

Southeast Pacific Data and Information Network in Support of Integrated Coastal Area Management (SPINCAM)(IOC-UNESCO/Flanders/CPPS)

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NOMBRE DE LA REUNIÓN Y FECHA

SPINCAM PROJECT (IOC-UNESCO/Flanders/CPPS)

- Designed to establish an integrated coastal area management (ICAM) **indicators framework** in the countries of the Southeast Pacific (Chile, Colombia, Ecuador, Panama and Peru)
- Executed through the IOC/UNESCO) with the financial support of the Government of Flanders and the coordination of the Permanent Commission for the South Pacific (CPPS).



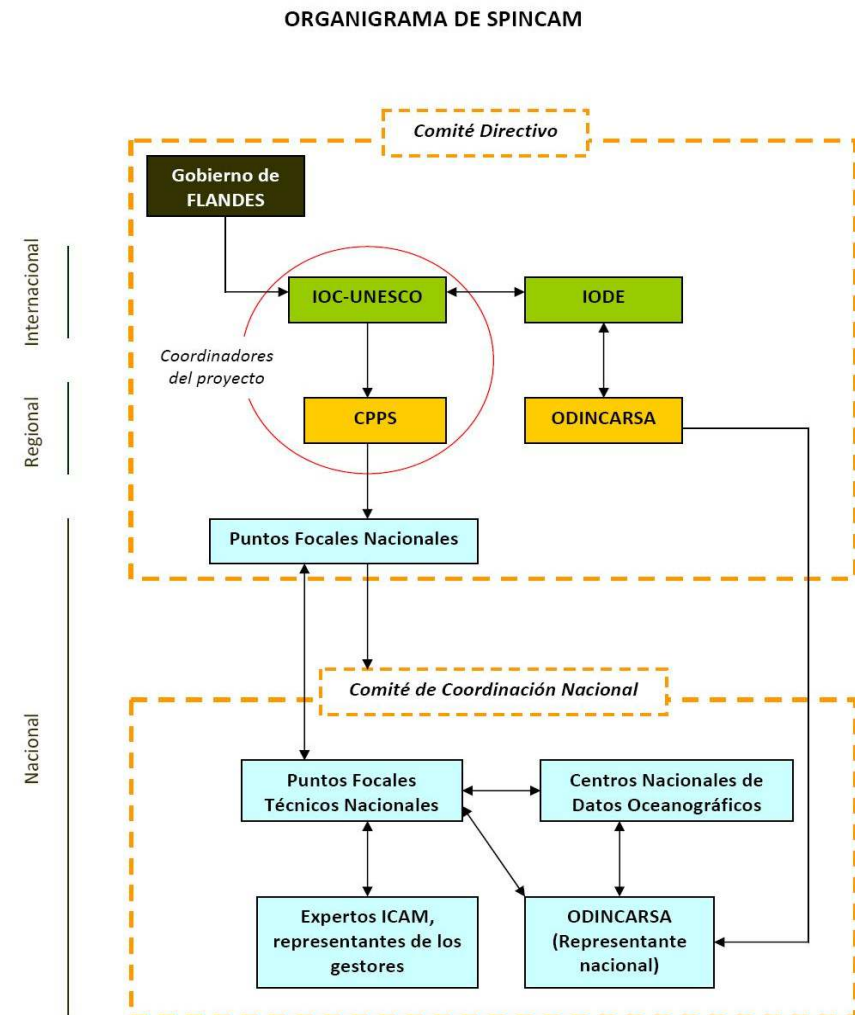
Project Outcome:

- Technical and managerial capacity for the development of indicators based reports (State of the coast report for decision makers/civil society), including their spatial representations, within the framework of existing national and regional ICAM programmes.



Coordination

- Steering Committee (evaluation / planning)
 - Project Coordinator (CPPS)
 - 5 National Focal Points
 - ODINCARSA Regional Representative Data Management
 - ODINCARSA Regional Representative Information Management
 - Flanders Representative
 - IOC/UNESCO Representatives (IOCARIBE Secretariat, IODE and ICAM)





Southeast Pacific Data and Information Network in Support of Integrated Coastal Area Management (SPINCAM) (IOC-UNESCO/Flanders/CPPS)

Countries



Chile



Colombia



Ecuador



Panama



Perú

First phase (2008-2012) (i)

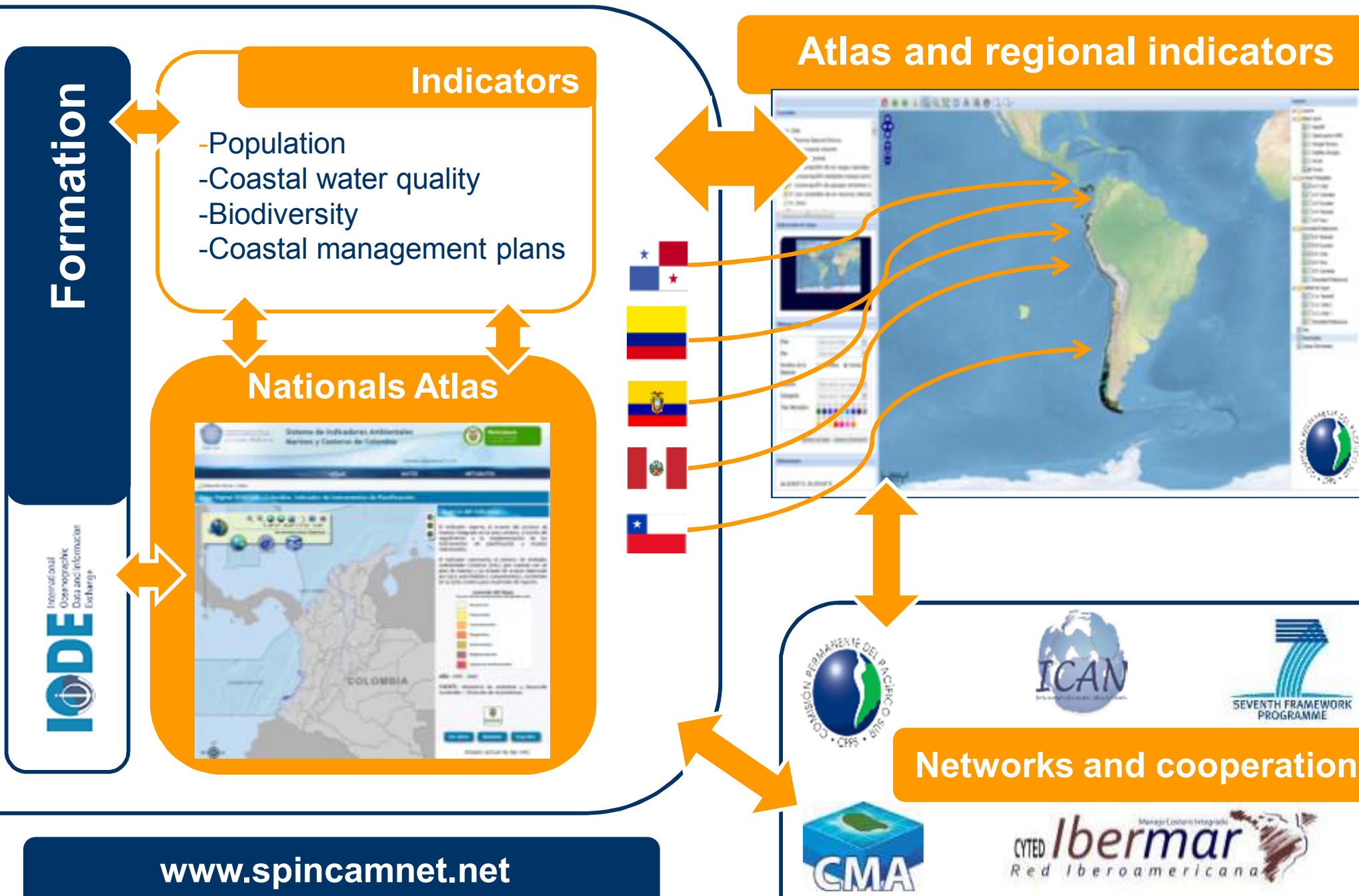
- Institutional arrangements for data sharing and compiling
- National indicators (as established by countries)
- Types:
 - Political and Governance.
 - Ecologicals.
 - Socioeconomics.
- Regional indicators:
 - Population density
 - Coastal and Marine Protected Areas
 - Water Quality
 - Biodiversity
 - Coastal management instruments





Proyecto SPINCAM

With the support of the Government of Flanders



Regional Geoportal (i)

- Graphic representation of indicators
- Integration with marine biodiversity information
- Technical information
 - WebGIS: Mapserver + Javascript + open access base maps
 - Database: POSTGRESOL
 - Server: LINUX CENTOS 5

<http://190.95.249.246:8080/geoPortalCPPS/geovisor/index.html>

Visit our website! www.spincamnet.net (Atlas section)

Regional Geoportal (ii)

The screenshot displays a web-based geoportal interface. At the top, the browser address bar shows the URL: `190.95.249.246:8080/geoPortalCPPS/geovisor/index.html`. The main map area shows a topographic view of South America, with a red dot and a light green polygon in the Pacific Ocean. The interface includes several panels:

- Legendas (Legend):** Lists categories for Chilean Protected Areas (A.P. Chile) with color-coded swatches: Ia. Reserva Natural Estricta (light green), Ib. Area natural silvestre (green), II. Parque nacional (dark green), III. Conservación de los rasgos naturales (medium green), IV. Conservación mediante manejo activo (yellow-green), V. Conservación de paisajes terrestres y (yellow), VI. Uso sostenible de los recursos naturales (orange), and VI. Otros (light green). It also includes a field for "Nombre del Área Protegida".
- Sobrevuelo de Mapa (Map Overview):** A small inset map of the world with a red dashed box highlighting the South American region.
- Sibimap Cetáceos (Sibimap Cetaceans):** A panel with dropdown menus for "País:" (Seleccione País), "Filo:" (Seleccione Filo), "Especie:" (Seleccione una especie), and "Categoría:" (Seleccione Categoría). It also has radio buttons for "Científico" and "Común", a "Tipo Marcador:" color selection grid, and buttons for "Mostrar en Mapa" and "Mostrar Información".
- Layers (Layers Panel):** A list of map layers on the right side, including:
 - Layers
 - Base Layer
 - Areas Protegidas
 - A.P. Chile
 - A.P. Colombia
 - A.P. Ecuador
 - A.P. Panamá
 - A.P. Peru
 - Densidad Poblacional
 - D.P. Panamá
 - D.P. Ecuador
 - D.P. Chile
 - D.P. Peru
 - D.P. Colombia
 - Densidad Poblacional
 - Calidad de Agua
 - C.A. Panamá
 - C.A. Chile 2
 - C.A. Chile 1
 - Densidad Poblacional
 - Gen
 - Generadas
 - Capas Generadas

The map includes navigation controls (home, back, forward, pan, zoom, search), a scale bar (0-500 km / 0-200 mi), and a "scale" label in the bottom right corner.

Regional Geoportal (iii)

The screenshot displays a web-based geoportal interface for cetacean sightings in the Pacific region. The main map shows a distribution of sightings marked with colored icons (purple, orange, green, pink) across the Pacific Ocean. Three information pop-ups are visible, providing details for specific sightings:

- Information 1:**
Lepidochelys olivacea
Nombre Común: Tortuga verde oliva, Olive ridley, Caguama, Tartaruga Oliva, Pacific ridley.
Fecha: 2002
Num animales:
- Information 2:**
Balaenoptera musculus
Nombre Común: Ballena azul (Pa, Co Ec, Pe, Ch), blue whale.
Fecha: 19/12/1997
Num animales: 1
- Information 3:**
Orcinus orca
Nombre Común: Orca (Co, Ec, Pe, Ch), killer whale
Fecha: 39514
Num animales: 3

The interface includes several panels:

- Leyendas:** MapNIK, OpenLayers WMS, World, Fondo.
- Sobrevuelo de Mapa:** A small inset map showing the current location on a world map.
- Sibimap Cetáceos:** A search and filter panel with the following options:
 - País:** Todos
 - Filo:** CETACEOS
 - Nombre de la Especie:** Científico (selected), Común
 - Especie:** Orca (Co, Ec, Pe, Ch)
 - Categoría:** Seleccione Categoría
 - Tipo Marcador:** A grid of colored circles for selecting marker colors.
- Layers:** A list of map layers on the right side, including:
 - Layers
 - Base Layer
 - Areas Protegidas:
 - A.P. Chile
 - A.P. Colombia
 - A.P. Ecuador
 - A.P. Panamá
 - A.P. Peru
 - Densidad Poblacional:
 - D.P. Panamá
 - D.P. Ecuador
 - D.P. Chile
 - D.P. Peru
 - D.P. Colombia
 - Densidad Poblacional
 - Calidad de Agua:
 - C.A. Panamá
 - C.A. Chile 2
 - C.A. Chile 1
 - Densidad Poblacional
 - Gen
 - Generadas:
 - Gen_4: Orca (Co, Ec, Pe, C
 - Gen_3: Anidacion Tortuga
 - Gen_2: Avistamiento Delfin
 - Gen_1: Avistamiento Baller

SIBIMAP Contains

- Four modules cetaceans, sea turtles, MCPA and sharks (in progress)
- Georeferenced information
- Ecological/biological information
- Bibliographic references
- Digital repository



www.sibimap.net

Opciones de Búsqueda

Nombre de Especie:

Científico Común

Especie

Ballena jorobada

Pais

Peru

Mostrar Mapas

Total Referencias Varamientos y Avistamientos

Varamientos: 0

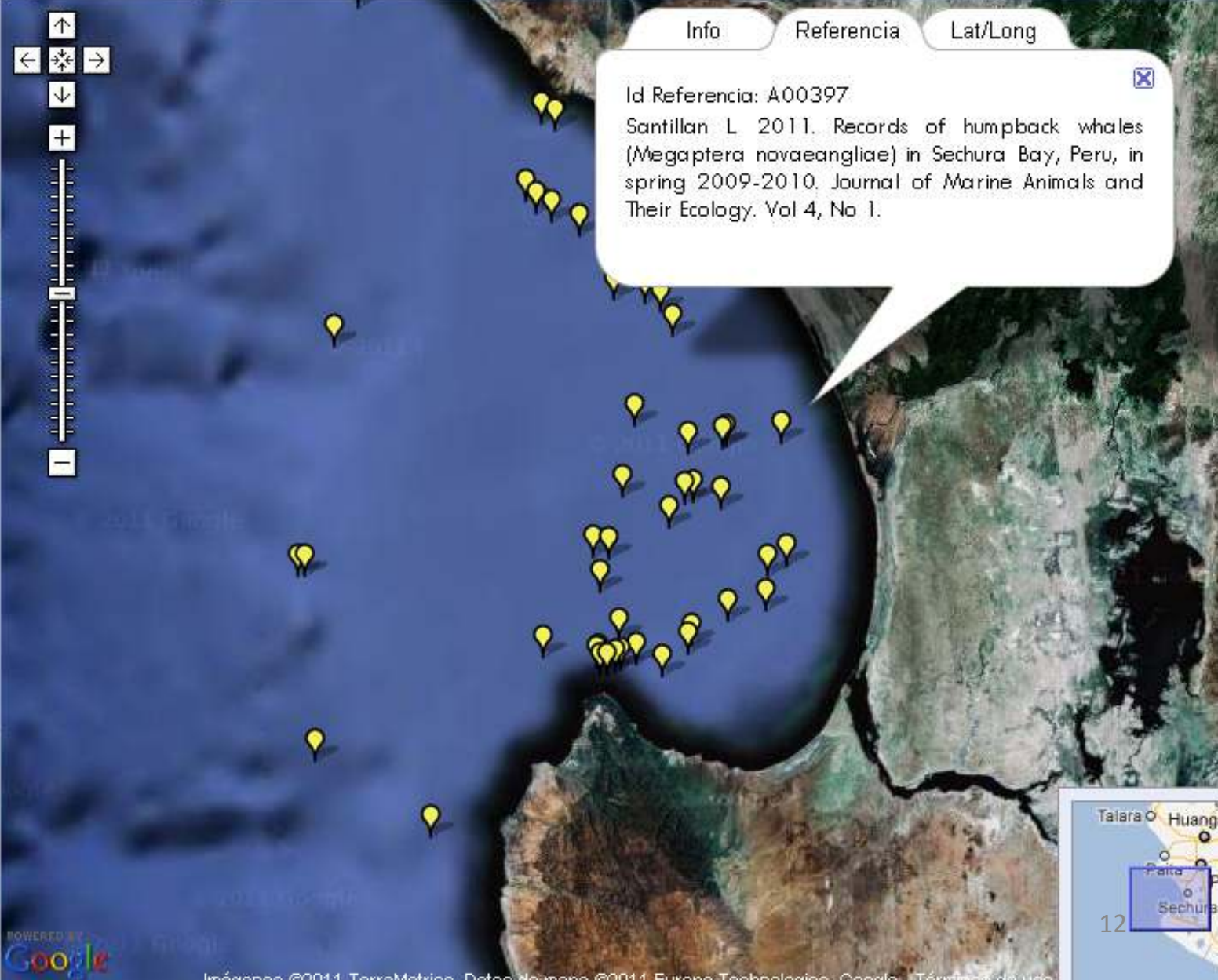
Avistamientos: 167



Información Cetáceo Ubicación de avistamientos y varamientos

Varamientos Avistamientos

Mapa Satélite Reli



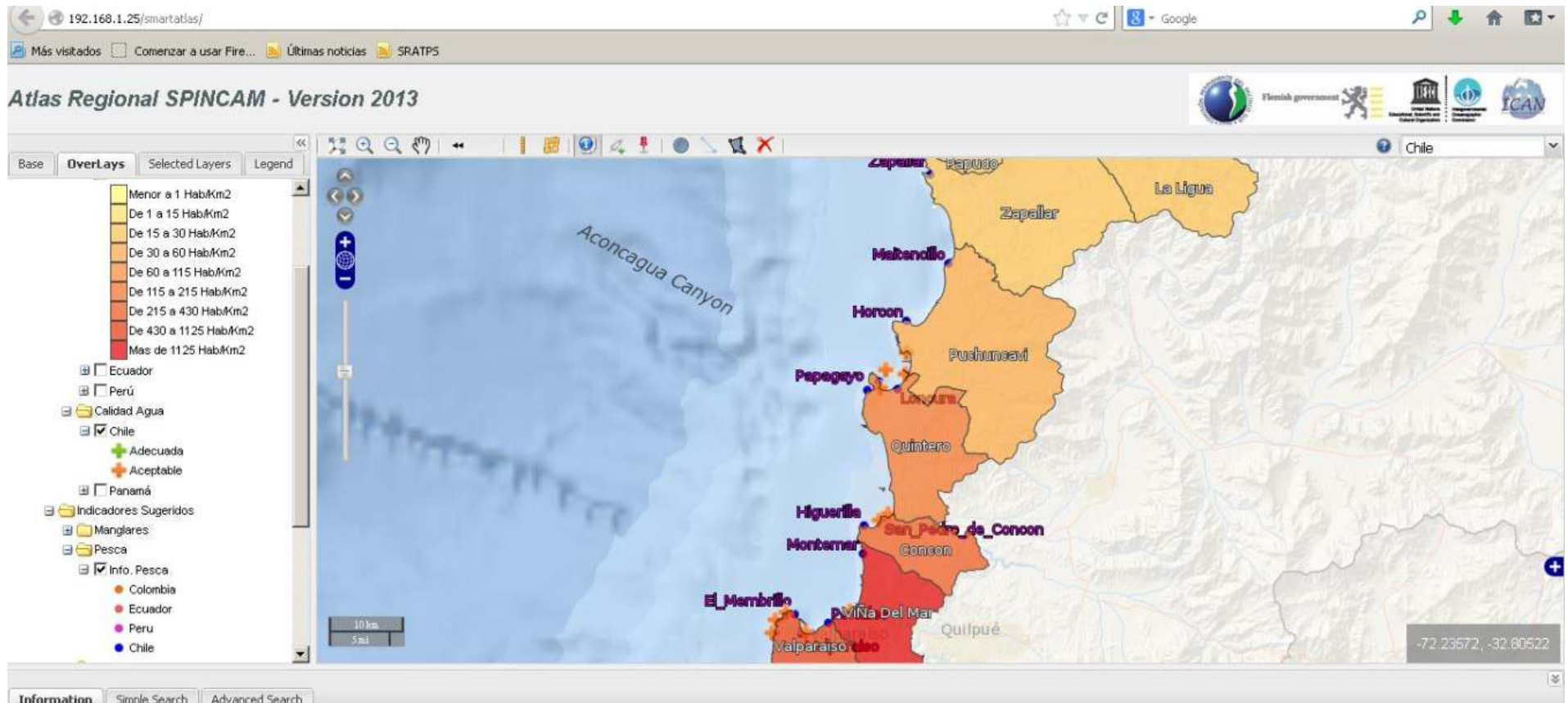
Info Referencia Lat/Long

Id Referencia: A00397

Santillan L 2011. Records of humpback whales (*Megaptera novaeangliae*) in Sechura Bay, Peru, in spring 2009-2010. *Journal of Marine Animals and Their Ecology*. Vol 4, No 1.



Migration to Smartatlas



New data layers (i)

Atlas Regional SPINCAM - Version 2013

Chile

Puerto (1)

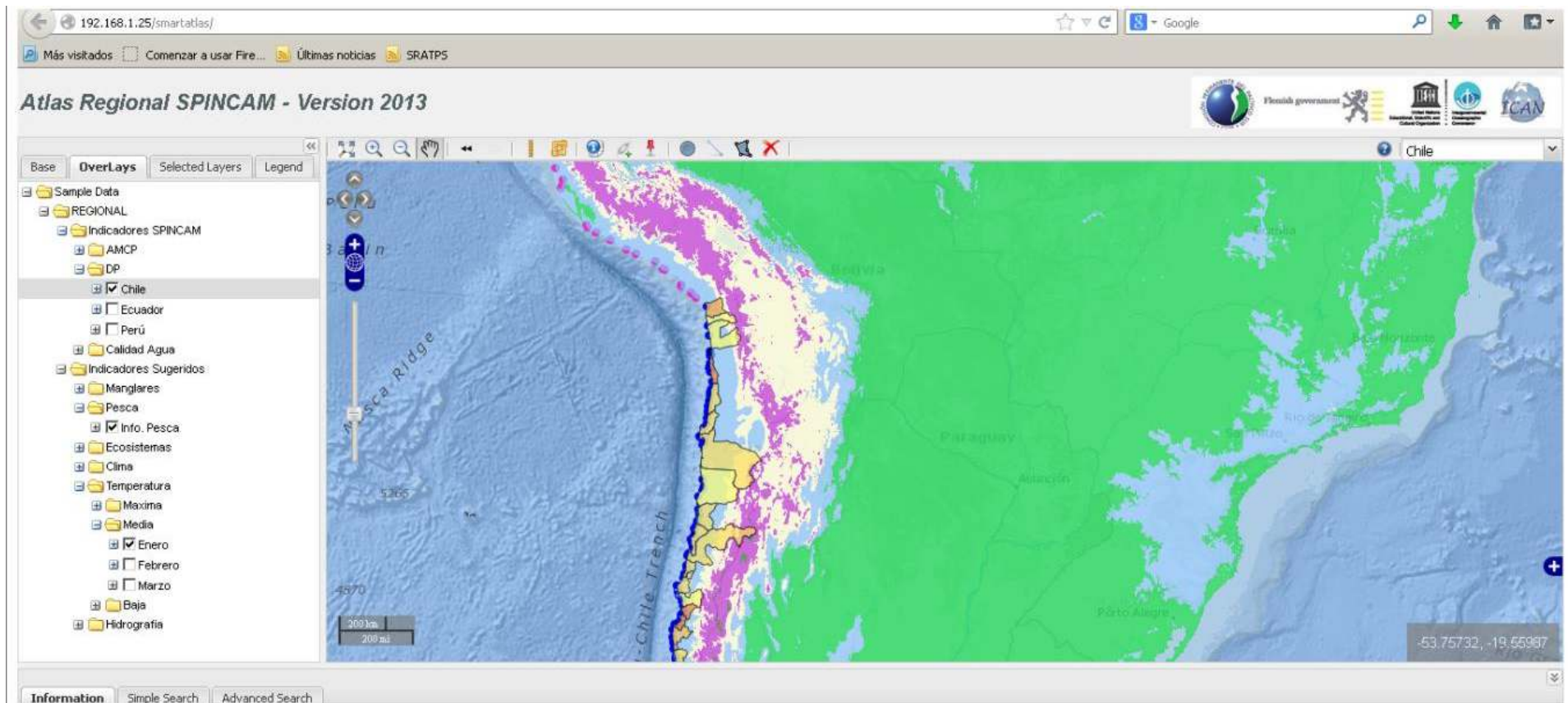
Nombre:	Zapallar
	Chile
	anal

Calidad de Agua (1)

Cuerpo de Agua:	VALPARAISO
Calificación:	Aceptable
Fosfato:	75.000000
HAP:	0.100000
Nitrato:	3454.285714
Oxigeno:	7.760000
Solidos:	41.000000

Information Simple Search Advanced Search

New data layers (ii)



Second Phase (2013-2016)

Objective:

To support the development of decision-making tools and implementation of **ICAM** through improved data and information management capacity, knowledge, communication and networking at national and regional level.



Work Packages

- WP1 Project Management
- WP2 Atlas and technology assessment
- WP3 Stakeholder engagement
- WP4 Data & Information management
- WP5 System design & development
- WP6 Capacity development
- WP7 Communication and outreach

Project Management

Atlas & Technology
Assessment

Stakeholder Engagement

Capacity Development

Data & Info
Management

System
Design &
Development

Communication
& Outreach

Courses and workshops (2013)

- IX University Expert Course on Geographic Information Systems . Palos de la Frontera, Huelva, Spain (22 April-28 June 2013)
- Course to establish the South Pacific Ocean Data Portal Network. Buenos Aires, Argentina, October 2013 (CPPS/COI-UNESCO/IODE/ODINCARSA)
- Workshop on indicators, data management and visualization options. Santa Marta, Colombia 2-4 December 2013 (experts from ICAN, CMA, CLME)
- SPINCAM II Steering Committee Meeting Reunión del Comité Directivo SPINCAM II, Santa Marta, Colombia 4 December 2013



New regional indicators (i)

- **Socio-economic (led by PA)**
 - Number of inhabitants with employment and number of inhabitants unemployed by economic activity and coastal districts.
 - Public and private investment in infrastructure by coastal district in US \$/year
 - Gini coefficient by country and year



New regional indicators (ii)

- Key costal-marine ecosystems

ECOSYSTEM	Colombia	Chile	Ecuador	Panama	Peru
Mangroves	x		x	x	x
Coral reefs	x		x	x	
Coastal lagoons	x	X		x	x
Sandy beaches	x	x	x	x	x
Estuaries	x	x	x	x	x
Islands	x	x	x	x	x
Clifts	x	x	x	x	x
RAMSAR wetlands		x	x	x	x
Macroalgae meadows		x			x

New regional indicators (iii)

- **Coastal Vulnerability**
 - Population affected by coastal extreme events
 - Effects of climate change: El Niño / La Niña
 - Coastal erosion



New regional indicators (iv)

- **Total floating population in coastal tourist sites**
 - Total number of tourist overnight in hotels and lodges, second home, family or friends, per day.
- **Net migration rate in coastal cities**
 - Number of people who have moved to coastal cities in the last 5 years



New regional indicators (v)

- **Coastal infrastructures**
 - mariculture (ha)
 - port facilities (ha)
 - maritime-fishing facilities (ha)



New regional indicators (vi)

- **Sustainability of traditional fishing**
 - Number of artisanal fishermen by port
 - Effort: length (m) of artisanal vessels by port
 - Total landings by port
 - Types of gear by artisanal fishing port
 - Catch composition: proportion of the 5 species for direct human consumption by port
 - Number of endangered species in the catch



Challenges

- Place institutional arrangements at national level
- Mainstreaming SPINCAM within planning and budget of national institutions
- Administrative arrangements for money reception
- Agree on standards for data and formats
- Indicators respond to national/regional needs for decision making
- Appropriated messages at different levels of decision making
- Indicators updated in the long term

Synergies with CMA and CLME+ (i)

- Our lessons learnt on:
 - Definition of data standards
 - Establishment of a regional spatial data infrastructure
 - Definition and implementation of national and regional indicators
 - Main problems found training the wrong technicians

Synergies with CMA and CLME+ (ii)

- Our common challenges:
 - Involvement of SPINCAM countries (CO & PA) in CMA2
 - Join efforts to provide training in Spanish in those topics of common interest
 - Linking our atlases and exchange of good practices at national and regional level to support coastal and marine management and planning in the context of the CLME.



Proyecto SPINCAM

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Government of Flanders



Red de Información y Datos del Pacífico Sur en apoyo a la Gestión Integrada de Áreas Costeras

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NETWORK

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Caribbean Marine Atlas

Atlas Costero y Marino de África
African Coastal and Marine Atlas

IBERMAR – Red Iberoamericana de Gestión Costera

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Other coastal and marine projects

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www.spincamnet.net



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Thank you