

Name	Degree	Position	Specialization
Verikokakis, Emanouil (Mr)	BS	Scientific Officer	Marine chemistry and geochemistry; Organics; Waters
Zenetos, Argyro (Ms)	PhD	Higher Scientific Officer	Marine biology and ecology; Benthos; Molluscs; Taxonomy and systematics; Community and population studies; Monitoring and assessment; Pollution; Environmental impact assessment
Zodiatis, George (Mr)	MSc	Scientific Staff	Physical oceanography; Water masses and circulation

### National Centre for Scientific Research "Demokritos" Institute of Biology

#### Hydrobiology Laboratory (NRC "DEMOKRITOS")

*Ethniko Kendro Erevnas Physikon Epistimon "Demokritos"*

*Instituto Viologias*

*Ergastirio Hydroviologias*

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(30) 1 6518912

**Telex** 216199

**Cable** GREEKATOM

**Fax** (30) 1 6511767

**Executive officer** Dr Ion SIOTIS, Director

Governmental, national institution founded in 1963. Languages: Greek; English

**Nature of activities** Research

**Purpose and objectives** Research on primary productivity, phytoplankton populations and effects of eutrophication on the marine environment

**Areas of speciality/activities** Nutrients; Phytoplankton; Algae; Eutrophication; Plankton blooms; Productivity; Community and population studies; Monitoring and/or assessment; Pollution

**Environments** Coastal zone; Pelagic environment

**Geographic areas** Mediterranean Sea; Aegean Sea

**Research programmes/projects**

- Ecological studies on the effects of pollution and eutrophication on the phytoplanktonic ecosystem
- Primary productivity of inshore marine ecosystems

**Co-operative research programmes/projects**

- University of the Aegean, Department of Environmental Studies, Mytilene
- UNEP: Eutrophication assessment based on multivariate procedures; criteria development for the management of coastal waters

**Staff** Professional 2; Technical 1

**Information facilities**

**Publications** "DEMO" Reports

**Library** 70000 volumes/reprints; 1200 periodicals **Librarian** Ms Noria Christoforidou

**Computers** Remote access to the Computer Centre; PCs **Applications** Database management; Mathematical; Modelling; Scientific; Statistical; Word processing **Data exchange** 5.25" PC diskettes; Lotus 1-2-3, various WP and ASCII text files

**Physical facilities** 1000 m<sup>2</sup>

**Laboratories** 100 m<sup>2</sup>; climate controlled **Laboratory equipment** Spectrophotometer (Varian 634); Salinometer (CSIRO); Fluorometer (Baird); Scintillation counter (Packard Tricarb 4000); Balances; **Field equipment** Water bottles; Sea surface microlayer samplers; Nets; Underwater photometer **Species maintained** Skeletomema costatum; Pavlova lutheri; Nitzschia closterium

**Research vessels/crafts** hired, occasionally

**Facilities** for 2 visiting scientists; 2 students **Conference/seminar facilities** for 100 participants

**Professional/Scientific staff**

Name	Degree	Position	Specialization
Becacos-Kontos, Theano (Ms)	Doctorate		Biological oceanography; Primary productivity
Ignatiades, Lydia (Ms)	PhD		Biological oceanography; Phytoplankton ecology
Siotis, Ion (Mr)	PhD	Director	



## GREECE

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**University of Athens**  
**Department of Chemistry**  
**Division III-Inorganic and Environmental Chemistry**

*Panepistimion Athinon*

*Tmima Chimias*

*Tomeas III-Anorgani & Perivallondiki Chimia*

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**Fax** (30) 1 3622535

**Executive officer** Dr Michael J SCOULLOS, Professor of Environmental and Marine Chemistry

Governmental, national institution founded in 1835. Languages: Greek; English

**Nature of activities** Research; Laboratory; Academic/educational; Policy and planning; Information/public awareness

**Purpose and objectives** Education-training/research/scientific advice/policy and participation in national monitoring projects

**Areas of speciality/activities** Air-sea interaction; Nutrients; Heavy metals; Sediments; Waters; Suspended matter; Biota; Algae; Eutrophication; Monitoring and/or assessment; Coastal zone management; Pollution; Environmental education; Ocean policy/law of the Sea; Resources management; Drafting plans for the management of marine parks and ecologically important lagoons; Active participation in scientific and ocean policies; International consultations

**Environments** Lakes; Brackishwater; Coastal zone; Pelagic environment; Rivers; Lagoons; Islands; Estuaries

**Geographic areas** Mediterranean Sea; Aegean Sea; Gulf of Lyon; Ionian Sea

### **Research programmes/projects**

- Study of estuaries, mainly transport of metals in dissolved and particulate forms
- Thorough study of the magnetic properties of particles and sediments ("Pioneer", research in the Mediterranean)
- Study of air-water and water-sediment interactions

### **Co-operative research programmes/projects**

- UNEP/MED POL (monitoring and research)
- Full participation in phases I and II of the EEC funded programme, EROS 2000 (European River Ocean Systems)
- Leading role in the newly developing AIMS Programme (EEC-MAST II) for the eastern Mediterranean area

**Training programmes**

- Three undergraduate courses in environmental chemistry and chemical oceanography, offered annually
- One 2 1/2 year postgraduate course in oceanography for 20 scientists, offered annually since 1974

**Staff** Professional 12; Technical 2; Other 5

**Information facilities**

**Publications** Textbooks for the lectures offered; Various publications of the University of Athens

**Library** Yes

**Computers** 2 PCs (IBM XT); 2 Printers (Star LN10, Star LC10) **Applications** Database management; Graphics; Scientific; Statistical; Word processing **Data exchange** 5.25"(DD) PC diskettes; dBase, WordStar, ASCII text files

**Physical facilities** 700 m<sup>2</sup>

**Laboratories** 200 m<sup>2</sup>; climate controlled **Laboratory equipment** 4 water sampling bottles 3.5 lt. (Hydrobios); 3 water sampling bottles 5 lt. (Hydrobios); 2 sediment pneumatic corers (Mackeith); 1 AF demagnetizer; 2 pulse magnetizers; 1 minispin (Molspin); 1 magnetic susceptibility meter (Bartington); 1 atomic absorption spectrophotometer-HGA 300 (Perkin Elmer); 1 UV VIS photometer (Hitachi)

**Facilities** for 90 students **Conference/seminar facilities** for approximately 1000 participants

**Professional/Scientific staff**

Name	Degree	Position	Specialization
Camberi, Helen (Ms)	MSc	Researcher	Chemical oceanography; Chemical-biological interactions
Dassenakis, Manos (Mr)	DSc	Lecturer	Chemical oceanography; Trace elements; Nutrients; Estuaries
Degaita, Antonia (Ms)	MSc	Researcher	Geochemistry; Geochemistry of lagoons and inland waters
Foufa, Helen (Ms)	MSc	Researcher	Chemical oceanography; River pollution
Gaitlich, Martin (Mr)	MSc	Researcher	Biology; Ecology; Ecological management of lagoons and other biotopes
Iordanidou, Zoe (Ms)	MSc	Researcher	Chemical oceanography; Coastal and inland waters
Krasakopoulou, Eva (Ms)	MSc	Researcher	Chemical oceanography; Petroleum hydrocarbons; Interactions with metals

## GREECE

Name	Degree	Position	Specialization
<b>Mantzara</b> , Bessy (Ms)	MSc	Researcher	Chemical oceanography; Trace metals; Environmental management
<b>Mertzanis</b> , Aris (Mr)	MSc	Researcher	Geological oceanography; Geology of coasts; Coastal management
<b>Remountaki</b> , Emmanuela (Ms)	DSc	Researcher	Atmospheric chemistry; Oceanography; Aerosols; Air-water interface
<b>Scoullou</b> , Michael (Mr)	DSc/PhD	Professor/Executive Officer	Chemical oceanography; Environmental chemistry; Trace metals and nutrients in seawater; Suspended particles; Sediments
<b>Zeri-Symeon</b> , Christina (Ms)	MSc	Researcher	Environmental chemistry; Magnetics; Magnetic characterisation of particles and sediments

**University of Patras**  
**Physical Chemistry Laboratory (PCL)**  
*Panepistimio Patras*  
*Ergastirio Physikis Chimias*

P.O. Box 1045  
 Patras 26110  
 GREECE

**Telephone** (30) 61 997110  
**Telex** 312447 UN PA GR  
**Fax** (30) 61 991725

**Executive officer** Professor Nicholas A KATSANOS, Director

Governmental, national institution founded in 1969. Languages: Greek

**Nature of activities** Research; Laboratory; Academic/educational

**Purpose and objectives** Teaching and research at the higher education level in the area of physical chemistry

**Areas of speciality/activities** Marine chemistry and geochemistry; Analytical methodology; Organics (halogenated hydrocarbons, petroleum hydrocarbons, etc); Physical planning; Lectures and practical courses in various aspects of physical chemistry, quantum chemistry and applications of computers to chemistry

**Environments** Lakes; Coastal zone; Pelagic environment; Rivers

**Geographic areas** Mediterranean Sea; Aegean Sea; Ionian Sea

**Research programmes/projects**

- Heterogeneous catalysis studies by reversed-flow gas chromatography (RF-GC)
- Mass transfer rates studied by RF-GC
- Thermodynamic studies of solutions by RF-GC
- Development of field-flow fractionation (FFF) for characterizing colloidal materials and macromolecules
- Particulate matter in coastal waters
- Ab initio calculations of molecular properties

**Co-operative research programmes/projects**

- EEC Step Programme: Physicochemical parameters, including pollutants interaction, affecting the rates of dry deposition on stone surfaces

**Training programmes**

- The use of chromatographic methods for physicochemical measurements: course leading to Doctoral Degree

**Staff** Professional 3; Technical 3

**Information facilities**

**Publications** Various

**Computers** Various **Applications** Education; Graphics; Mathematical; Modelling; Scientific; Statistical; Word processing

**Physical facilities** 400 m<sup>2</sup>

**Laboratories** 250 m<sup>2</sup>; climate controlled **Laboratory equipment** Various physicochemical instruments such as spectrophotometers, chromatographs (gas and liquid), electrochemistry apparatus, etc.

**Conference/seminar facilities** available

**Professional/Scientific staff**

Name	Degree	Position	Specialization
Karaiskakis, George (Mr)	Doctorate	Professor	Physical chemistry; Chromatography
Katsanos, Nicholas A (Mr)	Doctorate	Professor/Director	Physical chemistry; Chromatography; Catalysis; Radiochemistry
Maroulis, George (Mr)	PhD	Assistant Professor	Quantum chemistry; Theoretical chemistry; Computers

## GREECE

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### **University of the Aegean Department of Environmental Studies (UA)**

*Panepistimio Aegeou  
Tmima Perivallontos*

17 Karantoni Street  
Mytilene 81100  
Lesvos  
GREECE

**Telephone** (30) 251 21286

(30) 251 29579

**Telex** 297172 UASS GR

**Fax** (30) 251 23783

**Executive officer** Mrs Anna SFIROGIANNAKI, Administrative Manager

Governmental, national institution founded in 1984. Languages: Greek

**Nature of activities** Research; Laboratory; Academic/educational

**Purpose and objectives** Teaching and research in the areas of ecosystem management, society and environment and environmental engineering

**Areas of speciality/activities** Physical oceanography; Instruments and methods; Water masses and circulation; Currents and dispersion; Waves, tides, surges and sea level; Marine chemistry and geochemistry; Nutrients; Organics (halogenated hydrocarbons, petroleum hydrocarbons, etc); Marine biology and ecology; Phytoplankton; Zooplankton; Benthos; Fish; Algae; Eutrophication; Plankton blooms; Marine biochemistry; Marine microbiology; Taxonomy and systematics; Productivity; Community and population studies; Marine environmental management; Coastal zone management; Pollution; Nature conservation and/or restoration; Environmental impact assessment; Environmental economics; Environmental education; Remote sensing; Ocean policy/law of the Sea; Development policy/planning; Recreation/tourism; Resources management

**Environments** Coastal zone; Pelagic environment; Islands

**Geographic areas** Mediterranean Sea; Aegean Sea; Ionian Sea

#### **Research programmes/projects**

- The ecosystem of the Messolonghi saltworks
- The Kalama River delta
- The Ioannina sewerage
- Environmental protection of the east Kavala coast
- Impact of pollution on the flora of Attica
- Human impact on the Aegean islands ecosystems
- The diversion of the Acheloos River
- Ecosystem management
- The Athens air pollution problem
- Crete and the Aegean islands: Effects of changing climate and the environment
- Ecologic evaluation of the Kitros (Pieria) saltworks ecosystem dispersal in the greater Athens region
- Methods of detection and quality determination of odours
- Determination of air particulates through ion chromatography

- Textbook authoring: Management of industrial wastes
- Prefecture of Lesvos waste management programme
- Waste management of the greater Chania area
- Impacts of urbanization on ocean resources
- Petra
- Salt purification
- Agricultural production of Lesvos
- Modern agriculture practices and eutrophication in the Pagassitikos Gulf
- "Green in the cities"

### Training programmes

- ERASMUS: Urban and regional planning
- Island studies

**Staff** Professional 10; Technical 6; Other 36

### Information facilities

**Publications** Technical reports

**Library** 1500 volumes/reprints; 56 periodicals **Librarian** Mrs Katerina Karabela

**Computers** Various **Applications** Education; Graphics; Library/documentation; Mapping; Modelling; Word processing

**Physical facilities** 2400 m<sup>2</sup>

**Laboratories** 140 m<sup>2</sup> **Laboratory equipment** UV-Visible spectrophotometer; Ion chromatographer; Gas chromatographer; Inverted microscope; Bomb calorimeter etc **Species maintained** Collection of phytoplankton species: Skeletonema costatum; Pavlova lutheri; Platymonas sp.; Nitzschia closterium; Exuviaella baltica

**Facilities** for 25 students **Conference/seminar facilities** for 50 participants, with TV-Video, overhead projector (connected to computer), slide projector

### Professional/Scientific staff

Name	Degree	Position	Specialization
Coccosis, Harry (Mr)	PhD	Associate Professor	Environmental planning; Urban planning; Regional planning; Management of islands and coasts
Halvadakis, Costas P (Mr)	PhD	Associate Professor	Environmental engineering; Systems of solid waste management; Waste water management and water quality
Hatzopoulos, Ioannis (Mr)	PhD	Professor	Remote sensing; Photogrammetry; Geographic information systems (GIS); Computer applications; Computers for digital image processing; Data management by GIS

## GREECE

Name	Degree	Position	Specialization
<b>Karydis</b> , Michael (Mr)	PhD	Associate Professor	Marine ecology; Toxicology; Phytoplankton; Aquaculture; Pollution
<b>Lekkas</b> , Themistoclis (Mr)	PhD	Assistant Professor	Water resources; Water treatment; Waste water treatment; Management of water resources; Management of liquid and gaseous wastes
<b>Margaris</b> , Nicolaos S (Mr)	PhD	Professor	Ecosystems management; Structure, dynamics, function and management of Mediterranean-type ecosystems, especially islands
<b>Sfirogiannaki</b> , Anna (Ms)		Administrative Manager	
<b>Skourtos</b> , Michael (Mr)	PhD	Assistant Professor	Environmental economics; Economic theory and politics of natural resources; History of economic thought; Economics of energy
<b>Sophoulis</b> , Costas Man (Mr)	PhD	Professor	Economics; Urban economics; Land economics; Regional economics; Management of educational institutions; Economics of islands
<b>Troumbis</b> , Andreas Y (Mr)	PhD	Assistant Professor	Theoretical ecology; Terrestrial ecosystems; Management of terrestrial ecosystems; Disturbance in terrestrial ecosystems; Population dynamics
<b>Vernicos</b> , Nicolaos (Mr)	PhD	Associate Professor	Economics; Islands management and organization in Greece; Economic and social history of Mediterranean countries

# ISRAEL

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## Hydrological Service of Israel

*Hasherut Hahidrology*

50 Yirmyahu Street  
P.O. Box 6381  
Jerusalem 91063  
ISRAEL

**Telephone** (972) 2 381101

**Fax** (972) 2 388704

**Executive officer** Dr Arie BEN-ZVI, Director

Governmental, national institution founded in 1944. Languages: Hebrew; English

**Nature of activities** Research; Laboratory; Policy and planning; Information/public awareness

**Purpose and objectives** Data collection, storage and dissemination; Estimation of hydrologic background and results for proposed water resources management activities

**Areas of speciality/activities** Hydrology; Disaster preparedness and relief; Resources management; Hydrologic network operation; Assessment of surface and groundwater yield; Aquatic protection; Adviser to the Water Commissioner; Research on hydrologic processes

**Environments** Lakes; Brackishwater; Rivers

**Geographic areas** Mediterranean Sea; Red Sea; Dead Sea

### Research programmes/projects

- Data collection networks
- Groundwater flow paths delineation
- Instrument development
- Surface water yield
- Flood risks
- Contaminant flow in the unsaturated zone
- Hydrometeorology

**Staff** Professional 22; Technical 27; Other 5

### Information facilities

**Publications** Annual reports; Hydrologic Yearbook for Israel; Summary of hydrologic effects of the wet season; The hydrologic state; Technical reports (irregular)

**Library** 10000 volumes/reprints; 15 periodicals **Co-operative programmes/projects** Geological Survey Library **Librarian** Dr Regina Landau

**Computers** Various **Applications** Database management; Library/documentation; Modelling; Network access; Scientific; Statistical; Word processing **Data exchange** Remote access



## ISRAEL

**Physical facilities** 1000 m<sup>2</sup>

**Laboratories** 200 m<sup>2</sup>; climate controlled **Laboratory equipment** Chemical laboratory equipment

### Professional/Scientific staff

Name	Degree	Position	Specialization
<b>Azmar</b> , Benjamin (Mr)	MA	Hydrogeologist	Hydrogeology
<b>Bachmat</b> , Yehuda (Mr)	DSc	Researcher	Groundwater hydrology
<b>Beckowitz</b> , Brian (Mr)	PhD	Researcher	Groundwater modelling
<b>Ben-Zvi</b> , Arie (Mr)	PhD	Director/Researcher	Surface water hydrology
<b>Ben-Zvi</b> , Meir (Mr)	PhD	Head, Information Department	Stochastic processes
<b>Day</b> , Achia (Mr)	PhD	Head, Research Department/ Researcher	Mathematical simulation of hydrologic processes
<b>Elhanati</b> , Sarah (Ms)	BA	Hydrologist	Water sources protection
<b>Eyal</b> , Michael (Mr)	BA	Head, Computerized Systems Unit	Computer sciences
<b>Gilead</b> , Dror (Mr)	BA	Hydrogeologist	Hydrogeology
<b>Goldberger</b> , Shalom (Mr)	MSc	Head, Water Resources Department	Applied hydrology
<b>Kesler</b> , Shmuel (Mr)	PhD	Deputy Director	System analysis
<b>Kollin</b> , Martin L (Mr)	MSc	Researcher	Contaminant transport
<b>Landau</b> , Regina (Ms)	PhD	Librarian	Chemistry
<b>Mahler</b> , Olga (Ms)	MA	Programmer	Computer sciences
<b>Melloul</b> , Avraham (Mr)	DSc	Deputy Head, Hydrology Department	Hydrology
<b>Paskal</b> , Fabian (Mr)	BS	Hydrologist	Data processing
<b>Ronen</b> , Daniel (Mr)	PhD	Researcher	Contaminant motion in the unsaturated zone
<b>Rosenthal</b> , Eliahu (Mr)	PhD	Head, Hydrology Department/Researcher	Hydrology
<b>Shlimovich</b> , Mura (Ms)	MSc	Head, Data Processing Unit	Surface hydrology
<b>Vinokurov</b> , Asia (Ms)	MA	Hydrogeologist	Hydrogeology
<b>Volfzen</b> , Misha (Mr)	MSc	Planner	Hydraulics; Hydrology

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**Israel Oceanographic and Limnological Research Ltd  
The National Centre for Mariculture (IOLR-NCM)**

P.O. Box 1212  
Elat 88112  
ISRAEL

**Telephone** (972) 59 373154  
**Fax** (972) 59 375761

**Executive officer** Mr Hillel GORDIN, Director

Governmental, national institution founded in 1967. Languages: Hebrew; English

**Nature of activities** Research; Technical training; Laboratory; Academic/educational

**Purpose and objectives** Development of mariculture technologies

**Areas of speciality/activities** Marine biology and ecology; Phytoplankton; Zooplankton; Benthos; Fish; Algae; Eutrophication; Plankton blooms; Molluscs; Crustaceans; Marine physiology; Marine biochemistry; Marine microbiology; Parasitology; Pathology of marine species; Toxicology; Aquaculture; Mariculture research and development

**Environments** Coastal zone

**Geographic areas** Mediterranean Sea; Red Sea

**Research programmes/projects**

- Reproduction of marine fish and bivalves
- Larval rearing
- Fish nutrition
- Mariculture food chains (microalgae, rotifers, Artemia)
- Fish growout in inshore ponds and floating cages at sea
- Bivalve cultivation
- Macroalgae cultivation
- Integrated fish/bivalve systems
- Fish pond water quality
- Pathobiology of fish and bivalves
- Genetic selection
- Mariculture engineering
- Environmental impact of mariculture

**Co-operative research programmes/projects**

- Egypt/US: Marine Technology Programme for the Middle East
- Collaborative research projects with numerous institutions worldwide

**Training programmes**

- Training and educational programmes for graduate students (PhD, MSc), undergraduate students, high-school students and science oriented youth
- Training of technicians

## ISRAEL

**Staff** Professional 22; Technical 33; Other 15

### Information facilities

**Publications** Technical reports (in Hebrew and English); Biennial report (in English); Papers in reviewed journals

**Library** Monographs/reprints specializing in aquaculture; 140 periodicals **Co-operative programmes/projects** Libraries and institutions specializing in aquaculture

**Librarian** Ms Gila Tandler

**Computers** Various PCs **Applications** Accounting/financial planning; Communications; Database management; Graphics; Library/documentation; Scientific; Statistical; Word processing

### Physical facilities

**Laboratories** Climate controlled **Laboratory equipment** FISH REPRODUCTION CONTROL LABORATORY: Packard Tri-carb 4530 beta counter; LKB 1275 mini gamma radiation counter; Radioimmunoassay measuring facility; Waters HPLC system; Incubators; Centrifuges; Microscopes; Freezers FISH LARVAL REARING FACILITY: Dissecting and compound microscopes; HIAC PC-320 particle size analyser NUTRITION FACILITY: Tecator Kjelttec system; Hewlett Packard 5890 gas chromatograph; Waters HPLC; Parr bomb calorimeter; Bifa ashing furnace; Buchi rotavaporator ALGAL PHYSIOLOGY AND WATER QUALITY LABORATORIES: Perkin Elmer LS-5B spectrofluorometer; LI-COR LI-1000 light meter; Nikon Labophot epifluorescence microscope; Olympus BH2 microscope ANALYTICAL CHEMISTRY LABORATORY: Technicon II autoanalyser; Radiometer automatic titration system; Oxygen pH and ammonium electrodes; Miscellaneous equipment for sample preparation and chemical analyses GENETICS DEPARTMENT: Laboratory equipment for recombinant DNA experiments; Various 20°C and 4°C facilities; Various dry and wet incubators **Aquariums** 50x0.6-20 m<sup>3</sup>; 4x4 m<sup>3</sup>; 27x0.6 m<sup>3</sup>; 30x0.4 m<sup>3</sup>; 15x5 m<sup>3</sup>; 6x100 m<sup>3</sup>; 4x175 m<sup>3</sup>; 1x1000 m<sup>3</sup>; **Species maintained** Microalgae; Bivalves; Rotifers; Artemia

**Facilities** for visiting scientists and students **Conference/seminar facilities** for 30 participants

### Professional/Scientific staff

Name	Degree	Position	Specialization
Angel, Dror (Mr)	PhD	Scientist	Microbiological ecology
Colorni, Angelo (Mr)	MSc	Scientist	Fish pathobiology
Diamant, Ariel (Mr)	PhD	Senior Scientist	Fish pathobiology
Elizur, Abigail (Ms)	PhD	Scientist	Molecular biology; Fish reproduction
Gordin, Hillel (Mr)	MSc	Director	
Gurshkov, Galina (Ms)	PhD	Scientist	Genetics
Gurshkov, Sergei (Mr)	PhD	Scientist	Genetics
Kissil, George (Mr)	PhD	Senior Scientist	Fish nutrition
Knibb, Wayne (Mr)	PhD	Scientist	Genetics; Genetic engineering
Koven, Bill (Mr)	PhD	Scientist	Fish nutrition
Mozes, Noam (Mr)	MSc	Scientist	Mariculture engineering

Name	Degree	Position	Specialization
Neori, Amir (Mr)	PhD	Senior Scientist	Algal physiology and biotechnology
Popper, Dan (Mr)	PhD	Senior Scientist	Fish physiology and ecology
Shpigel, Muki (Mr)	PhD	Senior Scientist	Bivalves reproduction, physiology and cultivation
Tandler, Amos (Mr)	PhD	Senior Scientist	Larval rearing; Fish physiology

### Israel Oceanographic and Limnological Research Ltd The National Institute of Oceanography (IOLR-NIO)

Tel-Shikmona  
P.O. Box 8030  
Haifa 31080  
ISRAEL

**Telephone** (972) 4 515202  
**Fax** (972) 4 511911

**Executive officer** Dr Yuval COHEN, Director General

Governmental, national institution founded in 1967. Languages: Hebrew; English

**Nature of activities** Research; Technical training; Laboratory; Academic/educational; Policy and planning

**Purpose and objectives** Achieve understanding of marine environments and monitor their state; Provide a scientific basis for decision making on the utilization, conservation and management of Israel's neighbouring sea areas and its inland water bodies

**Areas of speciality/activities** Physical oceanography; Instruments and methods; Water masses and circulation; Currents and dispersion; Air-sea interaction; Waves, tides, surges and sea level; Modelling; Marine chemistry and geochemistry; Analytical methodology; Nutrients; Heavy metals; Organics (halogenated hydrocarbons, petroleum hydrocarbons, etc); Sediments; Waters; Suspended matter; Biota; Marine geology and geophysics; Sedimentology; Coastal and nearshore processes; Seismology; Marine biology and ecology; Phytoplankton; Zooplankton; Benthos; Fish; Algae; Eutrophication; Molluscs; Crustaceans; Marine physiology; Marine biochemistry; Marine microbiology; Taxonomy and systematics; Productivity; Community and population studies; Fisheries; Aquaculture; Marine environmental management; Monitoring and/or assessment; Coastal zone management; Pollution; Environmental impact assessment; Marine technology; Oceanographic research; Monitoring, research and development in marine biotechnology; Development of new technologies for the exploitation of marine resources

**Environments** Coastal zone; Pelagic environment; Benthic environment; Rivers; Littoral zone; Coral reefs and atolls; Estuaries

# ISRAEL

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**Geographic areas** Mediterranean Sea; Levantine Sea; Red Sea; Dead Sea

## **Research programmes/projects**

### Oceanography

- Multidisciplinary investigations of the eastern Mediterranean, Gulf of Aqaba (Red Sea) and the Dead Sea
- Circulation of the eastern Mediterranean and Gulf of Aqaba
- Modelling of physical processes
- Air-sea interaction
- Dynamics of the continental shelf area (currents, waves)
- Sea level monitoring
- Nutrient dynamics and productivity
- Trace metal biogeochemistry in the coastal zone
- Physical chemistry of hypersaline solutions
- Coastal processes and sediment transport
- Geophysics of the continental margin
- Taxonomy and ecology of benthic organisms, including population studies
- Dynamics of Medusae populations
- Immunology of marine invertebrates
- Biology and ecology of coral reefs
- Fisheries research
- Marine pollution monitoring and research

### Marine biotechnology

- Development of technologies for the cultivation of macroalgae and microalgae for the production of biochemicals
- Development of technologies for cryopreservation of marine organisms used in aquaculture
- Development of a rotifer reference centre
- Research on shrimp reproduction
- Genetic engineering research (fish)

## **Co-operative research programmes/projects**

- UNEP/MED POL
- POEM
- Egypt/US: Marine Technology Programme for the Middle East
- US National Oceanic and Atmospheric Administration (NOAA): Agreement on scientific and technical co-operation
- Numerous collaborative research projects with research institutions worldwide

## **Training programmes**

- Training and educational programmes for graduate students (PhD, MSc), undergraduate students, high-school students and science oriented youth
- Training of technicians

**Staff** Professional 41; Technical 21; Other 30

## **Information facilities**

**Publications** Technical reports (in Hebrew and English); Biennial report (in English); Papers in reviewed journals

**Library** 4000 monographs; 14000 reprints; 1000 periodicals **Co-operative programmes/projects**  
With 400 libraries worldwide **Librarian** Ms Ruth Paldi

**Computers** 3 DEC Vax cluster stations; Various PCs **Applications** Accounting/financial planning; Communications; Database management; Desktop publishing; Graphics; Library/documentation; LAN; Mathematical; Mapping; Modelling; Network access; Scientific; Statistical; Word processing

### Physical facilities

**Laboratories** Climate controlled **Laboratory equipment** Field: Neil Brown Instruments Systems CTD; Interocean S4P profiling current meter; Aanderaa recording current meters; Water level recorders with a tape reader; Sonardyne acoustic release systems; Aanderaa meteorological station; Aanderaa thermistor chain; Long-term monitoring, sea level station equipped with a marine 2 MB Pacer 63512/DWG instrument; 63512/DWG Pacer system; CAS wave gauge systems; Single channel continuous seismic profiling system; BX 700 AI Compact box corer for sampling of undisturbed deep sea sediments; Miscellaneous biological sampling gear; Equipment for hydrographic surveys. Hydrographic Surveying Unit: Trimble, NavTrac, GPS navigation system; Analogue/digital Odom Echotrac 3200; Raytheon OSF 6000 echosounders; Geomagnetism G-866; G-856 magnetometers; ORE 136 3.5-12kHz sub-bottom profiler; Uniboom EG&G model 230 sub-bottom profiler; Benthos 378/3881 still camera; OSPREY 1336/1311 TV camera; Messotec altimeter and a magnetic compass. Analytical Facilities: Perkin Elmer model 1100B, atomic absorption spectrophotometer; IL 951 atomic absorption spectrophotometer; Perkin Elmer 50A cold vapour analyser; 443 flame photometer; Technicon AA-II and Alpkem RFA autoanalysers; Radiometer DTS-833 automated titration systems; Equipment for wet and dry sample preparation; Equipment for physico-chemical measurements; HPLC system dedicated to analysis of lipids; Hewlett Packard 5890 gas chromatograph; Gilford 250 spectrophotometer; Perkin Elmer 781 IR spectrophotometer; Dynatech microtiter plate reader MR250; Kontron Betamatic scintillation counter; Coulter counter equipped with Coulter multisizer; Computer controlled (Packard Bell PB 8518 SV) cryostage fitted on an Olympus microscope (model BH2 with Nomarskii optics); Various microscopes; Centrifuges; Ultracentrifuge and sample preparation equipment; Dark room with developing tanks **Aquariums** Seawater system and experimental tanks; Experimental algae cultivation farm

**Research vessels/crafts** RV "Shikmona II", 27 m, equipped with modern communication, GPS navigation system, hydrographic and CTD winches, 6 t/m crane, side A frame, accommodations for 12 scientists; RV "Etziona", 10 m, fibreglass fishing boat, equipped with hydraulic winch, accommodations for 2

**Facilities** for visiting scientists and students **Conference/seminar facilities** for 100 participants; Several meeting rooms

### Professional/Scientific staff

Name	Degree	Position	Specialization
<b>Ben-Amotz</b> , Ami (Mr)	PhD	Senior Scientist	Algal biochemistry, physiology and biotechnology
<b>Bishop</b> , Jonah (Mr)	MSc	Scientist	Physical oceanography; Coastal engineering
<b>Brenner</b> , Steve (Mr)	PhD	Senior Scientist	Physical oceanography; Meteorology

## ISRAEL

Name	Degree	Position	Specialization
<b>Cavari</b> , Benzion (Mr)	PhD	Senior Scientist	Genetic engineering; Aquatic microbiology
<b>Cohen</b> , Yuval (Mr)	PhD	Director General	
<b>Friedlander</b> , Michael (Mr)	PhD	Senior Scientist	Algal ecology and biotechnology
<b>Funkenstein</b> , Bruria (Ms)	PhD	Senior Scientist	Genetic engineering; Molecular biology
<b>Galil</b> , Bella (Ms)	PhD	Senior Scientist	Marine biology; Benthos taxonomy; Ecology and population studies
<b>Golik</b> , Abraham (Mr)	PhD	Senior Scientist	Marine geology; Coastal processes; Marine pollution
<b>Halfon</b> , Benny (Mr)	MSc	Scientist	Computer engineering
<b>Hecht</b> , Artur (Mr)	PhD	Senior Scientist	Physical oceanography
<b>Herut</b> , Barak (Mr)	PhD	Scientist	Geochemistry
<b>Hornung</b> , Hava (Ms)		Scientist	Aquatic chemistry; Marine pollution
<b>Iosilevskii</b> , Yaakov (Mr)	PhD	Senior Scientist	Physics; Mathematics
<b>Kalikhman</b> , Yigal (Mr)	PhD	Senior Scientist	Fisheries hydroacoustics
<b>Kress</b> , Nurit (Ms)	PhD	Scientist	Aquatic chemistry; Marine pollution
<b>Krumgalz</b> , Boris (Mr)	PhD	Senior Scientist	Aquatic physical chemistry
<b>Levy</b> , Israel (Mr)	PhD	Scientist	Algal ecology and genetics
<b>Livne</b> , Alexander (Mr)	PhD	Scientist	Algal biochemistry
<b>Lubzens</b> , Esther (Ms)	PhD	Senior Scientist	Rotifers, shrimp biochemistry; Cryopreservation of marine organisms
<b>Mart</b> , Yossi (Mr)	PhD	Senior Scientist	Marine geophysics
<b>Rinkevich</b> , Baruch (Mr)	PhD	Senior Scientist	Marine biology and ecology; Invertebrates immunology; Coral reefs
<b>Rosen</b> , Dov (Mr)	MSc	Scientist	Coastal engineering
<b>Rozentroub</b> , Zvi (Mr)	MSc	Scientist	Physical oceanography
<b>Sukenik</b> , Assaf (Mr)	PhD	Senior Scientist	Algal biochemistry, physiology and biotechnology
<b>Tom</b> , Moshe (Mr)	PhD	Senior Scientist	Shrimp biochemistry; Benthos ecology

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**Israel Oceanographic and Limnological Research Ltd**  
**The Yigal Allon Kinneret Limnological Laboratory (IOLR-KLL)**

P.O. Box 345  
Tiberias 14102  
ISRAEL

**Telephone** (972) 6 721444

**Fax** (972) 6 935337

**Executive officer** Professor Thomas BERMAN, Director

Governmental, national institution founded in 1968. Languages: Hebrew; English

**Nature of activities** Research; Laboratory; Academic/educational; Policy and planning

**Purpose and objectives** Achieve understanding of lake ecosystem and its responses to environmental perturbation

**Areas of speciality/activities** Physical oceanography; Instruments and methods; Water masses and circulation; Currents and dispersion; Waves, tides, surges and sea level; Modelling; Analytical methodology; Nutrients; Sediments; Waters; Suspended matter; Biota; Phytoplankton; Zooplankton; Benthos; Fish; Algae; Eutrophication; Plankton blooms; Marine biochemistry; Marine microbiology; Productivity; Fisheries; Limnology/freshwater; Monitoring and/or assessment; Pollution; Environmental impact assessment; Monitoring and research in physical, chemical and biological limnology

**Environments** Lakes; Pelagic environment; Benthic environment; Rivers

**Geographic areas** Lake Kinneret

**Research programmes/projects**

- Special emphasis: Phosphorus cycling
- Microbial loop
- Impact of small scale salinity changes
- Fishery acoustics for ecological assessments
- Linking of physical models (e.g. DYRESM) with water quality parameters
- Impact of Fe on lake microbiota

**Co-operative research programmes/projects**

- Egypt/US: Marine Technology Programme for the Middle East
- POEM
- US Bureau of Reclamation: Agreement on scientific and technical co-operation
- Collaborative research projects with numerous institutions worldwide

**Staff** Professional 18; Technical 14; Other 6

**Information facilities**

**Publications** Annual and occasional reports (in Hebrew); Biennial report (in English); Papers in reviewed journals



## ISRAEL

**Computers** Various **Applications** Communications; Database management; Graphics; Modelling; Scientific; Statistical; Word processing

### Physical facilities

**Laboratories** climate controlled **Laboratory equipment** Most basic equipment for limnological research

**Research vessels/crafts** Vessels for lake research

**Facilities** for 4 visiting scientists; 6 students

### Professional/Scientific staff

Name	Degree	Position	Specialization
<b>Bergstein-Ben Dan</b> , Talya (Ms)	PhD	Scientist	Microbiology; Photosynthetic bacteria
<b>Berman</b> , Thomas (Mr)	PhD	Professor/Director	Aquatic microbiology; Phytoplankton protozoan bacterial interactions
<b>Gophen</b> , Moshe (Mr)	PhD	Senior Scientist	Fish; Zooplankton ecology; Zooplankton physiology
<b>Hadas</b> , Ora (Ms)	PhD	Scientist	Microbiological ecology; Microbial loop; Anaerobic processes in sediments
<b>Herman</b> , Gary (Mr)	PhD	Scientist	Physical limnology; Physical modelling
<b>Mechres</b> , Ehud (Mr)	PhD	Scientist	Physical limnology; Currents
<b>Nishri</b> , Aminidav (Mr)	PhD	Scientist	Aquatic chemistry; Chemical cycling
<b>Ostrovsky</b> , Ilia (Mr)	PhD	Senior Scientist	Limnology; Benthos ecology
<b>Parparov</b> , Arkadi (Mr)	PhD	Senior Scientist	Hydrobiology; Limnology
<b>Parparov</b> , Roza (Ms)	PhD	Scientist	Hydrochemistry
<b>Pollingher</b> , Utsa (Ms)	PhD	Senior Scientist	Phytoplankton ecology and taxonomy
<b>Serruya</b> , Salvador (Mr)	PhD	Senior Scientist	Physical limnology; Physical modelling
<b>Shteinman</b> , Boris (Mr)	PhD	Senior Scientist	Hydrogeology
<b>Walline</b> , Paul (Mr)	PhD	Scientist	Fisheries ecology; Hydroacoustics
<b>Wynne</b> , David (Mr)	PhD	Senior Scientist	Algal physiology; Aquatic toxicology; Algal biochemistry
<b>Yacobi</b> , Yosef (Mr)	PhD	Scientist	Algal physiology; Primary production
<b>Zohary</b> , Tamar (Ms)	PhD	Senior Scientist	Microbiological ecology; Phytoplankton ecology

**Kimron Veterinary Institute  
Veterinary Services and Animal Health  
Fishery Products Laboratory**

21 Hativat Golani  
P.O. Box 699  
Haifa 31000  
ISRAEL

**Telephone** (972) 4 642345

**Executive officer** Dr Alexander G GELMAN, Director

Governmental, national institution founded in 1971. Languages: Hebrew; English; Russian

**Nature of activities** Research; Laboratory

**Purpose and objectives** General research in fish biology, biochemistry and fishery products technology

**Areas of speciality/activities** Fish; Marine physiology; Parasitology; Fishery technology; Fish quality control; Tests on imported fish; Effects of irradiation on the quality of packaged carp; Development of objective methods for fish quality tests; New products development; Biochemistry of the digestive system of the Nile crocodile

**Environments** Lakes; Pelagic environment; Benthic environment

**Geographic areas** Mediterranean Sea; Atlantic Ocean

**Research programmes/projects**

- Biochemistry of the Nile crocodile
- Effects of irradiation on the preservation quality of some packaged fish

**Co-operative research programmes/projects**

- Technion-Israel Institute of Technology, supported by the German/Israel Fund for Research and Development (GIFRD): Utilization of small fish for human consumption
- Technion-Israel Institute of Technology, supported by the Ministry of Industry and Commerce: Development of an analogue caviar having long shelf life without refrigeration

**Staff** Professional 4; Technical 1; Other 1

**Information facilities**

**Publications** Various

**Library** 800 volumes; 3000 reprints; 8 periodicals

**Computers** 1 PC (IBM); 1 Printer (FACIT) **Applications** Database management; Desktop publishing; Graphics; Library/documentation; Scientific; Statistical; Word processing **Data exchange** 5.25"(HD) PC diskettes; Lotus 1-2-3 file

## ISRAEL

**Physical facilities** 200 m<sup>2</sup>

**Laboratories** 120 m<sup>2</sup>; climate controlled **Laboratory equipment** Gas chromatograph tracor 560; Tracor TS-10 recorder; Sorvall RC2-B refrigerated centrifuge; Microfresh-freshness analyser; Torrymeter, OHAUS-laboratory balances-4; Beckman DU-50 spectrophotometer; FLUORIMET, "AFOS" 10961/3smok mini kiln; Odor levels indicator XP-329; Incubators-2; Penetrometer Humboldt; Hobart food cutter; Ice machine; Autoclaves-2; pH-meters 3; Electromantle ME-4; Homogenizers-4; Shakers-3; Electrophoresis, etc

**Conference/seminar facilities** for 30 participants

### Professional/Scientific staff

Name	Degree	Position	Specialization
Benjamin, Evgenia (Ms)	MSc	Biochemist	Chemical engineering; Technology and biochemistry of fish
Drabkin, Vladimir (Mr)	MSc	Veterinary Doctor	Biochemistry; Biology and biochemistry of fish
Gelman, Alexander (Mr)	PhD	Director/Senior Research Fellow	Biology; Biochemistry and technology of fish
Pasteur, Rachel (Ms)	MSc	Biochemist	Biochemistry; Technology and biochemistry of fish

### Ministry of Agriculture Department of Fisheries Fishing Technology Unit (FTU)

Kishon Fishing Harbour, Haifa  
P.O. Box 584  
Q. Motzkin 26117  
ISRAEL

**Telephone** (972) 4 668332

**Fax** (972) 4 668333

**Executive officer** Mr Shmuel PISANTY, Chief

Governmental, national institution founded in 1971. Languages: Hebrew; English

**Nature of activities** Research; Technical training; Policy and planning; Fishing technology

**Purpose and objectives** Adviser to the Director of the Fisheries Department on management policy; Consultant to fishermen on fishing technology

**Areas of speciality/activities** Fish; Fisheries; Resources management; Monitoring of trawl fishery; Experiments with surface-long lines with live bait; Development of wire tension metre for trawls; Monitoring effects of industrial waste disposal in two dump-sites in connection to fish

**Environments** Lakes; Coastal zone

**Geographic areas** Mediterranean Sea; Levantine Sea

**Co-operative research programmes/projects**

- Israel Oceanographic and Limnological Research (IOLR): Monitoring of industrial waste disposal dump-sites, investigating all aspects other than fish

**Staff** Professional 3; Other 1

**Information facilities**

**Computers** 1 PC 286 (IBM) **Applications** Database management; Statistical; Word processing

**Physical facilities** 75 m<sup>2</sup>

**Laboratories** 72 m<sup>2</sup> **Laboratory equipment** Echosounder SIMRAD EY-M; Oscilloscope; Spectrophotometer-Milton Roy; Spectronic 20D; Stereomicroscopes; Assortment of marine biology sampling gear; Diving equipment **Aquariums** 2x3 m<sup>3</sup>; 3x1 m<sup>3</sup>; 4x0.5 m<sup>3</sup> **Species maintained** Epinephelus aeneus; Sarotherodon aureus

**Research vessels/crafts** Loa boat, 5.3 m, 23 hp diesel engine

**Professional/Scientific staff**

Name	Degree	Position	Specialization
Khanin, Yuri (Mr)	MSc	Technologist	Inshore fishing; Mariculture; Water quality criteria; Electric fishing
Pisanty, Shmuel (Mr)	MSc	Chief	Fishing technology; Fishery surveys
Sonin, Oren (Mr)	BA	Technologist	Trawl fishing

## ISRAEL

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### Ministry of Health "Dr A. Felix" Public Health Laboratory

69 Ben Zwi Street  
P.O. Box 8255  
Tel Aviv 61082  
ISRAEL

**Telephone** (972) 3 830261

**Fax** (972) 3 826996

**Executive officer** Dr Abraham MATES, Director

Governmental, national institution founded in 1946. Languages: Hebrew; English

**Nature of activities** Laboratory

**Purpose and objectives** Main branch of the National and Regional Public Health Authorities; Microbiological testing of seawater and sand for the safe use of recreational facilities

**Areas of speciality/activities** Marine microbiology; Marine environmental management; Monitoring and/or assessment; Chemical and microbiological testing of seawater and food; Testing for syphilis, toxoplasmosis, shigelia and mycobacteria

**Environments** Coastal zone

**Geographic areas** Mediterranean Sea

#### Research programmes/projects

- Major research programme in microbiology of drinking water and seawater
- Mycobacteriology
- Toxoplasmosis

#### Co-operative research programmes/projects

- UNEP/MED POL Programme

**Staff** Professional 28; Technical 12; Other 3

#### Information facilities

**Library** 8 periodicals

**Computers** PCs (IBM) **Applications** Database management **Data exchange** Remote access

**Physical facilities** 1500 m<sup>2</sup>

**Laboratories** 1200 m<sup>2</sup>; climate controlled

**Facilities** for 2 visiting scientists **Conference/seminar facilities** for 25 participants

**Professional/Scientific staff**

Name	Degree	Position	Specialization
Bar-Dov, L (Mr)	MD	Microbiologist	Water analysis
Cohen, I (Mr)	PhD	Director of Chemistry Laboratory	Chemistry; Water chemistry analysis
Ghinsburg, R (Mr)	PhD	Director of Regional Laboratory	Microbiology; Seawater analysis
Mates, Abraham (Mr)	PhD/MPh	Director	Microbiology; Seawater microbiology
Nishri, Z (Ms)	MSc	Head, National Centre for Toxoplasmosis	Toxoplasmosis; Serology of toxoplasma
Royto, M (Ms)	PhD	Chemist	Food analysis; Chemical food analysis
Sklut, O (Ms)	MSc	Food Microbiologist	Food microbiology; Food analysis

### Technion-Israel Institute of Technology Coastal and Marine Engineering Research Institute (CAMERI)

Technion  
Haifa 32000  
ISRAEL

**Telephone** (972) 4 220642  
(972) 4 292957  
**Telex** 46406 TECON IL, Attn. CAMERI  
**Fax** (972) 4 220133

**Executive officer** Professor Hillel RUBIN, Director

Private commercial institution founded in 1976. Languages: Hebrew; English

**Nature of activities** Research; Laboratory; Academic/educational

**Purpose and objectives** Marine engineering research and consultation

**Areas of speciality/activities** Physical oceanography; Instruments and methods; Water masses and circulation; Currents and dispersion; Air-sea interaction; Waves, tides, surges and sea level; Modelling; Sedimentology; Coastal and nearshore processes; Marine environmental management; Monitoring and/or assessment; Coastal zone management; Pollution; Nature conservation and/or restoration; Environmental impact assessment; Research project concerning modelling of coastal structure; Research project concerning the performance of various types of vessels; Engineering consultation regarding the design of marinas

**Geographic areas** Mediterranean Sea

## ISRAEL

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**Staff** Professional 10; Technical 7; Other 3

### Information facilities

**Publications** Technical reports relevant to research projects

**Library** Yes **Co-operative programmes/projects** Library of the Department of Civil Engineering, Technion **Librarian** Mrs Mira Eisler

**Computers** Various **Applications** Engineering; Mathematical; Modelling; Scientific; Word processing

### Physical facilities

**Laboratories** 1300 m<sup>2</sup>

**Conference/seminar facilities** available **Lodging** available

### Professional/Scientific staff

Name	Degree	Position	Specialization
<b>Agnon</b> , Yehuda (Mr)	DSc	Senior Lecturer	Hydrodynamics; Sea waves; Applied mathematics
<b>Boguslavsky</b> , Irina (Ms)	DSc	Senior Scientist	Naval hydrodynamics
<b>Keren</b> , Yehuda (Mr)	DSc	Senior Scientist	Hydraulics; Hydraulic structures
<b>Kit</b> , Eliezer (Mr)	DSc	Professor	Hydrodynamics; Sea water
<b>Rubin</b> , Hillel (Mr)	DSc	Professor/Director	Hydrodynamics; Hydraulics; Flow in porous media
<b>Stiassnie</b> , Michael (Mr)	DSc	Professor	Sea waves; Maritime structures
<b>Vajda</b> , Michael (Mr)	DSc	Professor	

### Tel-Aviv University Institute for Nature Conservation Research (INCR) *Makhon L'Heker Shimur Hateva*

University Street  
Tel Aviv 69978  
ISRAEL

**Telephone** (972) 3 5459813  
**Telex** 342171  
**Fax** (972) 3 6425518  
**E-mail** (D63) TAUNUS

**Executive officer** Professor Lev FISHELSON, Director

Governmental, national institution founded in 1965. Languages: Hebrew; English

**Nature of activities** Research; Academic/educational; Information/public awareness

**Purpose and objectives** The study of anthropogenic impact on ecosystems and the advancement of ecosystem conservation

**Areas of speciality/activities** Heavy metals; Organics (halogenated hydrocarbons, petroleum hydrocarbons, etc); Biota; Zooplankton; Benthos; Fish; Molluscs; Coastal zone management; Pollution; Nature conservation and/or restoration; Environmental education; Bioindicators of pollution along the Mediterranean littoral and in the Gulf of Aqaba, Red Sea; Lichens as pollution bioindicators; Xenobiotics in animals around industrial centres; Ecology of rivers and littoral of Lake Tiberias

**Environments** Lakes; Brackishwater; Coastal zone; Benthic environment

**Geographic areas** Mediterranean Sea; Red Sea

#### Training programmes

- Ecology of animals and man
- Environmental quality in Nature Reserves
- Limnology
- Environmental quality
- Environmental toxicology

**Staff** Professional 8; Technical 3; Other 7

#### Information facilities

**Library** 160 periodicals

**Computers** Various **Applications** Communications; Database management; Desktop publishing; Education; Mathematical; Modelling; Scientific; Word processing

#### Physical facilities

**Laboratories** 400 m<sup>2</sup>; climate controlled **Laboratory equipment** SCUBA, 3 sets; Ultrascope; Spectrophotometer; HPLG; Gas-chromatograph; Ultracentrifuge **Aquariums** 6x3 m<sup>3</sup> **Species maintained** Numerous invertebrates; Cat fish; Tilapias; African cichlidae

**Facilities** for 2 visiting scientists; 14 students

#### Professional/Scientific staff

Name	Degree	Position	Specialization
Fishelson, Lev (Mr)	Doctorate	Professor/Director	Zoology; Ecology; Dynamics of ecosystems; Ichthyology
Garty, Yaacob (Mr)		Assistant Professor	Botany; Lichens; A1 bioindicators



## ISRAEL

Name	Degree	Position	Specialization
<b>Gasith</b> , Avital (Mr)		Assistant Professor	Limnology; Zoology; Ecology of freshwater littorals
<b>Meshel</b> , Zeev (Mr)		Senior Lecturer	Geography
<b>Perry</b> , Al (Mr)		Professor	Biology; Chemistry; Pest control
<b>Sne</b> , Borukh (Mr)		Associate Professor	Soil; Soil microbiology; Pathogenic fungi; Pest control by <i>Bacillus thuringensis</i> ; Botany
<b>Yaavetz</b> , Aminadav (Mr)		Senior Scientist	Biochemistry; Environmental toxicology
<b>Zahavi</b> , Amotz (Mr)		Professor	Zoology; Sociobiology
<b>Zuck-Rimon</b> , Zohar (Mr)	MSc	Assistant	Zoology; Rodents

### Weizmann Institute of Science

Rehovot 76100  
ISRAEL

**Telephone** (972) 8 343111  
**Telex** 381300  
**Fax** (972) 8 466966  
**E-mail** (BITNET)

**Executive officer** Professor Haim HARARI, President

Private non-profit institution founded in 1934. Languages: English; Hebrew

**Nature of activities** Research; Laboratory; Academic/educational

**Purpose and objectives** The Weizman Institute of Science is devoted to research and to graduate teaching in the natural and exact sciences

**Areas of speciality/activities** Water masses and circulation; Air-sea interaction; Modelling; Marine chemistry and geochemistry; Sediments; Waters; Marine meteorology and climatology; The Institute has 20 research departments, grouped into five Faculties: Mathematical sciences, Physics, Chemistry, Biophysics-Biochemistry, Biology, and the Department of Science Teaching within the Feinberg Graduate School

**Environments** Lakes; Coastal zone; Lagoons

**Geographic areas** Mediterranean Sea; Aegean Sea; Levantine Sea; Atlantic Ocean; Red Sea; Dead Sea

**Staff** Professional 400; Technical 600

**Information facilities**

**Publications** Annual scientific report; List of current research projects; Rehovot Magazine

**Library** Yes **Co-operative programmes/projects** Various **Librarian** Mrs Ilana Pollack

**Computers** Various **Applications** Accounting/financial planning; Communications; Education; Library/documentation; LAN; Modelling; Network access; Scientific; Word processing **Data exchange** Remote access via network

**Physical facilities** 100000 m<sup>2</sup>

**Laboratories** climate controlled

**Facilities** for 120 visiting scientists; 600 students **Conference/seminar facilities** for 600 participants **Lodging** for 60

# ITALY

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## **Centre for Studies in Engineering and Applied Economics**

*Centro Studi di Economia all'Ingegneria (CSEI)*

27 Via Cifali  
Catania 95023  
ITALY

**Telephone** (39) 95 439181

**Fax** (39) 95 437671

**Executive officer** Professor Salvatore INDELICATO, Director

Private non-profit institution founded in 1975. Languages: Italian; English

**Nature of activities** Research; Technical training

**Purpose and objectives** Rational utilization of natural resources (particularly water resources) in southern Italy

**Areas of speciality/activities** Marine environmental management; Pollution; Environmental impact assessment; Environmental economics; Environmental education; Development policy/planning; Resources management; Research; Education; Technical assistance to public agencies

**Environments** Lakes; Coastal zone; Rivers; Littoral zone

**Geographic areas** Ionian Sea

### **Research programmes/projects**

- Water systems management
- Information systems
- Natural resources and agricultural development
- Pollution control in rivers, lakes and coastal zones
- Economic evaluation and environmental impacts

### **Co-operative research programmes/projects**

- Centro Formazune e Studi per il Mezzogiorno-Roma (FORMEZ): Programme on pollution control and irrigation development
- Consiglio Nazionali delle Ricerche-Roma (CNR): Programme on groundwater protection
- Sicily Region programme on wastewater plans and information systems in water resources management

### **Training programmes**

- Pollution control and environmental protection
- Water supply for municipal, industrial and agricultural use
- Information systems

**Staff** Professional 6; Technical 3; Other 3

**Information facilities****Publications** Quaderni CSEI-Catania**Library** Yes **Co-operative programmes/projects** Various **Librarian** Mrs Alba Musumeci**Computers** 1 DEC MicroVax II; 2 IBM PS/2; 2 PCs (DEC 350); 1 Plotter (Benson); 1 Digitizer (Benson) **Applications** Accounting/financial planning; Database management; Graphics; Modelling  
**Data exchange** Remote network access/Electronic mail (EARN/Bitnet); 5.25" PC diskettes; Tape (ASCII, TK50)**Physical facilities** 300 m<sup>2</sup>**Conference/seminar facilities** for 30 participants**Professional/Scientific staff**

Name	Degree	Position	Specialization
<b>Battiato</b> , Salvatore Enrico (Mr)	Laurea	Researcher	Economics; Environmental impacts
<b>Francalanza</b> , Santo (Mr)	Laurea	Researcher	Engineering; Computer sciences
<b>Giardina</b> , Emilio (Mr)	Laurea	President	Law; Economics; Economics of natural resources
<b>Indelicato</b> , Salvatore (Mr)	Laurea	Professor/Director	Engineering; Water resources; Hydraulics; Irrigation; Pollution control
<b>Magi</b> , Salvatore (Mr)	Laurea	Researcher	Engineering; Computer sciences
<b>Rossi</b> , Giuseppe (Mr)	Laurea	Researcher	Engineering; Water resources; Hydrology; Water systems

**Consortium for Research in Sardinia**  
**Institute of Marine Science**  
*Consorzio per le Ricerche in Sardegna*  
*Istituto Scienze del Mare (CO.RI.SA-I.S.MAR)*

21 Piazza Università  
 Sassari 07100  
 ITALY

**Telephone** (39) 79 398772  
 (39) 79 398655  
**Fax** (39) 79 398524

## ITALY

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**Executive officer** Professor Antonio MILELLA, President

Private non-profit institution founded in 1981. Languages: Italian; English; French

**Nature of activities** Research

**Purpose and objectives** Research, studies and training courses in marine environmental problems

**Areas of speciality/activities** Nutrients; Sediments; Waters; Suspended matter; Biota; Topography and morphology; Sedimentology; Phytoplankton; Zooplankton; Benthos; Fish; Algae; Plankton blooms; Molluscs; Crustaceans; Marine mammals; Marine microbiology; Taxonomy and systematics; Productivity; Fisheries; Aquaculture; Remote sensing; Assistance to the Ministries of Environment and Merchant Marine and to major governmental institutions in assessing marine environmental problems, especially along the Sardinian coast

**Environments** Brackishwater; Coastal zone; Benthic environment; Littoral zone; Lagoons

**Geographic areas** Mediterranean Sea; Algero-Provencal Basin

### Research programmes/projects

- Environmental studies and research in the Sardinian sea areas and in the field of marine mammal population of the Italian seas

### Co-operative research programmes/projects

- University of Cagliari
- Regione Sardegna
- ENEA
- TECNOMAR
- FORMEZ

### Training programmes

- Training courses in mariculture, molecular biology, aquaculture, statistics and agroinformatics

**Staff** Professional 14; Technical 2; Other 10

### Information facilities

**Computers** 4 PCs (1 Compaq 286, 1 Epson AX2, 2 PCBit 286s); 5 Apple Macintosh computers; Printers (Epson) **Applications** Communications; CAD/CAM/CAE; Graphics; Library/documentation; Mapping; Scientific; Statistical; Word processing

**Physical facilities** 1860 m<sup>2</sup>

**Laboratories** 800 m<sup>2</sup> **Laboratory equipment** Complete SCUBA equipment; Main apparatus for chemical and biological analyses of marine samples

**Research vessels/crafts** 1 Boston Whaler 25 (1989), 4 ton, 25 feet, 2 crew; 1 inflatable BWA, 4.3MT, engine Mariner 25 CV

**Facilities** for 10 students

**Professional/Scientific staff**

Name	Degree	Position	Specialization
<b>Milella</b> , Antonio (Mr)		Professor/President	
<b>Milella</b> , Isabella (Ms)	Laurea	Researcher	Marine environment; Zoobenthos
<b>Pagliara</b> , Tiziano (Mr)	Laurea	Researcher	Aquaculture
<b>Pintus</b> , Maria Grazia (Ms)	Laurea	Researcher	Marine environment; Marine microbiology
<b>Saba</b> , Silvia (Ms)	Laurea	Researcher	Marine environment; Ichthyology; Fisheries
<b>Virdis</b> , Giancarlo (Mr)	Laurea	Researcher	Marine environment; Sedimentology

**General Fisheries Council for the Mediterranean  
Food and Agricultural Organization of the United Nations (GFCM-FAO)**  
*Conseil Général des Pêches pour la Méditerranée*  
*Organisation des Nations Unies pour l'Alimentation et l'Agriculture (CGPM)*

Via delle Terme di Caracalla  
Roma 00100  
ITALY

**Telephone** (39) 6 5797  
**Telex** 610181 FAO I  
**Cable** FOODAGRI ROME  
**Fax** (39) 6 57976500

**Executive officer** Mr Habib BEN ALAYA, Secretary of the Council/Senior Fisheries Liaison Officer

United Nations institution founded in 1949. Languages: English; French; Spanish; Arabic

**Nature of activities** Policy and planning; Technical advice

**Purpose and objectives** Co-ordination of activities related to fishery management, regulations and research in the Mediterranean

**Areas of speciality/activities** Analytical methodology; Nutrients; Heavy metals; Organics (halogenated hydrocarbons, petroleum hydrocarbons, etc); Biota; Phytoplankton; Zooplankton; Benthos; Fish; Eutrophication; Plankton blooms; Molluscs; Crustaceans; Toxicology; Taxonomy and systematics; Productivity; Fisheries; Aquaculture; Monitoring and/or assessment; Coastal zone management; Pollution; Artificial reefs; Development policy/planning; Resources management; Working groups, panels, etc.

**Environments** Coastal zone; Pelagic environment; Benthic environment; Lagoons; Coral reefs and atolls

## ITALY

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**Geographic areas** Mediterranean Sea; Black Sea

**Staff** Professional 2

### Information facilities

**Publications** GFCM Reports; GFCM Studies and Reviews; GFCM Statistical Bulletin

**Library** Yes

**Computers** Various **Applications** Desktop publishing; Scientific; Statistical; Word processing

### Physical facilities

**Conference/seminar facilities** for 1200 participants

### Professional/Scientific staff

Name	Degree	Position	Specialization
Ben Alaya, Habib (Mr)	Doctorate	Senior Officer/Secretary of the Council	Marine biology
Caddy, John (Mr)	PhD	Chief, Marine Resources Service (FIRM)	Marine biology

### High Institute of Health

#### Department of Environmental Microbiology

*Istituto Superiore di Sanità*

*Dipartimento di Microbiologia Ambientale (ISS)*

299 Viale Regina Elena

Roma 00161

ITALY

**Telephone** (39) 6 4490774

**Telex** 610071

**Fax** (39) 6 4440064

**Executive officer** Professor Laura VOLTERRA, Director of Environmental Microbiology

Governmental, national institution. Languages: English; French

**Nature of activities** Research; Technical training; Laboratory

**Purpose and objectives** Research activities in the field of microbiology including virology and algal toxicology; Co-ordination of monitoring activities along coastal areas, and inland waters

**Areas of speciality/activities** Phytoplankton; Eutrophication; Plankton blooms; Marine microbiology; Toxicology; Monitoring and/or assessment; Pollution; Enteroviruses; Water and air microbiology; Algal toxicology; Biological indicators

**Geographic areas** Adriatic Sea; Ionian Sea; Ligurian Sea; Sicilian Channel; Tyrrhenian Sea

**Research programmes/projects**

- Alternative indicators of fecal pollution in recreational waters
- Bioaerosols
- Enteroviruses in various aqueous matrices
- Biological indicators in rivers located in the Roman district
- DSP and PSP from marine environments
- Cyanogynosomes in freshwater reservoirs
- Physiology and toxicology of *Prymnesium parvum*
- Studies on "dirty sea" origins

**Training programmes**

- Aquatic biotoxins

**Staff** Professional 6; Technical 12

**Information facilities**

**Publications** Annali dell' Istituto Superiore di Sanita, journal; Technical reports

**Library** Yes **Co-operative programmes/projects** Various **Librarian** Dr Berruti

**Computers** 1 IBM 370; Various PCs **Applications** Accounting/financial planning; Mathematical; Modelling

**Physical facilities** 20000 m<sup>2</sup>

**Laboratories** 800 m<sup>2</sup>; climate controlled

**Conference/seminar facilities** available

**Professional/Scientific staff**

Name	Degree	Position	Specialization
Aulicino, F A (Ms)	Doctorate	Doctor	Enteroviruses
Bonadonna, L (Ms)	Doctorate	Doctor	Microbiology
Bruno, M (Ms)	Doctorate	Doctor	Algal toxicology
Di Girolamo, I (Ms)	Doctorate	Doctor	Biological indicators
Gucci, P M B (Ms)	Doctorate	Doctor	Algal toxicology
Volterra, L (Ms)	Doctorate	Professor/Director	Biotoxins and microbiology



## ITALY

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### Laboratory of Marine Biology

#### *Laboratorio di Biologia Marina*

Molo Pizzoli (Porto)  
Bari 70100  
ITALY

**Telephone** (39) 80 5211200

(39) 80 5213486

**Fax** (39) 80 5213486

**Executive officer** Professor Giovanni MARANO, Director

Governmental, local institution founded in 1960. Languages: Italian; English

**Nature of activities** Research; Laboratory

**Purpose and objectives** Research on productivity, pollution, aquaculture and fisheries

**Areas of speciality/activities** Nutrients; Waters; Biota; Marine biology and ecology; Phytoplankton; Zooplankton; Benthos; Fish; Molluscs; Crustaceans; Marine mammals; Productivity; Community and population studies; Fisheries; Aquaculture; Pollution; Artificial reefs

**Environments** Coastal zone; Pelagic environment; Benthic environment

**Geographic areas** Adriatic Sea; Strait of Otranto

#### **Research programmes/projects**

- Studies on the fishing of swordfish and tuna
- Clupeiformes
- Baby clams
- Trawlfishery

#### **Co-operative research programmes/projects**

- Studies on the fishing of swordfish in Greece

#### **Training programmes**

- Courses in marine biology and primary/secondary productivity

**Staff** Professional 6; Technical 8; Other 3

#### **Information facilities**

**Publications** 4 - 5 reports and monographs annually

**Library** 700 volumes/reprints; 5 periodicals **Co-operative programmes/projects** Various

**Computers** PCs (Olivetti M24); Printers (Olivetti) **Applications** Database management; Scientific; Statistical; Word processing **Data exchange** WordStar 5, Lotus 1-2-3 files

**Physical facilities** 3500 m<sup>2</sup>

**Laboratories** 380 m<sup>2</sup> **Laboratory equipment** Spectrophotometer UV visible; Colorimetro Minilyzer della Technicon Italiana; Sonda oceanografica; pH meter; Sonda polarografica per O<sub>2</sub>; Complete diving equipment for three licensed divers for underwater vehicle **Aquariums** 20x110000 m<sup>3</sup> **Visitors** 10000 annually **Species maintained** *Dicentrarchus labrax*; *Sepia officinalis*

**Research vessels/crafts** RV "Podon", fishing trawler, 15,81 TSL 180 HP, equipped with radar, echosounder, radio and scientific equipment; RV "Aquamaster"

**Facilities** for 2 visiting scientists; 4 students

#### Professional/Scientific staff

Name	Degree	Position	Specialization
Bello, Giambattista (Mr)	Laurea	Assistant	Zoology; Cephalopoda
Casavola, Nicola (Mr)	Laurea	Vice Director	Oceanography; Fish nutrients; Productivity
De Zio, Vito (Mr)	Laurea	Assistant	Zoology; Marine mammals; Fisheries
Marano, Giovanni (Mr)	Laurea	Director	Marine biology; Ecology; Fishery pollution; Aquaculture
Paparella, Pasqua (Ms)	Laurea	Assistant	Microbiology; Water pollution
Pastorelli, Anna Maria (Ms)	Laurea	Assistant	Zoology; Benthos; Mollusca
Rizzi, Ermenegilda (Ms)	Laurea	Assistant	Marine biology; Phytoplankton; Fishery
Ungaro, Nicola (Mr)	Laurea	Assistant	Zoology; Fish; Fisheries; Benthos
Vaccarella, Raffaele (Mr)	Laurea	Vice Director	Zoology; Benthos; Mollusca; Fisheries

#### Laboratory of Marine Biology

Laboratorio di Biologia Marina (LBM)

Strada Costiera 336  
S. Croce  
Trieste 34010  
Friuli Venezia-Giulia  
ITALY

**Telephone** (39) 40 224400  
(39) 40 224464  
(39) 40 224620  
**Fax** (39) 40 224437

## ITALY

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**Executive officer** Professor Mario SPECCHI, Scientific Director

Parastatal institution founded in 1975. Languages: Italian; English; French

**Nature of activities** Research

**Purpose and objectives** Scientific activities at a national and international level; Establishment of a centre for pure and applied research

**Areas of speciality/activities** Physical oceanography; Marine chemistry and geochemistry; Nutrients; Heavy metals; Organics (halogenated hydrocarbons, petroleum hydrocarbons, etc); Sediments; Waters; Suspended matter; Biota; Marine geology and geophysics; Sedimentology; Marine biology and ecology; Phytoplankton; Zooplankton; Benthos; Algae; Eutrophication; Plankton blooms; Molluscs; Crustaceans; Marine physiology; Marine biochemistry; Marine microbiology; Toxicology; Taxonomy and systematics; Community and population studies; Aquaculture; Marine meteorology and climatology; Marine environmental management; Monitoring and/or assessment; Pollution; Environmental impact assessment; Scientific support to the WWF-Riserva Parco di Miramare (Trieste)

**Environments** Coastal zone; Pelagic environment; Benthic environment; Littoral zone

**Geographic areas** Adriatic Sea

### Research programmes/projects

- Friuli Venezia-Giulia Region: Study of temporal and spatial distribution of potentially toxic algae and detection of toxins produced by algae in mussels

### Co-operative research programmes/projects

- Friuli Venezia-Giulia Region/Ministero Marina Mercantile: Monitoring, eutrophication control and evaluation of water quality in mussel farms in the coastal water of the Friuli Venezia-Giulia Region
- Osservatorio Alto Adriatico/Working Community of ALPE-ADRIA: Microalgal blooms, formation of gelatinous organic aggregates and their impact on the north Adriatic ecosystem. Recording incidences of particle formation, detection and follow-up of the time course of development of aggregation processes during the year; comparison to physical, chemical and biological parameters measured in the water column and sediments

**Staff** Professional 26; Technical 7; Other 5

### Information facilities

**Publications** "Nova Thalassia", journal

**Library** 10000 volumes/reprints; 50 periodicals **Librarian** Mr Marino Vocci

**Computers** 1 IBM AX400 minicomputer; 10 PCs; Various printers (2 Epson laser, 2 Epson FX and 1 LQ1050 matrix printers) **Data exchange** 5.25"(HD)/3.5"(HD) PC diskettes; Lotus 1-2-3, WordPerfect, WordStar 5.5, MS-Word 5, Windows 3.0, ASCII text files

**Physical facilities** 1100 m<sup>2</sup>

**Laboratories** 600 m<sup>2</sup> **Laboratory equipment** Spectrophotometer; Spectrofluorometer; HPLC; Autoanalyser; Coulter counter; CTD; Salinometer; Refrigeration centrifuge; Thermostats; Autoclave; Rearing cells; Stereomicroscope; Inverted microscope; Fume hoods **Aquariums** 3x0.4 m<sup>3</sup>

**Research vessels/crafts** RV "Noctiluca" (1983), 5 m, accommodations for 3 scientists

**Facilities** for 6 visiting scientists; 12 students **Conference/seminar facilities** for 40 participants

### Professional/Scientific staff

Name	Degree	Position	Specialization
<b>Aleffi</b> , Ida Floriana (Ms)	Laurea	Researcher	Biology; Benthos; Polychaetes
<b>Bartole</b> , Laura (Ms)	Laurea	Temporary assignment	Biology; Microphytobenthos; Ecology
<b>Beran</b> , Alfred (Mr)	PhD	Temporary assignment	Zoology; Plankton; Protozoans
<b>Brizzi</b> , Giulio (Mr)	Laurea	Fellowship	Natural sciences; Meiobenthos and fisheries; Molluscs; Nematodes
<b>Burba</b> , Nicoletta (Ms)	Laurea	Fellowship	Natural sciences; Quantitative ecology; Databank
<b>Bussani</b> , Diadora (Ms)	Laurea	Fellowship	Natural sciences; Toxicology; Toxic algae
<b>Cabrini</b> , Marina (Ms)	Laurea	Researcher	Biology; Plankton; Phytoplankton
<b>Casaretto</b> , Licia (Ms)	Laurea	Fellowship	Biology; Plankton; Microzooplankton
<b>Cataletto</b> , Bruno (Mr)	Laurea	Temporary assignment	Biology; Plankton; Netzooplankton; Phytoplankton
<b>Celio</b> , Massimo (Mr)	Laurea	Temporary assignment	Geology; Physical oceanography; Thermohaline features of the water column
<b>Cok</b> , Sara (Ms)	Laurea	Temporary assignment	Biology; Plankton; Phytoplankton
<b>Della Valle</b> , Giuseppe (Mr)	Laurea	Fellowship	Natural sciences; Microphytobenthos; Ecophysiology
<b>Del Negro</b> , Paola (Ms)	Laurea	Researcher	Biology; Microbiology; Toxicology; Pollution indicators; Toxic algae
<b>De Olazabal</b> , Alessandra (Ms)	Laurea	Temporary assignment	Natural sciences; Plankton; Netzooplankton
<b>Goriup</b> , Francesca (Ms)	Laurea	Temporary assignment	Natural sciences; Benthos; Polychaetes
<b>Landri</b> , Paola (Ms)	Laurea	Temporary assignment	Biology; Benthos; Molluscs
<b>Milani</b> , Luisella (Ms)	Laurea	Researcher	Biology; Plankton; Microzooplankton
<b>Monti</b> , Marina (Ms)	Laurea	Fellowship	Natural sciences; Plankton; Microzooplankton

## ITALY

Name	Degree	Position	Specialization
Nichetto, Paola (Ms)	Laurea	Temporary assignment	Biology; Toxicology; Cysts of toxic algae
Pavesi, Maria Cristina (Ms)	Laurea	Temporary assignment	Biology; Plankton; Microzooplankton; Netzooplankton
Pecchiar, Irene (Ms)	Laurea	Temporary assignment	Biology; Plankton; Phytoplankton
Sanzin, Fabrizio (Mr)	Laurea	Temporary assignment	Geology; Physical oceanography; Meteorology; Thermohaline features and meteorological effects on the water column
Sidari, Laura (Ms)	Laurea	Temporary assignment	Biology; Plankton; Phytoplankton
Specchi, Mario (Mr)	PhD	Scientific Director	
Welcher, Chiara (Ms)	Laurea	Fellowship	Biology; Microphytobenthos; Histochemistry
Zanolin, Bruno (Mr)	Laurea	Temporary assignment	Biology; Meiobenthos; Nematodes; Copepods

### Miramare Marine Park

#### *Riserva Naturale Marina di Miramare*

349 Viale Miramare  
Trieste I 34014  
ITALY

**Telephone** (39) 40 224147

**Fax** (39) 40 224147

**Executive officer** Mr Graziano BENEDETTI, Head

Governmental, national institution founded in 1986. Languages: Italian

**Nature of activities** Laboratory; Academic/educational; Information/public awareness

**Purpose and objectives** Environmental protection and promotion of environmental awareness; Identification, promotion and implementation of research and educational programmes on the marine environment

**Areas of speciality/activities** Marine biology and ecology; Community and population studies; Marine environmental management; Environmental education; Recreation/tourism; Resources management; Maintenance and updating of the Visitors Centre

**Environments** Littoral zone

**Geographic areas** Mediterranean Sea; Adriatic Sea

**Research programmes/projects**

- Updating of floro-faunistic charts, research programme

**Co-operative research programmes/projects**

- Laboratorio di Biologia Marina, Trieste: Marine biology research programme

**Staff** Professional 4; Technical 1; Other 1

**Information facilities**

**Computers** PCs (Philips P3200, Philips CDWS401); Printer (Epson SQ2500) **Applications** Database management; Desktop publishing; Graphics; Library/documentation; Word processing  
**Data exchange** 5.25"/3.5" PC diskettes; Lotus 1-2-3, WordStar, and ASCII text files

**Physical facilities** 150 m<sup>2</sup>

**Laboratories** 80 m<sup>2</sup> **Laboratory equipment** Diving equipment for 4 people; Underwater TV circuit with monitors in the Visitors Centre (also suitable for ethological studies), as of 1991; Stereomicroscope with TV camera and monitor; Multiparametric marine probe (IDRONAUT, model OCEAN 7) **Aquariums** 2x0.046 m<sup>3</sup>; 4x0.090 m<sup>3</sup>; 1x0.150 m<sup>3</sup>; 5x0.210 m<sup>3</sup>; 2x0.430 m<sup>3</sup>; 1x0.250 m<sup>3</sup>  
**Visitors** 18000 annually **Species maintained** *Zosterisessor ophyocephalus* (Osteichthyes); *Squilla mantis* (Crustacea)

**Research vessels/crafts** "Ophiura", cabin cruiser, (1989), 8.5 m, equipped with radar, writing echosounder, radio, GPS, accommodations for 7 scientists or SCUBA-divers, as of 1992

**Facilities** for 2 visiting scientists; 15 students

**Professional/Scientific staff**

Name	Degree	Position	Specialization
Benedetti, Graziano (Mr)		Head	
Franzosini, Carlo (Mr)	BA		Algology
Spoto, Maurizio (Mr)	BA	Co-ordinator	Ethology
Zuppa, Francesco (Mr)	BA		Environmental education

**Municipal Aquarium and Hydrobiological Station**

*Acquario Civico e Stazione Idrobiologica*

2 Viale Gadio  
 Milano 20121  
 ITALY

**Telephone** (39) 2 86462051

**Fax** (39) 2 878007

# ITALY

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**Executive officer** Dr Mauro MARIANI

Governmental, local institution founded in 1906. Languages: Italian; English; French

**Nature of activities** Research; Academic/educational; Information/public awareness

**Purpose and objectives** Scientific research and educational programmes in aquatic ecology

**Areas of speciality/activities** Heavy metals; Sediments; Sedimentology; Benthos; Fish; Molluscs; Pathology of marine species; Taxonomy and systematics; Community and population studies; Environmental education; Recreation/tourism; Assistance to the Convention on International Trade in Endangered Species (CITES), in the compilation and control of the "Endangered Species" list

**Environments** Lakes; Brackishwater; Pelagic environment; Benthic environment; Rivers

**Geographic areas** Mediterranean Sea; Adriatic Sea; Ligurian Sea; Tyrrhenian Sea

## Research programmes/projects

- Study on the taxonomy of *Arnoglossus laterna*
- Study on the distribution of the opisthobranch molluscs in the Ligurian Sea

## Co-operative research programmes/projects

- Tethys-Big Game Italia: Prionace Project: distribution and ecology of *Prionace glauca*
- University/CNR: Nemo Project: physiology of benthic invertebrates in the Mediterranean Sea

**Staff** Professional 9; Technical 2; Other 22

## Information facilities

**Publications** Quaderni della Civica Stazione Idrobiologica di Milano

**Library** 9000 volumes/reprints; 686 periodicals **Librarian** Mr Umberto Fratta

**Computers** 1 IBM PS/2; Apple computers (1 Macintosh SE, 1 Macintosh Plus, 4 Macintosh II); 2 Commodore Amiga 1000; Printers (1 HP Datacopy 730GS, 1 Apple Laserwriter, 4 Epson MX100s)

**Applications** Accounting/financial planning; Database management; Education; Modelling; Scientific; Statistical; Word processing **Data exchange** 3.5"(HD) PC and Apple diskettes; Lotus 1-2-3, dBase, Excell, Word 4, and ASCII text files

**Physical facilities** 10000 m<sup>2</sup>

**Laboratories** 150 m<sup>2</sup> **Laboratory equipment** 5 licensed divers **Aquariums** 80x340 m<sup>3</sup> **Visitors** 300000 annually **Species maintained** *Dreissena polymorpha*; *Timoclea ovata*

**Facilities** for 2 visiting scientists **Conference/seminar facilities** for 100 participants

## Professional/Scientific staff

Name	Degree	Position	Specialization
Bianchi, Irene (Ms)	Doctorate	Research Associate	Ecology; Fish
Davini, Alessandra (Ms)	Doctorate	Research Associate	Ecology; Amphibians

Name	Degree	Position	Specialization
Lavorano, Silvia (Ms)	Doctorate	Research Associate	Ecology; Aquariology; Molluscs
Mariani, Mauro (Mr)	Doctorate	Director	Taxonomy; Mathematical ecology; Population dynamics
Mojetta, Angelo (Mr)	Doctorate	Research Associate	Biology
Monti, Angelo (Mr)	Doctorate	Research Associate	Pathology; Fish
Notarbartolo di Sciara, Giuseppe (Mr)	PhD	Research Associate	Biology; Mammals
Perego, Cristina (Ms)	Doctorate	Research Associate	Ecology; Aquariology; Molluscs
Saroglia, Marco (Mr)	Doctorate	Research Associate	Aquaculture; Fish
Vinci, Antonino (Mr)	Doctorate	Biotechnologist	Chemistry; Water analysis

### Naples Zoological Station "Anton Dohrn" *Stazione Zoologica "Anton Dohrn" (SZN)*

Villa Comunale  
Napoli 80121  
ITALY

**Telephone** (39) 81 5833111  
**Telex** 720256 SZN I  
**Cable** AQUARIUM NAPOLI  
**Fax** (39) 81 7641355  
**E-mail** (ITAPAC)

**Executive officer** Dr Lucio CARIELLO, Director General

Parastatal institution founded in 1872. Languages: Italian; English

**Nature of activities** Research; Technical training; Laboratory

**Purpose and objectives** Biological and marine environmental research

**Areas of speciality/activities** Water masses and circulation; Modelling; Analytical methodology; Nutrients; Sediments; Suspended matter; Biota; Phytoplankton; Zooplankton; Benthos; Fish; Algae; Eutrophication; Plankton blooms; Molluscs; Crustaceans; Marine biochemistry; Taxonomy and systematics; Productivity; Community and population studies; Nature conservation and/or restoration; Environmental education; Development of marine resources; Quality control of marine waters

**Environments** Brackishwater; Coastal zone; Pelagic environment; Benthic environment; Littoral zone

**Geographic areas** Mediterranean Sea; Adriatic Sea; Ionian Sea; Levantine Sea; Sicilian Channel; Tyrrhenian Sea; Antarctic



## ITALY

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### Research programmes/projects

- Biochemistry
- Cell biology
- Neurobiology
- Benthic ecology
- Marine botany
- Biological oceanography
- Aquariology

### Co-operative research programmes/projects

- CEE: Functional approach to the study of Posidonia oceanica ecosystem of the Mediterranean Sea
- CEE: Box and flux of nitrogen and carbon in Posidonia oceanica

**Staff** Professional 33; Technical 55; Other 17

### Information facilities

**Publications** Marine Ecology; History and Philosophy of the Life Sciences; Technical reports (irregular)

**Library** 65000 volumes/reprints; 600 periodicals **Co-operative programmes/projects** University of Naples library **Librarian** to be appointed

**Computers** 1 IBM AS400; PCs; Local Area Network **Applications** Accounting/financial planning; Communications; Database management; Desktop publishing; Graphics; Library/documentation; LAN; Modelling; Network access; Scientific; Statistical; Word processing **Data exchange** Remote access via network for E-mail

### Physical facilities 9000 m<sup>2</sup>

**Laboratories** 3000 m<sup>2</sup>; climate controlled **Laboratory equipment** 3 Electron microscopes; Centrifuges, balances, analytical instruments; Optical microscopes; 9 licensed divers **Aquariums** 50x265 m<sup>3</sup>; 25x250 m<sup>3</sup> **Visitors** 100000 visitors annually **Species maintained** Marine organisms from the Bay of Naples

**Facilities** for 30 visiting scientists **Conference/seminar facilities** for 30 participants

## Professional/Scientific staff

Name	Degree	Position	Specialization
<b>Aniello</b> , Francesco (Mr)	Laurea	Investigator	Biochemistry; DNA-Protein interaction
<b>Bentivegna</b> , Flegrea (Ms)	Laurea	Principal Investigator	Public aquarium; Scientific museum; Ecology and sexual dimorphism in fish
<b>Branno</b> , Margherita (Ms)	Laurea	Investigator	Biochemistry; DNA-Protein interaction
<b>Buia</b> , Maria Cristina (Ms)	Laurea	Investigator	Benthic ecology; Systematics; Ecology of macrophytes
<b>Cariello</b> , Lucio (Mr)	Laurea	Senior Investigator/Director General	Biochemistry; Peptide biosynthesis
<b>Casazza</b> , Gianna (Ms)	Laurea	Investigator	Cell biology; Antarctic programme
<b>Cirino</b> , Paola (Ms)	Laurea	Investigator	Public aquarium; Scientific museum; Keeping marine organisms in captivity
<b>D'Aniello</b> , Antimo (Mr)	Laurea	Principal Investigator	Biochemistry; Amino-acids metabolism
<b>D'Onofrio</b> , Giuseppe (Mr)	Laurea	Investigator	Biochemistry; Gene expression
<b>Dale</b> , Brian (Mr)	Laurea	Principal Investigator	Cell biology; Cell-cell interaction
<b>De Santis</b> , Amedeo (Mr)	Laurea	Principal Investigator	Neurobiology; Nervous transmission
<b>De Santis</b> , Rosaria (Ms)	Laurea	Principal Investigator	Cell biology; Cell-cell interaction
<b>Fiorito</b> , Graziano (Mr)	Laurea	Investigator	Neurobiology; Behaviour
<b>Gambi</b> , Maria Cristina (Ms)	Laurea	Investigator	Benthic ecology; Systematics; Ecology of Polychaeta
<b>Ianora</b> , Adrianna (Ms)	Laurea	Investigator	Biological oceanography; Reproductive biology of marine copepods
<b>Marino</b> , Donato (Mr)	Laurea	Principal Investigator	Marine botany; Phytoplankton distribution
<b>Mazzella</b> , Lucia (Ms)	Laurea	Principal Investigator	Benthic ecology; Ecophysiology of micro and macrophytes
<b>Mazzocchi</b> , Maria Grazia (Ms)	Laurea	Investigator	Biological oceanography; Temporal cycles and distribution of zooplankton
<b>Miralto</b> , Antonio (Mr)	Laurea	Senior Investigator	Neurobiology; Opioid peptides
<b>Modigh</b> , Monica (Ms)	Laurea	Investigator	Biological oceanography; Primary production
<b>Montresor</b> , Marina (Ms)	Laurea	Investigator	Marine botany; Ecophysiology and life cycles of microphytes
<b>Nardi</b> , Giovanna (Ms)	Laurea	Principal Investigator	Biochemistry; Oxido-reduction mechanism
<b>Palumbo</b> , Anna (Ms)	Laurea	Investigator	Biochemistry; Melanogenesis

## ITALY

Name	Degree	Position	Specialization
<b>Ribera d'Alcala</b> , Maurizio (Mr)	Laurea	Principal Investigator	Biological oceanography; Phytoplankton-physicochemical environment interaction
<b>Romano</b> , Giovanna (Ms)	Laurea	Investigator	Biochemistry; Cell-cell interaction
<b>Russo</b> , Giovanni (Mr)	Laurea	Investigator	Benthic ecology; Systematics and ecology of molluscs
<b>Santella</b> , Luigia (Ms)	Laurea	Investigator	Cell biology; Cell-cell interaction
<b>Scardi</b> , Michele (Mr)	Laurea	Investigator	Biological oceanography; Numerical ecology; Data analysis
<b>Scipione</b> , Beatrice (Ms)	Laurea	Investigator	Benthic ecology; Systematics; Ecology of amphipods
<b>Spagnuolo</b> , Antonietta (Ms)	Laurea	Investigator	Biochemistry; Peptide biosynthesis
<b>Tosti</b> , Elisabetta (Ms)	Laurea	Investigator	Cell biology; Cell-cell interaction
<b>Zanetti</b> , Laura (Ms)	Laurea	Principal Investigator	Biochemistry; Peptide biosynthesis
<b>Zingone</b> , Adriana (Ms)	Laurea	Investigator	Marine botany; Ecology and taxonomy of phytoplankton

### National Institute for Cancer Research

#### Centre for the Study of Tumors of Environmental Origin

*Istituto Nazionale per la Ricerca sul Cancro*

*Centro per lo Studio dei Tumori di Origine Ambientale (IST-CSTA)*

10 Viale Benedetto XV

Genova 16132

ITALY

**Telephone** (39) 10 35341

**Telex** 286353

**Fax** (39) 10 352999

**Executive officer** Dr Leonardo SANTI, Professor

Governmental, national institution founded in 1978. Languages: Italian; English

**Nature of activities** Research; Laboratory; Academic/educational

**Purpose and objectives** Under the National Institute for Cancer Research, the Center for the Study of Tumors of Environmental Origin co-ordinates all activities in the field of environmental carcinogenesis

**Areas of speciality/activities** Heavy metals; Organics (halogenated hydrocarbons, petroleum hydrocarbons, etc); Fish; Molluscs; Toxicology; Pollution; Environmental economics; Marine technology; Development policy/planning; Toxicological evaluation of industrial and environmental chemical compounds; Analytical intercomparison methods for the concentration of metals in welding fumes; Analytical intercomparison methods for PAH concentration in marine sediments (project commissioned by the EC)

**Environments** Coastal zone

**Geographic areas** Mediterranean Sea; Ligurian Sea

#### **Research programmes/projects**

- Assessment of the carcinogenic risks deriving from human exposure to environmental chemicals
- Study of genotoxic effects induced by environmental agents in different marine species
- Monitoring of carcinogenic and mutagenic marine pollutants in the Ligurian Sea
- Biomonitoring of human populations exposed to potentially carcinogenic substances

#### **Co-operative research programmes/projects**

- International Agency for Research on Cancer (IARC), Lyon, France: Molecular markers of exposure to environmental carcinogens
- UNEP/MED POL, Athens, Greece: Establishment of a co-ordinating centre for the study of marine pollutants in the Mediterranean Sea
- EEC Joint Research Centre, Ispra, Italy: European data bank on carcinogenic activity of chemicals
- National Cancer Institute, Bethesda, USA: Case control study on effects of pesticides

#### **Training programmes**

- Teaching courses on oncology for the Faculty of Medicine and the Faculty of Science
- Training course for laboratory technicians

**Staff** Professional 11; Technical 10; Other 5

#### **Information facilities**

**Publications** Annual report; Journal (in Italian); Technical reports; Scientific papers in the world literature

**Library** 3300 volumes/reprints; 246 periodicals **Co-operative programmes/projects** Gruppo Italiano Documentazione Industrie Farmaceutiche e Istituti di Ricerca Biomedica (GIDIF-RBM), 35 Libraries; Gruppo Documentazione Biblioteche Ateneo **Librarian** Dr Donatella Ugolini

**Computers** 1 HP 3000/42; 1 DEC Microvax II; 80 PCs (AT); 7 Laser printers (HP, Canon)

**Applications** Database management; Education; Library/documentation; Scientific; Statistical; Word processing **Data exchange** 5.25"(HD)/3.5"(DD) PC diskettes; Unlabelled tape; dBase III, Lotus 1-2-3, WordStar, and ASCII text files

## ITALY

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**Physical facilities** 16000 m<sup>2</sup>

**Laboratories** 5300 m<sup>2</sup>

**Facilities** for 20 visiting scientists; 20 students **Conference/seminar facilities** for 50 participants

### Professional/Scientific staff

Name	Degree	Position	Specialization
<b>Abbondandolo</b> , Angelo (Mr)	Doctorate	Professor/Director	Mutagenesis; Genetic toxicology
<b>Balbi</b> , Cecilia (Ms)	PhD	Assistant	Chemical carcinogenesis; Non-genotoxic carcinogens
<b>Bolognesi</b> , Claudia (Ms)	PhD	Deputy Director	Chemical carcinogenesis; Genotoxicity tests to evaluate marine pollution
<b>Evangelisti</b> , Morena (Ms)	PhD	Assistant	Scientific information and documentation; Bibliographic search on environmental and health problems
<b>Parodi</b> , Silvio (Mr)	Doctorate	Professor/Director	Chemical carcinogenesis; Risk analysis
<b>Parrini</b> , Marinella (Ms)	PhD	Research Fellow	Chemical carcinogenesis; Genotoxicity tests to evaluate marine pollution
<b>Piccardo</b> , M Teresa (Ms)	PhD	Research Fellow	Environmental chemistry; Monitoring of carcinogenic marine pollutants
<b>Rossi</b> , Lorenzo (Mr)	PhD	Deputy Director	In vivo carcinogenesis; Topographical distribution of fish tumors
<b>Santi</b> , Leonardo (Mr)	PhD	Professor/Executive Officer	
<b>Taningher</b> , Maurizio (Mr)	PhD	Deputy Director	Chemical carcinogenesis; Risk analysis
<b>Ugolini</b> , Donatella (Ms)	PhD	Deputy Director	Scientific information and documentation; Bibliographic search on environmental and health problems
<b>Valerio</b> , Frederico (Mr)	PhD	Deputy Director	Environmental chemistry; Monitoring of carcinogenic marine pollutants

**National Research Council**  
**Institute for the Study of the Dynamics of Large Masses**  
*Consiglio Nazionale delle Ricerche*  
*Istituto per lo Studio della Dinamica delle Grandi Masse (CNR-ISDGM)*

1364 San Polo  
Venezia 30125  
ITALY

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**Telex** 410095  
**Cable** SANPOLOLAB  
**Fax** (39) 41 5216871  
**E-mail** (BITNET) DII500ECNR1.VE.CNR.IT  
(DECNET) 39047.DII500

**Executive officer** Dr Gianfranco DALLAPORTA, Director

Parastatal institution founded in 1969. Languages: Italian; English; French

**Nature of activities** Research; Laboratory

**Purpose and objectives** Basic and applied research in oceanography and geology, directed mostly to Venetian problems and carried out on a regional scale

**Areas of speciality/activities** Physical oceanography; Water masses and circulation; Currents and dispersion; Air-sea interaction; Waves, tides, surges and sea level; Modelling; Marine chemistry and geochemistry; Nutrients; Heavy metals; Sediments; Waters; Suspended matter; Biota; Marine geology and geophysics; Topography and morphology; Sedimentology; Coastal and nearshore processes; Paleontology; Marine support services; Marine technology; Remote sensing; Data acquisition and telemetry; CNR oceanography projects; National Space Plan/ESA/NASA activities; CEC sponsored projects; IAHS/UNESCO working groups

**Environments** Brackishwater; Coastal zone; Benthic environment; Rivers; Littoral zone; Lagoons; Islands; Estuaries

**Geographic areas** Mediterranean Sea; Adriatic Sea; Algero-Provencal Basin; Gulf of Lyon; Ionian Sea; Levantine Sea; Ligurian Sea; Sicilian Channel; Strait of Gibraltar; Strait of Otranto; Tyrrhenian Sea

## ITALY

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### Research programmes/projects

- Oceanography Division: Physical oceanography  
Mathematical models, experimental studies and observational methods regarding the propagation of tide from the Adriatic, the contribution of water and pollutants from the mainland, and balances of internal processes in the Venice Lagoon  
Studies on the general circulation and tides, in the Adriatic and Mediterranean seas
- Geology Division  
Description, numerical modelling, geodetic and hydrologic control of land subsidence in the Venetian area
- Environmental Monitoring Division  
Development of techniques to measure physical and chemical parameters of lagoon and marine waters and interpretation of in situ collected data
- Santa Teresa Oceanographic Station  
Applied research with field measurements and studies on the littoral evolution in the Tyrrhenian coastal areas of Liguria and Tuscany

### Co-operative research programmes/projects

- MAST
- POEM
- ERS-1
- Project on the Venice Lagoon System
- Adriatic Sea Co-operative Oceanographic Programme (ASCOP)

### Training programmes

- Host laboratory involved in the International Centre for Theoretical Physics Programme for Training and Research in Italian laboratories
- Guiding undergraduate students in their thesis work
- Annual two-week summer course on environmental dynamics

**Staff** Professional 26; Technical 32; Other 10

### Information facilities

**Publications** Annual report (in Italian); Technical reports

**Library** 1400 volumes/reprints; 46 periodicals **Librarian** Mrs Maddalena Vianello

**Computers** DEC Vax 780/3100/5500 cluster **Applications** Accounting/financial planning; Communications; Database management; Desktop publishing; Geographic Information Systems (GIS); Graphics; Mathematical; Mapping; Modelling; Network access; Scientific; Statistical; Word processing **Data exchange** Remote access via networks (BITNET and DECNET); Diskette; Tape

**Physical facilities** 2500 m<sup>2</sup>

**Laboratories** 750 m<sup>2</sup>

**Research vessels/crafts** Oceanographic platform "Acqua Alta", located in the northern Adriatic Sea, 8 miles offshore Venice. Laboratory and accommodations total area, 25 m<sup>2</sup>. Instruments onboard include tide gauge, wavemeter, barograph, anemometer, thermometer, current meters, and automatic recording systems; "Umberto D'Ancona", 24.2 m, 82 ton, oceanographic research ship, equipped with navigation, radio echo sounding equipment, oceanographic winches and two laboratories for a total of 14 m<sup>2</sup>, 5 crew, accommodations for 7 scientists; "Litus", 10.2 m, pilot boat, easily transformed into an oceanographic laboratory, 3 crew, 4 scientific personnel; "Mysis", 7.3 m, motor boat, becomes an oceanographic laboratory during field work; "Henetus", 7.3 m, motor boat

**Facilities** for 3 visiting scientists; 2 students **Conference/seminar facilities** for 50 participants, equipped with slide/overhead projectors, video, TV, etc

### Professional/Scientific staff

Name	Degree	Position	Specialization
<b>Alberotanza</b> , Luigi (Mr)	Laurea	Senior Scientist	Oceanography; Experimental oceanography; Visible and IR remote sensing techniques, observations, elaborations; In situ measurements for R.S. calibration; Water management
<b>Astraldi</b> , Mario (Mr)	Laurea	Senior Scientist	Oceanography; Deep water formation in the Ligurian Sea; Study of physical processes in coastal regions; Current circulation in the Tyrrhenian, Ligurian, West Mediterranean Seas
<b>Battiston</b> , Libero (Mr)	Laurea	Senior Scientist	Oceanography; Dynamical systems
<b>Bergamasco</b> , Andrea (Mr)	Laurea	Junior Scientist	Oceanography; Physical processes which govern kinematics and dynamics of currents in shallow water and continental shelves; Development of analytical and numerical models
<b>Bertotti</b> , Luciana (Ms)	Laurea	Junior Scientist	Oceanography; Wind wave dynamics; Shallow water processes; Coastal erosion and sedimentation
<b>Bonardi</b> , Maurizio (Mr)	Laurea	Senior Scientist	Geology; Mineralogy
<b>Carbognin</b> , Laura (Ms)	Laurea	Senior Scientist	Geology; Geomathematical procedures applied to hydrogeology; Land subsidence; Coastal processes
<b>Cavaleri</b> , Luigi (Mr)	Laurea	Senior Scientist	Oceanography; Wave modelling and measurements
<b>Dallaporta</b> , Gianfranco (Mr)	Laurea	Director/Senior Scientist	Oceanography; GPS survey
<b>Dazzi</b> , Renzo (Mr)	Laurea	Senior Scientist	Oceanography; Hydrodynamic numerical modelling; Currents and tides; Wind effects in the lagoon



## ITALY

Name	Degree	Position	Specialization
<b>Favero</b> , Vito (Mr)	Laurea	Senior Scientist	Geology; Marine platform; Coastal plains; Quaternary geology; Neotectonics; Evolution of coastal, lagoonal, littoral environment
<b>Gasparini</b> , Gian Pietro (Mr)	Laurea	Senior Scientist	Oceanography; Circulation modelling; Eddy-generation; Ligurian and Mediterranean Sea dynamics
<b>Gatto</b> , Gino (Mr)	Laurea	Senior Scientist	Geology; Hydrogeology
<b>Giommoni</b> , Aldo (Mr)	Laurea	Senior Scientist	Oceanography; Seasonal variations of heat flux in shallow lagoon areas; Modelling of sea-lagoon exchange
<b>Laudanna</b> , Mario (Mr)	Laurea	Senior Scientist	Oceanography; Shore processes; Dynamics of oceans; Physical and chemical parameters; Air-sea interactions
<b>Manzella</b> , Giuseppe (Mr)	Laurea	Junior Scientist	Oceanography; Modelling of the Mediterranean Sea; General circulation in the Ligurian and Mediterranean Seas; Response of a basin to large scale atmospheric fluctuations
<b>Mazzoldi</b> , Andrea (Mr)	Laurea	Senior Scientist	Oceanography; Thermographic techniques
<b>Meloni</b> , Roberto (Mr)	Laurea	Senior Scientist	Oceanography; Design, calibration and implementation of computerized data acquisition systems in physical oceanography; Computer processing and data management
<b>Mozzi</b> , Giuseppe (Mr)	Laurea	Senior Scientist	Geology; Groundwater pollution; Hydrogeology; Processing and interpretation of geodetic and hydrogeologic processing; Levellings; Subsoils; Neotectonics and subsidence
<b>Pianetti</b> , Franco (Mr)	Laurea	Senior Scientist	Geology; River mechanics; Effects of neotectonics and paleoclimatology on variations in the hydrographic net
<b>Rabagliati</b> , Riccardo (Mr)	Laurea	Senior Scientist	Oceanography; Mathematical modelling
<b>Serandrei Barbero</b> , Rossana (Ms)	Laurea	Senior Scientist	Geology; Micropaleontologia applied to the evolution of coastal and lagoonal environments; Glaciology by remote sensing techniques and survey

Name	Degree	Position	Specialization
Vazzoler, Sergio (Mr)	Laurea	Senior Scientist	Environmental sciences; Water quality and pollution management
Vincenzi, Sergio (Mr)	Laurea	Senior Scientist	Oceanography; Thermal waves in the soil; Heat flux at water-sediment interface
Zecchetto, Stefano (Mr)	Laurea	Junior Scientist	Oceanography; Air-sea interaction; Microwave active remote sensing
Zonta, Roberto (Mr)	Laurea	Junior Scientist	Environmental sciences; Transport processes; Pollution

**National Research Council**  
**Institute of Fish and Fishery Technology**  
*Consiglio Nazionale delle Ricerche*  
*Istituto di Tecnologia della Pesca e del Pescato (CNR-ITPP)*

61 Via Luigi Vaccara  
Mazaro del Vallo 91026  
ITALY

**Telephone** (39) 923 948723  
(39) 923 948966  
**Fax** (39) 923 906634

**Executive officer** Dr Dino LEVI, Director

Governmental, national institution founded in 1983. Languages: Italian

**Nature of activities** Research

**Purpose and objectives** Research in the biology of fish species of commercial interest, fishing technology, seafood technology and exploitation; Collection of related documentation

**Areas of speciality/activities** Physical oceanography; Modelling; Marine biology and ecology; Benthos; Fish; Molluscs; Crustaceans; Fisheries; Coastal zone management; Artificial reefs; Resources management; Advising regional, national and EEC administrations; Courses on topics of research

**Environments** Coastal zone; Pelagic environment; Benthic environment

## ITALY

**Geographic areas** Mediterranean Sea

### Research programmes/projects

- Assessment and modelling of demersal resources in the Sicilian Channel
- Monitoring and modelling of artificial reefs
- Operational oceanography and pelagic fisheries

### Co-operative research programmes/projects

- POEM (forthcoming)

**Staff** Professional 8; Technical 3; Other 27

### Information facilities

**Publications** NTR-ITPP Technical Reports (irregular); Proceedings of the International Workshop on the Use of Statoliths to Age Cephalopods (in press)

**Library** 1000 volumes/reprints; 60 periodicals **Librarian** Mr Francesco di Liberti; G B Giusto

**Computers** DEC PDP 11/73; DEC Microvax 3500; DEC Vaxmate; PCs (IBM AT/XTs, Olivetti M280, Compaq 386/286s) **Applications** CAD/CAM/CAE; Database management; Desktop publishing; Graphics; Library/documentation; Modelling; Scientific; Statistical; Word processing **Data exchange** 5.25"/3.5" PC diskettes; Tape; ASCII text file

**Physical facilities** 900 m<sup>2</sup>

**Laboratories** 100 m<sup>2</sup>; climate controlled **Laboratory equipment** Facilities for otolith processing and reading; Isomet microtome; Microscope with TV recording (Wild) etc.

**Research vessels/crafts** FV "S. Anna", chartered for 120 days a year

**Facilities** for 4 visiting scientists; 4 students **Conference/seminar facilities** for 70 participants **Lodging** for 4

### Professional/Scientific staff

Name	Degree	Position	Specialization
Andreoli, Maria Gabriella (Ms)	Laurea	Assistant, in Charge of Research	Biology; Fisheries statistics; Population dynamics; Fishing attempt/catch surveys
Badalamenti, Fabio (Mr)	Laurea	Researcher	Biology; Benthos; Trophic relations; Artificial reefs
Cannizzaro, Leonardo (Mr)	Laurea	Researcher	Physics; Computer sciences; Data banks; Databases; Programming
D'Anna, Giovanni (Mr)	Laurea	Researcher	Biology; Artisan-type fisheries; Monitoring of artificial reefs
Jereb, Patrizia (Ms)	Laurea	Researcher	Biology; Systematics; Biology of cephalopods
Levi, Dino (Mr)	Laurea	Director	Biology; Population dynamics of fish; Stock assessment of demersal and pelagic stocks

Name	Degree	Position	Specialization
Mazzola, Salvatore (Mr)	Laurea	Researcher	Physics; Physical oceanography; Operational oceanography; Pelagic fisheries
Ragonese, Sergio (Mr)	Laurea	Researcher	Biology; Invertebrates; Populations dynamics of cephalopods and crustaceans

**National Research Council**  
**Institute of Marine Biology**  
*Consiglio Nazionale delle Ricerche*  
*Istituto di Biologia del Mare (CNR-IBM)*

1364/A Riva Sette Martiri  
Venezia I-30122  
ITALY

**Telephone** (39) 41 5207622  
**Fax** (39) 41 5204126  
**E-mail** (BITNET) VECNR1.CINECA.IT and ICINECA2

**Executive officer** Professor Bruno BATTAGLIA, Director

Parastatal institution founded in 1946. Languages: Italian; English

**Nature of activities** Research

**Purpose and objectives** Basic and applied research in biological oceanography. The Institute also participates in national and international research programmes in oceanography, environmental protection and aquaculture

**Areas of speciality/activities** Physical oceanography; Instruments and methods; Water masses and circulation; Marine chemistry and geochemistry; Analytical methodology; Nutrients; Heavy metals; Organics (halogenated hydrocarbons, petroleum hydrocarbons, etc); Sediments; Waters; Suspended matter; Biota; Marine geology and geophysics; Sedimentology; Marine biology and ecology; Phytoplankton; Zooplankton; Fish; Eutrophication; Plankton blooms; Molluscs; Crustaceans; Marine physiology; Marine biochemistry; Marine microbiology; Toxicology; Productivity; Aquaculture; Marine environmental management; Monitoring and/or assessment; Coastal zone management; Pollution; Marine support services; Data acquisition and telemetry; Resources management; Assistance to the government in planning the development of lagoon and marine resources; Quality control for fish processing (studies of aquaculture); Provision of laboratory facilities for the testing of seawater for pollutants

## ITALY

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**Environments** Brackishwater; Coastal zone; Pelagic environment; Benthic environment; Rivers; Littoral zone; Lagoons; Estuaries

**Geographic areas** Mediterranean Sea; Adriatic Sea; Ionian Sea; Levantine Sea; Strait of Otranto; Antarctic; Venice Lagoon

### Research programmes/projects

- Distribution and transport of particulated matter
- Particulated matter and sediments: relationships with hydrology in lagoons, coastal areas and open sea
- Heterogeneity on distribution of the planctonic communities
- Physiological and biochemical effects of pollutants on marine and lagoon organisms
- Chemical monitoring
- Degradation of organic compounds in the lagoon of Venice
- Studies of aquaculture: fish, crustaceans, molluscs

### Co-operative research programmes/projects

- POEM (Phys. Ocean. East. Med.)
- Alpe Adria
- BAMO (Bacini Anossici Med. Orient.)
- PNRA (Progr. Naz. Ric. Antart.)
- EPOS (Eur. Polar. Study)
- ASCOP (Adriat. Sci. Coop. Project)
- MURST/UNESCO: Progetto Sistema Lagunare Veneziano
- RAISA (Ric. Avan. Innov. Sist. Agr.)
- CAVV (Cons. Agr. Valli Venete)
- Progetto Strategico Fenomeni Eutrofici Mare Adriatico

### Training programmes

- Summer school on environmental dynamics
- Transport processes and the hydrological cycle
- Stochastic modelling of flow and transport in porous formations
- Numerical analyses
- Flow and transport in porous media
- Rainfall models and models of the hydrologic response
- Transport of reactive solutes in porous media

**Staff** Professional 18; Technical 14; Other 5

### Information facilities

**Publications** Archivio di Oceanografia e Limnologia; Technical reports

**Library** 2500 volumes/reprints; 150 periodicals **Librarian** Mr Roberto Bittante

**Computers** Various **Applications** Accounting/financial planning; Communications; Database management; Geographic Information Systems (GIS); Graphics; Mapping; Scientific; Statistical; Word processing **Data exchange** Remote access via networks (DECNET/BITNET)

**Physical facilities** 1500 m<sup>2</sup>

**Laboratories** 500 m<sup>2</sup>; climate controlled **Laboratory equipment** Centrifuge; Gas-chromatograph; HPLC; Side.scan.sonar; Uniboom; Autoanalyser; CHN analyser

**Research vessels/crafts** "Umberto d'Ancona", oceanographic research ship, 24.2 m, 82 ton, equipped with navigation, radio echo sounding equipment, oceanographic winches and two laboratories totaling 14 m<sup>2</sup>, 5 crew, accommodations for 7 scientists; "Mysis", 7.3 m, motor boat, becomes an oceanographic laboratory during field work

**Facilities** for 2 visiting scientists; 4 students **Lodging** for 4

**Professional/Scientific staff**

Name	Degree	Position	Specialization
<b>Alberighi</b> , Luisa (Ms)	Laurea	Researcher	Biology; Plankton ecology and productivity; Analysis of nutrients
<b>Barbaro</b> , Alvisè (Mr)	Laurea	Researcher	Biology; Aquaculture; Fish culture
<b>Barillari</b> , Alfredo (Mr)	Laurea	Researcher	Geology; Benthic ecology; Sedimentology; Analysis of sediments
<b>Battaglia</b> , Bruno (Mr)	PhD	Professor/Director	
<b>Bianchi</b> , Franco (Mr)	Laurea	Researcher	Biology; Primary production; Analysis of chlorophyll
<b>Boldrin</b> , Alfredo (Mr)	Laurea	Researcher	Natural sciences; Biogeochemistry; Benthic ecology; Sedimentology
<b>Campesan</b> , Giancarlo (Mr)	Laurea	Researcher	Chemistry; Analytical chemistry; Analysis of heavy metals
<b>Cervelli</b> , Massimiliano (Mr)	Laurea	Researcher	Biology; Aquaculture; Genetics
<b>Comaschi</b> , Alessandra (Ms)	Laurea	Researcher	Biology; Plankton ecology; Zooplankton
<b>Da Ros</b> , Luisa (Ms)	Laurea	Researcher	Biology; Effects of pollutants; Microbiology
<b>Dalla Venezia</b> , Luisa (Ms)	Laurea	Researcher	Biology; Effects of pollutants; Physiological effects on marine organisms
<b>Fossato</b> , Valentino (Mr)	Laurea	Researcher	Chemistry; Analytical chemistry; Analysis of organic compounds
<b>Francescon</b> , Antonia (Ms)	Laurea	Researcher	Biology; Aquaculture; Fish culture
<b>Franco</b> , Paolo (Mr)	Laurea	Researcher	Biology; Oceanography; Hydrology; Plankton ecology and productivity
<b>Libertini</b> , Angelo (Mr)	Laurea	Researcher	Biology; Aquaculture; Invertebrate cariology

## ITALY

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**National Research Council**  
**Institute of Marine Corrosion of Metals**  
*Consiglio Nazionale delle Ricerche*  
*Istituto di Corrosione Marina dei Metalli (CNR-ICMM)*

10 Via Scarsellini-Torre WTC  
Genova 16149  
Liguria  
ITALY

**Telephone** (39) 10 6458903  
**Fax** (39) 10 6469684

**Executive officer** Dr Angelo N NICOLIN, Professor

Governmental, national institution founded in 1940. Languages: Italian

**Nature of activities** Research

**Purpose and objectives** Study of metal corrosion mechanisms in seawater; Development of corrosion prevention methods

**Areas of speciality/activities** Heavy metals; Waters; Phytoplankton; Benthos; Taxonomy and systematics; Pollution; Marine technology; Understanding of corrosion mechanisms and study of models for its prevention in the marine environment; Interdisciplinary approaches directed to the definition of the chemical, physical and biological aspects of corrosion in seawater and to the development of systems which, employed in the natural environment, might protect the marine ecosystem

**Geographic areas** Ligurian Sea

**Co-operative research programmes/projects**

- The Institute, on behalf of the National Council of Research (CNR), has promoted a special project for microbiological corrosion in seawater. Grants have been awarded by "Progetto Finalizzato Chimica Fine" and "Progetto Finalizzato Edilizia"

**Training programmes**

- Collaboration with the University of Genoa for teaching activities and assistance with the preparation of thesis and post-doctoral research
- Technical training is provided to professional technicians

**Staff** Professional 17; Technical 9; Other 4

**Information facilities**

**Library** 1100 volumes/reprints; 52 periodicals **Librarian** Mrs Silvana Franco

**Computers** 19 PCs (IBM); Printers (1 HP Laserjet, 4 HP Inkjet, 3 NEC/9 Epson dot matrix)

**Applications** Database management; Library/documentation; LAN; Scientific; Word processing

**Data exchange** 5.25"(HD)/3.5"(HD) PC diskettes; dBase, Lotus 1-2-3, Word, and ASCII text files

**Physical facilities** 1400 m<sup>2</sup>

**Laboratories** 1000 m<sup>2</sup>; climate controlled

**Professional/Scientific staff**

Name	Degree	Position	Specialization
<b>Alabiso</b> , Giorgio (Mr)	PhD	Researcher	Biocorrosion; Analytical characterization of marine biofilm; Corrosion
<b>Beccaria</b> , Anna Maria (Ms)	PhD	Senior Researcher	Corrosion; Electrochemistry; Surface analysis
<b>Beggiato</b> , Monica (Ms)	PhD	Researcher	Biocorrosion; Analytical characterization of marine biofilm; Corrosion
<b>Di Cintio</b> , Roberto (Mr)	PhD	Researcher	Information retrieval; Database management
<b>Ferrarone</b> , Franca (Ms)	PhD	Senior Researcher	Metals protection; Corrosion; Protection of metals
<b>Ferretti</b> , Luigi (Mr)	PhD	Senior Researcher	Metals protection; Corrosion
<b>Ghiazza</b> , Maura (Ms)	PhD	Researcher	Corrosion; Electrochemistry; Surface analysis
<b>Maggi</b> , Roberta (Ms)	PhD	Researcher	Marine biology; Fouling; Antifouling tests
<b>Mollica</b> , Alfonso (Mr)	PhD	Senior Researcher	Corrosion; Electrochemistry; Marine corrosion; Biocorrosion
<b>Montanari</b> , Manuela (Ms)	PhD	Senior Researcher	Biology; Marine biology
<b>Nicolin</b> , Angelo (Mr)	PhD	Professor/Executive Officer	
<b>Odello</b> , Ugo (Mr)	PhD	Senior Researcher	Chemistry; Analytical chemistry
<b>Porcile</b> , Paolo (Mr)	PhD	Researcher	Marine biology; Antifouling
<b>Scotto</b> , Vittoria (Ms)	PhD	Senior Researcher	Biocorrosion; Analytical characterization of marine biofilm; Corrosion
<b>Traverso</b> , Eugenio (Mr)	PhD	Senior Researcher	Corrosion; Metallography
<b>Traverso</b> , Pierluigi (Mr)	PhD	Researcher	Corrosion; Electrochemistry; Surface analysis
<b>Ventura</b> , Giovanna (Ms)	PhD	Senior Researcher	Corrosion; Metallography



## ITALY

Name	Degree	Position	Specialization
Wrubl, Carlo (Mr)	PhD	Senior Researcher	Corrosion; Inhibitors; Paints; Electrochemistry

**National Research Council**  
**Marine Fishery Research Institute**  
*Consiglio Nazionale delle Ricerche*  
*Istituto Ricerche sulla Pesca Marittima (CNR-IRPEM)*

Molo Mandracchio  
Ancona 60125  
ITALY

**Telephone** (39) 71 55314  
(39) 71 204197  
**Fax** (39) 71 55313

**Executive officer** Dr Giovanni BOMBACE, Director

Governmental, national institution founded in 1968. Languages: Italian; English

**Nature of activities** Research

**Purpose and objectives** Marine fishery research

**Areas of speciality/activities** Physical oceanography; Water masses and circulation; Waves, tides, surges and sea level; Marine chemistry and geochemistry; Nutrients; Marine biology and ecology; Phytoplankton; Benthos; Fish; Eutrophication; Plankton blooms; Molluscs; Crustaceans; Marine mammals; Taxonomy and systematics; Community and population studies; Fisheries; Aquaculture; Marine environmental management; Coastal zone management; Artificial reefs; Marine support services; Marine technology; Fishery technology; Resources management; Assessment of fishery resources; Biology and taxonomy of fish, crustaceans and molluscs; Fishery technology; Mariculture and artificial reefs; Oceanography

**Environments** Coastal zone; Pelagic environment; Benthic environment

**Geographic areas** Mediterranean Sea; Adriatic Sea; Sicilian Channel; Strait of Otranto; Tyrrhenian Sea; Antarctic

### Research programmes/projects

- Assessment of Clupeoid stocks in the Italian seas
- Assessment of *Chamelea gallina* in central Adriatic Sea
- Feeding ecology of Adriatic fishes
- Taxonomy and biology of decapod crustacea
- Ecology and technology of artificial reefs
- Fishing gear and fishing vessels technology
- Coastal oceanography

**Co-operative research programmes/projects**

- Programma Nazionale Ricerche Antartide
- Physical Oceanography of Eastern Mediterranean (POEM)
- Adriatic Scientific Operation Programme
- EEC/MAST Programme: Mediterranean eddy resolving modelling and disciplinary studies

**Staff** Professional 12; Technical 14; Other 10

**Information facilities**

**Publications** Quaderni dell'Istituto Ricerche Pesca Marittima

**Library** 2800 volumes; 14000 reprints; 300 periodicals **Librarian** Ms Maria Giuggiolini

**Computers** 1 HP 9000; 1 IBM PS/2; 15 PCs (486, 4 Compaq 386, 3 IBM AT, 1 Olivetti 290, 6 IBM PCs); Printers (4 HP LaserJet, 4 Honeywell LQ34, 2 IBM Graphics, 3 IBM Proprinter); 1 Scanner (IBM); 1 Plotter (HP) **Applications** Accounting/financial planning; Database management; LAN; Network access; Scientific; Statistical; Word processing **Data exchange** 5.25"(HD)/3.5"(HD) PC diskettes; dBase, Lotus 1-2-3 Rel.3, WordStar, and ASCII text files

**Physical facilities** 1380 m<sup>2</sup>

**Laboratories** 240 m<sup>2</sup>; climate controlled

**Research vessels/crafts** RV "Salvatore Lo Bianco" (1967), stern trawler, 30.7 m, 130GRT, 650 HP, equipped with 2 echosounders, sonar, 2 radars, satellite navigation system, Loran, radio, echo-integrator, trawling winch, hydrographic winch, 8 crew, accommodations for 8 scientists; MB "Tecnopesca" (1989), 16.2 m, 24.5GRT, 350 HP, equipped with echosounder, radar and radio, 2 crew, accommodations for 4 scientists for daily cruises

**Facilities** for 2 visiting scientists; 4 students **Conference/seminar facilities** for 30 participants

**Lodging** for 4

**Professional/Scientific staff**

Name	Degree	Position	Specialization
Arneri, Enrico (Mr)	PhD	Scientist	Marine biology; Ecology; Fisheries
Artegiani, Antonio (Mr)	PhD	Senior Scientist	Physical oceanography; Marine chemistry; Water masses circulation and eutrophication
Azzali, Massimo (Mr)	PhD	Senior Scientist	Marine technology; Marine biology; Fisheries; Fish; Marine mammals
Bolognini, Sandro (Mr)	PhD	Scientist	Fishery technology; Fishing vessels
Bombace, Giovanni (Mr)	PhD	Director	Marine biology; Ecology; Fisheries; Artificial reefs
Fabi, Gianna (Ms)	PhD	Scientist	Marine biology; Ecology; Fisheries; Artificial reefs
Fiorentini, Loris (Mr)	PhD	Senior Scientist	Fishery technology; Fishing gear; Artificial reefs

## ITALY

Name	Degree	Position	Specialization
<b>Frogli</b> , Carlo (Mr)	PhD	Senior Scientist	Marine biology; Ecology; Fisheries; Crustacean taxonomy
<b>Gramitto</b> , Maria Emilia (Ms)	PhD	Scientist	Marine biology; Ecology; Fisheries; Fish; Crustaceans
<b>Kalinowski</b> , Janusz (Mr)	PhD	Senior Scientist	Fishery technology; Marine biology; Fisheries; Echo-surveys
<b>Messina</b> , Gaetano (Mr)	PhD	Senior Scientist	Fishery technology; Fishing vessels
<b>Paschini</b> , Elio (Mr)	PhD	Scientist	Physical oceanography; Water masses circulation

### National Research Council Oceanographic Experimental Institute "A. Cerruti"

*Consiglio Nazionale delle Ricerche*

*Istituto Sperimentale Talassografico "A. Cerruti"*

3 Via Roma  
Taranto 74100  
ITALY

**Telephone** (39) 99 25434  
(39) 99 494957

**Fax** (39) 99 494811

**Executive officer** Dr Sebastiano GERACI, Director

Governmental, national institution founded in 1914. Languages: Italian; English; French

**Nature of activities** Research

**Purpose and objectives** Basic and applied research in biological, chemical and physical oceanography; Study of benthic and plankton communities, chemistry and ecotoxicology of marine waters and sediments

**Areas of speciality/activities** Marine chemistry and geochemistry; Analytical methodology; Nutrients; Heavy metals; Organics (halogenated hydrocarbons, petroleum hydrocarbons, etc); Sediments; Waters; Suspended matter; Biota; Marine biology and ecology; Phytoplankton; Zooplankton; Benthos; Fish; Algae; Molluscs; Crustaceans; Marine mammals; Marine microbiology; Toxicology; Taxonomy and systematics; Community and population studies; Fisheries; Aquaculture; Monitoring and/or assessment; Coastal zone management; Pollution; Remote sensing; Data acquisition and telemetry; Resources management; Monitoring/control services for public and private agencies; Ichthyo-toxicity tests on products

**Environments** Brackishwater; Coastal zone; Pelagic environment; Benthic environment; Littoral zone; Lagoons; Islands

**Geographic areas** Mediterranean Sea; Ionian Sea

**Research programmes/projects**

- The ecosystem of the "Mar piccolo": Ecology and dynamics of phyto and zooplankton communities and of phyto and zoobenthos communities
- Organic micropollutants in marine waters, sediments and organisms
- Assessment of biological water quality integration of bioassays and chemical-physical measurements
- Studies on the rearing of *Tapes* spp. in suspended beds
- Assessment of the impact caused on rocky shores by *Lithophaga lithophaga* fisheries

**Training programmes**

- 16 Grants for graduates

**Staff** Professional 5; Technical 11; Other 3

**Information facilities**

**Publications** "Oebalia", International Journal of Marine Biology and Oceanography

**Library** 15000 volumes/reprints; 350 periodicals **Librarian** Ms Maria Filippi

**Computers** 14 PCs (5 Olivetti M200, 3 Olivetti M290, 1 Epson, and others); Laser and dot matrix printers (Olivetti, Epson) **Applications** Accounting/financial planning; Database management; Library/documentation; Scientific; Statistical; Word processing **Data exchange** 5.25"(HD)/3.5"(HD) PC diskettes; dBase III, Excel 2.2, MS-Word 4, WordStar files

**Physical facilities** 1200 m<sup>2</sup>

**Laboratories** 500 m<sup>2</sup> **Laboratory equipment** 1 HPLC (HP 1090); 2 gas-chromatographs (HP 5890 Carlo Erba HRGC5300); 1 ionic chromatograph (Dionex); 2 atomic absorption spectrophotometers (PE 1100B, PE Zeeman 3030); 2 continuous flow autoanalysers (Alliance Technicon MTKZ); 1 four pole mass-spectrometer (HP 5989 A); Microscopes and binoculars; Thermostatic chambers; 2 complete sets of diving equipment; 6 licensed divers **Aquariums** 1x40 m<sup>3</sup>; 2x20 m<sup>3</sup> **Species maintained** Hydrozoans: *Laomedea flexuosa*; *Stylactis* sp; Phytoplankton: *Phaeodactylum tricornutum*; *Isochrysis galbana*

**Research vessels/crafts** MB "A. Cerruti" (19), 14.5 m, equipped with echosounder, radio, radar, loran-C, trawling winches, 2 crew, accommodations for 2 scientists, (6 scientists maximum)

**Facilities** for 2 visiting scientists; 3 students **Conference/seminar facilities** for 40 participants, housed in the library

## ITALY

### Professional/Scientific staff

Name	Degree	Position	Specialization
Cardellicchio, Nicola (Mr)	Doctorate	Researcher	Marine chemistry; Analytical methodology; Nutrients; Heavy metals; Organics
Cavallo, Rosa Anna (Ms)	Doctorate	Professor	Marine microbiology; Technology
Cecere, Ester (Ms)	Doctorate	Researcher	Marine biology; Phytobenthos; Aquaculture
Geraci, Sebastiano (Mr)	Doctorate	Director	Marine biology; Ecology; Benthos; Fouling; Marine corrosion
Pastore, Michele (Mr)	Doctorate	Researcher	Marine biology; Zoobenthos

### Naval Hydrographic Institute *Istituto Idrografico della Marina*

4 Passo all'Osservatorio  
Genova 16134  
ITALY

**Telephone** (39) 10 265451/2/3/4  
**Telex** 270435 MARIDR I  
226521 MARIDR I  
**Cable** MARIDROGRAFICO GENOVA  
**Fax** (39) 10 265973  
(39) 10 266428

**Executive officer** Captain Francesco SPANIO, Director

Governmental, national institution founded in 1872. Languages: Italian; English

**Nature of activities** Research; Information/public awareness

**Purpose and objectives** Production of marine/nautical cartography; Military oceanography; Co-operation with other national institutes on oceanographic studies

**Areas of speciality/activities** Physical oceanography; Water masses and circulation; Currents and dispersion; Waves, tides, surges and sea level; Modelling; Marine geology and geophysics; Topography and morphology; Sedimentology; Coastal and nearshore processes; Marine environmental management; Pollution; Marine cartography; Ocean policy/law of the Sea; Marine archaeology; Nautical cartography; Nautical information; Physical oceanography

**Geographic areas** Mediterranean Sea; Adriatic Sea; Ionian Sea; Levantine Sea; Ligurian Sea; Sicilian Channel; Strait of Otranto; Tyrrhenian Sea

**Research programmes/projects**

- Electronic charts
- Bathymetric charts
- Atlas of Mediterranean currents and waves
- Atlas of Mediterranean surface temperatures
- New tide constants for Italian seas

**Staff** Professional 15; Technical 45

**Information facilities**

**Publications** Annual report; Books; Technical reports

**Library** 40000 volumes/reprints; 100 periodicals **Librarian** Mrs Paola Presciuttini Bellezza

**Computers** 1 HP 9000; 1 DEC Vax 750; 1 DEC Microvax 3800; 25 PCs (386, 286) **Applications** Accounting/financial planning; Geographic Information Systems (GIS); Graphics; Mapping; Modelling; Scientific; Word processing

**Physical facilities** 7000 m<sup>2</sup>

**Laboratories** 1500 m<sup>2</sup>

**Research vessels/crafts** "Magnaghi" (1974), 1700 ton, 82.7 m, equipped with echosounders, multibeam, side scan sonar, CTD, rosette multisampler, XBT, proton magnetometer, core barrel, radio-navigation systems, 130 crew; "Pioppo" and "Mirto" (1965), 400 ton, 45 m, equipped with echosounders, CTD, side scan sonar, XBT, rosette multisampler, radio-navigation system, 40 crew

**Professional/Scientific staff**

Name	Degree	Position	Specialization
Corvetti, Massimo (Mr)	CC	Head of Nautical Documents Division	
Fanelli, Saverio (Mr)	CC	Head of Charting Division	
Giella, Domenico (Mr)	CF	Deputy Director	
Lusetti, Carlo (Mr)	Doctorate	Professor	Physics; Physical oceanography; Tides
Papa, Lorenzo (Mr)	Doctorate	Professor	Physics; Physical oceanography; Numeric models
Sfregola, Antonio (Mr)	CF	Head, Marine Research and Hydrographic Surveys Department	
Spanio, Francesco (Mr)	CV	Director	
Vassallo, Andrea (Mr)	Doctorate	Professor	Astronomical geodesy; Geodesy; Analytic cartography

## ITALY

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**New Technology, Energy and Environment Agency**  
**Energy and Environment Research Centre of S. Teresa**  
*Ente Nuove Tecnologie Energia Ambiente*  
*Centro Ricerche Energia Ambiente S. Teresa (ENEA-CREA)*

Pozzuolo di Lerici  
P.O. Box 316  
La Spezia 19100  
ITALY

**Telephone** (39) 187 536215  
**Telex** 282861 ENEAST I  
**Fax** (39) 187 536213

**Executive officer** Dr Vincenzo DAMIANI, Scientific Director

Governmental, national institution founded in 1958. Languages: Italian

**Nature of activities** Research; Technical training; Laboratory

**Purpose and objectives** Oceanography, marine biology, monitoring and information systems for the study and protection of the marine environment and the Mediterranean Sea in particular

**Areas of speciality/activities** Physical oceanography; Water masses and circulation; Currents and dispersion; Air-sea interaction; Modelling; Marine chemistry and geochemistry; Analytical methodology; Nutrients; Heavy metals; Organics (halogenated hydrocarbons, petroleum hydrocarbons, etc); Radioactivity; Sediments; Waters; Suspended matter; Marine geology and geophysics; Sedimentology; Coastal and nearshore processes; Marine biology and ecology; Benthos; Marine biochemistry; Marine microbiology; Community and population studies; Marine meteorology and climatology; Marine environmental management; Monitoring and/or assessment; Coastal zone management; Pollution; Environmental impact assessment; Environmental economics; Marine technology; Remote sensing; Data acquisition and telemetry; Development policy/planning; Resources management; Agreement between ENEA and various regional agencies for the management of an information system on coastal zones; Ministry for Merchant Marine: Information data banks on national coastal zones; Development of coastal zones and marine parks; National network for the survey of environmental radioactivity in marine matrices and fall out

**Environments** Coastal zone; Pelagic environment; Benthic environment; Rivers; Littoral zone; Islands; Estuaries

**Geographic areas** Mediterranean Sea; Adriatic Sea; Alboran Sea; Ionian Sea; Ligurian Sea; Sicilian Channel; Tyrrhenian Sea

### **Research programmes/projects**

- Global climate-change programme
- Coastal ecotologies
- Sea monitoring and advanced technologies
- Marine information system

**Co-operative research programmes/projects**

- CEE: Transfer processes and behaviour of long-lived radionuclides in the marine environment
- OECD-NEA: Sea bed working group
- MAST-CEE: R & D programme in marine science and technology

**Staff** Professional 16; Technical 14; Other 14

**Information facilities**

**Publications** Climatological atlas of the Western Mediterranean; Bibliographic databases on the Adriatic Sea; Climatological atlas of the Adriatic Sea; Environmental studies of the Vado Ligure coastal area: Coastal marine system of the Abruzzo region

**Library** 8500 volumes/reprints; 180 periodicals **Co-operative programmes/projects** Biblioteca Instituto de Ciencias del Mar, Barcellona; Central Marine Fisheries Research Institute, Cochin, India; South Carolina University, Columbia, SC, USA **Librarian** Mrs Patrizia Maffei

**Computers** 1 DEC Vax 780; Printers (laser and dot matrix) **Applications** Communications; Database management; Geographic Information Systems (GIS); Graphics; Library/documentation; LAN; Mathematical; Mapping; Modelling; Network access; Scientific; Statistical; Word processing **Data exchange** 5.25" PC diskettes; Tape (ASCII/EBCDIC, 800/1600/6250)

**Physical facilities** 6000 m<sup>2</sup>

**Laboratories** 1000 m<sup>2</sup>; climate controlled **Laboratory equipment** AAS; IR-TF; GC; Autoanalyser; TOC analyser; CHN analyses; ASV; HPLC; UV spectroscopy electronic microscopes; 2 sedigraphs; Coulter counter; Alpha-beta-jota spectroscopy; 3 SCUBA diving researchers with underwater videotapes; Photographic laboratory current meters; VAX 785 computer system **Aquariums** 3x15 m<sup>3</sup>; 2x12 m<sup>3</sup>; 4x3 m<sup>3</sup>; 3x1000 m<sup>3</sup> **Species maintained** Mullus barbatus; Marphysa beccii

**Research vessels/crafts** 1 research vessel by Crestitalia, 11.4 m, 11 ton, 20 knots

**Facilities** for 5 visiting scientists; 8 students **Conference/seminar facilities** for 90 participants

**Professional/Scientific staff**

Name	Degree	Position	Specialization
Artale, Vincenzo (Mr)	Laurea	Researcher	Physics; Physical oceanography; Mathematical models
Bianchi, Carlo Nike (Mr)	Laurea	Head, Biology Division	Biology; Marine biology; Macrobenthos
Boniforti, Roberto (Mr)	Laurea	Head, Oceanography Division	Physics; Sea monitoring; Advanced technologies; Immunosensors
Bruschi, Azolo (Mr)	Laurea	Researcher	Information management
Cannarsa, Sigfrido (Mr)	Laurea	Researcher	Chemistry; Organic chemistry; Organic pollutants
Carbone, Antonio (Mr)	Laurea	Researcher	Engineering; Project management
Castelluccio, Giuseppe (Mr)	Laurea	Researcher	Natural sciences; Management



## ITALY

Name	Degree	Position	Specialization
<b>Cocito</b> , Silvia (Ms)	Laurea	Researcher	Biology; Marine biology; Benthos
<b>Cunsolo</b> , Antonio (Mr)	Laurea	Researcher	Engineering; Project management
<b>Damiani</b> , Vincenzo (Mr)	Laurea	Scientific Director	
<b>De Simone</b> , Renato (Mr)	Laurea	Researcher	Pharmacology; Organic chemistry; Organic pollutants
<b>Delfanti</b> , Roberta (Ms)	Laurea	Researcher	Chemistry; Radiochemistry; Transuranics; Long-lived radionuclides
<b>Ferretti</b> , Enrico (Mr)	Laurea	Researcher	Engineering; Remote sensing
<b>Ferretti</b> , Ornella (Ms)	Laurea	Researcher	Geology; Marine Geology; Sedimentology
<b>Marri</b> , Pietro (Mr)	Laurea	Researcher	Engineering; Physical chemical measurements; Data treatment; Mathematical models
<b>Niccolai</b> , Ilaria (Ms)	Laurea	Researcher	Chemistry; Geochemistry; Metals; Trace elements
<b>Peroni</b> , Corrado (Mr)	Laurea	Researcher	Biology; Microbiology; Nutrients
<b>Zattera</b> , Antonio (Mr)	Laurea	Researcher	Biology; Coastal area management; Marine parks; Protected areas

### Oceanographic Vessel "DAPHNE II", Operational Unit "Emilia-Romagna" Region

*Unità Operativa Battello Oceanografico "DAPHNE II" (UO "DAPHNE")  
Regione "Emilia-Romagna"*

Viale Vespucci 2  
Cesenatico (FO) 47042  
ITALY

**Telephone** (39) 547 83941  
**Fax** (39) 547 82136

**Executive officer** Dr Attilio RINALDI, Head Scientist

Governmental, local institution founded in 1978. Languages: Italian; French; English

**Nature of activities** Research; Laboratory

**Purpose and objectives** Quality control of coastal waters; Preparation of reports and scientific documentation

**Areas of speciality/activities** Physical oceanography; Instruments and methods; Marine chemistry and geochemistry; Analytical methodology; Nutrients; Marine biology and ecology; Phytoplankton; Eutrophication; Plankton blooms; Monitoring and/or assessment; Pollution; Data acquisition and telemetry; Ocean policy/Law of the Sea; Development policy/planning; Recreation/tourism; Monitoring of eutrophication, heavy metals and pesticides; Determination of physico-chemical characteristics of coastal waters

**Environments** Coastal zone; Lagoons

**Geographic areas** Adriatic Sea; Tyrrhenian Sea

**Research programmes/projects**

- Monitoring of the state of pollution and eutrophication in the coastal waters of the "Emilia-Romagna" region

**Co-operative research programmes/projects**

- CNR Water Research Institute: Research programme on the characteristics of the Po delta waters
- Ministry of Merchant Marine, Department of Sea Protection: Monitoring of the state of pollution and eutrophication in coastal waters

**Staff** Professional 4; Other 2

**Information facilities**

**Publications** Annual report; Scientific/technical reports

**Library** Yes **Co-operative programmes/projects** UNEP/Co-ordinating Unit for the Mediterranean Action Plan, library

**Computers** 4 PCs (2 386s, 2 ATs); 6 Printers (2 HP LaserJet III, 2 NEC P2200, 2 Epson FX80)  
**Applications** Database management; Graphics; Statistical; Word processing **Data exchange** 5.25" (HD)/3.5" (DD) PC diskettes; Unlabelled tape; dbase III, Lotus 1-2-3, WordPerfect 5.1 and ASCII text files

**Physical facilities** 350 m<sup>2</sup>

**Laboratories** 200 m<sup>2</sup> **Laboratory equipment** Nutrient autoanalyser; Microscopes for analysis of phytoplankton; Fluorometers; Multiparametric probe; Underwater camera

**Facilities** for 4 visiting scientists; 2 students **Conference/seminar facilities** for 10 participants

**Professional/Scientific staff**

Name	Degree	Position	Specialization
Ferrari, Carla Rita (Ms)	Laurea		Biology; Nutrients

## ITALY

Name	Degree	Position	Specialization
Ghetti, Anna (Ms)	Laurea		Biology; Phytoplankton; Monitoring
Montanari, Giuseppe (Mr)	Laurea		Biology; Databank; Data acquisition
Rinaldi, Attilio (Mr)	Laurea	Head Scientist	Biology

### Oceanological Research Group-Genoa

#### *Gruppo Ricerca Oceanologica-Genova (GRO-G)*

14 Corso Rainusso  
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Genova  
ITALY

**Telephone** (39) 185 286195

(39) 185 283415

**Telex** 271114 UNIVGE I

**Fax** (39) 185 281089

**Executive officer** Professor Norberto F R DELLA CROCE, Chairman

International nongovernmental institution founded in 1972. Languages: Spanish; Italian; English; French

**Nature of activities** Research

**Purpose and objectives** Interdisciplinary research in the field of oceanography and marine pollution

**Areas of speciality/activities** Physical oceanography; Water masses and circulation; Currents and dispersion; Waves, tides, surges and sea level; Marine chemistry and geochemistry; Analytical methodology; Nutrients; Heavy metals; Organics (halogenated hydrocarbons, petroleum hydrocarbons, etc); Sediments; Waters; Suspended matter; Biota; Sedimentology; Coastal and nearshore processes; Zooplankton; Benthos; Fish; Eutrophication; Molluscs; Crustaceans; Marine physiology; Marine biochemistry; Marine microbiology; Taxonomy and systematics; Productivity; Community and population studies; Fisheries; Marine meteorology and climatology; Marine environmental management; Pollution; Promotion of marine research

**Environments** Coastal zone; Pelagic environment; Benthic environment

**Geographic areas** Mediterranean Sea; Aegean Sea; Ionian Sea; Ligurian Sea; Sicilian Channel; Tyrrhenian Sea

**Research programmes/projects**

- Research in marine biology, biological oceanography, physical oceanography and marine chemistry

**Co-operative research programmes/projects**

- Station Marine d'Endoume/Institute of Marine Biology of Crete: "Mediterranean Deep", co-operative programme with French and Greek scientists

**Training programmes**

- Teaching university-level courses and awarding degrees in natural, biological and geological sciences

**Staff** Professional 32; Technical 6; Other 20

**Information facilities**

**Publications** Triennial report; Collected reprints

**Library** 1120 volumes/reprints; 11 periodicals **Co-operative programmes/projects** Various University libraries

**Computers** Various **Applications** Scientific; Statistical; Word processing

**Physical facilities** 1200 m<sup>2</sup>

**Laboratories** 400 m<sup>2</sup> **Laboratory equipment** Spectrophotometers; pH meters; Salinometer; Oxygen meter; Microscopes; Diving equipment; Various gear for plankton and benthos sampling; Reversing bottles and thermometers; CTD; Waves recorder; Solar radiometer; Thermostatic stoves; Current meters

**Facilities** for 5 visiting scientists; 5 students **Conference/seminar facilities** for 21 participants **Lodging** for 5

**Professional/Scientific staff**

Name	Degree	Position	Specialization
Albert, Alberto (Mr)	Doctorate	Collaborator	Engineering; Automatic data processing programmes
Albertelli, Giancarlo (Mr)	Doctorate	Professor	Biology; Marine zoobenthos
Angelino, Maria Ines (Ms)	Doctorate	Collaborator	Biology; Marine zooplankton
Angrisano, Giuseppe (Mr)		Director of Hydrographic Institute	Hydrography; Marine sciences
Baffi, Franca (Ms)	Doctorate	Professor	Chemistry; Analytical chemistry of seawater
Boyer, Massimo (Mr)	Doctorate	Collaborator	Biology; Particulate organic matter
Canesi, Laura (Ms)	PhD	Collaborator	Physiology; Physiology of marine organisms

## ITALY

Name	Degree	Position	Specialization
<b>Capelli</b> , Renzo (Mr)	Doctorate	Professor	Chemistry; Chemistry of marine organisms
<b>Cevasco</b> , M Giuseppina (Ms)	Doctorate	Technician	Biology; Marine zooplankton
<b>Cicconi</b> , Giuseppe (Mr)	Doctorate	Professor	Physics; Wave motion and related equipment
<b>Contardi</b> , Vittorio (Mr)	Doctorate	Professor	Chemistry; Organic chemistry of marine organisms
<b>Corradi</b> , Nicola (Mr)	Doctorate	Researcher	Marine geology; Sedimentology
<b>Cortemiglia</b> , Giancamillo (Mr)	Doctorate	Professor	Geology; Littoral dynamics
<b>Cosma</b> , Bianca (Ms)	Doctorate	Professor	Chemistry; Analytical chemistry of marine ecosystems
<b>Dadone</b> , Arduino (Mr)	Doctorate	Professor	Chemistry; Analytical chemistry of seawater
<b>Dagnino</b> , Ignazio (Mr)	Doctorate	Professor Emeritus	Physics; Hydrodynamics and waves
<b>Danovaro</b> , Roberto (Mr)	Doctorate	Collaborator	Biology; Particulate organic matter
<b>Della Croce</b> , Norberto (Mr)	Doctorate	Professor/Chairman	Biology; Biological oceanography
<b>Drago</b> , Marco (Mr)	Doctorate	Professor	Chemistry; Chemistry of marine sediments
<b>Fabiano</b> , Mauro (Mr)	Doctorate	Professor	Biology; Particulate organic matter production
<b>Fanucci</b> , Francesco (Mr)	Doctorate	Professor	Geology; Marine sedimentology
<b>Ferro</b> , Riccardo (Mr)	Doctorate	Professor	Chemistry; Inorganic chemistry
<b>Fierro</b> , Giuliano (Mr)	Doctorate	Professor	Geology; Marine geology; Sedimentology
<b>Firpo</b> , Marco (Mr)	Doctorate	Researcher	Geology; Marine sedimentology
<b>Flocchini</b> , Giuseppe (Mr)	Doctorate	Professor	Geophysics; Climatology; Oceanography
<b>Frache</b> , Roberto (Mr)	Doctorate	Professor	Chemistry; Analytical chemistry of seawater
<b>Fraschetti</b> , Simona (Ms)	Doctorate	Collaborator	Biology; Marine zoobenthos
<b>Gazzo</b> , Patrizia (Ms)	Doctorate	Collaborator	Biology; Marine zoobenthos
<b>Grassano</b> , Giorgio (Mr)	Doctorate	Collaborator	Geology; Marine geology
<b>Lusetti</b> , Carlo (Mr)	Doctorate	Researcher	Physics; Hydrodynamics
<b>Lusiani</b> , Paolo (Mr)	Doctorate	Head of Scientific Division, Hydrographic Institute	Hydrography; Marine sciences
<b>Mancinelli</b> , Graziella (Ms)	Doctorate	Researcher	Physiology; Biology of marine organisms
<b>Manfrinetti</b> , Pietro (Mr)	Doctorate	Collaborator	Chemistry; Chemistry of particulate organic matter
<b>Mazzucotelli</b> , Ambrogio (Mr)	Doctorate	Professor	Chemistry; Analytical chemistry of marine ecosystems

Name	Degree	Position	Specialization
<b>Medica</b> , Danilo (Mr)	Doctorate	Collaborator	Biology; Particulate organic matter
<b>Orunesu</b> , Mauro (Mr)	Doctorate	Professor	General physiology; Physiology of marine organisms
<b>Palau</b> , Carlo (Mr)	Doctorate	Professor	Geophysics; Caloric balance of coastal waters
<b>Pertica</b> , Maura (Ms)	Doctorate	Researcher	Physiology; Physiology of marine organisms
<b>Petrillo</b> , Mario (Mr)	Doctorate	Technician	Biology; Marine instruments; Data processing
<b>Picazzo</b> , Mauro (Mr)	Doctorate	Researcher	Geology; Marine sedimentology
<b>Povero</b> , Paolo (Mr)	Doctorate	Collaborator	Biology; Particulate organic matter
<b>Ramella</b> , Agostino (Mr)	Doctorate	Collaborator	Physics; Teledetection
<b>Salemi Picone</b> , Paola (Ms)	Doctorate	Collaborator	Biology; Marine zooplankton
<b>Soggia</b> , Francesco (Mr)	Doctorate	Collaborator	Chemistry; Analytical chemistry of seawater
<b>Stocchino</b> , Carlo (Mr)	Doctorate	Professor	Antarctic oceanography
<b>Tucci</b> , Sergio (Mr)	Doctorate	Researcher	Geology; Marine sedimentology
<b>Tufano</b> , Michele (Mr)	Doctorate	Collaborator	Biology; Marine zoobenthos
<b>Vassallo</b> , Andrea (Mr)	Doctorate	Professor	Geophysics; Marine sciences
<b>Viarengo</b> , Aldo (Mr)	Doctorate	Professor	General physiology; Physiology of marine animals
<b>Voci</b> , Adriana (Ms)	Doctorate	Professor	Physiology; Physiology of marine animals
<b>Zanicchi</b> , Gilda (Ms)	Doctorate	Professor	Chemistry; Chemistry of marine organisms
<b>Zavatarelli</b> , Marco (Mr)	Doctorate	Collaborator	Biology; Particulate organic matter
<b>Zunini Sertorio</b> , Tecla (Ms)	Doctorate	Professor	Biology; Marine zooplankton

## Tethys Research Institute

4 Piazza Duca d'Aosta  
Milano 20124  
ITALY

**Telephone** (39) 2 6704385  
**Fax** (39) 2 29401987

## ITALY

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**Executive officer** Dr Giuseppe NOTARBARTOLO DI SCIARA, President

Private non-profit institution founded in 1986. Languages: Italian; English

**Nature of activities** Research; Academic/educational; Information/public awareness

**Purpose and objectives** Promoting the understanding of the ecological mechanisms of the Mediterranean large pelagic fauna (mostly marine mammals), with emphasis on conservation

**Areas of speciality/activities** Marine mammals; Taxonomy and systematics; Community and population studies; Nature conservation and/or restoration; Resources management; Awareness campaign for fin whales in Italy; Awareness campaign for bottlenose dolphins in Italy

**Environments** Coastal zone; Pelagic environment

**Geographic areas** Mediterranean Sea; Adriatic Sea; Ionian Sea; Ligurian Sea; Sicilian Channel; Strait of Otranto; Tyrrhenian Sea

### Research programmes/projects

- Fin whales in the Ligurian Sea, photoidentification
- Bottlenose dolphins in the Adriatic, photoidentification

### Co-operative research programmes/projects

- Victoria University, Wellington, New Zealand: Fin whale stock identification through DNA analysis
- University of Siena: Fin whale contaminants
- University of Oxford: Sperm whale distribution

**Staff** Professional 6; Technical 2; Other 2

### Information facilities

**Publications** Cetacea News (quarterly)

**Library** 5200 volumes/reprints; 16 periodicals **Co-operative programmes/projects** Woods Hole Oceanographic Institution, Marine Mammal Library: Development of a bibliographic database on marine mammals

**Computers** 1 Apple Macintosh IIsi computer; 2 PCs (Compaq 286, IBM XT); 2 Printers (Epson LQ550) **Applications** Database management; Desktop publishing; Library/documentation; Statistical; Word processing **Data exchange** 5.25"/3.5" PC diskettes; WORD(4.0), LOTUS 1-2-3, dBase III, INMAGIC files

**Physical facilities** 90 m<sup>2</sup>

**Laboratory equipment** Uher 4400 report monitor tape recorder; 2 ITC hydrophones, cables, controllers; 2 Minolta Dynax 7700i cameras with AF lenses; Panasonic SVHS video camera accessories; Binoculars; Thermistor and cable (100 m); 2 crossbows for remote collection of biopsies; 2 hydrophone towed arrays with associated electronics; Magellan GPS portable receiver

**Conference/seminar facilities** for 150 participants

**Professional/Scientific staff**

Name	Degree	Position	Specialization
<b>Barale</b> , Vittorio (Mr)	PhD	Research Associate	Physical oceanography; Remote sensing
<b>Bearzi</b> , Giovanni (Mr)	Doctorate	Researcher	Marine biology; Socioecology of bottlenose dolphins
<b>Jahoda</b> , Maddalena (Ms)	Doctorate	Newsletter Editor	Communications science; Marine biology
<b>Notarbartolo di Sciara</b> , Giuseppe (Mr)	PhD	President/Director of Research	Marine biology; Ecology; Ethology and systematics of cetaceans and elasmobranchs
<b>Venturino</b> , Maria Cristina (Ms)	Doctorate	Researcher	Marine biology; Pinniped biology
<b>Zanardelli</b> , Margherita (Ms)	Doctorate	Researcher	Marine biology; Natural history of cetaceans; Marine bioacoustics

**University of Genoa****Institute of Analysis and Pharmaceutical and Food Technology***Università degli Studi di Genova**Istituto di Analisi e Tecnologie Farmaceutiche ed Alimentari*

Via Brigata Salerno (Ponte)  
Genova 16147  
ITALY

**Telephone** (39) 10 3532604**Fax** (39) 10 3532684**Executive officer** Dr Renzo CAPELLI, Professor

Governmental, national institution. Languages: Italian

**Nature of activities** Research; Academic/educational**Purpose and objectives** Scientific research and education**Areas of speciality/activities** Marine chemistry and geochemistry; Analytical methodology; Heavy metals; Waters; Biota**Environments** Coastal zone; Pelagic environment; Benthic environment; Littoral zone**Geographic areas** Ligurian Sea; Ross Sea



## ITALY

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### Research programmes/projects

- Study of the mercury biogeochemical cycle in the marine environment

### Co-operative research programmes/projects

- Commission of the European Communities: "The origin of natural methylmercury", research project
- PNRA (Italian National Research Programme in Antarctica)
- IAEA/UNEP/BCR (Bureau Commune de Reference): Intercalibration of analytical methods and certification of reference material

### Training programmes

- Course work and research leading to "Laurea" (MSc) in farmacia (pharmacy) and chimica e tecnologie farmaceutiche (pharmaceutical chemistry)
- Course work and research leading to "Dottorato di Ricerca" (PhD) in marine environmental science

**Staff** Professional 3; Technical 1

### Information facilities

**Computers** 2 PCs (IBM PC and Epson PC-AX3); Printers (1 HP Laserjet1, 1 Epson LX80)

**Applications** Graphics; Library/documentation; Scientific; Statistical **Data exchange** 5.25"/3.5" PC diskettes; Lotus 1-2-3, ASCII text files

**Physical facilities** 200 m<sup>2</sup>

**Laboratories** 160 m<sup>2</sup>

**Facilities** for 1 visiting scientist; 10 students **Conference/seminar facilities** for 120 participants

### Professional/Scientific staff

Name	Degree	Position	Specialization
Capelli, Renzo (Mr)	Laurea	Professor/Executive Officer	General and inorganic chemistry; Biogeochemical cycles of elements
De Pellegrini, Rodolfo (Mr)	Diploma	Technician	General and inorganic chemistry; Biogeochemical cycles of elements
Minganti, Vincenzo (Mr)	Laurea	Research Scientist	General and inorganic chemistry; Biogeochemical cycles of elements

**University of Genoa**  
**Institute of Hygiene and Preventive Medicine**

*Università degli Studi di Genova*  
*Istituto di Igiene e Medicina Preventiva*

1 Via Pastore  
 Genova 16132  
 ITALY

**Telephone** (39) 10 3538501

**Fax** (39) 10 3538504

**Executive officer** Professor Silvio DE FLORA, Director

Governmental, national institution founded in 1889. Languages: Italian

**Nature of activities** Research; Technical training; Laboratory; Academic/educational

**Purpose and objectives** Research and teaching in the field of hygiene and preventive medicine

**Areas of speciality/activities** Marine chemistry and geochemistry; Analytical methodology; Heavy metals; Organics (halogenated hydrocarbons, petroleum hydrocarbons, etc); Radioactivity; Sediments; Waters; Marine biology and ecology; Fish; Algae; Eutrophication; Molluscs; Crustaceans; Marine biochemistry; Marine microbiology; Toxicology; Marine environmental management; Monitoring and/or assessment; Pollution; Environmental impact assessment; Activities related to the marine environment, which include microbiological and chemical monitoring and assessment of the effects of pollution on metabolism, mutagenicity and carcinogenicity

**Environments** Lakes; Coastal zone; Rivers; Littoral zone; Estuaries

**Geographic areas** Mediterranean Sea; Ligurian Sea; Tyrrhenian Sea

**Research programmes/projects**

- Microbiological and chemical monitoring of coastal waters
- Fate of marine pollutants
- Health effects of marine pollutants
- Metabolic and cytogenetic effects of pollution in marine organisms
- Mechanisms of antimutagenesis and anticarcinogenesis in marine organisms

**Co-operative research programmes/projects**

- UNEP/MED POL Phase II
- Institute "Rudjer Boskovic", Zagreb, Yugoslavia
- Institute of Zoology, University of Genoa, Italy

**Staff** Professional 16; Technical 14; Other 20

**Information facilities**

**Library** 3500 volumes/reprints; 75 periodicals

**Computers** Various **Applications** Accounting/financial planning; Communications; Database management; Desktop publishing; Education; Graphics; Scientific; Statistical; Word processing

## ITALY

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**Physical facilities** 2000 m<sup>2</sup>

**Laboratories** 1200 m<sup>2</sup>; climate controlled

**Facilities** for 3 visiting scientists; 30 students **Conference/seminar facilities** for 100 participants

### Professional/Scientific staff

Name	Degree	Position	Specialization
<b>Badolati</b> , Giuseppe (Mr)	Doctorate	Professor	Hygiene
<b>Crimi</b> , Paolo (Mr)	Doctorate	Associate Professor	Community medicine
<b>Crovani</b> , Pietro (Mr)	Doctorate	Professor	Hygiene
<b>Cuneo-Crovani</b> , Piera (Ms)	Doctorate	Professor	Hygiene
<b>De Flora</b> , Silvio (Mr)	Doctorate	Professor/Director	Hygiene
<b>Gallelli</b> , Giovanni (Mr)	Doctorate	Associate Professor	Applied hygiene
<b>Icardi</b> , Giancarlo (Mr)	Doctorate	Associate Professor	School hygiene
<b>Kanitz</b> , Stefano (Mr)	Doctorate	Professor	Hygiene
<b>La Rocca</b> , Maria Clara (Ms)	Doctorate	Associate Professor	Food hygiene
<b>Orlando</b> , Paolo (Mr)	Doctorate	Professor	Environmental hygiene
<b>Perdelli</b> , Fernanda (Ms)	Doctorate	Associate Professor	Hygiene
<b>Rizzetto</b> , Rolando (Mr)	Doctorate	Associate Professor	Food hygiene
<b>Sigari</b> , Giuseppina (Ms)	Doctorate	Associate Professor	Hygiene
<b>Vannucci</b> , Anselmo (Mr)	Doctorate	Professor	Epidemiology

### University of Genoa

#### Institute of Zoology

*Università degli Studi di Genova*

*Istituto di Zoologia*

5 Via Balbi  
Genova 16126  
ITALY

**Telephone** (39) 10 2099379

**Fax** (39) 10 2099323

**Executive officer** Dr Michele SARA, Professor

Governmental, national institution founded in 1872. Languages: Italian; English

**Nature of activities** Research; Academic/educational

**Purpose and objectives** Teaching and research in systematics and ecology, zoology of marine fauna and hard bottom communities

**Areas of speciality/activities** Benthos; Fish; Molluscs; Crustaceans; Taxonomy and systematics; Community and population studies; Fisheries; Coastal zone management; Pollution; Nature conservation and/or restoration; Artificial reefs

**Environments** Coastal zone; Benthic environment; Littoral zone; Lagoons

**Geographic areas** Mediterranean Sea; Ligurian Sea; Tyrrhenian Sea

#### Research programmes/projects

- Sponge adaptation and evolution
- Mollusc ecology and systematics
- Sponge ecology and systematics
- Cnidarian ecology and systematics
- Ultra structure studies on marine animals

#### Co-operative research programmes/projects

- Sedimentation role on benthic communities
- Red coral biology
- Ligurian Sea fisheries

**Staff** Professional 21; Technical 8; Other 6

#### Information facilities

**Publications** Boll. Mus. Ist. Biol., Univ. Genova

**Library** 2000 volumes/reprints; 100 periodicals

**Computers** 6 PCs **Applications** Communications; Database management; Desktop publishing; Graphics; Scientific; Statistical; Word processing

**Physical facilities** 1000 m<sup>2</sup>

**Laboratories** 800 m<sup>2</sup> **Laboratory equipment** Electronic microscopes (Scan, Tem); SCUBA diving equipment

**Research vessels/crafts** 1 small boat; 1 small rubber boat

#### Professional/Scientific staff

Name	Degree	Position	Specialization
Balduzzi, Andrea (Mr)	Doctorate	Researcher	Statistics; Bryozoan ecology
Bavestrello, Giorgio (Mr)	Doctorate	Technician	Sponge ecology
Burlando, Bruno (Mr)	Doctorate	Technician	Statistics; Ultrastructure analysis
Cattaneo-Viotti, Riccardo (Mr)	Doctorate	Researcher	Molluscs systematics and ecology

## ITALY

Name	Degree	Position	Specialization
<b>Gaino</b> , Elda (Ms)	PhD	Professor	Ultrastructure studies
<b>Morri</b> , Carla (Ms)	Doctorate	Researcher	Cnidarian ecology
<b>Orsi</b> , Lidia (Ms)	Doctorate	Professor	Fisheries; Fish biology
<b>Pansini</b> , Maurizio (Mr)	Doctorate	Researcher	Sponge systematics
<b>Pronzato</b> , Roberto (Mr)	Doctorate	Researcher	Sponge ecology
<b>Relini</b> , Giulio (Mr)	Doctorate	Professor	Fisheries; Artificial reefs
<b>Sara</b> , Michele (Mr)	Doctorate	Professor/Executive Officer	

### University of Messina

#### Department of Animal Biology and Ecology

*Università degli Studi di Messina*

*Dipartimento di Biologia Animale ed Ecologia Marina (DBAEM)*

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S. Agata  
Messina 98166  
ITALY

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**E-mail** (EARN) IMEUNIV

**Executive officer** Dr Vivia BRUNI, Professor

Governmental, national institution founded in 1915. Languages: Italian; English

**Nature of activities** Research; Laboratory; Academic/educational

**Purpose and objectives** Biological, chemical and physical research in brackish, marine and freshwater environments; Histology, zoology and comparative anatomy of marine organisms

**Areas of speciality/activities** Physical oceanography; Instruments and methods; Water masses and circulation; Marine chemistry and geochemistry; Analytical methodology; Nutrients; Heavy metals; Sediments; Waters; Suspended matter; Marine biology and ecology; Phytoplankton; Zooplankton; Benthos; Fish; Eutrophication; Plankton blooms; Molluscs; Crustaceans; Marine microbiology; Pathology of marine species; Taxonomy and systematics; Productivity; Community and population studies; Fisheries; Aquaculture; Marine environmental management; Monitoring and/or assessment;

Pollution; Nature conservation and/or restoration; Environmental impact assessment; Environmental education; Marine support services; Marine technology; Data acquisition and telemetry; Resources management; Assistance in planning the development of marine resources; Guidance in nature conservation; Quality control for fish processing; Provision of laboratory facilities for pollution testing of seawater

**Environments** Lakes; Brackishwater; Coastal zone; Pelagic environment; Benthic environment; Rivers; Littoral zone; Lagoons; Islands

**Geographic areas** Mediterranean Sea; Adriatic Sea; Ionian Sea; Ligurian Sea; Sicilian Channel; Strait of Otranto; Tyrrhenian Sea; Ross Sea; Pacific Ocean

#### **Research programmes/projects**

- Relation between seawater column and bottom
- Biological research in the Bannock water and sediments
- Toxic effects of detergent and pesticides on fish epithelia (histochemical/immunohistochemical studies)
- Lectin histochemistry and immunohistochemistry of regulatory peptides in fish and amphibian epithelia

#### **Co-operative research programmes/projects**

- ENEA/CNR: Biological oceanography in national research in Antarctica (primary production, marine microbiology and zooplankton)
- CNR: Aquaculture research
- Universite de Brest, France: Hydrothermal area-marine microbiology
- Portsmouth Polytechnic, Great Britian: Marine fungi

#### **Training programmes**

- Course/research leading to "Dottorato in Ambiente Marino e Risorse"
- Occasional courses for sewage waste plant technicians, biology of fisheries and aquaculture technicians

**Staff** Professional 30; Technical 24; Other 5

#### **Information facilities**

**Publications** Memorie di Biologia Marina e di Oceanografia, journal; Annual report

**Library** 3600 volumes/reprints; 180 periodicals **Librarian** Ms Antonia Di Pietro

**Computers** 1 IBM PS/2 Model 30 **Applications** Communications; Database management; Education; Graphics; Library/documentation; Mapping; Modelling; Scientific; Statistical; Word processing **Data exchange** Remote access via network

**Physical facilities** 2500 m<sup>2</sup>

**Laboratories** 1500 m<sup>2</sup>

**Research vessels/crafts** BR "Algesiro"

**Facilities** for 3 visiting scientists; 4 students **Conference/seminar facilities** for 80 participants

## ITALY

### Professional/Scientific staff

Name	Degree	Position	Specialization
<b>Ainis</b> , Luigi (Mr)	Doctorate	Researcher	Comparative anatomy; Immunohistochemistry; Cytochemistry
<b>Albertelli</b> , Giancarlo (Mr)	Doctorate	Professor	Hydrobiology; Zoobenthos ecology
<b>Bruni</b> , Vivia (Ms)	Doctorate	Professor/Director	Marine biology; Ecology; Marine microbiology
<b>Calabró</b> , Concetta (Ms)	Doctorate	Researcher	Zoology; Histology; Cytology
<b>Cavallaro</b> , Guglielmo (Mr)	Doctorate	Associate Professor	Zoology; Fisheries
<b>Cefali</b> , Antonio (Mr)	Doctorate	Researcher	Zoology; Population dynamics
<b>Contini</b> , Antonia (Ms)	Doctorate	Associate Professor	Zoology; Cytology; Oogenesis; Immunohistochemistry; Cytochemistry
<b>Cortese</b> , Giuseppina (Ms)	Doctorate	Researcher	Marine ecology; Chemical oceanography
<b>Costanzo</b> , Giuseppe (Mr)	Doctorate	Associate Professor	Zoology; Marine biology; Crustaceans
<b>De Domenico</b> , Emilio (Mr)	Doctorate	Professor	Marine ecology; Physical oceanography; Biological oceanography
<b>De Francesco</b> , Maria (Ms)	Doctorate	Researcher	Marine ecology; Marine microbiology
<b>Donato</b> , Antonia (Ms)	Doctorate	Associate Professor	Comparative anatomy
<b>Fasulo</b> , Salvatore (Mr)	Doctorate	Associate Professor	Cytology; Histology; Immunohistochemistry; Cytochemistry
<b>Gangemi</b> , Giuseppe (Mr)	Doctorate	Associate Professor	Zoology; Phytoplankton; Plankton blooms
<b>Giacobbe</b> , Salvatore (Mr)	Doctorate	Researcher	Marine ecology; Benthos
<b>Giuffré</b> , Giovanni (Mr)	Doctorate	Researcher	Marine biology; Phytoplankton
<b>Grasso</b> , Sofia (Ms)	Doctorate	Researcher	Marine ecology; Marine microbiology
<b>Guglielmo</b> , Letterio (Mr)	Doctorate	Professor	Marine ecology; Zooplankton
<b>Licata</b> , Aurelio (Mr)	Doctorate	Associate Professor	Cytology; Histology; Immunohistochemistry; Cytochemistry
<b>Lo Cascio</b> , Patrizia (Ms)	Doctorate	Researcher	Histology; Immunohistochemistry; Cytochemistry
<b>Lo Paro</b> , Giuseppe (Mr)	Doctorate	Associate Professor	Biology
<b>Manganaro</b> , Antonio (Mr)	Doctorate	Associate Professor	Marine biology; Ecology; Aquaculture
<b>Martella</b> , Silvestro (Mr)	Doctorate	Researcher	Marine chemistry; Heavy metals
<b>Maugeri</b> , Teresa Luciana (Ms)	Doctorate	Associate Professor	Microbiology; Ecology; Marine microbiology

Name	Degree	Position	Specialization
<b>Minniti</b> , Francesco (Mr)	Doctorate	Researcher	Zoology; Histology; Histochemistry; Immunohistochemistry
<b>Moio</b> , Luigi (Mr)	Doctorate	Associate Professor	Biology; Heavy metals
<b>Potoschi</b> , Antonio (Mr)	Doctorate	Researcher	Zoology; Bathyal fish
<b>Pulicanó</b> , Giuseppa (Ms)	Doctorate	Researcher	Oceanography; Chemical oceanography
<b>Zaccone</b> , Giacomo (Mr)	Doctorate	Professor	Histology; Comparative anatomy; Immunohistochemistry; Cytochemistry
<b>Zagami</b> , Giacomo (Mr)	Doctorate	Researcher	Marine biology; Ecology; Zooplankton

**University of Pavia**  
**Department of Genetics**  
**Section of Ecology**

*Università di Pavia*  
*Dipartimento Genetica*  
*Sezione Ecologia*

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ITALY

**Telephone** (39) 382 22319  
**Fax** (39) 382 528496

**Executive officer** Dr Cesare F SACCHI, Professor

Governmental, national institution founded in 1971. Languages: Italian; English; French

**Nature of activities** Research; Academic/educational

**Purpose and objectives** Teaching and research in general and applied ecology, animal ecology and hydrobiology

**Areas of speciality/activities** Benthos; Molluscs; Productivity; Community and population studies; Guidance in nature conservation

**Environments** Brackishwater; Coastal zone; Benthic environment; Littoral zone; Lagoons

**Geographic areas** Mediterranean Sea; Adriatic Sea



## ITALY

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### Research programmes/projects

- Bionomy of benthic associations
- Ecology of lagoon organisms
- Ecology of bryozoans
- Peracarid crustaceans and littoral gastropod molluscs

### Co-operative research programmes/projects

- Inter-University Centre of Fresh Water Ecology (CIEAI): Ecology of internal waters
- Centro Interuniversitario per la Cooperazione con l'America Latina (EULA): Biology of coastal waters

### Training programmes

- Course work and research leading to Doctoral Degree in animal ecology and hydrobiology

**Staff** Professional 3; Technical 1; Other 1

### Information facilities

**Publications** Collected reprints (annual)

**Library** 1500 volumes/reprints; 18 periodicals

**Computers** 1 Apple Macintosh II computer; 1 Printer (Apple ImageWriter) **Applications** Scientific; Statistical; Word processing **Data exchange** 5.25" PC diskettes

### Physical facilities

**Laboratory equipment** 2 light microscopes (Zeiss); 6 stereomicroscopes (Wild); 1 spectrophotometer; Microclimatic recorder; Analytical scales

**Facilities** for 6 students

### Professional/Scientific staff

Name	Degree	Position	Specialization
Occhipinti-Ambrogi, Anna (Ms)	Doctorate	Researcher	Benthic ecology; Sessile benthos
Sacchi, Cesare F (Mr)	PhD	Professor/Head	Animal ecology; Biogeography; Ecophysiology
Sconfiatti, Renato (Mr)	Doctorate	Collaborator	Benthic ecology; Peracarid crustaceans

**University of Venice**  
**Department of Environmental Science**

*Università di Venezia*  
*Dipartimento di Scienze Ambientali*

2137 Calle Larga S. Marta  
Venezia 30123  
ITALY

**Telephone** (39) 41 5298531

**Telex** 410638 UNIVVE

**Fax** (39) 41 5298584

**Executive officer** Dr Angelo Antonio ORIO, Professor

Governmental, national institution founded in 1868. Languages: Italian; English; French

**Nature of activities** Research; Academic/educational

**Purpose and objectives** Education and research in the field of environmental sciences

**Areas of speciality/activities** Analytical methodology; Nutrients; Heavy metals; Organics (halogenated hydrocarbons, petroleum hydrocarbons, etc); Sediments; Waters; Suspended matter; Biota; Sedimentology; Phytoplankton; Algae; Eutrophication; Plankton blooms; Productivity; Fisheries; Aquaculture; Monitoring and/or assessment; Pollution; Environmental education; Assistance to municipal, regional and national government; Applied environmental research conducted with private companies

**Environments** Lakes; Coastal zone; Benthic environment; Lagoons; Estuaries

**Geographic areas** Adriatic Sea

**Research programmes/projects**

- Research conducted in the researcher's particular area of speciality singly or in collaboration with other Italian or foreign institutions

**Co-operative research programmes/projects**

- Dutch institution: Major international co-operative programme on eutrophication processes of lagoons and shallow coastal ecosystems
- Brazilian institution: Project on coastal water eutrophication

**Training programmes**

- Standard university courses and research leading to MSc (Laurea) in environmental sciences and PhD in analytical and environmental chemistry

**Staff** Professional 27; Technical 9; Other 4

**Information facilities**

**Publications** Scientific papers published in national and international journals

## ITALY

**Library** Yes **Co-operative programmes/projects** Main University Library **Librarian**  
Ms Luciana Tagliapietra; Mr Giuseppe Rapposelli

**Computers** 24 PCs **Applications** Accounting/financial planning; Communications; Database management; Graphics; Library/documentation; LAN; Mathematical; Mapping; Modelling; Network access; Scientific; Statistical; Word processing **Data exchange** Remote access (University Computing Centre; Northern Italy Computing Centre (CINECA), Bologna; IRS/European Space Agency, Frascati)

**Physical facilities** 1500 m<sup>2</sup>

**Laboratories** 1100 m<sup>2</sup>; climate controlled

**Research vessels/crafts** RV "U D'Ancona" of the Italian CNR, is used regularly; Small boats, 5-6 m

**Facilities** for 5 visiting scientists; 5 students **Conference/seminar facilities** for 20 participants; 11 classrooms for 50-200 people **Lodging** available at the Fondazione, Venice

### Professional/Scientific staff

Name	Degree	Position	Specialization
<b>Argese</b> , Emanuele (Mr)	Laurea	Associate Professor	Physical biochemistry; Enzyme activity; New analytical methods
<b>Avezzu</b> , Francesco (Mr)	Laurea	Associate Professor	Waste treatment processes; Heavy metals removal through biological treatment
<b>Biscontin</b> , Guido (Mr)	Laurea	Associate Professor	Restoration chemistry; Behaviour and restoration of architectural surfaces
<b>Bragadin</b> , Marcantonio (Mr)	Laurea	Associate Professor	Physical biochemistry; Biotests of water toxicity
<b>Capodaglio</b> , Gabriele (Mr)	Laurea	Researcher	Analytical chemistry; Heavy metal speciation
<b>Cecchi</b> , Franco (Mr)	Laurea	Associate Professor	Solid waste treatment processes; Anaerobic digestion of mixed organic biomass
<b>Cescon</b> , Paolo (Mr)	Laurea	Professor	Analytical chemistry; Polymers as photoconductors
<b>De Nardo</b> , Luciano (Mr)	Laurea	Researcher	Analytical chemistry
<b>Donazzolo</b> , Romano (Mr)	Laurea	Associate Professor	Environmental chemistry; Nutrients and inorganic pollutants in coastal areas
<b>Grasso</b> , Mario (Mr)	Laurea	Professor	Biology; Bioaccumulation of heavy metals in shellfish
<b>Lavagnini</b> , Irma (Ms)	Laurea	Associate Professor	Mathematics; Numerical methods in chemistry
<b>Lucchini</b> , Vittorio (Mr)	Laurea	Professor	NMR spectroscopy; Reactivity of aliphatic systems

Name	Degree	Position	Specialization
<b>Marani</b> , Alessandro (Mr)	Laurea	Associate Professor	Mathematical modelling; Chemical processes at the pollution sight and drainage area
<b>Marcomini</b> , Antonio (Mr)	Laurea	Researcher	Environmental chemistry; Behaviour of organic micropollutants in water analysis
<b>Mazzei</b> , Ileana (Ms)	Laurea	Associate Professor	Physical chemistry; Mathematical modelling of the Venice Lagoon
<b>Menegazzo</b> , Laura (Ms)	Laurea	Associate Professor	Geochemistry; Geochemical and mineralogical studies of the Venice Lagoon
<b>Moret</b> , Ivo (Mr)	Laurea	Associate Professor	Technology of commerce; Statistical methods in the technology of commerce
<b>Orio</b> , Angelo A (Mr)	Doctorate	Professor/Executive Officer	Environmental chemistry; Pollution; Eutrophic processes in lagoons and shallow areas
<b>Panagia</b> , Salvatore (Mr)	Laurea	Associate Professor	Law
<b>Pavoni</b> , Bruno (Mr)	Laurea	Associate Professor	Environmental chemistry; Analysis and environmental processes of PAH, PCBs
<b>Perin</b> , Guido (Mr)	Laurea	Associate Professor	Ecotoxicology; Rendering surface waters potable
<b>Rampazzo</b> , Giancarlo (Mr)	Laurea	Researcher	Geochemistry; Geochemical characterization of lagoon sediments
<b>Ravera</b> , Oscar (Mr)	Laurea	Professor	Ecology; Influence of interspecific relation on biohandling techniques
<b>Scarponi</b> , Giuseppe (Mr)	Laurea	Associate Professor	Analytical chemistry; Chemiometrics applications in analytical chemistry
<b>Traverso</b> , Pietro (Mr)	Laurea	Associate Professor	Treatment processes; Inertisation of toxic wastes
<b>Tundo</b> , Pietro (Mr)	Laurea	Professor	Organic chemistry; Chemical decomposition of PCBs
<b>Zilio Grandi</b> , Francesco (Mr)	Laurea	Associate Professor	Analytical chemistry; Chemical characterization of fall-out

## ITALY

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**University of Venice**  
**Department of Environmental Science**  
**Section of Geominerology**

*Università di Venezia*  
*Dipartimento di Scienze Ambientali*  
*Sezione Geo-Mineralogica*

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**Fax** (39) 41 5298584

**Executive officer** Dr Laura MENEGAZZO VITTURI, Associate Professor

Governmental, national institution founded in 1983. Languages: Italian

**Nature of activities** Research; Academic/educational

**Purpose and objectives** Academic education and research

**Areas of speciality/activities** Analytical methodology; Heavy metals; Radioactivity; Sediments; Suspended matter; Sedimentology; Coastal and nearshore processes; Pollution; Environmental education; Courses in lithology and geology for students of environmental sciences; Courses in mineralogy and geochemistry for students of chemistry; Research activities in the fields of mineralogy, geochemistry and sedimentology

**Environments** Coastal zone; Lagoons; Estuaries

**Geographic areas** Adriatic Sea; Antarctic

### **Research programmes/projects**

- Studies of suspended matter and sediments in estuarine environments
- Research on the geochemistry of bottom sediments in the Ross Sea (Antarctica)
- Investigations on the geochemical characteristics of the Rosso Ammonitico Veronese nodular limestones

### **Co-operative research programmes/projects**

- Sediment pollution of the Adriatic Sea
- Environmental capacity of estuaries

### **Training programmes**

- Teaching lithology and geology to students of environmental sciences
- Teaching mineralogy and geochemistry to students of chemistry

**Staff** Professional 2; Technical 2

**Information facilities**

**Publications** Technical reports; Papers in the world scientific literature

**Library** 1000 volumes/reprints; 80 periodicals

**Computers** 2 PCs (Olivetti M24 and Zenith 386); 2 Printers (Panasonic and Mannesmann)

**Applications** Database management; Statistical; Word processing

**Physical facilities** 60 m<sup>2</sup>

**Laboratories** 80 m<sup>2</sup>; climate controlled **Laboratory equipment** Microscopes for mineralogy; Sedigraph; Specific surface area analyser; Differential thermal analysis; Atomic absorption spectrophotometer with graphite furnace; Spectrophotometer; Grab; Corer

**Facilities** for 2 visiting scientists; 2 students **Conference/seminar facilities** available

**Professional/Scientific staff**

Name	Degree	Position	Specialization
<b>Menegazzo Vitturi</b> , Laura (Ms)	Doctorate	Associate Professor/Executive Officer	Mineralogy; Sedimentology; Sediment role in environmental pollution
<b>Rampazzo</b> , Giancarlo (Mr)		Researcher	Geochemistry; Analytical methodologies in geochemistry of particulate matter

# LEBANON

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## **National Council for Scientific Research Marine Research Centre (MRC)**

Haret Sakhr  
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Keserouan  
LEBANON

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(961) 9 934763

**Cable** P.O. BOX 123 JOUNIEH

**Executive officer** Dr Hratch H KOUYOUMJIAN, Professor

Governmental, national institution founded in 1978. Languages: Arabic; English; French

**Nature of activities** Research; Laboratory; Academic/educational; Information/public awareness

**Purpose and objectives** Studies and research in marine science and the sustainable development of marine resources

**Areas of speciality/activities** Water masses and circulation; Nutrients; Heavy metals; Organics (halogenated hydrocarbons, petroleum hydrocarbons, etc); Waters; Biota; Phytoplankton; Zooplankton; Benthos; Fish; Algae; Eutrophication; Plankton blooms; Crustaceans; Marine microbiology; Parasitology; Aquaculture; Monitoring and/or assessment; Pollution; Environmental education; Guidance to pressure groups and environmental awareness campaigns; Assistance to the government and to the private sector in the planning of monitoring programmes; Provision of laboratory facilities

**Environments** Coastal zone; Benthic environment; Littoral zone

**Geographic areas** Levantine Sea

### **Research programmes/projects**

- Environmental monitoring
- Survey of fish larvae and ichthyoplankton
- Benthic surveys
- Study of primary productivity and phytoplankton
- Physiology of invertebrates

### **Co-operative research programmes/projects**

- UNEP/MED POL: Monitoring station
- UNDP/FAO: Mariculture for MEDRAP

### **Training programmes**

- No designated training programme. Occasionally students are accepted for specific training or facilities are provided for new studies and research

**Staff** Professional 13; Technical 3

**Information facilities**

**Publications** Contributions to the Lebanese Science Bulletin

**Library** 1000 volumes/reprints; 5 periodicals **Co-operative programmes/projects** NSCR Library; American University of Beirut Library

**Computers** Various **Applications** Database management; Statistical; Word processing

**Physical facilities** 300 m<sup>2</sup>

**Laboratories** 250 m<sup>2</sup>; climate controlled **Laboratory equipment** GLC (various); AAS (Pye Unicam); Spectrophotometers; Scales; Microbiological equipment; Temperature light control chambers; Diving equipment (3 licensed divers); Lyophiliser; Compound and inverse microscopes; Photographic equipment **Aquariums** Small tanks only

**Professional/Scientific staff**

Name	Degree	Position	Specialization
Abboud-Abi Saab, Marie (Ms)	PhD	Senior Staff	Phytoplankton; Primary productivity
Belian, Jean (Mr)	BS	Research Assistant	Microbiology; Water quality
Haber, Ricardo (Mr)	MSc	Research Assistant	Meifauna; Coastal ecology
Kassab, M T (Ms)	BS	Research Assistant	Phytoplankton; Taxonomy
Kibar, Najad (Mr)	PhD	Senior Staff	Oceanography; Coastal circulation
Kouyoumjian, Hratch (Mr)	PhD	Professor/Executive Officer	Environmental monitoring; Aquaculture; Environmental problems; Bioassays
Lakkis, Sami (Mr)	PhD	Senior Staff	Zooplankton; Copepods; Fish larvae
Mattar, Nada (Ms)	BS	Research Assistant	Chemistry; Benthos
Mousessian, Mary (Ms)	BS	Research Assistant	Pharmacology; Metals
Najjar, Elie (Mr)	BS	Research Assistant/Assistant to Director	Pesticides; Herbicides; Chlorinated hydrocarbons
Nouayhed, Mamun (Mr)	PhD	Senior Staff	Physiology; Aquaculture; Shrimp physiology
Yazbek, Jeanine (Ms)	MSc	Research Assistant	Oceanography; Nutrients
Zeidane, Raymonde (Ms)	BS	Research Assistant	Zooplankton; Taxonomy; Populations



# LIBYA

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## National Academy of Scientific Research (NASR)

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Zawet Dahmane  
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Tripoli  
LIBYA

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(218) 21 34941

**Telex** 20956 NASR LY

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**Fax** (218) 21 39841

**Executive officer** Professor Taher E JEHAIMI, Director General

Governmental, national institution founded in 1982. Languages: Arabic; English

**Nature of activities** Academic/educational; Policy and planning

**Purpose and objectives** Planning, co-ordination and scientific and financial support of research activities

**Areas of speciality/activities** Modelling; Analytical methodology; Nutrients; Heavy metals; Radioactivity; Biota; Fish; Algae; Marine biochemistry; Marine microbiology; Community and population studies; Coastal zone management; Pollution; Environmental impact assessment; Environmental economics; Environmental education; Ocean policy/Law of the Sea; Development policy/planning; Commerce and trade; Resources management; Mineral resources; Energy resources; Physical planning; National scenario for the environment: 2000-2025

**Geographic areas** Mediterranean Sea

### Research programmes/projects

- Land use
- Coastal pollution control (Algae)
- Various other projects

### Co-operative research programmes/projects

- Technical Centre for the Protection of the Environment
- National Institute for Environmental Research

**Staff** Professional 50; Technical 80; Other 40

### Information facilities

**Publications** Newsletter (quarterly); Journal (bi-annual); Technical reports; Monographs

**Library** 15000 volumes/reprints; 140 periodicals **Co-operative programmes/projects** Various

**Librarian** Mr Mohamed Bumais, Head of Publications Department

**Computers** Various **Applications** Accounting/financial planning; Database management; Geographic Information Systems (GIS); Scientific; Statistical **Data exchange** On-line access to international databanks

**Physical facilities**

**Laboratories** climate controlled

**Conference/seminar facilities** for 100 participants

# MALTA

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## **Foundation for International Studies Euro-Mediterranean Centre on Marine Contamination Hazards**

Old University Bldgs  
St. Paul Street  
Valletta  
MALTA

**Telephone** (356) 234121  
(356) 234122  
(356) 224067

**Telex** 1673 FOUND MW

**Fax** (356) 230551

**Executive officer** Mr Anton MICALLEF, Director

International nongovernmental institution founded in 1987. Languages: English; French; Italian

**Nature of activities** Research; Technical training; Academic/educational; Information/public awareness

**Purpose and objectives** Training, research, information management and dissemination

**Areas of speciality/activities** Analytical methodology; Organics (halogenated hydrocarbons, petroleum hydrocarbons, etc); Marine biology and ecology; Eutrophication; Molluscs; Marine microbiology; Toxicology; Coastal zone management; Pollution; Environmental education; Remote sensing; Ocean policy/law of the Sea; Disaster preparedness and relief; Biological effects of pollutants on marine organisms

**Environments** Coastal zone; Pelagic environment; Benthic environment; Littoral zone; Islands

**Geographic areas** Mediterranean Sea

### **Training programmes**

- Aspects of marine documentation in the Mediterranean
- Monitoring and assessment of atmospheric contaminants in the Mediterranean
- Applications of ecotoxicology

**Staff** Professional 3; Other 2

### **Information facilities**

**Publications** Monographs; Proceedings of conferences

**Library** 7000 volumes/reprints; 210 periodicals **Co-operative programmes/projects** Maltese National Library; University of Malta library; Centre National de Documentation Agricole (Alger); IOI library, Malta; OCSEM library; Centre International de Hautes Etudes Agronomiques **Librarian** Mr Damian Iwueke

**Computers** 3 PCs (IWILL/AT, Future Technologie PC3000, Sharp PC4500) **Applications** Database management; Desktop publishing; Education; Project management; Scientific; Word processing

### Physical facilities

**Research vessels/crafts** One 12 m marine research vessel

**Facilities** for 4 visiting scientists; 20 students **Conference/seminar facilities** for 300 participants, simultaneous interpretation **Lodging** available

### Professional/Scientific staff

Name	Degree	Position	Specialization
<b>Axiak</b> , Victor (Mr)	PhD	Professor	Marine biology; Toxicology
<b>Busuttill</b> , Salvino (Mr)	PhD	Professor	Economics
<b>Micallef</b> , Anton (Mr)	BS	Director	Marine pollution

### International Ocean Institute (IOI)

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P.O. Box 524  
Valletta  
MALTA

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**Telex** 1946 OCEANS MW/(via UK) 93121322824 CVG  
**Cable** INTEROCEAN  
**Fax** (356) 247594  
**E-mail** (DIALCOM) 75CMI.044

**Executive officer** Dr Anna MALLIA, Head, Academic Affairs

International nongovernmental institution founded in 1972. Languages: English

**Nature of activities** Research; Technical training; Academic/educational; Policy and planning; Information/public awareness; Conferences

**Areas of speciality/activities** Physical oceanography; Marine chemistry and geochemistry; Marine geology and geophysics; Marine biology and ecology; Fisheries; Aquaculture; Marine environmental management; Monitoring and/or assessment; Coastal zone management; Pollution; Nature conservation and/or restoration; Environmental impact assessment; Environmental economics; Environmental education; Marine support services; Ocean policy/law of the Sea; Development policy/planning; Recreation/tourism; Resources management; Mineral resources; Energy resources; Physical planning; Marine archaeology; Pacem in Maribus Convocations; Course in marine affairs

## MALTA

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**Environments** Coastal zone

**Geographic areas** Mediterranean Sea; Atlantic Ocean; Caribbean; Indian Ocean

### Research programmes/projects

- Alternative modes of funding the Mediterranean Trust Fund
- Regional centres for R&D in marine industrial technology
- Joint venture in deep seabed mining
- Impact of perestroika on the Law of the Sea

### Co-operative research programmes/projects

- African-Asian Legal Consultative Committee (AALCC): Joint venture in deep seabed mining

### Training programmes

- Class A-Seabed mining and the preparatory commission (1991-India)
- Class B-Management of the EEZ (1991-Canada and Malta)
- Class C-Regional seas (1991-Italy (Mediterranean), Jamaica (Caribbean), Mauritius (Indian Ocean))

**Staff** Professional 4; Other 5

### Information facilities

**Publications** Across the Oceans; IOI News; Current Holdings; Ocean Yearbook; Pacem in Maribus, Proceedings; Occasional publications/papers; Research reports

**Library** 3000 volumes/reprints; 300 periodicals **Co-operative programmes/projects** IAMS LIC; EURASLIC; University of Malta Library; Foundation for International Studies, Malta, library **Librarian** Mr Damian Iwueke

**Computers** 2 PCs (AT) **Applications** Communications; Database management; Education; Library/documentation; Network access; Project management; Word processing

### Professional/Scientific staff

Name	Degree	Position	Specialization
<b>Chircop</b> , Aldo E (Mr)	JSD	Director	International law; Law of the sea; Marine law and policy; Environmental law; Mediterranean studies
<b>Iwueke</b> , Damian (Mr)	MLS	Librarian	Library science; Documentation
<b>Mallia</b> , Anna (Ms)	PhD	Head, Academic Affairs	
<b>Mann Borgese</b> , Elisabeth (Ms)	PhD	Chairperson	Political science; Development studies; Law of the sea
<b>Van Der Bilt</b> , Caroline F (Ms)	BA	Vice Chairperson	Marine affairs

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**University of Malta**  
**Biology Department**

Msida  
MALTA

**Telephone** (356) 342488

(356) 336451

**Fax** (356) 336450

**Executive officer** Professor Carmelo AGIUS, Department Head

State-funded institution. Languages: English

**Nature of activities** Research; Technical training; Laboratory; Academic/educational

**Purpose and objectives** Teaching and research in biology

**Areas of speciality/activities** Marine biology and ecology; Benthos; Algae; Molluscs; Crustaceans; Community and population studies; Coastal zone management; Pollution; Nature conservation and/or restoration; Environmental impact assessment; Environmental education; Resources management; Research and teaching to degree-level in marine ecology, ecotoxicology, marine botany and aquaculture

**Environments** Brackishwater; Coastal zone; Benthic environment; Littoral zone; Islands

**Geographic areas** Mediterranean Sea

**Research programmes/projects**

- Aquaculture
- Microbiology
- Marine ecotoxicological research
- Marine vegetation/floristics
- Marine faunistics
- Ecology of the Maltese Islands

**Training programmes**

- MSc, BS in biology

**Staff** Professional 5; Technical 5; Other 2

**Information facilities**

**Publications** CENTRO; Technical reports; Monographs; Papers in the world scientific literature

**Library** Yes **Librarian** Mr Paul Xuereb

**Computers** Various **Data exchange** Various

## MALTA

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### Physical facilities

**Laboratories** 500 m<sup>2</sup>; climate controlled **Laboratory equipment** Standard SCUBA equipment; Water quality equipment **Aquariums** 1x200 m<sup>3</sup> **Species maintained** Marine invertebrates; Fish: Tilapia, Sea bass, Breams

**Facilities** for 3 visiting scientists; 10 students **Conference/seminar facilities** for 60 participants

### Professional/Scientific staff

Name	Degree	Position	Specialization
<b>Agius</b> , Carmelo (Mr)	PhD	Professor/Department Head	Fisheries; Aquaculture
<b>Axiak</b> , Victor (Mr)	PhD	Professor	Marine biology; Marine ecotoxicology
<b>Balzan</b> , Rena (Ms)	Doctorate	Lecturer	Genetics
<b>Lanfranco</b> , Edwin (Mr)	BS	Lecturer	Botany; Marine vegetation; Floristics
<b>Schembri</b> , Patrick J (Mr)	PhD	Professor	Marine biology; Ecology; Environmental management

# MONACO

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## **International Atomic Energy Agency Marine Environment Laboratory (MEL)**

19 Avenue des Castellans  
Monaco 98000  
MONACO

**Telephone** (33) 93 504488  
**Telex** 479378 ILMR  
**Fax** (33) 93 257346  
**E-mail** (OMNET) IAEA.MONACO

**Executive officer** Professor Murdoch Scott BAXTER, Director

United Nations institution. Languages: English

**Nature of activities** Research; Technical training; Laboratory; Information/public awareness

**Purpose and objectives** Marine radioecology; Marine biogeochemistry; Marine environmental studies; Marine pollution studies; Marine geochemistry; Marine radiogeochemistry

**Areas of speciality/activities** Physical oceanography; Instruments and methods; Water masses and circulation; Currents and dispersion; Air-sea interaction; Marine chemistry and geochemistry; Analytical methodology; Nutrients; Heavy metals; Organics (halogenated hydrocarbons, petroleum hydrocarbons, etc); Radioactivity; Sediments; Waters; Suspended matter; Biota; Marine biology and ecology; Phytoplankton; Zooplankton; Benthos; Fish; Algae; Eutrophication; Plankton blooms; Molluscs; Crustaceans; Marine physiology; Marine biochemistry; Toxicology; Productivity; Marine environmental management; Monitoring and/or assessment; Pollution; Environmental impact assessment; Environmental education; Marine support services; Marine technology; Delineation of processes controlling the fluxes and vertical transport of artificial and natural radionuclides in coastal and open ocean water; Definition of the role biogenic particles play in affecting material scavenging in marine systems; Assessment of the pathways and transfer rates of radionuclides and trace organic contaminants through marine food chains; Study of sources, levels, pathways, fates and effects of non-nuclear marine contaminants and measures for their control and abatement; Development of analytical methods and strategies for the assessment of trace organic and inorganic contaminants; Study of the distribution of organic and inorganic substances in the marine environment which act as tracers for oceanographic or geochemical processes; Study of sources, levels, pathways and fates of artificial radionuclides; Development of analytical methods and strategies for the assessment of different radionuclides; Study of the distribution of natural and artificial radionuclides in the marine environment for use as tracers of oceanographic processes

**Environments** Coastal zone; Mangrove swamps; Pelagic environment; Benthic environment; Rivers; Littoral zone; Lagoons; Coral reefs and atolls; Islands; Estuaries

**Geographic areas** Mediterranean Sea; Adriatic Sea; Aegean Sea; Algero-Provencal Basin; Balearic Sea; Dardanelles; Gulf of Lyon; Ionian Sea; Levantine Sea; Ligurian Sea; Tyrrhenian Sea; Atlantic Ocean; Bosphorus; Marmara Sea; Black Sea; Red Sea; Antarctic; Caribbean; Pacific Ocean; Baltic Sea; North Sea; Irish Sea



## Research programmes/projects

- Study of the vertical flux of carbon and anthropogenic contaminants in sinking particulate material
- Adsorption and desorption of radionuclides and trace elements in biogenic detrital particles
- Uptake and assimilation of radionuclides ingested by marine organisms
- Transfer and cycling of radiolabelled agrochemicals through tropical lagoon ecosystems
- Measurements of organic and inorganic carbon fixation by carbonate-producing phytoplankton
- Fate of agrochemicals in Tropical Lagoon ecosystems
- Mussel watch for trace contaminants (Mediterranean and Latin America)
- Rare earth element geochemistry of the Mediterranean and the Gulf of California
- Development of analytical techniques for trace organic contaminants in the marine environment
- Study of the vertical flux of anthropogenic contaminants in water columns
- Study of the distribution and fate of specific radionuclides in water and sediments from the world oceans

## Co-operative research programmes/projects

- DYFAMED (Centre des Faibles Radioactivites, Gif-sur-Yvette) under PFO (French Oceanic Flux Programme)
- MEDATLANTE-id
- EUMELI (Universite Paris VI, Villefranche-sur-Mer) under PFO (French Oceanic Flux Programme)
- FRONTAL-id
- Regional analytical centre for UNEP's MED POL programme in co-operation with all UNEP Regional Seas Programmes and institutional network MESL
- Co-operation with IOC's regional programmes on marine pollution, particularly those institutions in the Caribbean and Indian Ocean

## Training programmes

- Marine moorings and particle flux studies
- Analytical methods used to measure natural and artificial radionuclides
- Analytical methods for organic and inorganic trace contaminants
- Marine pollution assessment strategies
- Courses in marine pollution chemistry, marine pollution assessment

**Staff** Professional 22; Other 8

## Information facilities

**Publications** Biennial Report; UNEP/IOC/IAEA Reference Methods for Marine Pollution Studies (59 currently published)

**Library** 2000 volumes/reprints; 30 periodicals **Librarian** Ms Isabelle Roggi

**Computers** Various **Applications** Accounting/financial planning; Communications; Database management; Graphics; Modelling; Scientific; Statistical; Word processing

## Physical facilities

**Laboratories** climate controlled **Laboratory equipment** NaI Gamma Spectrometer; Ge(Li)Gamma Spectrometer; CHN Analyser; HPLC system; Numerous microscopic systems; 7 capillary gas chromatographs with ECD, FPD, FID, NPD detectors; 1 gas chromatograph-mass spectrometer system; 1 high precision liquid chromatograph; 1 scanning spectrophotometer, 1 scanning spectrofluorometer; 1 inductively-coupled plasma mass spectrometer; 2 atomic absorption spectrophotometers, 1 anodic stripping voltammeter; 3 Ge(HP) gamma spectrometers; 10 gasflow anti-coincidence low-background beta proportional counters; 53 surface barrier silicon detectors for alpha spectrometry **Aquariums** 30x4 m<sup>3</sup> **Species maintained** Various, according to needs: fish, shellfish, crustacea

**Research vessels/crafts** "Physalie", small ship belonging to the Musée Océanographique, is used periodically

**Conference/seminar facilities** available **Lodging** available

## Professional/Scientific staff

Name	Degree	Position	Specialization
Avauillée, F (Mr)			Electronic engineering
Ballestra, S (Mr)	Doctorate		Radiogeochemistry
Barisic, T (Mr)			Marine environment
Baxter, Murdoch S (Mr)	Doctorate	Director	
Cattini, C (Ms)			Marine environment
Collyer, M (Ms)			Administration
Engemann, R (Ms)			Administration
Fabry, V (Mr)	Doctorate		Radioecology
Fonseca, D (Ms)			Administration
Fowler, S W (Mr)	Doctorate	Head, Radioecology Laboratory	Radioecology
Gastaud, J (Mr)	Doctorate		Radiogeochemistry
Hamilton, T (Mr)	Doctorate		Radiogeochemistry
Henry, S (Ms)			Marine environment
Huynh-Ngoc, L (Mr)	Doctorate		Radiogeochemistry
La Rosa, J (Mr)			Radioecology
Liong Wee Kwong, L (Mr)			Marine environment
Lopez, J J (Mr)			Radiogeochemistry
Maillard, D (Mr)	Doctorate		Electronic engineering
Mee, L D (Mr)	Doctorate	Head, Marine Environmental Studies Laboratory	Marine environment
Miquel, J C (Mr)	Doctorate		Radioecology
Nolan, C (Mr)	Doctorate		Radioecology
Noshkin, V E (Mr)	Doctorate	Head, Radiogeochemistry Laboratory	Radiogeochemistry

## MONACO

Name	Degree	Position	Specialization
Oregioni, B (Mr)	Doctorate		Marine environment
Parsi, P (Mr)			Radiogeochemistry
Peinert, R (Mr)	Doctorate		Radioecology
Pontis, J L (Mr)			Electronic engineering
Razmjoo, M (Ms)			Radioecology
Readman, J (Mr)	Doctorate		Marine environment
Sanchez, A (Mr)	Doctorate		Radiogeochemistry
Teyssie, J L (Mr)			Radioecology
Vas, D (Ms)			Radiogeochemistry
Villeneuve, J P (Mr)	Doctorate		Marine environment

### Ministère d'Etat Office Monégasque de l'Environnement (OME)

Villa Girasole  
16 Boulevard de Suisse  
Monaco 98030 Cedex  
PRINCIPAUTE DE MONACO

**Téléphone** (33) 93 258955

**Téléfax** (33) 93 302474

**Directeur** Professeur Agrégé Patrick VAN KLAVEREN, Directeur

Organisme gouvernemental, national créé en 1991. Langues de travail: Français

**Nature des activités** Recherche; Laboratoire; Information, vulgarisation

**Objectifs/mandat** Surveillance de l'environnement

**Domaines ou disciplines scientifiques/activités** Océanographie physique; Masses d'eau et circulation; Courants et dispersion; Modélisation; Méthodologie analytique; Substances nutritives; Métaux lourds; Composés organiques (hydrocarbures halogènes, hydrocarbures pétroliers, etc.); Radioactivité; Eaux; Matière en suspension; Géologie marine et géophysique; Sismologie; Biologie marine et écologie; Phytoplancton; Benthos; Microbiologie marine; Météorologie marine et climatologie; Surveillance continue et/ou évaluation; Pollution; Evaluation de l'impact sur l'environnement; Suivi régulier des métaux lourds, sels nutritifs, pigments chlorophylliens, détergents anioniques, hydrocarbures aromatiques, germes entériques, radioactivité gamma, dans l'eau de mer, de torrents, de pluie et les aliments végétaux et animaux d'origine locale; Sismologie et météorologie; Pollution atmosphérique urbaine

**Environnements** Zones côtières; Rivières; Zones littorales

**Zones géographiques** Mer Méditerranée; Mer de Ligurie

**Personnel** Scientifique 9; Autre 2

### Moyens d'information

**Publications** Bulletin

**Bibliothèque** 12 périodiques **Programmes/projets de coopération** Bibliothèque du Musée Océanographique de Monaco

**Ordinateurs** Ordinateurs (HP 9845, CCC SLS6350 -sous UNIX-); Apple Macintosh; IBM PS

**Applications** Comptabilité, planification financière; Publication assistée par ordinateur; Graphiques; Statistiques; Traitement de texte **Echange de données** Divers

**Installations** 600 m<sup>2</sup>

**Laboratoires** 500 m<sup>2</sup>; climatisés **Equipements de laboratoire** Spectrophotomètre à effet Zeeman; Spectrophotomètre à absorption atomique; Spectrofluorimètre; Fluorimètre; Spectrophotomètre; Sonde CTD; Variosens (fluorimètre immergeable); Irradiance mètre; Technicon (sels nutritifs, détergents); Ensemble de détection de radioactivité gamma (germanium pur coaxial); Collecteur d'aérosols; Réseau de sismographes; Réseau de capteurs automatisés pour surveillance de la pollution atmosphérique

### Personnel scientifique

Nom	Diplôme	Fonction	Spécialité
Bethoux, Nicole (Mme)	Doctorat 3ème cycle	Sismologue	Sismologie
Boisson, Michel (M)	Doctorat 3ème cycle	Océanographe	
Marmenteau, Claude (M)	Maîtrise	Chimiste Adjoint Qualifié	Pollution atmosphérique urbaine
Pucci, Roland (M)	Doctorat 3ème cycle	Chimiste Adjoint Qualifié	Sels nutritifs
Rapaire, Jean-Louis (M)	Doctorat	Chercheur 3è catégorie	Océanographie physique; Modélisation
Schommers, Evelyne (Mme)	Maîtrise	Biochimiste Adjointe Qualifiée	Microbiologie; Mesures océanographiques
Semeria, Jacques (M)	Maîtrise	Microbiologiste	Microbiologie; Biologie animale
Thommeret, Yolande (Mme)	Ingénieur	Ingénieur Chimiste	Radioactivité
Van Klaveren, Patrick (M)	Doctorat	Professeur/Directeur	
Veglia, André (M)	Doctorat	Chercheur 3è catégorie	Métaux lourds; Coordination scientifique

## MONACO

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### **Musée Océanographique de Monaco**

*Institut Océanographique*

*Fondation Albert 1er, Prince de Monaco*

Avenue St. Martin  
Monaco-Ville 98000  
PRINCIPAUTE DE MONACO

**Téléphone** (33) 93 153600

**Télex** 469037

**Téléfax** (33) 93 505297

**Directeur** Professeur François DOUMENGE, Directeur

Organisme privé (sans but lucratif) créé en 1910. Langues de travail: Français

**Nature des activités** Information, vulgarisation

**Objectifs/mandat** Le Musée Océanographique de Monaco a pour objectif d'être, au sein de la Fondation Albert 1er, un instrument de présentation du monde de la mer au grand public

**Domaines ou disciplines scientifiques/activités** Océanographie physique; Instruments et méthodes; Masses d'eau et circulation; Courants et dispersion; Vagues, marées, houles et niveau de la mer; Chimie marine et géochimie; Géologie marine et géophysique; Formation des côtes et franges côtières; Biologie marine et écologie; Phytoplancton; Zooplancton; Benthos; Poissons; Mollusques; Crustacés; Mammifères marins; Oiseaux de mer; Pathologie des espèces marines; Toxicologie; Taxinomie et systématiques; Pêches; Aquaculture; Gestion de l'environnement marin; Gestion des zones côtières; Pollution; Conservation et/ou régénération des ressources naturelles; Récifs artificiels; Télédétection; Expositions temporaires: "Rouge Corail", "Aquaculture nouvelle"; Actions pédagogiques avec les CRDP

**Environnements** Zones côtières; Environnement benthique; Zones littorales; Lagunes; Récifs coralliens/atolls

**Zones géographiques** Mer Méditerranée; Mer de Ligurie; Mer Rouge; Canal de Suez

#### **Programmes/projets de recherche**

- Recherche générale en aquariologie

**Personnel** Technique 27; Autre 73

#### **Moyens d'information**

**Publications** Mémoires de l'Institut Océanographique; Bulletin de l'Institut Océanographique; Collection "Abysses"

**Bibliothèque** 25000 volumes/tirés à part; 1200 périodiques **Programmes/projets de coopération**  
Avec toutes les bibliothèques d'océanographie **Bibliothécaire**  
Mme Jacqueline Carpine

**Ordinateurs** 8 IBM PS/2; Imprimante HP Deskjet **Applications** Comptabilité, planification financière; Gestion de bases de données; Publication assistée par ordinateur; Graphiques; Bibliothèque/documentation; Télématique; Scientifique; Traitement de texte **Echange de données** Disquette 3.5"(HD); DBase, Multiplan, et Word 5 fichiers

**Installations** 100000 m<sup>2</sup>

**Equipements de laboratoire** Matériel de mesure des paramètres physico-chimiques; Equipement complet de plongée **Aquariums** 90x340 m<sup>3</sup>; 100x100 m<sup>3</sup>

**Bateaux/embarcations de recherche** "Le Physalie"

**Installations pour conférences/séminaires** pour 300 participants

# MOROCCO

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## Conseil, Ingénierie et Développement (CID)

Avenue Maa Al Ainine  
Hay Riad  
Secteur 22, Rabat Instituts  
Boîte Postale 1340  
Rabat  
MAROC

**Téléphone** (212) 7 711090  
(212) 7 711093  
**Télex** 32844 M  
**Téléfax** (212) 7 711087

**Directeur** M. Abdesselam ABOUDRAR, Directeur Général

Organisme privé (commercial) créé en 1982. Langues de travail: Français; Arabe; Anglais

**Nature des activités** Enseignement (universitaire); Politique/planification

**Domaines ou disciplines scientifiques/activités** Océanographie physique; Vagues, marées, houles et niveau de la mer; Sédimentologie; Formation des côtes et franges côtières; Politique de développement et planification; Loisirs/tourisme; Aménagement du territoire; Etude du plan directeur portuaire national pour le Maroc; Etude de plusieurs ports de plaisance et marinas le long des côtes du royaume du Maroc; Projet de liaison fixe à travers le détroit de Gibraltar (données environnementales)

**Environnements** Zones côtières; Rivières; Zones littorales; Estuaires

**Zones géographiques** Mer Méditerranée; Détroit de Gibraltar; Océan Atlantique

**Personnel** Scientifique 37; Technique 28; Autre 53

### Moyens d'information

**Bibliothèque** 4000 volumes/tirés à part; 48 périodiques **Bibliothécaire** Mme A Benkirane

**Ordinateurs** 2 stations de travail SUN; 16 PC; 6 portables; Ordinateur Apple Macintosh IIci; Imprimantes (1 Laser, 10 diverses); Digitaliseur (Benson); Scanner (Apple) **Applications** Comptabilité, planification financière; Communications; "CAD/CAM/CAE"; Gestion de bases de données; Publication assistée par ordinateur; Enseignement; Génie maritime; Graphiques; Bibliothèque/documentation; "LAN"; Mathématique; Cartes; Modélisation; Télématique; Gestion de projet; Scientifique; Statistiques; Traitement de texte

**Installations** 1400 m<sup>2</sup>

**Installations pour conférences/séminaires** pour 100 participants **Logement** disponible

## Personnel scientifique

Nom	Diplôme	Fonction	Spécialité
<b>Abouddrar</b> , Abdesselam (M)		Directeur Général	Travaux publics; Génie civil
<b>Alami</b> , Khalid (M)	DEA	Ingénieur d'Etudes	Eau et environnement; Hydrogéologie; Hydraulique urbaine
<b>Ameur</b> , Samira (Mme)		Ingénieur d'Etudes	Transport; Economie; Etudes générales; Etudes financières et économiques
<b>Azil</b> , Fathallal (M)		Chef de Département	Structures; Ouvrages d'art
<b>Bourass</b> , Mohamed (M)		Ingénieur Principal	Eau et environnement; Génie rural
<b>Chbicheb</b> , Tarik (M)		Chef de Département	Transport; Economie; Etudes générales; Planification des transports et études technico-économiques
<b>Chihani</b> , El Mostapha (M)		Ingénieur Géologue	Géologie; Aménagements hydrauliques
<b>Daoudi</b> , Amine (M)		Ingénieur d'Etudes	Structures; Conception et étude des structures et ouvrages d'art
<b>Derj</b> , Abdeljalil (M)	Doctorat	Economiste	Economie; Etudes générales; Analyses économiques
<b>El Archi</b> , El Arbi (M)		Ingénieur d'Etudes	Transport; Economie; Etudes générales; Mécanique
<b>El Ghaib</b> , Majid Kaissar (M)	PhD	Ingénieur Principal	Aménagements hydrauliques
<b>El Horri</b> , Khalid (M)		Ingénieur d'Etudes	Transport; Economie; Etudes générales; Planification des transports
<b>El Iraki</b> , Chakib Mohammed (M)		Ingénieur d'Etudes	Aménagements hydrauliques; Travaux hydrauliques
<b>El Jahrani</b> , Abdelouahed (M)		Ingénieur d'Etudes	Aménagements hydrauliques; Mécanique théorique
<b>El Mahraz</b> , Hassan (M)		Ingénieur d'Etudes	Eau et environnement; Génie rural
<b>Guendouz</b> , Dalil (M)		Ingénieur d'Etudes	Informatique; Modélisation; Conception assistée par ordinateur
<b>Haddi</b> , Lotfi (M)		Ingénieur d'Etudes	Travaux maritimes; Génie civil
<b>Jarifi</b> , Mohamed (M)	Doctorat	Chef de Département	Travaux maritimes; Dynamique des fluides; Travaux portuaires
<b>Lahjomri</b> , Ahmed Chakib (M)	Doctorat	Ingénieur d'Etudes	Aménagements hydrauliques; Energétique physique; Mécanique
<b>Lamrini</b> , Khadir (M)		Ingénieur d'Etudes	Transport; Economie; Etudes générales; Planification des transports et études technico-économico-financières



## MOROCCO

Nom	Diplôme	Fonction	Spécialité
<b>Lazrak</b> , Khalid (M)		Ingénieur d'Etudes	Structures; Génie civil
<b>Mijuskovic</b> , Branislav (M)		Ingénieur Expert	Structures; Ouvrages d'art
<b>Motia</b> , Mostafa (M)		Ingénieur d'Etudes	Transport; Economie; Etudes générales; Routes et transport
<b>Ouazzani Touhami</b> , Said (M)		Ingénieur d'Etudes	Transport; Economie; Etudes générales; Génie civil
<b>Perrineau</b> , Alain (M)	DEA	Géologue	Hydrogéologie; Aménagements hydrauliques
<b>Rakhami</b> , Abdelmjid (M)		Ingénieur d'Etudes	Travaux maritimes; Construction hydrotechnique des voies de navigation et des ports
<b>Redouane</b> , Mustapha (M)		Ingénieur d'Etudes	Travaux maritimes; Mécanique; Electricité
<b>Rougui</b> , Hamza (M)		Ingénieur Principal	Aménagements hydrauliques; Barrages
<b>Sahrourdi</b> , Ahmed (M)		Ingénieur Principal	Structures; Ouvrages d'art; Hydraulique fluviale; Routes
<b>Tarmidi</b> , Mohammed (M)		Ingénieur d'Etudes	Aménagements hydrauliques; Structures et méthodes
<b>Tazi</b> , Saida (Mme)		Ingénieur d'Etudes	Aménagements hydrauliques; Ressources en eau
<b>Touab</b> , Mouloud (M)		Ingénieur d'Etudes	Structures; Génie civil
<b>Zarrou</b> , Said (M)		Ingénieur d'Etudes	Travaux maritimes; Génie civil; Hydraulique
<b>Zellou</b> , El Yazid (M)		Chef de Département	Eau et environnement
<b>Zenati</b> , Adil (M)		Chef du Service Informatique	Informatique; Electromécanique et informatique
<b>Ziani</b> , Moncef (M)		Chef de Département	Aménagements hydrauliques

### Institut Agronomique et Vétérinaire Hassan II Département de Pharmacie, Pharmacologie, Toxicologie et Biochimie

Rue Allal Al Fassi  
Rabat Instituts, Agdal  
Boîte Postale 6202  
Rabat  
MAROC

**Téléphone** (212) 7 771758

(212) 7 771759

**Télex** AGROVET 36089 M

**Téléfax** (212) 7 775838

**Directeur** M. M'hamed SEDRATI, Directeur

Organisme gouvernemental, national créé en 1966. Langues de travail: Français

**Nature des activités** Recherche; Formation spécialisée; Enseignement (universitaire)

**Objectifs/mandat** Enseignement, recherche et formation spécialisée

**Domaines ou disciplines scientifiques/activités** Métaux lourds; Composés organiques (hydrocarbures halogènes, hydrocarbures pétroliers, etc.); Toxicologie; Enseignement et recherche en: Toxicologie animale; Pharmacologie; Pharmacie vétérinaire; Biochimie vétérinaire

**Zones géographiques** Mer Méditerranée; Déroit de Gibraltar; Océan Atlantique

#### **Programmes/projets de recherche**

- Ecotoxicité des Métaux lourds
- Pesticides (organochlorés)
- Hydrocarbures d'origine pétrolière
- Plantes toxiques

#### **Programmes de recherche menés en coopération**

- Ecotoxicité des Métaux lourds
- Pesticides
- Plantes toxiques

#### **Programmes de formation/enseignement**

- Contamination chimique des aliments. Notions de résidus
- Contamination par les pesticides
- Anabolisants
- Polybromobiphényles
- Nitrosamines
- Métaux lourds
- Mercure
- Mycotoxines
- Contamination chimique des eaux

**Personnel** Scientifique 10; Technique 6; Autre 4

#### **Moyens d'information**

**Publications** Revues; Journaux; Rapports techniques

**Bibliothèque** 360 volumes/tirés à part; 14 périodiques **Programmes/projets de coopération** avec d'autres bibliothèques

**Ordinateurs** Divers **Applications** Gestion de bases de données; Publication assistée par ordinateur; Enseignement; Graphiques; Bibliothèque/documentation; Mathématique; Scientifique; Statistiques; Traitement de texte **Echange de données** Divers

**Installations** 325 m<sup>2</sup>

## MOROCCO

**Laboratoires** 200 m<sup>2</sup> **Equipements de laboratoire** Spectromètre d'absorption atomique; Spectrophotomètre UV-visible; Chromatographe en phase gazeuse; HPLC **Aquariums** 1x0.8 m<sup>3</sup>  
**Espèces entretenues** Salmo gairdneri

**Possibilités d'accueil** pour 1 scientifique extérieur; 2 étudiants **Installations pour conférences/séminaires** pour 200-300 participants

### Personnel scientifique

Nom	Diplôme	Fonction	Spécialité
<b>Abdennebi</b> , El Hassane (M)	Doctorat	Maître de Conférences	Pharmacologie et toxicologie des antibiotiques; Toxicité des antibiotiques aminosides
<b>Ben Goumi</b> , Mohammed (M)	Doctorat	Maître Assistant	Biochimie animale; Profil métabolique
<b>El Hraiki</b> , Abdelaziz (M)	Doctorat	Maître Assistant	Toxicité des métaux lourds; Toxicité du Cd, Ch, Cr
<b>Hamliri</b> , Ahmed (M)	Doctorat	Maître de Conférences	Nutrition minérale; Nutrition et toxicité des oligoéléments (Se, Cu)
<b>Kessabi</b> , Mimoun (M)	Doctorat	Professeur	Toxicologie; Pharmacologie; Toxicité des métaux lourds et des pesticides
<b>Lamnaouer</b> , Driss (M)	Doctorat	Maître de Conférences	Toxicologie végétale; Anticoagulants coumariniques
<b>Sedrati</b> , M'hamed (M)		Directeur	

### Institut Agronomique et Vétérinaire Hassan II Formation Halieutique (IAV HASSAN II-FH)

I.A.V. Hassan II  
Rabat Instituts  
Boîte Postale 6202  
Rabat  
MAROC

**Téléphone** (212) 7 774351  
(212) 7 774358  
**Télex** 368734  
**Téléfax** (212) 7 775838

**Directeur** M. M'hamed SEDRATI, Directeur

Organisme gouvernemental, national créé en 1966. Langues de travail: Français; Arabe

**Nature des activités** Recherche; Enseignement (universitaire)

**Objectifs/mandat** Enseignement et recherche dans les domaines de sciences biologiques de la mer

**Domaines ou disciplines scientifiques/activités** Océanographie physique; Chimie marine et géochimie; Composés organiques (hydrocarbures halogènes, hydrocarbures pétroliers, etc.); Biologie marine et écologie; Phytoplancton; Zooplancton; Benthos; Poissons; Algues; Eutrophisation; Mollusques; Crustacés; Physiologie marine; Microbiologie marine; Parasitologie; Pathologie des espèces marines; Toxicologie; Taxinomie et systématiques; Pêches; Aquaculture; Pollution; Evaluation de l'impact sur l'environnement

**Environnements** Lacs; Eaux saumâtres; Rivières; Estuaires

**Zones géographiques** Mer Méditerranée; Mer d'Alboran; Mer des Baléares; Détroit de Gibraltar; Océan Atlantique

#### Programmes/projets de recherche

- Aquaculture lagunaire
- Pollutions des lagunes et des estuaires
- Virologie marine
- Biologie des pêches (espèces démersales)
- Technologie du fumage

#### Programmes de formation/enseignement

- Formation des Ingénieurs 3e cycle en halieutique (2 ans)

**Personnel** Scientifique 9; Technique 2

#### Moyens d'information

**Publications** Des publications sont faites dans des revues spécialisées françaises et internationales; "Actes de L'IAV Hassan II", revue multidisciplinaire englobant les sciences de la mer

**Bibliothèque** 10 périodiques

**Ordinateurs** 1 mini-ordinateur; 3 PC **Applications** Gestion de bases de données; Publication assistée par ordinateur; Enseignement; Scientifique; Statistiques; Traitement de texte

#### Installations

**Possibilités d'accueil** pour 2 scientifiques extérieurs; 4 étudiants **Installations pour conférences/séminaires** pour 200 participants **Logement** disponible

#### Personnel scientifique

Nom	Diplôme	Fonction	Spécialité
Belmlih, Hamid (M)	Doctorat	Professeur	Technologie des produits de la pêche
Bouchriti, Noureddine (M)	Doctorat	Maître Assistant	Microbiologie marine
Driouch, Hanan (M)	Ingénieur	Maître Assistant	Algologie (en formation)
El Marrakchi, Abdelhag (M)	Doctorat	Professeur	Microbiologie alimentaire

## MOROCCO

Nom	Diplôme	Fonction	Spécialité
El Ouadili, Raja (Mme)	Ingénieur	Maître Assistante	Economie des pêches
Kheyali, Driss (M)	PhD	Maître Assistant	Physiologie marine; Physiologie de la nutrition
Lamrim, Abdeljawad (M)	Doctorat	Maître de Conférence	Océanographie biologique; Pollutions aquatiques
Noury, Nezha (Mme)	Doctorat	Maître Assistante	Parasitologie marine; Parasitologie aquatique
Sedrati, M'hamed (M)		Directeur	
Shafee, Syad (M)	Doctorat	Professeur	Océanographie biologique; Aquaculture

### Institut Scientifique (IS)

Avenue Ibn Battouta, Agdal  
Boîte Postale 703  
Rabat  
MAROC

**Téléphone** (212) 46 74548  
(212) 46 74549

**Télex** MADILM 36361 M

**Téléfax** (212) 46 74540

**Directeur** Professeur Driss NAJID, Directeur

Organisme gouvernemental, national. Langues de travail: Français; Arabe

**Nature des activités** Recherche; Formation spécialisée; Enseignement (universitaire); Information, vulgarisation

**Objectifs/mandat** Recherche fondamentales dans le domaine des sciences de la nature, conditions d'une collection pour un muséum national d'histoire naturelle et réunion des éléments d'une bibliothèque scientifique nationale

**Domaines ou disciplines scientifiques/activités** Matière en suspension; Biomasse; Zooplancton; Benthos; Mollusques; Crustacés; Mammifères marins; Oiseaux de mer; Etudes des communautés et populations; Pollution; Evaluation de l'impact sur l'environnement; Conseils pour la protection de la nature; Mise à disposition pour le contrôle de la pollution

**Environnements** Lacs; Eaux saumâtres; Zones côtières; Environnement pélagique; Environnement benthique; Rivières; Zones littorales; Estuaires

**Zones géographiques** Mer Méditerranée; Déroit de Gibraltar; Océan Atlantique

**Programmes/projets de recherche**

- Dynamique de population de certaines espèces marines
- Etude systématique et écologique du benthos
- Etude systématique et écologique du zooplancton
- Etude de l'impact de la pollution sur les peuplements

**Personnel** Scientifique 3; Technique 3

**Moyens d'information**

**Publications** Bulletin de l'Institut Scientifique; Travaux de l'Institut Scientifique; Documents de l'Institut Scientifique

**Bibliothèque** 55000 volumes/tirés à part; 1800 périodiques **Programmes/projets de coopération** Bibliothèques nationales (facultés et instituts); Internationales (600 universités et instituts à l'étranger)

**Ordinateurs** Micro-ordinateur Apple Macintosh; PC (HP, 3I, Victor) **Applications** Gestion de bases de données; Publication assistée par ordinateur; Enseignement; Graphiques; Scientifique; Traitement de texte **Echange de données** Disquettes

**Installations** 1334 m<sup>2</sup>

**Laboratoires** 729 m<sup>2</sup>

**Personnel scientifique**

Nom	Diplôme	Fonction	Spécialité
<b>Bayed</b> , Abdellatif (M)	Doctorat 3ème cycle	Chercheur	Biologie et écologie marines; Benthos
<b>Meniou</b> i, Mohamed (M)	Doctorat	Chercheur	Systématique et écologie benthiques; Benthos
<b>Najid</b> , Driss (M)	Doctorat	Professeur/Directeur	
<b>Ramdani</b> , Mohamed (M)	Doctorat	Chercheur	Systématique et écologie du zooplancton; Zooplancton

**Laboratoire d'Analyse et de Recherches Vétérinaires (LARV)**

43 Rue de Tours  
Boîte Postale 13 719  
Casablanca  
MAROC

**Téléphone** (212) 6 305766  
**Télex** LABOVET 24937 M

## MOROCCO

**Directeur** Dr Brahim FALK, Directeur

Organisme gouvernemental, national créé en 1932. Langues de travail: Arabe; Français

**Objectifs/mandat** Diagnostic biologique des maladies animales; Hygiène alimentaire

**Domaines ou disciplines scientifiques/activités** Poissons; Mollusques; Crustacés; Commerce;

**Environnements** Zones côtières; Environnement pélagique; Environnement benthique; Estuaires

**Zones géographiques** Mer Méditerranée; Détroit de Gibraltar; Océan Atlantique

### Programmes/projets de recherche

- Histamine
- Cadavérine
- Putrescine
- Spermine
- Spermidine dans les produits de la pêche

**Personnel** Scientifique 11; Technique 19; Autre 14

### Moyens d'information

**Publications** Rapports annuels; Rapport techniques

**Bibliothèque** 2000 volumes/tirés à part; 10 périodiques **Programmes/projets de coopération**  
Bibliothèques des facultés ou écoles vétérinaires **Bibliothécaire** Mlle Hourya Khattabi

**Ordinateurs** Divers **Applications** Gestion de bases de données; Bibliothèque/documentation;  
Traitement de texte

**Installations** 5000 m<sup>2</sup>

**Laboratoires** 1200 m<sup>2</sup>

**Possibilités d'accueil** pour 3 étudiants **Installations pour conférences/séminaires** pour 20 participants

### Personnel scientifique

Nom	Diplôme	Fonction	Spécialité
Abbad, Mohamed (M)	Doctorat	Responsable Section Sérologie	Sérologie; Immunologie
Alaoui, Mustapha (M)	Ingénieur	Responsable Section Chimie	Hydrocarbures dans les produits de la pêche; Chromatographie gazeuse; Chromatographie liquide
Benamar, Lahcen (M)	Ingénieur		Métaux lourds; Mytilotoxines
Faik, Brahim (M)	Doctorat	Directeur	Bactériologie et virologie clinique; Microbiologie alimentaire
Jabrane, Ahmed (M)	Doctorat	Responsable Section Virologie	Virologie
Kabbaj, Fatima-Zohra (Mme)	Doctorat		Radioactivité

Nom	Diplôme	Fonction	Spécialité
Maaroufi, Khadija (Mme)	Doctorat	Responsable Diagnostic Bactériologique	Bactériologie
Rouwane, Abdenbi (M)	Ingénieur		PCB; Organochlorés; Chromatographie gazeuse

**Ministère de l'Energie et des Mines**  
**Direction de la Géologie**  
**Service de la Géologie Structurale et Marine**  
**Division des Bassins Sédimentaires (MEM-DG-DBS-SGSM)**

Nouveau Quartier Administratif Haut Agdal  
Rabat Instituts  
Boîte Postale 6208  
Rabat  
MAROC

**Téléphone** (212) 7 777933

(212) 7 777934

**Télex** 36161 TAQA

**Téléfax** (212) 7 777943

**Directeur** Ingénieur Mohamed KHALEK, Chef de Service

Organisme gouvernemental, national créé en 1978. Langues de travail: Français; Arabe

**Nature des activités** Recherche

**Objectifs/mandat** Evaluation des potentialités du pays par la réalisation d'études intégrées et par la reconnaissance et l'étude des fonds marins

**Domaines ou disciplines scientifiques/activités** Dépôts; Géologie marine et géophysique; Topographie et morphologie; Sédimentologie; Paléontologie; Pollution; Politique pour les océans/Droit de la Mer; Ressources minérales; Ressources énergétiques; Collecte des données géologiques, géophysiques, sédimentologiques et structurales relatives au plateau continental du Maroc

**Zones géographiques** Mer Méditerranée; Océan Atlantique

**Personnel** Scientifique 9; Autre 2



## MOROCCO

### Moyens d'information

**Publications** Revue "Mines-Géologie-Energie"; Notes et Mémoires du Service Géologique du Maroc

**Bibliothèque** 70000 volumes/tirés à part; 900 périodiques **Programmes/projets de coopération** avec 200 organismes internationaux **Bibliothécaire** M. Allal Bahaj

**Ordinateurs** Micro-ordinateur **Applications** Gestion de bases de données; Graphiques; Bibliothèque/documentation; Cartes; Gestion de projet; Scientifique; Statistiques; Traitement de texte

### Installations

**Equipements de laboratoire** Equipement géophysique (magnétomètres-gravimètres)

**Installations pour conférences/séminaires** pour 400 participants

### Personnel scientifique

Nom	Diplôme	Fonction	Spécialité
<b>Aboufaris</b> , F (Mme)	Ingénieur	Chercheur	Hydrogéologie; Thermalisme
<b>Alami</b> , Abouhafi (M)	Ingénieur	Chercheur	Géologie; Bassins sédimentaires
<b>Atik</b> , M (M)	Ingénieur	Chercheur	Géologie; Bassins sédimentaires
<b>Bahaj</b> , S (Mme)	Ingénieur	Chercheur	Géologie; Géothermie; Thermalisme
<b>Bouchafra</b> , A (M)	Ingénieur	Chercheur	Géologie; Bassins sédimentaires
<b>Desteucq</b> , Ch (M)	Doctorat 3ème cycle	Chercheur	Géologie structurale; Bassins sédimentaires
<b>Hamouda</b> , M F (M)	Ingénieur	Chercheur/Responsable Division des Bassins Sédimentaires	Géophysique
<b>Khalek</b> , Mohamed (M)	Ingénieur	Chercheur/Chef, Responsable du Service de la Géologie	Géologie minière
<b>Melouki</b> , A (M)	Ingénieur	Chercheur	Géologie pétrolière; Bassins sédimentaires
<b>Rhataus</b> , A (M)	Ingénieur	Chercheur	Géochimie; Géophysique; Bassins sédimentaires

**Ministère des Pêches Maritimes et de la Marine Marchande**  
**Institut Scientifique des Pêches Maritimes**  
**Office National des Pêches (ISPM)**

2 Rue de Tiznit  
 Boîte Postale 21  
 Casablanca  
 MAROC

**Téléphone** (212) 6 222090  
 (212) 6 276088

**Directeur** M. Mohammed RAMI, Directeur

Organisme gouvernemental, national créé en 1947. Langues de travail: Français

**Nature des activités** Recherche; Laboratoire; Politique/planification; Information, vulgarisation; Recherche appliquée

**Objectifs/mandat** Recherche scientifique appliquée au domaine maritime visant la protection des ressources halieutiques, la protection de l'environnement marin, le développement du secteur des pêches maritimes

**Domaines ou disciplines scientifiques/activités** Océanographie physique; Poissons; Algues; Mollusques; Crustacés; Pêches; Aquaculture; Pollution; Politique de développement et planification; Prévision et remèdes aux catastrophes; Gestion des ressources; Aménagement du territoire; Evaluation des ressources halieutiques; Elaboration des plans d'aménagement des pêches; Etude des pollutions marines et surveillance de la qualité du milieu marin; Elaboration du Plan Directeur de Développement de l'Aquaculture au Maroc; Recherche dans le domaine de la technologie des pêches et de la valorisation des produits de la mer

**Environnements** Lacs; Eaux saumâtres; Environnement pélagique; Environnement benthique; Rivières; Zones littorales; Lagunes; Récifs coralliens/atolls; Estuaires

**Zones géographiques** Mer Méditerranée; Océan Atlantique

**Programmes/projets de recherche**

- Evaluation et contrôle continu des ressources en Atlantique et en Méditerranée
- Océanographie halieutique (étude des upwellings et de l'hydrodynamique des milieux confinés)
- Technologie de la pêche et des engins de pêche
- Socio-économie des pêches: Réalisation d'analyses socio-économiques
- Pollutions marines (surveillance salubrité du milieu marin et des milieux confinés)
- Aquaculture (études sur les potentialités du littoral marocain en matière d'aquaculture et conchyliculture)

**Programmes de recherche menés en coopération**

- PNUE/MED POL
- MEDRAP II: Plan de développement de l'aquaculture au Maroc
- Mise an place d'un système de contrôle de salubrité IFREMER, France
- FAO: Plan d'aménagement des pêches au Maroc

**Personnel** Scientifique 34; Technique 19; Autre 27

## MOROCCO

### Moyens d'information

**Publications** Bulletin de l'ISPM; Notes d'information

**Bibliothèque** 1000 volumes/tirés à part; 50 périodiques

**Ordinateurs** PC (8 Olivetti AT/XT, 3 Compaq AT, 2 IBM AT/PC, 1 Unisys AT); 1 portable (Toshiba XT) **Applications** Gestion de bases de données; Graphiques; Bibliothèque/documentation; Scientifique; Statistiques; Traitement de texte

**Installations** 2500 m<sup>2</sup>

**Laboratoires** 2000 m<sup>2</sup> **Equipements de laboratoire** Spectrophotomètre d'absorption atomique; Chromatographe en phase gazeuse; Soxhlet; Rotavapor; Centrifugeuse; Distillateur d'eau; Bain de sable; Four à moufle; Autoclaves; Etuves; Congélateurs; Equipement de traitement et lecture d'âge des poissons; Matériel de pêche (chaluts, filets à plancton, etc.)

**Bateaux/embarcations de recherche** 2 navires de recherche avec équipement océano- graphique et liaison radio-téléphone avec l'ISPM

**Possibilités d'accueil** pour 1 scientifique extérieur; 1 étudiant **Installations pour conférences/séminaires** pour 30 participants

### Personnel scientifique

Nom	Diplôme	Fonction	Spécialité
Ameziane, Sanaa (Mme)		Biologiste de Pêche	
Atmani, H'Aida (Mme)	MSc	Economiste des Pêches	
Ben Bouchaib, Kamal (M)	Ingénieur	Océanographe	
Ben Khaouad, Abdellah (M)	Ingénieur	Biologiste de Pêche	
Ben Youssef, Imane (Mme)		Chimiste	
Bencherifi, Salah (M)	Ingénieur	Chef de Service Ressources Pélagiques	
Benradi, Rachida (Mme)	Ingénieur	Economiste des Pêches	
Berrahd, Abdellatif (M)	Biologiste	Chef de Division	
Biaali, Rabia (Mme)	Ingénieur	Biologiste de Pêche	
Boulamaaz, Abdellatif (M)		Biologiste de Pêche	
Chbani, Mostafa (M)	Ingénieur	Chef de Service Acoustique	
El Ahdal, M'hamed (M)		Chef de Service Statistiques	
El Duairi, Mehdi (M)	Ingénieur	Biologiste de Pêche	
Idelhaj, Abdelouahed (M)	Ingénieur	Chef de Division	
Idrissi, Halima (Mme)		Chef Service Etude	
Idrissi, M'hamed (M)		Biologiste de Pêche	
Lahnin, Abdelhak (M)	Ingénieur	Chef de Service Technologie	
Lakhnigue, Aziza (Mme)		Biologiste de Pêche	
Lamine, Mounir (M)	MSc	Economiste de Pêches	

Nom	Diplôme	Fonction	Spécialité
Lamrani, Mohamed (M)		Biologiste de Pêche	
Machkour, Mustapha (M)		Capitaine Navire de Recherche	
Marfouk, Abdeslam (M)		Chef de Service Armement	
Marhraoui, Mohamed (M)		Chimiste	
Orbi, Abdellatif (M)	PhD	Chef Service Océanographie	
Rami, Mohamed (M)		Directeur	
Rhouziani, Abdellah (M)		Administrateur	
Sarf, Farida (Mme)		Océanographe	
Sekkat, Ghanou Sanaa (Mme)	MSc	Economiste des Pêches	
Sgalli, Nouzha (Mme)		Chimiste	
Srairi, Ali (M)		Biologiste de Pêche	
Srour, Abdellah (M)	Ingénieur	Biologiste de Pêche	
Tahiri, Laila (Mme)	Ingénieur	Microbiologiste	
Zoubi, Abdelaziz (M)	Ingénieur	Biologiste des Pêches	
Zouiri, M'barek (M)		Economiste des Pêches	

**Office National de l'Eau Potable  
Direction du Laboratoire de la Qualité des Eaux (ONEP)**

6 Bis Rue Patrice Lumumba  
Boîte Postale Rabat-Chellah  
Rabat  
Wilaya Rabat Sale  
MAROC

**Téléphone** (212) 7 759600  
(212) 7 759601  
**Télex** 31982 M  
**Téléfax** (212) 7 752377

**Directeur** Dr Houssain ABOUZAIID, Directeur

Organisme para-public créé en 1972. Langues de travail: Arabe; Français

**Nature des activités** Recherche; Laboratoire

## MOROCCO

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**Objectifs/mandat** Contrôle de la qualité de l'eau dans le réseau marocain de distribution d'eau potable, assistance technique, recherche appliquée, collaboration à l'effort de législation et de réglementation

**Domaines ou disciplines scientifiques/activités** Surveillance continue et/ou évaluation; Pollution; Gestion des ressources; Contrôle depuis 1983 les estuaires de l'oued Martil et de l'oued Moulouya dans le cadre du programme MED POL II; Prestations d'assistance technique, en matière d'épuration des eaux usées aux complexes touristiques situés sur la côte nord du Maroc en Méditerranée, localisés entre Tetouan et Sebta

**Environnements** Lacs; Environnement pélagique; Rivières; Estuaires

**Zones géographiques** Mer Méditerranée; Antarctique

### Programmes de recherche menés en coopération

PNUE/MED POL II: Surveillance continue de la pollution tellurique de la Méditerranée

**Personnel** Scientifique 35; Technique 33; Autre 41

### Moyens d'information

**Publications** Rapports annuels, MED POL II; Rapports techniques

**Bibliothèque** 600 volumes/tirés à part; 1400 périodiques **Programmes/projets de coopération** Centre National de Documentation (CND); Instituts universitaires nationaux; L'Association Française des Etudes des Eaux (AFEE) **Bibliothécaire** Mlle Ezzabouri

**Ordinateurs** PC (4 Compaq, 1 IBM AT, 2 IBM XT, 1 Wang PC); Imprimantes (1 HP Laserjet II, 1 Epson FX, 1 Epson FX80) **Applications** Scientifique; Statistiques; Traitement de texte **Echange de données** PC disquettes 5.25"(HD)/3.5"(HD); dbase III+, Lotus 123, Statgraphics, Systat, WordPerfect, DOS texte fichiers

**Installations** 1838 m<sup>2</sup>

**Laboratoires** climatisés **Equipements de laboratoire** Absorption atomique; Appareil de mesure "auto-analyseur"; Coulter-counter; Chromatographie en phase gazeuse; Appareil de mesure de la radioactivité (a, b); Spectro UV visible; Spectro IR; Polarographe; Analyseur du COT; Matériel courant (pH mètres, conductivimètres, étuves, microscopes, flocculateurs, etc.) **Espèces entretenues** Brachydanio rerio; Daphnia magna

**Bateaux/embarcations de recherche** 2 bateaux pour l'étude des retenues de barrages

**Possibilités d'accueil** pour 5 scientifiques extérieurs; 5 étudiants **Installations pour conférences/séminaires** pour 20 participants

**Personnel scientifique**

<b>Nom</b>	<b>Diplôme</b>	<b>Fonction</b>	<b>Spécialité</b>
<b>Abouzaid</b> , Houssain (M)	Doctorat	Directeur	Qualité de l'eau; Pollution des eaux
<b>Foutlane</b> , Ali (M)	Doctorat	Chef de la Division Contrôle de Pollution	Qualité de l'eau; Contrôle de la pollution
<b>Yagoubi</b> , Ahmed (M)	Ingénieur	Chef Bureau Contrôle de Pollution	Qualité de l'eau; Contrôle de pollution

# SLOVENIA

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## **Slovene Academy of Sciences and Arts**

### **Centre of Scientific Research**

### **Biological Institute (SASA-CSR)**

*Znanstvenoraziskovalni center*

*Slovenske akademije znanosti in umetnosti*

*Bioloski institut (ZRC SAZU)*

5 Novi trg  
Ljubljana 61000  
SLOVENIA

**Telephone** (38) 61 156068

**Fax** (38) 61 331033

**E-mail** (BITNET) SAZUUBGEF51 and BIO

**Executive officer** Mr Andrej SELISKAR, Professor

Governmental, national institution founded in 1950. Languages: Slovene; English; German; Norwegian

**Nature of activities** Research

**Purpose and objectives** Research

**Areas of speciality/activities** Heavy metals; Benthos; Algae; Community and population studies; Ecological investigations of benthic marine algae; Pollution effects; Salinity gradients; Heavy metal accumulation

**Environments** Brackishwater; Coastal zone; Benthic environment

**Geographic areas** Adriatic Sea; Atlantic Ocean

### **Research programmes/projects**

- Ecology of benthic marine algae

**Staff** Professional 26; Technical 2; Other 1

### **Information facilities**

**Publications** Razprave IV. razreda SAZU, journal; Technical reports; Monographs/technical reports

**Library** 17000/43000 volumes/reprints; 240 periodicals **Co-operative programmes/projects**

Exchange with 1208 libraries **Librarian** Inge Kalan

**Computers** 1 DEC Microvax 3600; 1 PC (Arche 386); 6 Atari STs; Printers (Atari Laser 804, Star NL10, NEC-P7) **Applications** Database management; Graphics; Library/documentation; Scientific; Statistical; Word processing **Data exchange** 5.25"(HD)/3.5"(HD) PC diskettes; Lotus 1-2-3, ASCII text files

**Physical facilities** 600 m<sup>2</sup>

**Laboratories** 50 m<sup>2</sup> **Species maintained** *Fucus virsoides*; *Cladophora glomerata*; *Ulva rigida*; *Enteromorpha* spp

**Professional/Scientific staff**

Name	Degree	Position	Specialization
Munda, Ivka Marija (Ms)	PhD	Scientific Official	Ecology of benthic marine algae; Communities; Pollution effects; Heavy metals effects; Estuaries
Seliskar, Andrej (Mr)	MSc	Professor/Executive Officer	Biology

**University of Ljubljana**  
**Institute of Biology**  
**Marine Biology Station-Piran (MBS)**  
*Institut za Biologijo Univerze v Ljubljani*  
*Morska Bioloska Postaja-Piran (MBP)*

JLA 65  
Piran 66330  
SLOVENIA

**Telephone** (38) 66 73073  
73740

**Fax** (38) 66 74432

**Executive officer** Dr Andrej COKL, Director

Governmental, national institution founded in 1969. Languages: Slovene; English

**Nature of activities** Research; Laboratory; Academic/educational; Information/public awareness

**Purpose and objectives** Founded in 1969 as a field marine station of the Institute of Biology, the University of Ljubljana is devoted to the study of biota and the impact of man's activities on coastal ecosystems

**Areas of speciality/activities** Water masses and circulation; Modelling; Nutrients; Heavy metals; Sediments; Suspended matter; Biota; Phytoplankton; Zooplankton; Benthos; Algae; Eutrophication; Plankton blooms; Marine biochemistry; Marine microbiology; Productivity; Community and population studies; Monitoring and/or assessment; Pollution; Environmental impact assessment; Basic research of coastal ecosystem dynamics; Monitoring of sources of pollution and concentrations of selected pollutants; Applied research (impact studies)

**Environments** Coastal zone; Pelagic environment; Benthic environment; Rivers; Estuaries



# SLOVENIA

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**Geographic areas** Adriatic Sea

## Research programmes/projects

- Plankton ecology including blooms, red tides and microbial plankton
- Benthic ecology (macrophytes, macrofauna, meiofauna)
- Sedimentation and transformation of organic matter
- Subinertial sea level variations and related currents
- Photochemistry of some organic compounds

## Co-operative research programmes/projects

- Alpe-Adria programme: Microalgal blooms and formation of gelatinous aggregates
- University of Umea, Sweden: Organic matter regeneration in microbial foodweb
- UNEP/MED POL: Monitoring programme
- Geophysical Institute, Zagreb: Subinertial sea level variations
- International Scientific Co-operation of the European Community, Yugoslavia: Bottom layer oxygen depletion

## Training programmes

- Graduate courses in marine biology

**Staff** Professional 13; Technical 4; Other 3

## Information facilities

**Publications** Annual report (in Slovene); Bioloski vestnik (biannual; in Slovene, English abstracts)

**Library** 140 periodicals **Co-operative programmes/projects** Various **Librarian**  
Mr Vladimir Bernetic

**Computers** 4 PCs (IBM AT); Printers (Epson GQ5000, LQ1050) **Applications** Database management; Graphics; Modelling; Scientific; Statistical; Word processing **Data exchange** 5.25"(HD)/3.5"(HD) PC diskettes; dBase, Lotus 1-2-3, ASCII text files

**Physical facilities** 980 m<sup>2</sup>

**Laboratories** 340 m<sup>2</sup> **Laboratory equipment** Diving equipment (2 divers); AAS (Varian); Gas-chromatograph (Varian); C, H, N, S Analyser (Carlo Erba); Spectrophotometers (Specol 20, Philips PU 8620); Spectrofluorometer (Turner 430); Fluorometer (Turner 112); Freeze-dryer (New Brunswick); Microscopes (Olympus BH2 - epifluorescence system, Olympus SZH, Wild M40, WILD MS, Reichert); Freeze centrifuge (MLW); Analytical balances (Sartorius, Mettler) **Aquariums** 5x8 m<sup>3</sup>

**Research vessels/crafts** PI-1100, Chris Craft Commander 31-Adapted, 9.5 m, equipped with LORAN C, echosounder, radio, 2 electric winches of 200 kg, accommodations for 4

**Facilities** for 2 visiting scientists; 5 students **Conference/seminar facilities** for 30 participants **Lodging** for 25

## Professional/Scientific staff

Name	Degree	Position	Specialization
<b>Avcin</b> , Andrej (Mr)	MSc	Higher Scientific Officer	Marine biology; Benthic ecology; Macrofauna; Polychaeta
<b>Bajt</b> , Oliver (Mr)	MSc	Higher Scientific Officer	Marine chemistry; Photochemistry
<b>Cokl</b> , Andrej (Mr)	PhD	Director	
<b>Faganeli</b> , Jadran (Mr)	PhD	Principal Scientific Officer	Marine chemistry; Organic geochemistry; Chemical oceanography
<b>Lipej</b> , Lovrenc (Mr)	BS	Scientific Officer	Marine biology; Microzooplankton
<b>Malacic</b> , Vlado (Mr)	MSc	Higher Scientific Officer	Marine physics; Subinertial circulation; Modelling
<b>Malej</b> , Alenka (Ms)	PhD	Principal Scientific Officer	Marine biology; Zooplankton; Trophic ecology
<b>Mozetic</b> , Patricija (Ms)	BS	Scientific Officer	Marine biology; Phytoplankton
<b>Planic</b> , Radovan (Mr)	BS	Scientific Officer	Heavy metals; Marine chemistry
<b>Posedel</b> , Nives (Ms)	BSD	Scientific Officer	Marine biochemistry; Sedimentation of organic matter
<b>Stirn</b> , Joze (Mr)	PhD	Principal Scientific Officer	Marine biology; Organic pollution
<b>Turk</b> , Valentina (Ms)	MSc	Higher Scientific Officer	Marine biology; Microbiology
<b>Vriser</b> , Borut (Mr)	PhD	Principal Scientific Officer	Marine biology; Benthic ecology; Meiofauna
<b>Vukovic</b> , Aleksander (Mr)	PhD	Principal Scientific Officer	Marine biology; Benthic ecology; Macrophytes

# SPAIN

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## **CETS Chemical Institute of Sarria**

*CETS Institut Químic de Sarrià (IQS)*

c/o Institut Químic de Sarrià, s/n  
Barcelona 08017  
SPAIN

**Telephone** (34) 3 2038900

**Fax** (34) 3 2056266

**Executive officer** Dr Miquel GASSIOT-MATAS, Professor

Private non-profit institution founded in 1916. Languages: Catalan; Spanish; English; French

**Nature of activities** Research; Academic/educational

**Purpose and objectives** Teaching and research

**Areas of speciality/activities** Marine chemistry and geochemistry; Analytical methodology; Organics (halogenated hydrocarbons, petroleum hydrocarbons, etc); Sediments; Waters; Biota; Environmental impact assessment; Data acquisition and telemetry; Analytical chemistry; Chemical engineering; Organic chemistry; Chemometrics

**Environments** Coastal zone; Rivers; Littoral zone

**Geographic areas** Alboran Sea; Algero-Provençal Basin; Balearic Sea

### **Research programmes/projects**

- Analytical methodology (HRGC, HPLC, HRGC-MS, Pyrolysis-GC, HS-GC, HPSEC)

### **Co-operative research programmes/projects**

- Ministerio de Obras Públicas y Urbanismo: Halogenated hydrocarbons monitoring
- Autónoma de Barcelona: Organic matter in soils

### **Training programmes**

- One-week training courses in HPLC, GC

**Staff** Professional 7; Technical 5; Other 35

### **Information facilities**

**Publications** Afinidad, journal; IQS; Boletín Académico; Internal technical reports

**Library** 12000 volumes/reprints; 900 periodicals **Co-operative programmes/projects** Various

**Librarian** Professor Rafael Queralt-Teixidó

**Computers** 1 DEC Vax 730; PCs **Applications** Database management; Graphics; Library/documentation; Mathematical; Statistical; Word processing **Data exchange** 5.25"(DD)/3.5"(DD) PC diskettes; Word 4.0, WordPerfect 5.1 files

**Physical facilities** 5774 m<sup>2</sup>

**Laboratories** 2106 m<sup>2</sup> **Laboratory equipment** HRGC-MS (HP-5995); HRGC-FID, NPD (HP-5890); HRGC-ECD, NPD (HP-5890); HRGC-FID, NPD (Perkin-Elmer-8700); HPLC-UV (HP-1090)

**Facilities** for 2 visiting scientists; 4 students **Conference/seminar facilities** for 50 participants

#### Professional/Scientific staff

Name	Degree	Position	Specialization
<b>Barberà-Moral</b> , Eduard (Mr)	Doctorate	Professor Catedrático	Biotechnology
<b>Broto-Puig</b> , Francesc (Mr)	MSc	Profesor Encargado de Curso	Chromatography; Marine chemistry (halogenated hydrocarbons)
<b>Celma-Serra</b> , Pere (Mr)	Doctorate	Profesor Catedrático	
<b>Comellas-Riera</b> , Lluís (Mr)	Doctorate	Profesor Catedrático	Chromatography; Analytical methodology
<b>Gassiot-Matas</b> , Miquel (Mr)	Doctorate	Profesor Catedrático/Executive Officer	Chromatography; Analytical methodology
<b>Obiols-Salvat</b> , Josep (Mr)	Doctorate	Profesor Catedrático	Analytical chemistry
<b>Tomàs-Morer</b> , Xavier (Mr)	Doctorate	Profesor Catedrático	Chemometrics

#### High Council for Scientific Investigation

#### Centre for Advanced Studies of Blanes

#### Chemical Oceanography Department

Consejo Superior de Investigaciones Científicas

Centro d'Estudis Avancats de Blanes (CSIC-CEAB)

UEI Oceanografia Química

Cami de Santa Barbara

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(34) 72 336102

(34) 72 336103

**Telex** 56372 CEABL E

**Fax** (34) 72 337806

**E-mail** (OMNET) CRUZADO@CEAB.ES

**Executive officer** Dr Antonio CRUZADO, Head

Parastatal institution founded in 1985. Languages: Catalan; Spanish; English

# SPAIN

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**Nature of activities** Research

**Purpose and objectives** Scientific research in the field of chemical oceanography

**Areas of speciality/activities** Modelling; Marine chemistry and geochemistry; Analytical methodology; Nutrients; Sediments; Waters; Suspended matter; Biota; Phytoplankton; Algae; Eutrophication; Plankton blooms; Productivity; Community and population studies; Monitoring and/or assessment; Pollution; Marine technology; Data acquisition and telemetry; Research on biogeochemical cycling of nutrients; Research on taxonomy and ecology of phytoplankton; Development of simulation models of the pelagic system

**Environments** Pelagic environment; Estuaries

**Geographic areas** Mediterranean Sea; Algero-Provencal Basin; Balearic Sea; Gulf of Lyon; Ligurian Sea; Sicilian Channel; Strait of Gibraltar; Atlantic Ocean

## Research programmes/projects

- EROS 2000: Study of European River/Ocean Systems
- ERSEM: European Regional Seas Ecological Modelling
- CICYT: Effects of hydrodynamics on plankton communities
- EUREKA/OPMOD: Operational models of regional seas
- ESPHYNKS: Development of expert systems for taxonomy
- Atmospheric transport of nutrients to the sea

## Co-operative research programmes/projects

- Portugal/Croatia/Bulgaria: Bilateral programmes

## Training programmes

- Courses in chemical oceanography offered to PhD candidates from the University of Barcelona and the Universidad Tecnica de Catalunya

**Staff** Professional 8

## Information facilities

**Publications** Monographs; Technical reports

**Library** 1000 volumes/reprints; 40 periodicals **Co-operative programmes/projects** Various

**Computers** Various **Applications** Accounting/financial planning; Communications; Database management; Desktop publishing; Education; Graphics; Library/documentation; LAN; Mapping; Modelling; Network access; Process control (laboratory); Scientific; Statistical; Word processing

**Data exchange** Various

**Physical facilities** 800 m<sup>2</sup>

**Laboratories** 400 m<sup>2</sup>; climate controlled **Laboratory equipment** Spectrophotometers; Autoanalysers; Microscopes; High volume samplers

**Research vessels/crafts** Various

**Facilities** for 3 visiting scientists; 4 students **Conference/seminar facilities** for 170 participants

#### Professional/Scientific staff

Name	Degree	Position	Specialization
Alarcon, Marta (Ms)	MSc	Collaborator	Atmospheric physics; Modelling atmospheric transport
Canellas, Mireia (Ms)	BS	Collaborator	Marine biology; Phytoplankton dynamics
Cruzado, Antonio (Mr)	PhD	Head	Nutrient chemistry; Chemical oceanography; Marine environment
Hernandez, Margarita (Ms)	MSc	Collaborator	Marine microbiology; Microbial ecology
Martinez, Nevs (Ms)	BS	Scientist	Nutrient chemistry; Oceanography; Analytical chemistry
Varela, Ramiro (Mr)	PhD	Scientist	Modelling marine systems; Oceanography; Computer sciences
Velasquez, Joila (Ms)	MSc	Scientist	Phytoplankton taxonomy; Marine biology

**High Council for Scientific Investigation**  
**Department of Environmental Chemistry**  
*Consejo Superior de Investigaciones Cientificas*  
*Centro de Investigacion Y Desarrollo (CSIC-CID)*

18-26 Jordi Girona Salgado  
 Barcelona 08034  
 SPAIN

**Telephone** (34) 3 2040600

**Telex** 97977

**Fax** (34) 3 2045904

**Executive officer** Professor Juan ALBAIGES, Director

Governmental, national institution founded in 1967. Languages: Spanish; English; French

**Nature of activities** Research

**Purpose and objectives** Basic and applied research in environmental organic chemistry, including development of analytical methodologies, study of biogeochemical processes and ecotoxicological assessment

## SPAIN

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**Areas of speciality/activities** Marine chemistry and geochemistry; Analytical methodology; Organics (halogenated hydrocarbons, petroleum hydrocarbons, etc); Sediments; Waters; Suspended matter; Biota; Toxicology; Monitoring and/or assessment; Pollution; Assistance to government in environmental quality assessment; Services of environmental quality control for organic pollutants

**Environments** Lakes; Brackishwater; Coastal zone; Pelagic environment; Benthic environment; Rivers; Littoral zone; Lagoons; Estuaries

**Geographic areas** Mediterranean Sea; Alboran Sea; Balearic Sea; Gulf of Lyon; Atlantic Ocean; Caribbean

### Research programmes/projects

- Transport and fate of organic pollutants in coastal environments, with particular emphasis on urban and riverine effluents
- Ecotoxicology of organic pollutants: Development of bioassay directed analysis for the identification of mutagenic pollutants in water; development of biochemical indices of environment stress in biota
- Emission of biogenic gases from coastal areas and their long-range transport

### Co-operative research programmes/projects

- UNEP/MED POL: Maintenance of Spanish monitoring network
- EEC/BCR: Reference materials for organic pollutants in soil and biota
- UNEP/FAO/WHO: Pilot projects for assessment of organic pollutants in the Mediterranean
- EEC/DG XII: Biogeochemical processes in NW Mediterranean

### Training programmes

- Training workshops in coastal pollution monitoring, in co-operation with IOC
- Course and research work leading to MSc and PhD in environmental chemistry and marine chemistry

**Staff** Professional 4; Technical 3; Other 2

### Information facilities

**Publications** J Albaiges, editor: International Journal of Environmental Analytical Chemistry, Gordon and Breach; Monographs/technical reports, e.g. J Albaiges: Marine Pollution, Hemisphere Pub. Co., 1989

**Library** 20000 volumes/reprints; 150 periodicals **Librarian** Ms Rosa Ortadó

**Computers** 1 HP 9000/835; 30 PCs (386, IBM AT/XT); Printers (HP Laserjet, Epson) **Applications** Accounting/financial planning; Communications; Database management; Desktop publishing; Graphics; Library/documentation; LAN; Mathematical; Network access; Scientific; Statistical; Word processing **Data exchange** 5.25"(HD)/3.5"(HD) PC diskettes; Unlabelled tape; dBase III/IV, Lotus 1-2-3, WordPerfect 5.1, WordStar 2000, ASCII text files

**Physical facilities** 3000 m<sup>2</sup>

**Laboratories** 1000 m<sup>2</sup>; climate controlled **Laboratory equipment** 8 GC (Carlo Erba & HP) with selective detectors (ECD, FPD, FID, NPD); 3 GC-MS (HP, Finnigan, VG); 1 LC-MS (HP); 4 HPLC (Waters); FT-IR (Perkin Elmer); UV & UV-Fe (Perkin Elmer); C-13 NMR (Varian)

**Facilities** for 2 visiting scientists; 20 students **Conference/seminar facilities** for 180 participants

#### Professional/Scientific staff

Name	Degree	Position	Specialization
<b>Albaiges</b> , Juan (Mr)	Doctorate	Professor/Director	Environmental chemistry; Fate of organic pollutants in water, biota and sediments
<b>Barcelo</b> , Damia (Mr)	Doctorate	Research Associate	Environmental chemistry; Ecotoxicology; Analysis of pesticides
<b>Bayona</b> , Josep (Mr)	Doctorate	Research Associate	Environmental chemistry; Analytical methodology; Bioassay analysis
<b>Domenech</b> , Pilar (Ms)	BS	Technical Assistant	Analytical methodology; Elemental analysis
<b>Grimalt</b> , Joan (Mr)	Doctorate	Research Associate	Geochemistry; Fate and transport of pollutants in water

**High Council for Scientific Investigation**  
**Institute of Aquaculture of Torre de la Sal (CSIC-IATS)**  
*Consejo Superior de Investigaciones Cientificas*  
*Instituto de Acuicultura de Torre de la Sal*

12595 Ribera de Cabanes  
 Castellon  
 SPAIN

**Telephone** (34) 64 310325  
**Fax** (34) 64 310350

**Executive officer** Dr Pilar ALVAREZ PELLITERO, Director

Governmental, national institution founded in 1978. Languages: Spanish

**Nature of activities** Research

**Purpose and objectives** Basic and applied research in aquaculture and in the physiology, growth, reproduction and pathology of marine species (fishes, prawns, molluscs and auxiliary species)



## SPAIN

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**Areas of speciality/activities** Marine chemistry and geochemistry; Analytical methodology; Nutrients; Marine biology and ecology; Phytoplankton; Zooplankton; Fish; Molluscs; Crustaceans; Parasitology; Pathology of marine species; Taxonomy and systematics; Aquaculture; Reproduction and sex control in sea bass; Sex determination, hormonal control of growth; Parasitic and infectious diseases in sea bass and sea bream; Epidemiology and control; Effects of diet and ocular ablation in the maturation and spawning of Penaeid shrimps; Ecophysiology and use in aquaculture of autochthonous *Artemia salina*

**Environments** Brackishwater; Coastal zone; Lagoons

**Geographic areas** Mediterranean Sea

### Research programmes/projects

- National programmes, Interministerial Commission for Science and Technology (CICYT)
- Ministry of Industry, Centre for the Development of Technology and Industry (CDTI): Co-operation between research institutions and aquaculture enterprises
- Autonomous administration programmes for aquaculture

### Co-operative research programmes/projects

- International programmes: Research in co-operation with laboratories and universities in France, UK, Canada, Belgium, Italy, Ireland, Sweden, Germany, Mexico
- CEE/BRIDGE/FAR programmes

### Training programmes

- Graduate and postgraduate course-planning in aquaculture for Spanish Universities and Institutions

**Staff** Professional 8; Technical 2; Other 26

### Information facilities

**Publications** CSIC annual report

**Library** 872 volumes/reprints; 35 periodicals **Co-operative programmes/projects** CSIC Institutes libraries and various Spanish University-libraries **Librarian** Maria Angeles Paez Ortega

**Computers** 14 PCs (1 386, 9 ATs, 3 Amstrad, 1 Epson); Various printers **Applications** Accounting/financial planning; Communications; Database management; Desktop publishing; Graphics; Library/documentation; Mathematical; Scientific; Statistical; Word processing

**Physical facilities** 5200 m<sup>2</sup>

**Laboratories** 2500 m<sup>2</sup> **Laboratory equipment** RIA counters (solid, liquid); 10 microscopes; Respirometers (Gilson, Strathkelvin); Coulter counter; Technicon autoanalyser; Konic chromatograph; HPLC; Calorimetric pump; LKB IEF electrophoresis; High speed centrifuge; Cold chamber; Culture chambers (controlled T<sub>0</sub>); Spectrophotometers; pH metres; Freeze driers; Microalgae collection chamber; Image analysis and advanced soft hardware **Aquariums** 195-200 experimental tanks of 60 lt. to 800 metric tons capacity **Species maintained** *Dicentrarchus labrax*; *Sparus aurata*; *Penaeus kerathurus*; *P. japonicus*; *Ostrea edulis*; *Pecten jacobaeus*; *P. maximus*; *Tapes* sp.; *Brachionus plicatilis*; *Artemia*; Phytoplanktonic microalgae: *Tetraselmis*; *Chaetoceros*; *Dunaliella*; *Asteromonas*; *Phaeodactylum*; *Rhodomonas*; *Scenedesmus*

**Facilities** for 4 visiting scientists; 12 students

**Professional/Scientific staff**

<b>Name</b>	<b>Degree</b>	<b>Position</b>	<b>Specialization</b>
<b>Alvarez Pellitero</b> , Pilar (Ms)	PhD	Scientific Researcher/Director	Fish pathology; Parasitic and infectious diseases in Mediterranean fishes; Epidemiology and control
<b>Amat Domenech</b> , Francisco (Mr)	PhD	Scientific Researcher	Zooplankton ecology; Biology and ecology of auxiliary species in aquaculture, specially <i>Artemia</i> (brine shrimp)
<b>Carrillo Estevez</b> , Manuel (Mr)	PhD	Scientific Researcher	Physiology of reproduction in fishes; Maturation and spawning in sea bass; Environmental factors and hormones
<b>Peña Forner</b> , Juan (Mr)	PhD	Scientific Collaborator	Bivalve molluscs biology and culture; Reproduction and larviculture of bivalve molluscs; Population genetics and distribution
<b>Perez Sanchez</b> , Jaume (Mr)	PhD	Scientific Collaborator	Physiology of growth in marine fishes; Studies in growth hormone for marine fishes; Secretory activity of somatotrop cells
<b>Ramos Jara</b> , Jesus (Mr)	PhD	Scientific Collaborator	Marine fish larviculture; Physiology of metabolism and growth in marine fish larvae
<b>Sanfeliu Lozano</b> , Jose Maria (Mr)	MSc	Scientific Collaborator	Biology and culture of shrimps and prawns; Maturation and spawning quality in penaeids according to eye stalk ablation and diet
<b>Zanuy Doste</b> , Silvia (Ms)	PhD	Scientific Researcher	Physiology of metabolism and growth in fishes; Hormonal regulation of metabolism; Influence of environment and food on offspring

## SPAIN

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### **High Council for Scientific Investigation**

### **Institute of Marine Research**

*Consejo Superior de Investigaciones Cientificas*

*Instituto de Investigaciones Marinas*

6 Eduardo Cabello

Vigo 36208

Pontevedra

SPAIN

**Telephone** (34) 86 231930

(34) 86 292758

**Fax** (34) 86 292762

**Executive officer** Mr Uxio LABARTA

Governmental, national institution founded in 1951. Languages: Spanish; English; French

**Nature of activities** Research

**Purpose and objectives** Research in natural marine resources, marine ecology, chemistry and technology of marine products, and in oceanology

**Areas of speciality/activities** Physical oceanography; Water masses and circulation; Marine chemistry and geochemistry; Analytical methodology; Nutrients; Suspended matter; Marine biology and ecology; Phytoplankton; Fish; Plankton blooms; Molluscs; Marine physiology; Marine biochemistry; Marine microbiology; Parasitology; Pathology of marine species; Taxonomy and systematics; Productivity; Community and population studies; Fisheries; Aquaculture; Food technology; Resources management; Oceanology, biology and fisheries (mostly cod and cephalopods); Biology and nutrition of marine bivalves and fish; Biology and pathology of marine bivalves and fish; Food technology of marine products; Chemistry of marine products; Purification and valorization of wastes from alimentary sources

**Environments** Coastal zone; Pelagic environment; Benthic environment; Estuaries

**Geographic areas** Atlantic Ocean

### **Research programmes/projects**

- Dynamics of water masses in the NW Peninsula, Iberia coast: physical-chemical characteristics and influence on primary production
- Population dynamics of cod populations of the North Atlantic
- Biology, ecology and fisheries of cephalopods
- Larvae nutrition of bivalve molluscs and turbot
- Biology and pathology of marine bivalve molluscs and fish
- Technological development of the use of fishery resources to alimentary industry
- Thermic processing in canned fish
- Chemical modifications of fish after industrial processing
- Purification and valorization of wastes from alimentary sources

**Co-operative research programmes/projects**

- CEE funded projects (oceanography, dynamic of populations of cod, biology and ecology of cephalopods, biology and pathology of bivalve molluscs, etc.), in collaboration with institutions in Ireland, the United Kingdom and France
- Co-operative research projects with industries
- ANTARES project for the study of the Southern Ocean

**Training programmes**

- Post-doctoral courses, in collaboration with the University of Santiago de Compostela and the University of Vigo

**Staff** Professional 19; Technical 20; Other 20

**Information facilities**

**Publications** Annual report

**Library** 2500 volumes/reprints; 250 periodicals **Co-operative programmes/projects** Member of a network of special libraries, headed by the Consejo Superior de Investigaciones Cientificas (CSIC), Madrid **Librarian** Maria Angeles Garcia Calvo

**Computers** 1 DEC Microvax II; PCs; Apple Macintosh computers **Applications** Accounting/financial planning; Database management; Library/documentation; Mathematical; Process control (industrial); Scientific; Statistical; Word processing

**Physical facilities** 3000 m<sup>2</sup>

**Laboratories** 1800 m<sup>2</sup> **Laboratory equipment** Laboratory for chemical analysis: HPLC, electrophoresis; Experimental plant for can-processing; Laboratory for histological studies; Wet room for biological studies, equipped with optic microscopical equipment; Laboratory for radioactivity studies

**Research vessels/crafts** Old research vessel, 9 m, for oceanographic studies inside the Vigo Ria estuary; "Lampadena", new research vessel, 15 m

**Conference/seminar facilities** for 50 participants **Lodging** for 6

**Professional/Scientific staff**

Name	Degree	Position	Specialization
Aubourg, Santiago (Mr)	PhD	Scientific Collaborator	Food engineering; Biochemistry of marine products
Fernandez, Felix (Mr)	PhD	Scientific Collaborator	Oceanology; Chemical oceanography
Fernandez, Maria José (Ms)	PhD	Scientific Collaborator	Aquaculture; Biochemistry of bivalve molluscs
Fernandez-Puentes, Carmen (Ms)	PhD	Professor	Marine biology; Biology and pathology of bivalves, molluscs and fish
Figueras, Antonio J (Mr)	PhD	Scientific Collaborator	Marine biology; Biology and pathology of bivalve molluscs and fish

## SPAIN

Name	Degree	Position	Specialization
<b>Franco</b> , José (Mr)	PhD	Scientific Researcher	Biological oceanography; Toxins in red tide organisms
<b>Gallardo</b> , Jose Manuel (Mr)	PhD	Professor of Research	Chemistry; Food engineering; Biochemistry of marine products
<b>Gómez-Figueiras</b> , Francisco (Mr)	PhD	Scientific Collaborator	Biological oceanography; Phytoplankton; Primary production
<b>Gonzalez</b> , Pilar (Ms)	PhD	Scientific Collaborator	Environmental technology; Industrial microbiology; Food technology of marine products
<b>Guerra</b> , Angel (Mr)	PhD	Scientific Researcher	Marine biology; Systematics; Biology; Ecology; Fisheries of cephalopods; Fishery biology
<b>Labarta</b> , Uxio (Mr)	MSc	Titulado Superior/Executive Officer	Aquaculture; Biochemistry of bivalve molluscs
<b>Munilla</b> , Roberto (Mr)	PhD	Scientific Collaborator	Aquaculture; Biochemistry of bivalve molluscs
<b>Murado</b> , Miguel Anxel (Mr)	PhD	Scientific Researcher	Environmental technology; Industrial microbiology; Food technology of marine products
<b>Pastoriza</b> , Laura (Ms)	PhD	Scientific Collaborator	Food technology; Transformation and processing of marine products
<b>Pérez-Gándaras</b> , Germán (Mr)	PhD	Scientific Collaborator	Biological oceanography; Dynamics of populations of fish and cephalopods
<b>Pérez-Martín</b> , Ricardo I (Mr)	PhD	Scientific Collaborator	Chemistry; Food engineering; Biochemistry of marine products
<b>Planas</b> , Miguel (Mr)	PhD	Scientific Collaborator	Aquaculture; Biochemistry of bivalve molluscs
<b>Prego</b> , Ricardo (Mr)	PhD	Scientific Collaborator	Oceanography; Marine biochemistry
<b>Vázquez</b> , Antonio M (Mr)	PhD	Scientific Collaborator	Biological oceanography; Dynamics of populations of fish

**Institute of Health Carlos III**  
**National Centre of Environmental Health**  
*Instituto de Salud Carlos III*  
*Centro Nacional de Sanidad Ambiental (CNSA)*

Crta. Majadahonda Pozuelo, Km.2  
 Majadahonda  
 Madrid  
 SPAIN

**Fax** (34) 1 6380613

**Executive officer** Dr Rafael NAJERA-MORRONDO

Governmental, national institution founded in 1986. Languages: Spanish; English

**Nature of activities** Research; Laboratory; Policy and planning

**Purpose and objectives** Research and development programmes

**Areas of speciality/activities** Marine chemistry and geochemistry; Analytical methodology; Heavy metals; Organics (halogenated hydrocarbons, petroleum hydrocarbons, etc); Radioactivity; Sediments; Waters; Toxicology; Pollution; Analytical methodologies; Organic and inorganic contaminants

**Environments** Lakes; Coastal zone; Rivers; Lagoons

**Geographic areas** Mediterranean Sea; Atlantic Ocean

**Co-operative research programmes/projects**

- Organotin compounds in the aquatic environment
- Analytical quality control - Mediterranean Sea
- Commission of the European Communities (ISPRA)

**Staff** Professional 6; Technical 2; Other 1

**Information facilities**

**Publications** Various

**Library** 262 volumes/reprints; 24 periodicals **Co-operative programmes/projects** Carlos III  
 Institutions libraries; Consejo Superior de Investigaciones Científica (CSIC) **Librarian**  
 Paula Garcia-Garcia

**Computers** 1 HP-VECTRA-CS; 1 IBM PS/2; 1 PC AT (IBM); Printers (HP Laserjet III, NEC  
 Pinwriter, Epson LQ850); 1 Plotter (HP 7574A)

**Physical facilities** 1600 m<sup>2</sup>

**Laboratories** 1200 m<sup>2</sup> **Laboratory equipment** Mass spectrometer; Gas chromatograph (3);  
 HPLC (1); AAS (3); Ion chromatograph (2) **Species maintained** Freshwater fishes

## SPAIN

Conference/seminar facilities for 12 participants

### Professional/Scientific staff

Name	Degree	Position	Specialization
<b>Bomboi Mingarro</b> , Maria Teresa (Ms)	PhD	Investigator	Organic contaminants; Seawater; Sediments; Air
<b>Esteban Lefler</b> , Margarita (Ms)	MSc	Investigator	Inorganic contaminants; Freshwater; Air
<b>Garcia Sanchez</b> , Jeronimo (Mr)	PhD	Investigator	Inorganic contaminants; Freshwater; Air
<b>Marino Fernandez</b> , Manuel (Mr)	PhD	Investigator	Environmental impacts
<b>Mendez Gonzalez</b> , Javier (Mr)	MSc	Investigator	Marine chemistry; Organics
<b>Najera-Morrondo</b> , Rafael (Mr)	PhD	Executive Officer	
<b>Santamaria Ballesteros</b> , Julia (Ms)	PhD	Investigator	Marine chemistry; Heavy metals

### Municipality of Badalona Municipal Laboratory *Ajuntament de Badalona* *Laboratori Municipal*

86 5e Avda marti Pujol  
Badalona 08912  
Barcelona  
SPAIN

**Telephone** (34) 93 3843231  
**Fax** (34) 93 3840478

**Executive officer** Dr Lluisa Berenguer FORCADELL, Cap Unitat Laboratori

Governmental, local institution founded in 1913. Languages: Català i Castellà

**Nature of activities** Laboratory

**Purpose and objectives** Technical assistance and support to the City Council

**Areas of speciality/activities** Analytical methodology; Marine microbiology; Recreation/tourism; Quality control of bathing seawater

**Environments** Coastal zone

**Geographic areas** Mediterranean Sea

**Staff** Professional 1; Technical 1; Other 1

**Information facilities**

**Computers** 1 Tandon TM7521; 1 Printer (Fujitsu DL3400) **Applications** Database management; Graphics; Statistical; Word processing **Data exchange** 5.25"(HD) PC diskettes; dBase III, Lotus 1-2-3, WordPerfect, and ASCII text files

**Physical facilities** 200 m<sup>2</sup>

**Laboratories** 200 m<sup>2</sup> **Laboratory equipment** HPLC Shimadzu; Spectrophotometer Shimadzu UV-160 A

**Spanish Oceanographic Institute**  
**Oceanographic Centre of Baleares**  
*Instituto Español de Oceanografía*  
*Centro Oceanográfico de Baleares (IEO-COB)*

Muelle de Poniente  
 P.O. Box 291  
 Palma de Mallorca 07080  
 Baleares  
 SPAIN

**Telephone** (34) 71 401877 (34) 71 401561  
**Telex** 69493 IEO B  
**Fax** (34) 71 404945

**Executive officer** Mr Pere OLIVER, Director

Governmental, national institution founded in 1906. Languages: Spanish; English; French

**Nature of activities** Research; Consulting

**Purpose and objectives** Consultant to the Spanish government regarding oceanographic affairs and fishing resources; Interdisciplinary oceanographic research; Representation of Spain in international oceanographic organizations.

**Areas of speciality/activities** Physical oceanography; Water masses and circulation; Currents and dispersion; Waves, tides, surges and sea level; Marine chemistry and geochemistry; Analytical methodology; Nutrients; Marine geology and geophysics; Topography and morphology; Sedimentology; Coastal and nearshore processes; Paleontology; Marine biology and ecology; Phytoplankton; Zooplankton; Fish; Eutrophication; Productivity; Fisheries; Assistance to government in planning the exploitation of marine resources; Co-ordination of oceanographic research; Research in fish stock assessment, including biological characteristics of exploited fish; Environmental problems and their impact on marine resources

**Geographic areas** Mediterranean Sea; Alboran Sea; Balearic Sea; Gulf of Lyon



# SPAIN

## Research programmes/projects

- Fisheries in Cataluña, Valencia and the Balearic Islands
- Growth of hake and sardine
- Study of the pelagic environment in the bays of Mallorca
- Study of currents in western Mediterranean
- Micropaleontology and Atlanto-Mediterranean glaciostatism

## Co-operative research programmes/projects

- FAR-DGXIV-CEE: Fisheries in western Mediterranean
- OSNIR-SARP/COI: Study of the security of sardine in northwest Spain
- Study on currents in the western Mediterranean
- UNEP/MED POL monitoring programme

**Staff** Professional 11; Technical 9; Other 17

## Information facilities

**Library** 11000 volumes/reprints; 106 periodicals

**Computers** 1 IBM RT; 5 PCs (3 IBM AT, 2 XT); 4 Printers; 1 Plotter **Applications** Communications; Database management; Graphics; Mapping; Scientific; Statistical; Word processing **Data exchange** 5.25"(HD)/3.5"(HD) PC diskettes; dBASE, LOTUS 1-2-3, WordPerfect 5.1, WordStar 5.1, and ASCII text files

**Physical facilities** 2500 m<sup>2</sup>

**Laboratories** 800 m<sup>2</sup>; climate controlled **Laboratory equipment** Currentmeters; Mareometers; Salinometers; Specialized automatic analytical apparatus (NO<sub>2</sub>, NO<sub>3</sub>, PO<sub>4</sub>, SiF<sub>6</sub>, NH<sub>2</sub>); Echosounders and echointegrators for biomass evolution; Images analyser for daily growth in fishes

**Research vessels/crafts** BO "Odon de Buen", 24 m, 62 TRB, 400 HP; BO "Arola" 7 m; BO "Acartia" 6 m; BO "Cornide de Saavedra" 70 m, 1000 TRB (shared with other IEO Centres)

**Conference/seminar facilities** fully equipped, for 50 participants

## Professional/Scientific staff

Name	Degree	Position	Specialization
Alvarez, Federico (Mr)	MSc	Programme Co-ordinator	Fisheries Science; Pelagic fisheries (coastal areas), growth
Amengual, Bartolome (Mr)	MSc	Technician	Marine chemistry; Analytical methodology; Nutrients
Bruno, Joan (Mr)	MSc	Biologist	Fisheries science
Carbonell, Ana (Ms)	MSc	Biologist	Fisheries science
Fernandez de Puellas, Maria Luz (Ms)	PhD	Oceanographer	Marine biology; Zooplankton; Marine environmental research
Gaza, Magdalena (Ms)	PhD	Marine Biologist	Fisheries
Iglesias, M Magdalena (Ms)	MSc	Technician	Fisheries

Name	Degree	Position	Specialization
<b>Jansa</b> , Javier (Mr)	MSc	Oceanographer	Biological oceanography; Plankton
<b>Lopez-Jurado</b> , Jose Luis (Mr)	MSc	Physical Oceanographer	Hydrography; Water masses; Circulation
<b>Massuti</b> , Enrique (Mr)	MSc	Marine Biologist	Fisheries
<b>Mateu</b> , Guillermo (Mr)	PhD	Associate Professor	Marine geology; Geophysics; Micropaleontology; Sedimentology; Coastal and nearshore processes
<b>Miquel</b> , Juan (Mr)	MSc	Electronics Engineer	Hydroacoustics (Marine biomass assessment); Data processing
<b>Morales-Nin</b> , Beatriz (Ms)	PhD	Assistant Professor	Fish; Fish age and growth
<b>Morillas</b> , Ana (Ms)	MSc	Marine Biologist	Fisheries
<b>Oliver</b> , Pere (Mr)	MSc	Director	Biology; Dynamics of exploited fish populations
<b>Pomar</b> , Gabriel (Mr)	BS	Technician	Fisheries
<b>Serra</b> , Mariano (Mr)	MSc	Marine Biologist	Fisheries
<b>Vives</b> , Francisco (Mr)	PhD	Professor	Biological oceanography; Marine biology and ecology; Zooplankton

**Spanish Oceanographic Institute**  
**Oceanographic Centre of Malaga**  
*Instituto Español de Oceanografía*  
*Centro Oceanografico de Malagá (IEO-COM)*

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Fuengirola 29640  
Malaga  
SPAIN

**Telephone** (34) 952 476955  
(34) 952 472261  
**Telex** 79280 IEOA E  
**Fax** (34) 952 463808

**Executive officer** Dr Juan A CAMIÑAS, Director

Governmental, national institution founded in 1914. Languages: Spanish; French; English

# SPAIN

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**Nature of activities** Research

**Purpose and objectives** Research in oceanography and fisheries control

**Areas of speciality/activities** Physical oceanography; Water masses and circulation; Currents and dispersion; Waves, tides, surges and sea level; Modelling; Marine chemistry and geochemistry; Nutrients; Heavy metals; Organics (halogenated hydrocarbons, petroleum hydrocarbons, etc); Sediments; Waters; Suspended matter; Biota; Marine geology and geophysics; Topography and morphology; Sedimentology; Coastal and nearshore processes; Marine biology and ecology; Phytoplankton; Zooplankton; Benthos; Fish; Algae; Eutrophication; Plankton blooms; Molluscs; Crustaceans; Marine mammals; Marine biochemistry; Marine microbiology; Parasitology; Pathology of marine species; Toxicology; Community and population studies; Fisheries; Aquaculture; Marine environmental management; Pollution; Marine support services; Remote sensing; Resources management; Assistance to government in planning the development of marine living resources; Control of seawater pollution; Research in marine geology, physical and chemical oceanography

**Geographic areas** Mediterranean Sea; Alboran Sea; Balearic Sea; Strait of Gibraltar; Atlantic Ocean; Antarctic

## Research programmes/projects

- Fisheries in the ICES area
- Fisheries in the NAFO area
- Fisheries in the CECAF and the ICSEAF areas
- Fisheries in the Mediterranean area
- Fisheries in the Antarctic and the Pacific Ocean
- Oceanography of the Atlantic Ocean and the Mediterranean Sea

## Co-operative research programmes/projects

- European Community (MAST, FAR)

## Training programmes

- IEO scholarship
- IOC scholarship

**Staff** Professional 18; Technical 10; Other 9

## Information facilities

**Publications** Boletín del Instituto Español de Oceanografía; Informes Técnicos; Monografías; Trabajos; Publicaciones Especiales

**Library** 5000 volumes/reprints; 80 periodicals

**Co-operative programmes/projects** Various  
**Librarian** Mr Victor Diaz-Del-Rio; Ms Ana Hernandez

**Computers** Various **Data exchange** Various

**Physical facilities** 3000 m<sup>2</sup>

**Laboratories** 1000 m<sup>2</sup>; climate controlled **Laboratory equipment** Seismic reflection systems (Side-scan-sonar; Geopulse; 3.5 kHz; Magnetometer; Sparker; Uniboom); Current meter; Mareograph; Computers; Various fishery equipment

**Research vessels/crafts** available

**Facilities** for 40 visiting scientists; 4 students **Conference/seminar facilities** for 40 participants  
**Lodging** for 4

### Professional/Scientific staff

Name	Degree	Position	Specialization
<b>Abad</b> , Rogelio (Mr)	BS	Researcher	Biology; Fisheries
<b>Baro</b> , Jorge (Mr)	BS	Oceanographer	Biology; Fisheries
<b>Caminas</b> , Juan A (Mr)	BS	Oceanographer/Director	Fisheries; Small scale fisheries; Mediterranean fisheries; Tuna fisheries; Ecology
<b>Cano</b> , Natalio (Mr)	BS	Oceanographer	Physics; Oceanography; Currents; Dispersion
<b>Cortes</b> , Dolores (Ms)	BS	Researcher	Chemistry; Marine pollution
<b>De La Serna</b> , Jose M (Mr)	BS	Researcher	Biology; Tuna fisheries
<b>Diaz-Del-Rio</b> , Victor (Mr)	PhD	Oceanographer	Geophysics; Geophysical prospecting; Sedimentology
<b>Fernandez De Castillejo</b> , Federico (Mr)	PhD	Oceanographer	Physics; Oceanography; Water masses; Sea level
<b>Garcia</b> , Alberto (Mr)	BS	Researcher	Biology; Ecology
<b>Gil</b> , Julio (Mr)	BS	Researcher	Physics; Water masses
<b>Gil De Sola</b> , Luis (Mr)	BS	Oceanographer	Biology; Fisheries
<b>Giraldez</b> , Ana (Ms)	BS	Researcher	Biology; Fisheries
<b>Millan</b> , Milagros (Ms)	BS	Researcher	Biology; Fisheries
<b>Perez De Rubin</b> , Juan (Mr)	BS	Oceanographer	Oceanography; Fisheries; Ichthyoplankton
<b>Ramos</b> , Ana (Ms)	BS	Oceanographer	Biology; Fisheries
<b>Rey</b> , Jorge (Mr)	PhD	Oceanographer	Geology; Geophysics; Geophysical prospecting; Morphodynamics
<b>Sobrino</b> , Ignacio (Mr)	BS	Oceanographer	Biology; Fisheries
<b>Somoza</b> , Luis (Mr)	PhD	Oceanographer	Geology; Geophysics; Geophysical prospecting; Tectonics

## SPAIN

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**Spanish Oceanographic Institute**  
**Oceanographic Centre of Murcia**  
*Instituto Español de Oceanografía*  
*Centro Oceanografico de Murcia (IEOM)*

Magallanes 2  
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Murcia  
SPAIN

**Telephone** (34) 68 180500  
(34) 68 180511  
**Telex** 67745 IEOM E  
**Fax** (34) 68 184441

**Executive officer** Sr Luis AREVALO DIAZ DEL RIO, Director

Governmental, national institution founded in 1967. Languages: Spanish; English

**Nature of activities** Research; Laboratory; Academic/educational

**Purpose and objectives** Research activities aiming at enhancing scientific and technical knowledge in the areas of fishing, aquaculture, marine environment and environmental protection

**Areas of speciality/activities** Physical oceanography; Instruments and methods; Water masses and circulation; Marine chemistry and geochemistry; Analytical methodology; Heavy metals; Organics (halogenated hydrocarbons, petroleum hydrocarbons, etc); Sediments; Waters; Biota; Marine biology and ecology; Fish; Algae; Eutrophication; Plankton blooms; Molluscs; Marine mammals; Toxicology; Community and population studies; Fisheries; Aquaculture; Marine environmental management; Monitoring and/or assessment; Coastal zone management; Pollution; Nature conservation and/or restoration; Environmental impact assessment; Artificial reefs; Consultant to the government (General Secretary of Fishing, Ministry of Agriculture, Fishing and Food) on: Evaluation of fishing resources in the Mediterranean; State of the marine environment and adoption of protection measures; Aquaculture; Representing the government in local, national and international meetings

**Environments** Coastal zone; Pelagic environment; Benthic environment; Littoral zone; Lagoons

**Geographic areas** Mediterranean Sea; Spanish Mediterranean coast

### Research programmes/projects

- Fishing
  - Study of the fishing resources in the areas of Murcia, Valencia
  - Study of the demersal resources of the Mediterranean in the area of Almeria, Valencia
  - Study of the pelagic resources of the Mediterranean: Balearic Islands, Catalina, Valencia
  - Study for the evaluation and management of fisheries in western Mediterranean
- Aquaculture
  - Study of the oyster, *Ostrea edulis* in the area of Murcia
  - Reproduction and rearing development of the greater amberjack, *Seriola dumerili* in captivity
  - Determination of the nutritive requirements in dorado, *Sparus aurata*

Influence of the dietic quality of the reproducers in egg-laying and larvae cultivation of the dorada

- Marine Environment & Environmental Protection

Levels and tendencies of heavy metals and organochlorates in *Mytilus edulis galloprovincialis*, *Mullus barbatus* and *Aristeus antennatus* in the Spanish Mediterranean Sea

Environmental factors and mucilagenous aggregates in coastal waters of the Spanish Mediterranean Sea

Application of normalization techniques in the studies of heavy metals in sediments

Characterization of the Mediterranean coastal sediments for a campaign to determine the base levels of heavy metals and organochlorates, using the Loring methodology

Final preparation of analytical techniques for the determination of organostanic compounds

Study of the biological effects of contaminants on organisms

Creation of a database on pollution in the Spanish Mediterranean

### Co-operative research programmes/projects

- Institute of Marine Sciences of Cadiz (CSIC)/Institute "Torre de la Sal" of Castellon (CSIC)/Laboratory of Taliarte (Las Palmas): Influence of diverse factors in the maturing of the gonads and post-larval rearing of peneids
- Research in diverse techniques of extirpation of the ocular stem in the maturing egg-laying of peneids
- University of Murcia, Veterinary School, Department of Anatomy: Types of fibre and post-larval growth of the lateral musculature of the sea-bass (*Dicentrarchus labrax* L.) and of the dorado (*Sparus aurata*)

**Staff** Professional 10; Technical 8; Other 22

### Information facilities

**Publications** Instituto Español de Oceanografía, boletín; Informes Técnicos; Monografías; Publicaciones especiales

**Library** 700 volumes/reprints; 115 periodicals **Co-operative programmes/projects** University of Murcia library; all other libraries via the Central Library, Madrid

**Computers** IBM 6152 computer; PC (4 Olivetti M-250); Printers (4 Olivetti DM 309L, 1 IBM 5202, 1 IBM Proprinter XL24) **Applications** Database management; Graphics; Library/documentation; Mathematical; Statistical; Word processing **Data exchange** 5.25"(HD)/3.5"(HD) PC diskettes; dBase, Lotus 123, WordPerfect 5.1, WordStar 3.0, Statgraphics, ASCII text files

**Physical facilities** 2400 m<sup>2</sup>

**Laboratories** 500 m<sup>2</sup>; climate controlled **Laboratory equipment** Atomic absorption electrophotometer 2300 (Perkin Elmer); Atomic absorption electrophotometer 603 (Perkin Elmer) equipped with flame ionization and graphite camera model 76-B (Perkin Elmer); Spectrophotometer UL-VIS model V-2000 (Hitachi); Spectrofluorometer MPF-4 (Perkin Elmer); Gas chromatograph 8700 (Perkin Elmer) equipped with capillary columns, electronic capture detector, flame ionization detector and automatic sampling; 7 licenced divers; Horiba echosounder; Niskin bottles with reversible thermometers; Zooplankton and phytoplankton nets **Aquariums** 2x7 m<sup>3</sup>; 2x50 m<sup>3</sup>; 3x1 m<sup>3</sup> **Species maintained** *Sparus aurata*; *Dicentrarchus labrax* L.; *Seriola du Merilii*. Risso; *Penaeus japonicus*. Bate; *Penaeus kerathurus*. Forskal; *Lithognathus mormyrus* L.; *Diplodus sargus*; *Caretta caretta*; *Crangon crangon*; *Cardium edule*; *Palaemon serratus*; *Mugil* sp.

## SPAIN

**Research vessels/crafts** "Sagitta" (1977), motorboat, 7 m, equipped with echosounder and winch, 2 crew; "La Torre" (1970), coastal fishing boat, 7.24 m, 4.47 ton, 2 crew

**Facilities** for 2 visiting scientists; 2 students **Conference/seminar facilities** for 50 participants

### Professional/Scientific staff

Name	Degree	Position	Specialization
<b>Abellan Martinez</b> , Emilia (Ms)	MSc	R & D Expert	Aquaculture; Fish and crustacean nutrition and reproduction
<b>Arevalo Diaz del Rio</b> , Luis (Mr)	MSc	Director	Physical oceanography; Exchange of water masses; Coastal circulation
<b>Benedicto Albaladejo</b> , Jose (Mr)	MSc	R & D Expert	Marine pollution; Modification of ecosystems; Monitoring strategies; Data management; Environmental impact
<b>Cano Perez</b> , Juana (Ms)	MSc	R & D Expert	Aquaculture; Mollusc cultivation ( <i>Ostrea edulis</i> )
<b>Franco Hernandez</b> , Angeles (Ms)	MSc	R & D Expert	Marine pollution; Halogenated hydrocarbons; Petroleum dispersal; Toxicology
<b>Garcia Alcaraz</b> , Alicia (Ms)	MSc	R & D Expert	Aquaculture; Fish and crustacean nutrition and reproduction
<b>Garcia Gomez</b> , Antonio (Mr)	MSc	R & D Expert	Aquaculture; Fish cultivation
<b>Mas Hernandez</b> , Julio (Mr)	MSc	R & D Expert	Evaluation and management of fishing resources; Mediterranean fishing; Marine ecology; Coastal management
<b>Ortega Ros</b> , Aurelio (Mr)	MSc	R & D Expert	Aquaculture; Nutrition and reproduction
<b>Rodriguez Puente</b> , Carmen (Ms)	MSc	R & D Expert	Marine pollution; Heavy metals in organisms and sediments; Control of analytical quality

**Spanish Oceanographic Institute**  
**Oceanographic Centre of Murcia**  
*Instituto Español de Oceanografía*  
*Centro Oceanografico de Murcia (IEOM)*

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Puerto de Mazarron 30868  
Murcia  
SPAIN

**Telephone** (34) 68 153159  
(34) 68 153339  
**Fax** (34) 68 153934

**Executive officer** Sr Luis AREVALO DIAZ DEL RIO, Director

Languages: Spanish; English

**Purpose and objectives** Department of the Spanish Oceanographic Institute, engaged solely in aquaculture research

**Physical facilities** 3401 m<sup>2</sup>

**Laboratories** 130 m<sup>2</sup> **Aquariums** 20x1 m<sup>3</sup>; 32x2 m<sup>3</sup>; 3x4 m<sup>3</sup>; 7x5 m<sup>3</sup>; 8x7 m<sup>3</sup>; 4x10 m<sup>3</sup>; 18x14 m<sup>3</sup>; 7x25 m<sup>3</sup>; 7x45 m<sup>3</sup>

**Facilities** for 2 visiting scientists; 2 students **Conference/seminar facilities** for 20 participants  
**Lodging** for 2

**University "Jaume I" of Castellon**  
**Environmental and Natural Resources Laboratory (ENRL)**  
*Universidad "Jaume I" de Castellon*  
*Laboratorio de Medio Ambiente y Recursos Naturales (LMARN)*

Carretera de Borriol, Km.1  
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Castellon 12080  
Castellon  
SPAIN

**Telephone** (34) 64 345724  
(34) 64 345700  
**Fax** (34) 64 345715

**Executive officer** Dr Felix F HERNANDEZ, Professor

Governmental, national institution founded in 1982. Languages: Spanish; English

**Nature of activities** Research; Laboratory; Academic/educational



## SPAIN

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**Purpose and objectives** University level education; Environmental research with emphasis on analytical and hydrogeological aspects

**Areas of speciality/activities** Marine chemistry and geochemistry; Analytical methodology; Heavy metals; Organics (halogenated hydrocarbons, petroleum hydrocarbons, etc); Sediments; Toxicology; Pollution; Environmental impact assessment

**Environments** Coastal zone; Pelagic environment; Benthic environment; Rivers

**Geographic areas** Mediterranean Sea; Levantine Sea

### Research programmes/projects

- Monitoring of heavy metals in marine organisms
- Monitoring of pesticides in marine organisms: study of toxicity
- Analysis of heavy metals and their compounds in natural and waste waters
- Water resources management: artificial recharge
- Hydrochemistry of seawater intrusion

### Co-operative research programmes/projects

- Generalitat Valenciana: Monitoring of pesticide residues in groundwater and vegetable samples
- Instituto Tecnológico y Geominero de España: Studies on degradation and persistence of pesticides in unsaturated zone and groundwater

### Training programmes

- Three-month postgraduate course on groundwater pollution, offered to BA and MSc students, April-June

**Staff** Professional 11

### Information facilities

**Library** 25400 volumes/reprints; 300 periodicals **Librarian** Mr Vicent Falomir

**Computers** 2 PC ATs; 2 Apple Macintosh computers; Printers (1 Epson LQ850, 1 HP Thinkjet, 1 Apple Imagewriter) **Applications** Database management; Desktop publishing; Graphics; Scientific; Statistical; Word processing **Data exchange** 5.25"(HD)/3.5"(HD) PC diskettes; 3.5"(HD) Apple diskettes; dBase, Lotus 1-2-3, WordPerfect 5.1, and ASCII text file

**Physical facilities** 360 m<sup>2</sup>

**Laboratories** 220 m<sup>2</sup>; climate controlled **Laboratory equipment** High resolution gas chromatograph; UU-VIS and diode array detectors; Gas chromatography, packed and capillary, ECD and NPD detectors; Atomic absorption spectrophotometry, flame and heater graphite atomizer; Ionic chromatography, conductivity detector

**Facilities** for 2 visiting scientists; 2 students **Conference/seminar facilities** for 50 participants, 1 assembly hall for 400 people

**Professional/Scientific staff**

Name	Degree	Position	Specialization
<b>Alberto Valles</b> , Juan M (Mr)	MSc		Geodynamics; Hydrogeology
<b>Arevalo Diaz del Rio</b> , Luis (Mr)	MSc	Director	Physical oceanography; Exchange of water masses; Coastal circulation
<b>Beltran</b> , Joaquin (Mr)	MSc	Head, Laboratory of Water Analysis	Analytical chemistry; Pesticide analysis by GC
<b>De Rosa</b> , Tomas (Mr)	BA		Analytical chemistry; Analysis of waters
<b>Escrig</b> , Inmaculada (Ms)	MSc	Head, Heavy Metal Analysis	
<b>Esteller</b> , Maria V (Ms)	MSc	Head, Hydric Resources	Geodynamic hydrogeology; Water resources management
<b>Gimenez</b> , Elena (Ms)	MSc	Head, Groundwater Pollution	Geodynamic hydrology; Groundwater pollution
<b>Hernandez</b> , Felix (Mr)	PhD	Director/Head, Environmental Analysis	Analytical chemistry
<b>Morell</b> , Ignacio (Mr)	PhD	Co-Director/Head, Hydrogeology	Geodynamics; Hydrogeology
<b>Sancho</b> , Juan V (Mr)	MSc	Head, Residue Analysis	Analytical chemistry; Pesticide analysis by HPLC
<b>Serrano</b> , Roque (Mr)	PhD	Head, Marine Pollution	Biochemistry; Pesticides in marine organisms
<b>Valls</b> , Consol (Ms)	BA	Head, Ionic Chromatography	Analytical chemistry; Analysis of waters

**University of Malaga**  
**Faculty of Sciences**  
**Department of Microbiology**  
*Universidad de Málaga*  
*Facultad de Ciencias*  
*Departamento de Microbiología*

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**Telephone** (34) 52 191893  
**Fax** (34) 52 285897

**Executive officer** Dr Juan Jose BORREGO, Professor of Microbiology

Governmental, national institution founded in 1972. Languages: Spanish; English

## SPAIN

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**Nature of activities** Research; Academic/educational

**Purpose and objectives** Educational research and programmes

**Areas of speciality/activities** Fish; Molluscs; Monitoring and/or assessment; Pollution; Environmental impact assessment; Development policy/planning; Resources management; Research projects; National Bachelor-Degree programme

**Environments** Brackishwater; Coastal zone; Rivers; Littoral zone; Estuaries

**Geographic areas** Mediterranean Sea

### Research programmes/projects

- Methanogenesis
- Pathology in shellfish and fish
- Water microbiology
- Pollution of the waters
- Epidemiological studies

**Staff** Professional 10; Technical 3; Other 1

### Information facilities

**Publications** Various

**Library** 7000 volumes/reprints; 400 periodicals **Co-operative programmes/projects** Various

**Librarian** Ms Ana García Ferrer

**Computers** Various **Applications** Education; Graphics; Library/documentation; Mathematical; Scientific; Statistical; Word processing

**Physical facilities** 20000 m<sup>2</sup>

**Laboratories** 12250 m<sup>2</sup>; climate controlled **Laboratory equipment** Incubators; Electrophoresis sets; Centrifuges; Optical and electronical microscopes; Congelators; Refrigerators **Aquariums** 8x250 m<sup>3</sup>; 2x600 m<sup>3</sup> **Species maintained** Sparus aurata

**Facilities** for 3 visiting scientists; 50 students **Conference/seminar facilities** for 30 participants

### Professional/Scientific staff

Name	Degree	Position	Specialization
<b>Balebona Accino</b> , Maria del Carmen (Ms)	MSc	Investigator	Fish pathology; Investigation on bacteriological fish diseases
<b>Borrego Garcia</b> , Juan Jose (Mr)	Doctorate	Professor/Executive Officer	Water microbiology; Fish and shellfish pathology; Investigation on aquatic microbiology and fish pathology
<b>Castro Lopez</b> , Maria Dolores (Ms)	MSc	Investigator	Shellfish pathology; Investigation on shellfish pathology

Name	Degree	Position	Specialization
<b>Cornax Castillo</b> , Roberto Antonio (Mr)	MSc	Investigator	Aquatic microbiology; Investigation on aquatic microbiology
<b>De Vicente Moreno</b> , Antonio (Mr)	Doctorate	Professor of Microbiology	Aquatic microbiology; Investigation on aquatic microbiology
<b>Martinez Manzanares</b> , Eduardo (Mr)	Doctorate	Professor	Water microbiology; Investigation on aquatic microbiology; Shellfish pathology
<b>Moriñigo Gutierrez</b> , Miguel Angel (Mr)	Doctorate	Professor	Water microbiology; Investigation on aquatic microbiology; Fish pathology
<b>Muñoz de Medio</b> , Maria Ascension (Ms)	MSc	Investigator	Aquatic microbiology; Investigation on aquatic microbiology; Methanogenesis
<b>Romero Raya</b> , Pedro (Mr)	Doctorate	Professor	Aquatic microbiology; Investigation on aquatic microbiology
<b>Sanchez Garcia</b> , Jose Manuel (Mr)	MSc	Investigator	Aquatic microbiology; Investigation on methanogenesis

# SYRIA

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## Atomic Energy Commission of Syria (AECS)

P.O. Box 6091  
Damascus  
SYRIA

**Telephone** (963) 11 668784  
**Telex** 411420 ATENCO  
**Cable** TAKA

**Executive officer** Dr Ibrahim OTHMAN, Head, Protection and Safety Department

Governmental, national institution founded in 1975. Languages: Arabic; English

**Nature of activities** Research

**Purpose and objectives** Peaceful application of nuclear power; Environmental studies; Drafting of policies for the protection of man and the environment

**Areas of speciality/activities** Marine chemistry and geochemistry; Analytical methodology; Nutrients; Heavy metals; Organics; Radioactivity; Sediments; Waters; Suspended matter; Biota; Marine environmental management; Monitoring and/or assessment; Pollution; Development policy/planning; Marine archaeology; Research programmes in environmental studies, biological studies and agricultural development

**Environments** Coastal zone

**Geographic areas** Mediterranean Sea

### Research programmes/projects

- Monitoring stations for the measurement of radiation levels exposure rate, radionuclides levels in food chain, and heavy elements in biological samples
- Study of pollution in the eastern Mediterranean Sea

### Co-operative research programmes/projects

- IAEA: Rn measurement in houses, radiation in air

### Training programmes

- Training courses for technicians in protection and safety

**Staff** Professional 10; Technical 25; Other 5

### Information facilities

**Publications** "Aalam Al Zarra" (The World of the Atom), Journal; Various technical reports

**Library** 5400 volumes; 2900 reprints; 4530 reports; 190 periodicals **Co-operative programmes/projects** Various **Librarian** Mrs Atieh

**Computers** PCs **Applications** Graphics; Library/documentation; Network access; Statistical; Word processing

**Physical facilities** 500 m<sup>2</sup>

**Laboratories** 350 m<sup>2</sup>; climate controlled **Laboratory equipment** Borrowed from the Marine Research Centre in Latakia

**Conference/seminar facilities** available

#### Professional/Scientific staff

Name	Degree	Position	Specialization
Ali, Abdulkahar (Mr)	PhD	Researcher	Applied chemistry; Chemical physics
Bachli, Ali Rida (Mr)	BS	Technical staff member	Biochemistry; Monitoring of radionuclides in the marine environment
Mamish, Samer (Mr)	BS	Technical staff member	Biochemistry; Monitoring of radionuclides in the marine environment
Mourad, Soubeih M (Mr)	PhD	Head, Chemistry Department	Organic chemistry; Organic synthesis; Analytical chemistry; Spectroscopy; Pollutants of petroleum origin
Othman, Ibrahim (Mr)	PhD	Senior Researcher/Department Head/Executive Officer	Physics; Radiation protection; Environmental protection; Nuclear safety
Yassine, Taufik (Mr)	PhD	Researcher	Radiochemistry; Radioisotopes; Analytical chemistry; Environmental protection

#### Coastal Centre for Pollution Control General Establishment for Irrigation in Coastal Areas (WCPC)

Latakia Entrance/Bus Station/Spero  
P.O. Box 514  
Latakia  
SYRIA

**Telephone** (963) 41 27869  
**Telex** 451148 NAWRAS

**Executive officer** Dr Ibrahim MAYASY

Governmental, national institution founded in 1982. Languages: Arabic; English

## SYRIA

**Nature of activities** Research; Technical training; Laboratory

**Purpose and objectives** Pollution control of the coastal zone and of all water resources (rivers, lakes, dams, wells, etc.)

**Areas of speciality/activities** Analytical methodology; Waters; Monitoring and/or assessment; Pollution; Nature conservation and/or restoration; Environmental education; Biological control of marine water pollutants (UNEP programme); Quality control of all water resources

**Environments** Lakes; Coastal zone; Rivers; Littoral zone; Lagoons

**Geographic areas** Mediterranean Sea

### Research programmes/projects

- Studies on marine sewage pollutants and their impact on the marine environment
- Studies on ground water quality in the coastal zone area

### Co-operative research programmes/projects

- "Blue Coast" co-operative programme

### Training programmes

- Student-training on chemical and biological analysis

**Staff** Professional 7; Technical 9; Other 5

### Information facilities

**Publications** Annual report; Scientific reports

**Physical facilities** 200 m<sup>2</sup>

**Laboratories** 40 m<sup>2</sup> **Laboratory equipment** Incubator; Spectrophotometer; Conductivity meter; pH meter; Autoclave; Microscope; O<sub>2</sub>-content meter

**Research vessels/crafts** Boat for sampling

**Facilities** for 2 visiting scientists; 25 students **Conference/seminar facilities** available

### Professional/Scientific staff

Name	Degree	Position	Specialization
Al-Jordi, Osama (Mr)	BS	Chief, Laboratory	Engineering; Chemical engineering
Duagi, Bourhan (Mr)	BS	Chief, Guidance Department	Civil engineering; Chemical engineering
Fadel, Mahmoud Ali (Mr)	PhD	Chief, Monitoring and Pollution Prevention	Engineering
Hammoud, Mona (Ms)	BS	Bacterial Analyst	Natural sciences
Hamoli, Nauras (Mr)	BS	Chemical Analyst	Engineering; Chemical engineering

Name	Degree	Position	Specialization
Janem, Hyam (Mr)	BA	Translator	
Joud, Fahd (Mr)	BS	Chemical Analyst	Engineering; Chemical engineering
Mayasy, Ibrahim (Mr)	Doctorate	Executive Officer	
Slaiman, Fadwa (Ms)	BS	Bacterial Analyst	Bacterial analysis

## General Organization of Remote Sensing (GORS)

Beirut St  
Saboura  
P.O. Box 12586  
Damascus  
SYRIA

**Telephone** (963) 11 218765  
(963) 11 218764

**Telex** 411590 SY

**Executive officer** Dr Hussein IBRAHIM, Director General

Governmental, national institution founded in 1986. Languages: Arabic

**Nature of activities** Research; Technical training; Laboratory; Information/public awareness

**Purpose and objectives** Applications of remote sensing to geology, hydrology, hydrogeology, agriculture, urban planning and environment

**Areas of speciality/activities** Monitoring and/or assessment; Pollution; Remote sensing; Resources management; Mineral resources

**Environments** Lakes; Coastal zone; Rivers

**Geographic areas** Mediterranean Sea

### Research programmes/projects

- Research programmes and projects related to remote sensing applications

### Co-operative research programmes/projects

- BGR, Germany
- GDTA, France
- ISRO, India
- UNDP, USA



## SYRIA

### Training programmes

- Three training courses and two regional seminars on remote sensing annually

**Staff** Professional 44; Technical 12; Other 50

### Information facilities

**Publications** Journal of Remote Sensing

**Library** 200 volumes/reprints; 50 periodicals **Librarian** Miss Najat Mardini

**Computers** Various (IBM, Bull, and others) **Applications** Accounting/financial planning; CAD/CAM/CAE; Database management; Education; Engineering; Geographic Information Systems (GIS); Library/documentation; Mapping; Modelling; Project management; Scientific

**Physical facilities** 1170 m<sup>2</sup>

**Laboratories** 250 m<sup>2</sup>; climate controlled **Laboratory equipment** Photo laboratory

**Research vessels/crafts** available

**Facilities** for 6 visiting scientists; 30 students **Conference/seminar facilities** for 36 participants  
**Lodging** for 36

### Professional/Scientific staff

Name	Degree	Position	Specialization
Dalati, Moutaz (Mr)	BS	Director of Scientific and International Affairs	Geology; Remote sensing
Ibrahim, Hussein (Mr)	Doctorate	Director General	
Kawas, Issam (Mr)	BS	Vice-Director of Applications	Hydrogeology; Remote sensing
Koudmani, Marwan (Mr)	BS	Director, General Director's Office	Hydrogeology; Remote sensing
Loulou, Abdul Rahim (Mr)	BS	Adviser to the General Director	Soil science; Remote sensing
Nasri, Saleh (Mr)	MSc	Vice-Director of Training	Geomorphology; Remote sensing
Rukieh, Mohammed (Mr)	Doctorate	Director of Field Studies	Geology; Mineralogy
Salaymeh, Hashem (Mr)	BS	Vice-Director of Applications	Soil science; Remote sensing

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**Higher Institute of Applied Sciences and Technology  
Environmental Laboratory (HIAST-EL)**

P.O. Box 7028  
Damascus  
SYRIA

**Telephone** (963) 11 770547  
(963) 11 772603  
**Telex** 411374 SY  
**Fax** (963) 11 223771

**Executive officer** Professor Mohamed MRAYATI, Director

Governmental, national institution founded in 1980. Languages: French; English; Arabic

**Nature of activities** Research; Laboratory; Academic/educational

**Purpose and objectives** Environmental research in the marine environment

**Areas of speciality/activities** Currents and dispersion; Analytical methodology; Nutrients; Heavy metals; Organics (halogenated hydrocarbons, petroleum hydrocarbons, etc); Sediments; Waters; Phytoplankton; Algae; Marine microbiology; Aquaculture; Monitoring and/or assessment; Pollution; Environmental impact assessment; Marine archaeology; Trace metals concentration in Biota; P.A.H. bioaccumulation; Algae distribution; Plankton production

**Environments** Coastal zone; Pelagic environment; Benthic environment

**Geographic areas** Mediterranean Sea

**Research programmes/projects**

- Taxonomy
- Pelagic community
- Pollution

**Co-operative research programmes/projects**

- MED POL programmes
- Chromium pollution

**Staff** Professional 3; Technical 7

**Information facilities**

**Publications** Technical reports

**Library** 50 periodicals **Co-operative programmes/projects** National, regional and international co-operation **Librarian** Mrs Nahas

**Computers** DEC VAX; Apple Macintosh computer; IBM PCs **Applications** Engineering; Graphics; Library/documentation; Mapping; Modelling; Word processing **Data exchange** Remote access via scientific network

## SYRIA

**Physical facilities** 300 m<sup>2</sup>

**Laboratories** 220 m<sup>2</sup>; climate controlled **Laboratory equipment** Tanks; Microscopes; Inflatable boat; GC; AA; General laboratory instruments

**Facilities** for 3 visiting scientists **Conference/seminar facilities** for 50 participants

### Professional/Scientific staff

Name	Degree	Position	Specialization
<b>Abosamra</b> , Fouad (Mr)	PhD	Head	Water analysis; Water; Biota analysis; Management
<b>Baba</b> , Samia (Ms)	BS	Research Assistant	Chemical analysis
<b>Hajibrahim</b> , Houda (Ms)	PhD	Head of Group	Organic chemistry; Separation; Extraction
<b>Mrayati</b> , Mohamed (Mr)	PhD	Professor/Director	
<b>Taljo</b> , Gassan (Mr)	MSc	Research Assistant	Marine biology; Taxonomy; Aquaculture

### Marine Research Institute (MRI)

Tishreen University  
Latakia  
SYRIA

**Telephone** (963) 41 25658

**Telex** TIUNIV 451084 SY

**Executive officer** Dr Abdullatif K YOUSSEF, Director

Governmental, national institution founded in 1981. Languages: Arabic; English; French

**Nature of activities** Research; Academic/educational

**Purpose and objectives** Research and education leading to MSc and PhD degrees; International co-operation

**Areas of speciality/activities** Marine chemistry and geochemistry; Analytical methodology; Organics (halogenated hydrocarbons, petroleum hydrocarbons, etc); Sediments; Suspended matter; Biota; Marine biology and ecology; Phytoplankton; Zooplankton; Benthos; Plankton blooms; Marine meteorology and climatology; Pollution; Environmental impact assessment; Seawater pollution monitoring; Marine resources assessment

**Geographic areas** Mediterranean Sea

**Research programmes/projects**

- Biology: Benthos, zooplankton and phytoplankton in the coastal area of Syria
- Chemistry: Chemistry of sediments, seawater and nutrients; Heavy metals in biota

**Co-operative research programmes/projects**

- UNEP/MED POL: Monitoring of heavy metals in biota
- FAO/UNEP/MED POL: The role of plankton in the transport of selected heavy metals
- FAO/UNEP/MED POL: Effects of pollution on the planktonic ecosystem

**Staff** Professional 9; Technical 3; Other 5

**Information facilities**

**Library** Yes **Co-operative programmes/projects** Tishreen University Library

**Computers** 1 PC **Data exchange** ASCII text file

**Physical facilities** 2500 m<sup>2</sup>

**Laboratories** 500 m<sup>2</sup>

**Research vessels/crafts** 2 boats, 18 ft

**Facilities** for 8 visiting scientists; 20 students **Conference/seminar facilities** air-conditioned with AV facilities, for 78 participants **Lodging** for 24

**Professional/Scientific staff**

Name	Degree	Position	Specialization
<b>Abazly</b> , Hisham (Mr)	PhD	Researcher	Chemistry; Radiochemistry
<b>Backer</b> , Mouhamed (Mr)	PhD	Researcher	Biology; Zooplankton
<b>Hamoud</b> , Nadeem (Mr)	PhD	Researcher	Biology; Phytoplankton
<b>Hanoun</b> , Kamal (Mr)	PhD		Biology; Zooplankton
<b>Nour Eddin</b> , Seif (Mr)	PhD	Researcher	Chemistry; Marine chemistry
<b>Saker</b> , Faez (Mr)	PhD	Researcher	Biology; Benthos
<b>Youssef</b> , Abdullatif K (Mr)	PhD	Director	Organic chemistry; Hydrocarbons; Halogenated, polycyclic aromatic hydrocarbons

# TUNISIA

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## **Institut National Scientifique et Technique d'Océanographie et de Pêche (INSTOP)**

Salambo 2025  
Tunisie

**Téléphone** (216) 1 730420  
**Télex** 14739 MEDRAP TN  
**Téléfax** (216) 1 730496

# TURKEY

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## **Aegean University Fisheries College**

*Ecole Supérieure des Produits de L'Eau de l'Université de Egée*

Izmir 35440  
Urla Iskele  
TURKEY

**Telephone** (90) 544 11162

(90) 544 11163

**Cable** E U Su Urunleri Yuksekokulu Urla-Iskele

**Executive officer** Dr Atilla G ALPBAZ, Professor

Governmental, national institution founded in 1982. Languages: Turkish

**Nature of activities** Research; Laboratory; Academic/educational

**Purpose and objectives** Research, academic training, fisheries, aquaculture, pollution

**Areas of speciality/activities** Nutrients; Heavy metals; Sediments; Waters; Biota; Phytoplankton; Zooplankton; Benthos; Fish; Algae; Eutrophication; Marine microbiology; Parasitology; Pathology of marine species; Toxicology; Community and population studies; Fisheries; Aquaculture; Pollution; Assistance to the government in planning the development of marine resources; Quality control for fish processing; Provision of laboratory facilities for testing of the sea

**Environments** Lakes; Coastal zone; Lagoons

**Geographic areas** Mediterranean Sea; Aegean Sea

### **Research programmes/projects**

- Fisheries projects
  - Coastal seine nets
  - Design of set nets
  - Selection capacities of different trawls
- Aquaculture projects
  - O. edulis culture
  - D. labrax culture
  - S. aurata culture
  - P. kerathurus culture
  - P. japonicus culture
  - Aquaculture in ponds

### **Training programmes**

- Course work and research leading to MSc, PhD in
  - Oceanography
  - Fisheries
  - Aquaculture
  - Water pollution

**Staff** Professional 29; Technical 11; Other 24

## TURKEY

### Information facilities

**Publications** Journal (three issues annually)

**Library** 5000 volumes/reprints; 2 periodicals **Librarian** Mrs Aysel Gungor

### Physical facilities 1500 m<sup>2</sup>

**Laboratories** 500 m<sup>2</sup> **Laboratory equipment** A.A.S.; Spectrophotometer; Salinometer; pH meter; Oxygen meter; Autoclave pure water machine; Turbitimeter; Grabs; Orange pills; Mansen glass; Plankton nets; Diver equipment: 3-piece tanks (12-15 l); 3 regulators; 3 wet suits; 3 fins; 1 compressor; 1 Zodiac; 25 HP Evinrude outboard and diver transfer unit (1 person); 3 licenced divers

**Aquariums** 52x20 m<sup>3</sup>; 12.000 decare lagoon **Species maintained** *Tapes decussatus*; *Mytilus galloprovincialis*; *Sparus aurata*; *Dicentrarchus labrax*; *Ostrea edulis*; *Trachurus trachurus*; *Scomber scomber*; *Mullus barbatus*; *Penaeus kerathurus*; *Panaeus japonicus*; *Sardina pilchardus*; *Patella vulgata*; *Monodonta turbinata*; *Diplodus annularis*; *Mugil cephalus*; *Chlorella*; *Tetraselmis*; *Gracilaria*; *Artemia salina*; *Brachionus*

**Research vessels/crafts** RV "Hippocampus" (1970), 15.5 m, equipped with echosounder, radar riser, trawling winch and radio, 3 crew, accommodations for 3 scientists; 3 small research boats, 6.5 m, 6.5 m, 9.5 m

**Facilities** for 2 visiting scientists; 2 students **Conference/seminar facilities** for 150 participants

### Professional/Scientific staff

Name	Degree	Position	Specialization
Alpbaz, Atilla (Mr)	PhD	Professor/Executive Officer	Aquaculture
Cagirgan, Hasmet (Mr)	MSc	Assistant	Fish diseases
Cirik, Semra (Ms)	PhD	Associate Professor	Plankton
Diler, Ibrahim (Mr)	MSc	Assistant	Aquaculture
Elbek, Ahmet (Mr)	PhD	Assistant Professor	Fisheries economics
Firat, Kursat (Mr)	MSc	Assistant	Aquaculture
Gokpinar, Sevket (Mr)	PhD	Assistant Professor	Plankton
Guner, Yusuf (Mr)	MSc	Assistant	Aquaculture
Gurbet, Rasit (Mr)	MSc	Assistant	Fisheries
Hindioglu, Aynur (Ms)	MSc	Assistant	Fish feeding
Hossucu, Belgin (Ms)	MSc	Assistant	Fish biology
Kancoban, Cezmi (Mr)	BS	Specialist	Fisheries
Kara, Ali (Mr)	MSc	Assistant	Fisheries
Kara, Faruk (Mr)	BS	Scientist	Oceanography; Fisheries
Kinacigil, Tuncay (Mr)	PhD	Assistant Professor	Fish population dynamics
Korkut, Ali Yildirim (Mr)	MSc	Assistant	Aquaculture
Lok, Altan (Mr)	MSc	Assistant	Fisheries
Metin, Cengiz (Mr)	MSc	Assistant	Fisheries

Name	Degree	Position	Specialization
<b>Onen</b> , Mesut (Mr)	PhD	Assistant Professor	Benthos
<b>Ozden</b> , Osman (Mr)	PhD	Assistant Professor	Aquaculture
<b>Saka</b> , Sahin (Mr)	MSc	Assistant	Aquaculture
<b>Sunlu</b> , Ugur (Mr)	MSc	Assistant	Marine chemistry; Marine pollution
<b>Tatar</b> , Osman (Mr)	PhD	Assistant Professor	Fish processing
<b>Temelli</b> , Belgin (Ms)	PhD	Assistant Professor	Fish feeding
<b>Terzioglu</b> , Sukran (Ms)	MSc	Assistant	Fish processing
<b>Tokac</b> , Adnan (Mr)	PhD	Assistant Professor	Fisheries
<b>Yaramaz</b> , Ozdemir (Mr)	PhD	Assistant Professor	Marine chemistry; Marine pollution
<b>Yurekliturk</b> , Osman (Mr)	PhD	Professor	Fish diseases

### Centre for Environmental Studies (CES)

*Cevre Sorunlari Uygulama ve Arastirma Merkezi (CEVMER)*

Ege Universitesi  
Fen Fakultesi, E-blok  
Bornova 35100  
(51) Izmir  
TURKEY

**Telephone** (90) 51 180110-2445

**Telex** 53100-IGTX-TR-66

**Fax** (90) 51 181036

**Executive officer** Professor Dr Munir Ahmet OZTURK, Director

Governmental, national institution founded in 1990. Languages: Turkish; English; German; French

**Nature of activities** Research; Laboratory; Academic/educational; Information/public awareness

**Purpose and objectives** Assisting industrialists in the use of eco-technology

**Areas of speciality/activities** Marine chemistry and geochemistry; Nutrients; Heavy metals; Waters; Biota; Marine biology and ecology; Phytoplankton; Zooplankton; Benthos; Fish; Algae; Eutrophication; Plankton blooms; Molluscs; Crustaceans; Marine mammals; Marine birds; Marine physiology; Parasitology; Taxonomy and systematics; Productivity; Community and population studies; Fisheries; Aquaculture; Marine environmental management; Coastal zone management; Pollution; Nature conservation and/or restoration; Environmental impact assessment; Environmental education; Development policy/planning; Recreation/tourism; Resources management; Provide laboratory facilities for the testing of water-systems for pollutants; Guidance in the conservation of coastal ecosystems



## TURKEY

**Environments** Lakes; Brackishwater; Coastal zone; Pelagic environment; Benthic environment; Littoral zone; Islands

**Geographic areas** Mediterranean Sea; Adriatic Sea; Aegean Sea; Marmara Sea; Black Sea

### Co-operative research programmes/projects

- Flora and fauna of aquatic ecosystems in nature conservation areas of the Aegean region

**Staff** Professional 7

### Information facilities

**Publications** Annual newsletter; Technical reports

**Library** 100 volumes/reprints; 5 periodicals

### Physical facilities

**Laboratory equipment** Diving tubes

**Research vessels/crafts** Small boats

**Facilities** for 2 visiting scientists; 5 students **Conference/seminar facilities** for 200 participants  
**Lodging** for 60

### Professional/Scientific staff

Name	Degree	Position	Specialization
<b>Dogan</b> , Fethi (Mr)	PhD	Professor	Medicine; Hygiene
<b>Erdem</b> , Umit (Mr)	PhD	Associate Professor	Agricultural planning; Landscape ecology
<b>Henden</b> , Emur (Mr)	PhD	Professor	Analytical chemistry; Heavy metals
<b>Katagan</b> , Tuncer (Mr)	PhD	Associate Professor	Hydrobiology
<b>Onogur</b> , Ersin (Mr)	PhD	Professor	Agricultural engineering; Plant protection
<b>Ozturk</b> , Munir (Mr)	PhD	Professor/Director	Plants and pollutants; Wastewater use; Heavy metals
<b>Turkan</b> , Ismail (Mr)	PhD	Associate Professor	Biology; Exhaust gases and plants

**Dokuz Eylul University**  
**Institute of Marine Sciences and Technology (IMST, IZMIR)**  
*Dokuz Eylul Universitesi*  
*Deniz Bilimleri ve Teknolojisi Enstitusu (DBTE, IZMIR)*

SSK Konak Tesisleri  
D/2 Blok  
P.O. Box 478  
Izmir 35211  
TURKEY

**Telephone** (90) 51 254338  
(90) 51 254958  
**Telex** 52407 DBTE TR  
**Fax** (90) 51 134849

**Executive officer** Dr Orhan USLU, Professor

Governmental, national institution founded in 1975. Languages: Turkish; English; German; French

**Nature of activities** Research; Technical training; Academic/educational

**Purpose and objectives** Academic and research institution which offers programmes leading to MSc and PhD degrees in marine science and technology

**Areas of speciality/activities** Physical oceanography; Instruments and methods; Water masses and circulation; Currents and dispersion; Waves, tides, surges and sea level; Modelling; Marine chemistry and geochemistry; Analytical methodology; Nutrients; Heavy metals; Organics (halogenated hydrocarbons, petroleum hydrocarbons, etc); Radioactivity; Sediments; Waters; Suspended matter; Biota; Marine geology and geophysics; Topography and morphology; Sedimentology; Coastal and nearshore processes; Paleontology; Seismology; Marine biology and ecology; Phytoplankton; Zooplankton; Benthos; Fish; Algae; Eutrophication; Plankton blooms; Molluscs; Crustaceans; Marine biochemistry; Marine microbiology; Toxicology; Taxonomy and systematics; Productivity; Community and population studies; Fisheries; Aquaculture; Marine meteorology and climatology; Marine environmental management; Monitoring and/or assessment; Coastal zone management; Pollution; Nature conservation and/or restoration; Environmental impact assessment; Environmental economics; Environmental education; Artificial reefs; Marine support services; Marine technology; Remote sensing; Data acquisition and telemetry; Ocean policy/law of the Sea; Development policy/planning; Recreation/tourism; Disaster preparedness and relief; Commerce and trade; Resources management; Mineral resources; Energy resources; Monitoring programmes and facilities for the analysis and testing of seawater for pollutants on behalf of the Ministry of the Environment

**Environments** Lakes; Brackishwater; Coastal zone; Pelagic environment; Benthic environment; Littoral zone; Islands; Estuaries

**Geographic areas** Mediterranean Sea; Aegean Sea; Dardanelles; Levantine Sea; Bosphorus; Marmara Sea; Black Sea; Red Sea

# TURKEY

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## Research programmes/projects

- Sedimentologic and neotectonic evolution of the northeastern Mediterranean
- Geochemical properties and geomorphology of Lake Van
- Investigation of deep structures in the sea of Marmara and its effects on neotectonics
- Demersal fish stock assessment of the Turkish territorial waters (Marmara, Aegean, Mediterranean) and international waters
- Geophysical investigation of Saros Bay
- Computer ship design for engine and propeller selection
- Analysis of two layer current system in the Bosphorus

## Co-operative research programmes/projects

- MED POL: National Monitoring Programme in the Aegean Sea
- Turkish Scientific and Technical Research Council: Aegean Fisheries Project
- Turkish Scientific and Technical Research Council: Black Sea sub-project of the National Monitoring Programme

## Training programmes

Course work and research leading to MSc and PhD

- Marine Science
  - Marine biology and marine living resources
  - 5-week training course in marine biology
  - Marine geology and geophysics
  - Marine chemistry and pollution
- Marine Technology
  - Ship building and platforms engineering
  - Coastal/harbour construction

**Staff** Professional 31; Technical 12; Other 35

## Information facilities

**Library** 3500 volumes/reprints; 30 periodicals **Librarian** Mrs Belma Bayazitoglu

**Computers** 9 IBM PS/2s (Models of 60, 55, 50, and 30); 5 PCs (2 IBM AT, 3 IBM XT); 2 Apple Macintosh computers; Printers (2 ImageWriter, 1 LaserWriter, 1 HP LaserJet III, 2 Unisys PW2 500, 6 IBM Proprinter of XL24, and XL, 3 Citizen MSP25); 1 Plotter (Hitachi 681) **Applications**

Accounting/financial planning; Desktop publishing; Education; Engineering; Graphics; Library/documentation; Mathematical; Mapping; Modelling; Scientific; Statistical; Word processing

**Data exchange** Remote network access (EARN)

**Physical facilities** 5600 m<sup>2</sup>

**Laboratories** 566 m<sup>2</sup>; climate controlled **Laboratory equipment** Gas chromatography (Pacard); Autoanalyser (Scalar); Atomic absorption spectrometry (Beckman); Spectrophotometer (HACH); Oxygenmeter (YSI); Salinometer (YSI); 2 pH meters; Various microscopes; Millipore tridistilled water system; Autoclav; Scanning electron microscope (JEOL U3); SCUBA diving container; 10 licensed divers

**Research vessels/crafts** RV "K. Piri Reis" (1978), multipurpose, 36 m, A-frame, crane, winches, navigation (radar, satellite, GPS, trisponder), echosounders, scientific sonars, magnetic gradiometer, subbottom profiler, uniboom, airgun CTDs (Interocean and Sea Bird), autoanalyser, 11 crew, accommodations for 10 scientists; Research boats "Olcen I" and "Firtina"

**Facilities** for 4 visiting scientists; 40 students **Conference/seminar facilities** for 200 participants; 5 workshop rooms for 20 people each

### Professional/Scientific staff

Name	Degree	Position	Specialization
<b>Akyarli</b> , Adnan O (Mr)	PhD	Professor	Physical oceanography; Coastal engineering; Hydrodynamics
<b>Avci</b> , Mert (Mr)	MSc	Research Assistant	Marine geology
<b>Balci</b> , Ahmet (Mr)	PhD	Research Assistant	Marine chemistry; Pollution
<b>Benli</b> , Huseyin Avni (Mr)	PhD	Assistant Professor	Marine biology; Fisheries; Planktonology
<b>Boyaci</b> , Ufuk (Mr)	MSc	Research Assistant	Ship construction; SCUBA diving
<b>Cihangir</b> , Bulent (Mr)	PhD	Research Assistant	Marine biology; Fisheries; SCUBA diving
<b>Cirik</b> , Sukran (Mr)	PhD	Associate Professor	Marine biology; Algae
<b>Demirkurt</b> , Erkan (Mr)	MSc	Research Assistant	Marine biology
<b>Duman</b> , Muhammed (Mr)	MSc	Research Assistant	Marine geology; Bathymetry; Marine geotechniques
<b>Duzbastilar</b> , Musa K (Mr)	PhD	Professor	Marine geology; Paleontology; SCUBA diving
<b>Eftelioglu</b> , Mustafa (Mr)	MSc	Research Assistant	Marine geology; Bathymetry; Marine geotechniques
<b>Ergun</b> , Mustafa (Mr)	PhD	Associate Professor	Marine geophysics; Geodynamics; Tectonics
<b>Gokkus</b> , Umit (Mr)	MSc	Research Assistant	Coastal engineering; Physical oceanography
<b>Gulgeze</b> , Ertan (Mr)	PhD	Assistant Professor	Ship construction
<b>Izdar</b> , Erol (Mr)	PhD	Professor	Marine geology; Ocean technology; Marine pollution
<b>Konuk</b> , Y Tosun (Mr)	PhD	Professor	Marine geology; Bathymetry; Marine geotechniques
<b>Kucuksezgin</b> , Filiz (Ms)	PhD	Research Assistant	Marine chemistry; Pollution; Marine radioactivity
<b>Neser</b> , Gokdeniz (Mr)	MSc	Research Assistant	Naval architecture; Ship hydrodynamics
<b>Ozel</b> , Erdeniz (Mr)	MSc	Research Assistant	Marine geophysics; Marine seismics
<b>Ozerler</b> , Mustafa (Mr)	PhD	Instructor	Sedimentology; SEM study of sediments

## TURKEY

Name	Degree	Position	Specialization
Senoz, Mehmet (Mr)	MSc	Research Assistant	Marine geophysics; Side scan sonars
Sonmezer, Ferah (Ms)	MSc	Research Assistant	Marine biology
Taspinar, Nihat (Mr)	PhD	Professor	Physical oceanography; Ship hydrodynamics
Tekogul, Nermin (Ms)	MSc	Research Assistant	Ship construction
Tirasin, E Mumtaz (Mr)	MSc	Research Assistant	Marine biology; Fisheries; SCUBA diving
Tuzmen, Sevil (Ms)	BS	Lecturer	Social sciences; External affairs
Ulug, Atilla (Mr)	PhD	Associate Professor	Marine geophysics; Marine seismics
Uslu, Orhan (Mr)	PhD	Professor/Executive Officer	Physical, chemical oceanography; Currents and dispersion; Marine ecosystems analysis; Water masses and circulation
Ustunbas, Celal (Mr)	BS	Expert	Marine affairs; Navigation
Yasar, Dogan (Mr)	MSc	Research Assistant	Marine geology; Bathymetry; Marine geotechniques

**Middle East Technical University**  
**Department of Environmental Engineering (METU-DEE)**  
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 (CrossNet)

**Executive officer** Professor Dr Gulerman A SURUCU, Chairman

Governmental, national institution founded in 1973. Languages: English; Turkish

**Nature of activities** Research; Laboratory; Academic/educational; Commercial

**Purpose and objectives** Education, research and service in the fields of water-supply engineering, wastewater engineering, environmental chemistry and microbiology, environmental impact assessment, and air pollution control

**Areas of speciality/activities** Monitoring and/or assessment; Coastal zone management; Pollution; Environmental impact assessment; Environmental education; Environmental impact assessment of thermal power stations; Environmental database development

**Environments** Lakes; Coastal zone; Rivers; Lagoons; Estuaries

**Geographic areas** Mediterranean Sea; Aegean Sea; Black Sea

#### Research programmes/projects

- Development and application of river quality models as related to marine and lake pollution
- Development of models for pollution control in marinas
- Geochemistry of important sediments
- Organometal complex interaction
- Application of modern analytical techniques to environmental chemistry

**Staff** Professional 24; Technical 4; Other 5

#### Information facilities

**Computers** Remote access to Burroughs A9 and IBM 3090 mainframe computers; 10 PCs (IBM)

**Applications** Database management; Education; Engineering; Graphics; Modelling; Network access; Scientific; Statistical; Word processing **Data exchange** Remote access

**Physical facilities** 2000 m<sup>2</sup>

**Laboratories** 1000 m<sup>2</sup> **Laboratory equipment** Equipment to sample water from near-shore areas and some equipment to make in situ measurements (salinity, temperature, conductivity, Secchi depth, dissolved oxygen, tracer concentrations for dispersion studies)

**Facilities** for 30 students **Conference/seminar facilities** for 100 participants

#### Professional/Scientific staff

Name	Degree	Position	Specialization
Atımtay, Aysel (Ms)	PhD	Associate Professor	Air pollution control; Industrial air; Wastewater; Solid waste treatment; Desulphurization of fossil fuels
Balkas, Turgut (Mr)	PhD	Professor	Marine pollution; Coastal zone management
Demirer, Goksel (Mr)	BS	Research Assistant	Microbial pollution in the marine environment; Biological treatment of industrial wastewater; MED POL studies
Dilek, Filiz B (Ms)	MSc	Research Assistant	Environmental microbiology; Activated sludge; Heavy metal kinetics; Wastewater treatment
Enuysal, Mete (Mr)	PhD	Assistant Professor	Environmental chemistry; Analytical methodology; Nutrients; Heavy metals

## TURKEY

Name	Degree	Position	Specialization
<b>Gokcay</b> , Celal F (Mr)	PhD	Professor	Environmental microbiology; Waste water treatment; Coastal pollution monitoring
<b>Gole</b> , K Banu (Ms)	MSc	Research Assistant	Air pollution control; Dispersion of air pollution; Dispersion modelling
<b>Hacisalihoglu</b> , Gulen (Ms)	MSc	Research Assistant	Atmospheric pollution; UNEP/Barcelona Convention/LBS Protocol/MED POL applications
<b>Oguz</b> , Meral (Ms)	PhD	Instructor	Environmental chemistry; Coal chemistry; Water chemistry; Coal technology
<b>Oguz</b> , Mustafa (Mr)	PhD	Associate Professor	Pollution control in the marine environment; Marine disposal of wastewater
<b>Osturk</b> , Yasar F (Mr)		Instructor	Water pollution control; Pollution control of the marine environment
<b>Sert</b> , Yalcin (Mr)	BS	Research Assistant	Environmental modelling; Air quality modelling
<b>Soyupak</b> , Selcuk (Mr)	PhD	Associate Professor	Environmental engineering; Industrial water pollution control
<b>Surucu</b> , Gulerman (Mr)	PhD	Professor/Chairman	Water pollution control; Solid waste management
<b>Teksoz</b> , Gaye (Ms)	MSc	Research Assistant	Environmental chemistry; UNEP/Barcelona Convention/LBS Protocol/MED POL applications
<b>Tuncel</b> , Gurdal (Mr)	PhD	Associate Professor	Air chemistry; Application of analytical techniques to air chemistry
<b>Ulug</b> , S Erol (Mr)	PhD	Associate Professor	Water/air pollution control; Anaerobic treatment of wastes; Monitoring
<b>Yetis</b> , Ulku (Ms)	PhD	Assistant Professor	Water and wastewater treatment; UNEP/Barcelona Convention/LBS Protocol/ MED POL applications
<b>Yurteri</b> , Coskun (Mr)	PhD	Associate Professor	Water and wastewater treatment; Numerical solution of hydrothermal models

**Middle East Technical University  
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**Fax** (90) 7586 1327  
**E-mail** (OMNET) U.UNLUATA

**Executive officer** Dr Umit A UNLUATA, Professor

Governmental, national institution founded in 1975. Languages: Turkish; English

**Nature of activities** Research; Academic/educational

**Purpose and objectives** Graduate level education; Applied research; Development and management of national marine resources and coastal environment

**Areas of speciality/activities** Physical oceanography; Water masses and circulation; Currents and dispersion; Air-sea interaction; Waves, tides, surges and sea level; Modelling; Marine chemistry and geochemistry; Analytical methodology; Nutrients; Heavy metals; Organics (halogenated hydrocarbons, petroleum hydrocarbons, etc); Sediments; Waters; Suspended matter; Biota; Marine geology and geophysics; Topography and morphology; Sedimentology; Coastal and nearshore processes; Marine biology and ecology; Phytoplankton; Zooplankton; Benthos; Fish; Plankton blooms; Molluscs; Crustaceans; Toxicology; Taxonomy and systematics; Productivity; Community and population studies; Fisheries; Monitoring and/or assessment; Pollution; Environmental impact assessment; Remote sensing; Resources management; Assistance to the government in planning the development of fishery resources; Adviser to local government and municipalities on marine sewage outfall planning; Monitoring of pollution levels at selected regions ("hot spots"); Training of marine technicians from government agencies and other marine institutions

**Environments** Coastal zone; Pelagic environment; Benthic environment; Estuaries

**Geographic areas** Aegean Sea; Dardanelles; Levantine Sea; Bosporus; Marmara Sea; Black Sea



## TURKEY

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### Research programmes/projects

- National Monitoring Programme, northeastern Mediterranean Sea sub-project
- National Monitoring Programme, Eastern Black Sea sub-project
- National Monitoring Programme, Sea of Marmara sub-project
- MED POL II long term monitoring project
- Istanbul waste water outfalls project, pre and post-operational monitoring studies of marine outfalls
- Istanbul waste water outfalls project, determination of the assimilative capacity of the Sea of Marmara and Turkish Straits system
- Investigation of post-operation oceanographic and atmospheric factors of Seka-tasucu paper plant
- Transport paths, chemical composition and effects of the atmospheric material input to the pollution of the Eastern Mediterranean Sea
- Monitoring via direct measurements of the modes of mixing and transport of wastewater discharges into the Bosphorus underflow

### Co-operative research programmes/projects

- NATO: Stock assessment studies for the Turkish Black Sea coast
- IOC/UNEP: Transport of water and selected substances through Turkish Straits
- UNEP: Climatic variability in the northeastern Mediterranean and Black Sea
- Community of Mediterranean Universities: Capture of Sarda in Italian, Greek and Turkish seas; Study of stocks in the central and eastern Mediterranean and use of mitochondrial DNA as a tool of genetic variability identification
- POEM (Physical Oceanography of the Eastern Mediterranean)

### Training programmes

- Course work and research leading to MSc and PhD in
  - Physical oceanography
  - Marine chemistry
  - Marine geology and geophysics
  - Marine biology and fisheries

**Staff** Professional 35; Technical 9; Other 64

### Information facilities

**Publications** Technical reports on the sponsored research projects (distribution limited)

**Library** 4700 volumes; 5000 reprints; 32 periodicals **Co-operative programmes/projects** Woods Hole Oceanographic Institution, USA; Scripps Institution of Oceanography, USA; Institute of Oceanographic Sciences, UK; Israel Oceanographic and Limnological Research, Haifa; Institut für Meereskunde, University of Kiel, Germany **Librarian** Mrs Gulgun Latif

**Computers** 1 HP 9845/S (RISC); 3 X-Terminals; 3 IBM PS/2s (1 Model 80, 2 Model 30); PCs (5 IBM AT/XT, 2 HP Vectre ES/2); 1 Portable (Compaq 386); Local Area Network; CD-ROM(IBM 3363); Scanner (HP Scanjet Plus); 2 Plotters (HP 7440A, HP 7475A); Printers (HP Laserjet III and II, HP Rugged Writer, C-ITOH, Citizen MSP-55, EPSON LQ850 and FX1000) **Applications** Communications; Desktop publishing; Education; Engineering; Graphics; LAN; Mathematical; Mapping; Scientific; Statistical; Word processing; Data acquisition **Data exchange** 5.25"(HD)/3.5"(HD) PC diskettes; Tape (1600/6250bpi, HP 9145); ASCII text file

**Physical facilities** 950 m<sup>2</sup>

**Laboratories** 400 m<sup>2</sup>; climate controlled **Laboratory equipment** Automatic Satellite Picture Transmission (APT) system (Weathertrac); Compaq PC-SEAPAC system; Vessel mounted 150 KHz acoustic doppler current profiler (RD Instruments); 2 CTD profilers (Sea Bird Electronics Model 9); GO-LO Rosette Sampler (General Oceanics, 12x5 ft); BioSonics Hydroacoustics Instruments (Echo sounders (Model 102) with transducers, towed bodies, chart recorders, digital recorders); Current meters (Aanderaa RCM4); Precision depth recorder (Raytheon) Submersible tide gauge (InterOcean M-STG100M); Wave buoy (Datawell Waverider); Side scan sonar (EG/G IB systems); Uniboom (shallow seismic system EG/G); Trisponder system (Del Norte); Gravity corer (Phleger); Grab sampler (Van Veen); Bottom sampler (InterOcean); AAS (Varian Techtron AA-6, Varian 1250); GC (Carlo Erba Vega 6300-01, M-437A, M-428, Varian M-2700); Elemental analyser CHN (Carlo Erba model-1108); Four channels autoanalyser (Technicon A-II); In-situ fluorometer (Navitronics, Q-200); DO meter (YSI M-58); pH meter (Orion 801-A, Chemistrix M-400); Automatic winkler titration system (Hydro Bios); Nansen bottles and reversing thermometers (Hydro Bios); Plankton nets (Nansen closing net, Egg net, Naked hai); Hydraulic control fish nets (bottom and mid-water trawl and gill nets); Particle size analyser (Coulter Counter M-TA w/digital output); Microscope (Nikon stereo, Nikon polarizing, Olympus stereo with photographic tube); Automatic weather station (Aanderaa); Diving equipment; Spectrophotometer (UV-Vis Cecil 500, Ultrospec II LKB); Spectrofluorometer (Hitachi F-3000); High volume air samplers (General Metal Works Model GMWL-2000 and PM10); Remotely operated underwater vehicle (Benthos MiniRover MK II)

**Research vessels/crafts** RV "Bilim" (1983), research vessel, 40.36 m, equipped with echosounder, trawling winch, global positioning satellite navigator system, accommodations for 14 scientists; RV "Lamas" (1981), trawler, 16 m, equipped with trawling winch, accommodations for 4 scientists; RV "Erdemli" (1979), wooden hull, w/sails, 17 m, accommodations for 5 scientists

**Facilities** for 2 visiting scientists; 10 students **Conference/seminar facilities** for 40 participants **Lodging** for 24

**Professional/Scientific staff**

Name	Degree	Position	Specialization
<b>Akdogan</b> , Sengul (Ms)	MSc	Research Assistant	Marine biology; Pollution
<b>Altio</b> k, Husne (Ms)	BS	Research Assistant	Physical oceanography
<b>Avsar</b> , Dursun (Mr)	MSc	Research Assistant	Fisheries; Stock assessment
<b>Basturk</b> , Ozden (Mr)	PhD	Associate Professor	Marine chemistry; Nutrients; Pollution; Surface film
<b>Besiktepe</b> , Sukru (Mr)	PhD	Assistant Professor	Physical oceanography; Numerical modelling
<b>Bingel</b> , Ferit (Mr)	PhD	Professor	Marine biology; Fisheries; Stock assessment; Fisheries acoustics
<b>Bodur</b> , Mehmet Nuri (Mr)	PhD	Assistant Professor	Marine geology; Sedimentology; Geochemistry
<b>Ediger</b> , Dilek (Ms)	MSc	Research Assistant	Marine chemistry; Production; Nutrients; CZCS analysis
<b>Ediger</b> , Vedat (Mr)	PhD	Assistant Professor	Marine geology; Sedimentology; Sedimentary petrology

## TURKEY

Name	Degree	Position	Specialization
<b>Ergin</b> , Mustafa (Mr)	PhD	Associate Professor	Marine geology; Sedimentology; Geochemistry; Seismic stratigraphy
<b>Gaines</b> , Alexander (Mr)	PhD	Professor	Marine chemistry
<b>Gucu</b> , Ali (Mr)	MSc	Research Assistant	Marine biology; Fisheries; Fisheries acoustics; Stock assessment
<b>Hatipoglu</b> , Emin (Mr)	MSc	Research Assistant	Marine chemistry
<b>Ismen</b> , Ali (Mr)	MSc	Research Assistant	Marine biology; Fisheries
<b>Kubilay</b> , Nilgun (Ms)	MSc	Research Assistant	Marine chemistry; Atmospheric input of pollutants
<b>Latif</b> , Mohammed Abdul (Mr)	PhD	Professor	Physical oceanography; Air-sea interaction; Water masses and circulation
<b>Mutlu</b> , Erhan (Mr)	MSc	Research Assistant	Marine biology; Benthos
<b>Oguz</b> , Temel (Mr)	PhD	Associate Professor	Physical oceanography; Circulation; Modelling
<b>Okyar</b> , Mahmut (Mr)	PhD	Assistant Professor	Marine geophysics; Shallow seismic
<b>Ozsoy</b> , Emin (Mr)	PhD	Professor	Physical oceanography; Geophysical fluid dynamics; Modelling
<b>Polat</b> , Colpan S (Ms)	MSc	Research Assistant	Marine chemistry
<b>Salihoglu</b> , Ilkay (Mr)	PhD	Professor	Marine chemistry; Pollution; Halogenated hydrocarbons; Petroleum hydrocarbons
<b>Saydam</b> , Cemal A (Mr)	PhD	Associate Professor	Marine chemistry; Atmospheric transport of trace elements; Remote sensing
<b>Stepnowski</b> , Andrzej (Mr)	PhD		Fisheries; Fisheries acoustics
<b>Sur</b> , Halil Ibrahim (Mr)	PhD	Assistant Professor	Physical oceanography; Circulation dynamics; Numerical modelling; Remote sensing
<b>Telli</b> , Fatma (Ms)	MSc	Research Assistant	Marine biology; Pollution effects
<b>Timur</b> , Kemal (Mr)	MSc	Instructor	Marine geophysics; Geophysics; Bathymetry; Underwater acoustics; Seismology
<b>Tugrul</b> , Suleyman (Mr)	PhD	Associate Professor	Marine chemistry; Trace metals; Organometals; Nutrients; Water quality modelling
<b>Unluata</b> , Umit A (Mr)	PhD	Professor/Executive Officer	Physical oceanography; Geophysical fluid dynamics
<b>Unsal</b> , Mustafa (Mr)	PhD	Professor	Marine biology; Plankton; Benthos; Pollution

## TURKEY

Name	Degree	Position	Specialization
Uysal, Zahit (Mr)	MSc	Research Assistant	Marine biology; Plankton
Yemenicioglu, Semal (Mr)	PhD	Assistant Professor	Marine chemistry; Heavy metals; Trace metals; Organometals
Yilmaz, Aysen (Ms)	PhD	Associate Professor	Marine chemistry; Production; Nutrients
Yilmaz, Kubilay (Mr)	MSc	Research Assistant	Marine chemistry; Microlayer chemistry
Yucesoy, Fulya (Ms)	MSc	Research Assistant	Marine geology; Sedimentology; Geochemistry

# YUGOSLAVIA

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## Institute for Marine Biology (IMB)

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**Executive officer** Professor Dr Sreten MANDIC, Director

Governmental, national institution founded in 1961. Languages: English; French; Italian

**Nature of activities** Research; Laboratory; Academic/educational

**Purpose and objectives** Research on the biology of the south Adriatic; Neurobiology, marine pharmacology, basic and applied research in mariculture; Environmental protection

**Areas of speciality/activities** Physical oceanography; Water masses and circulation; Currents and dispersion; Waves, tides, surges and sea level; Marine chemistry and geochemistry; Analytical methodology; Nutrients; Heavy metals; Organics (halogenated hydrocarbons, petroleum hydrocarbons, etc); Radioactivity; Sediments; Waters; Suspended matter; Biota; Marine biology and ecology; Phytoplankton; Zooplankton; Benthos; Fish; Algae; Eutrophication; Plankton blooms; Molluscs; Crustaceans; Marine physiology; Marine biochemistry; Marine microbiology; Parasitology; Pathology of marine species; Toxicology; Taxonomy and systematics; Productivity; Community and population studies; Fisheries; Aquaculture; Marine environmental management; Monitoring and/or assessment; Coastal zone management; Pollution; Nature conservation and/or restoration; Environmental impact assessment; Resources management

**Environments** Brackishwater; Coastal zone; Pelagic environment; Benthic environment; Littoral zone; Lagoons; Estuaries

**Geographic areas** Adriatic Sea

### Research programmes/projects

- Investigation, exploitation and protection of the south Adriatic area
- Isolation, chemical and biochemical characterization of natural products from marine organisms
- Investigation of the blood-brain barrier and regulation of the neural microenvironment in marine organisms
- Neural mechanisms of behaviour in marine organisms

### Co-operative research programmes/projects

- Germany: Aquaculture; Marine pharmacology
- France: Parasitology
- Italy/Soviet Union/Hungary: Neurobiology
- Great Britain: Neurobiology

**Training programmes**

- Training programmes for graduates of Yugoslav and foreign universities

**Staff** Professional 20; Technical 10; Other 10

**Information facilities**

**Publications** Studia Marina, scientific publications; Monographs

**Library** 60 periodicals **Co-operative programmes/projects** 150 institutions, world-wide

**Computers** 8 PCs (1 386, 7 286); Local Area Network **Applications** Communications; Database management; Desktop publishing; Graphics; Library/documentation; LAN; Scientific; Statistical; Word processing **Data exchange** Electronic mail

**Physical facilities** 2000 m<sup>2</sup>

**Laboratories** 35 m<sup>2</sup>; climate controlled **Laboratory equipment** All necessary equipment for the implementation of the various research programmes **Aquariums** 1x1200 m<sup>3</sup> **Species maintained** Mugillidae; Sparidae; Anguillidae; Lamelibranchiatae

**Research vessels/crafts** Research vessel, type "leut"

**Facilities** for 10 visiting scientists; 40 students **Conference/seminar facilities** for 70 participants

**Professional/Scientific staff**

Name	Degree	Position	Specialization
Kljajic, Zoran (Mr)	PhD	Senior Scientist	Biochemistry; Marine pharmacology; Environmental protection
Kovacevic S, Nikola (Mr)	PhD	Director	Neurobiology; Behaviour; Aquaculture; Environmental protection
Mandic, Sreten (Mr)	PhD	Professor/Director	Zoobenthos; Aquaculture; Environmental protection
Milosevic, Ivan (Mr)	PhD	Senior Scientist	Neurophysiology; Aquaculture; Environmental protection
Radujkovic, Branko M (Mr)	PhD	Senior Scientist	Fish parasitology; Fish diseases

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