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Mediterranean Action Plan
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1. Introduction

Historically, tagging marine turtles has proved to be a valuable source of information on various aspects of marine turtle biology, including, reproductive biology, growth, population sizes and migrations. It is a valuable tool that can provide information on which to base policies and strategies for turtle conservation and for a variety of research purposes.

Tagging has been used in different Mediterranean countries and projects for many years. Though it has yielded a wealth of information, where well planned, it should not be viewed as conservation as tagging does not save turtles by itself. It is therefore not a substitute for conservation actions, be they on the nesting beaches or at sea. If badly done it poses threats to turtles; tagging can disrupt nesting and it can create new threats to the animals, such as making them more vulnerable to being entangled in stationary nets (trammel and gill nets). If aimlessly done it can divert attention and precious effort from other, perhaps more significant actions. The aims of any tagging programme and the methods used, therefore, need to be carefully analysed and assessed in the first place, before going down to the beaches and embarking on tagging turtles. A follow-up is also needed – especially on nesting beaches.

The progress made through genetics work is, moreover, now answering many of the questions that tagging was trying to answer. Tagging is nonetheless a very valuable tool if properly used.

2. Background information on tagging and tagging techniques

There is a wealth of information available on tagging techniques. Nonetheless, in spite of the fact that historically speaking, tagging has been perhaps the main tool that has helped in the understanding of sea turtles, there are shortcomings in all the methods/techniques used so far. The merits and shortcomings of each, therefore, need to be assessed in relation, in particular, with the aims of a programme. This assessment needs to take into consideration not only the effectiveness of a tagging technique but also the risks tags and tagging pose to the animals. Tagging for no defined reason should be avoided.

Considerations, such as cost, simplicity in use and the length of time the tag is expected to stay on the turtle, often influences the choice of system used.

Different techniques have been used by different researchers and programmes, though in most cases plastic (or sometimes metal) flipper tags are used. Other methods, such as internal tagging (Passive Integrated Transponder tags - PIT) or satellite telemetry, are used by some programmes. An increasing number of PIT tags are now being used. Satellite tracking of turtles, however useful, is not considered here, for a variety of reasons, the main ones being the cost and the small and specific use of this method.

Even though some of these alternative systems have given excellent results in specific research programmes, none of them have succeeded in equaling

cattle ear tags in simplicity, cheapness, endurance and ease of use in the field. They can moreover be read by fishermen at sea. The use of a combination of tags, such as flipper and PIT tags, used at the same time, may solve some of the problems of tag losses.

3. Information exchange - The International Scene

International collaboration in tagging techniques, as well as information exchange between researchers, can enhance the effectiveness of any tagging programme. Much progress has been achieved in the last few years. Regional initiatives need to take into consideration such progress, so as to take advantage of it and to avoid duplication.

Special mention is made here of the SEATURTLE.ORG Tag Finder website (<http://www.seaturtle.org/tagfinder/index.shtml>). This website has a searchable database for finding information on any tag that has been submitted for inclusion in the "Sea Turtle Tag Database". The database includes tag numbers, tag type, ocean basin in which tags were applied, species of the tagged turtle, and contact information for the organization that applied the tag. In it very valuable information on tagging techniques can also be found. The ACCSTR Sea Turtle Tag Inventory, also maintains an archive of tag series that have been used by various organizations and is useful for preventing duplication of tag series between organizations.

4. The Regional Perspective – aims and needs

In view of the wide use and usefulness of tagging and the multiplicity of programmes in the Mediterranean it was deemed useful to review the situation and come up with proposals and recommendations that will enhance the usefulness of tagging in the region. At the same time pitfalls can be avoided if appropriate guidelines and recommendations are given.

Collecting information on the regional basis on national (or project) level on tagging programmes is now needed. This is needed to assess the actual situation, i.e. to take stock of who is doing what, where and how in the Mediterranean.

In some countries in the region permits are needed for any research (including tagging of turtles) on endangered species. There is a need for collecting information on the existing legislation within the region that may be applicable to tagging sea turtles.

The Working Group met prior the Second Mediterranean Turtle Conference (2 May 2005) and discussed the followings:

- the collection of information on ongoing tagging programmes and methods used in the Mediterranean.
- the aims of tagging and the merits and drawbacks of the various tagging methods (plastic/metal flipper tags, PIT and other tags, location of tags, etc)

- the centralisation/exchange of information (Directory of Tagging Groups, Inventories of tags used etc.)
- Come up with recommendations on the above

The outcome and recommendations of the working group meeting were presented to the Tagging Standardisation Workshop during the 2nd Mediterranean Turtle Conference for discussion.

General recommendations and guidelines to minimize disturbance/damage to turtles by tagging were drawn up

5. Recommendations

General Recommendations

- There is a need to stress to all prospective tagging projects that tagging is not a conservation measure and that it is not an alternative to conservation. All it can do, at best, is help get information on which to base conservation policy and actions
- There is a need for training courses in planning and undertaking tagging projects and/or support in training in the field (with the provision of experts), particularly for new projects
- There is a need for awareness programmes addressed to fishermen and other stakeholders in order to improve the efficiency of the tagging programmes (practical materials, reward, etc...)
- Organizations and individuals that have applied tags to sea turtles are encouraged to submit a list of tags so that they can be added to the SEATURTLE.ORG Tag finder database. They are also encouraged to use the ACCSTR Sea Turtle Tag Inventory to avoid duplication of tag series

Recommendations to the Contracting parties

1. Encourage enforcement, at national level, of permitting legislation for tagging. This is to ascertain that aimless tagging does not take place and that tagging teams/persons or organizations have well thought out plans and aims and adequate training for what they are intending to do
2. Tagging should be coordinated at national level by a qualified body/person and also, if appropriate, at a local level. Tags used should carry the return address of the project or the coordinating body at national level.
3. Follow the basic guidelines drafted by the RAC/SPA Working Group on Tagging on minimizing damage/disturbance to turtles by tagging, as follows:

Metal tags

- Do not use Style 1005-49 metal tags (National Band and Tag Company (NBTC) USA)
- Use size 681C - for turtles over 30 cm CCL

Plastic tags

- Do not use Jumbo tags (Dalton supplies Ltd, UK) for turtles smaller than 50cm CCL
- Do not use Rototags (or any other tags) for turtles smaller than 30 cm CCL
- Do not use tags in juvenile turtles in such a way as to constrict the growth of the flipper

Pit tags

- Do not use PIT tags (Passive Integrated Transponder) in turtles smaller than 30 cm CCL
- Use PIT tags under the scales or between the digits, in the muscle, on the front left flipper.

General

- Do not use tagging methods proven to be unsatisfactory
- Do not tag a turtle on her way up the beach or during egg-laying. Tag after the egg chamber is covered or if the turtle is on her way back to the sea.
- Do not turn turtles over for tagging

Recommendations to RAC/SPA

- A Regional Inventory of Tagging Projects is needed and is in fact a priority issue. This should be updated as new information becomes available and should be available on line. (The questionnaire drafted by the RAC/SPA working group to be sent to all Contracting Parties and projects known).
- Advice and guidelines to be given through RAC/SPA and its website www.rac-spa.org, on tagging issues, providing links to key websites such as www.seaturtle.org and its Tag Finder site, as well as to the ACCSTR Sea Turtle Tag Inventory www.accstr.ufl.edu, encouraging visitors to register their tag series in this database. Duplication of effort will this way be avoided
- The basic guidelines and recommendations of the WG on Tagging to be integrated in Manual on Marine Turtle Tagging in the Mediterranean

It is recommended that RACSPA on the basis of the outcome of the meeting of the Working Group on Tagging Standardisation and the discussions in the relevant Workshop during the Second Mediterranean Turtle Conference also undertakes appropriate tasks, such as:

- supporting the purchase of appropriate tagging material (tags, applicator, etc),
- generating or supporting the generation of awareness materials,
- provide support to appropriate developing tagging programmes (tagging projects that have been authorised with working teams qualified for such work (projects with adequate planning, training etc).
- Provide training to tagging team/s in each country by RACSPA partner.