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MEDITERRANEAN ACTION PLAN

Eighth Meeting of Focal Points for SPAs

Palermo, Italy, 6-9 June 2007

Draft Action Plan for the conservation

# of Mediterranean marine turtles

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## TABLE OF CONTENTS

I. INTRODUCTION	. 1
II. OBJECTIVES	. 2
III. PRIORITIES	. 3
<ul> <li>III.1. PROTECTION AND MANAGEMENT OF THE SPECIES AND THEIR HABITATS:</li> <li>III.2. RESEARCH AND MONITORING:</li> <li>III.3. PUBLIC AWARENESS AND EDUCATION:</li> <li>III.4. CAPACITY BUILDING/TRAINING</li> <li>III.5. COORDINATION:</li> </ul>	. 3 . 3 . 3
IV. IMPLEMENTATION MEASURES	. 4
<ul> <li>IV.1. PROTECTION AND MANAGEMENT</li></ul>	4455556667788
V. ANNEX I - IMPLEMENTATION TIMETABLE	. 9
VI. ANNEXE II - RECOMMENDATIONS AND GUIDELINES ON TAGGING IN THE MEDITERRANEAN	11
VI.1. GENERAL RECOMMENDATIONS:	11

#### I. INTRODUCTION

1. The Parties to the Barcelona Convention included among their priority targets for the period 1985-1995 the protection of Mediterranean marine turtles (Genoa Declaration, September 1985). To this purpose and as a response to growing international concern about the status of Mediterranean marine turtles, which encounter various threats, including mortality in fishing gear and loss of vital habitats on land (nesting beaches), they adopted in 1989 the Action Plan for the Conservation of Mediterranean Marine Turtles. In 1996, the Parties confirmed their commitment to the conservation of marine turtles by including the 5 species of marine turtle recorded for the Mediterranean in the List of Endangered and Threatened Species annexed to the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean (Barcelona, 1995). The Protocol calls on the Parties to continue to cooperate in implementing the Action Plans already adopted.

2. The Action Plan for the Conservation of Marine Turtles was revised in 1998-1999 and the revised Action Plan was adopted at the 11th Meeting of the Contracting Parties to the Barcelona Convention in Malta in October 1999. Following the request of the Contracting Parties to the Barcelona Convention (Portoroz, 2005), RAC/SPA has prepared the present update of the Action Plan for the Conservation of Marine Turtles in the Mediterranean.

3. Two species of turtle nest in the Mediterranean, the Loggerhead turtle (*Caretta caretta*) and the Green turtle (*Chelonia mydas*). The Leatherback turtle (*Dermochelys coriacea*) is recorded fairly regularly in this sea, while the other two species (*Eretmochelys imbricata, Lepidochelys kempii*) are very rarely encountered. Loggerhead turtles also enter the Mediterranean from the Atlantic as juveniles in their oceanic stage and return to the Atlantic.

4. Marine turtles are reptiles and reptiles evolved on land. Though they have adapted well to living in the sea, their ties to their ancestors, leads them back to land to lay their eggs and reproduce. The intensive exploitation of turtles during much of last century has led to a virtual collapse of the turtle populations in the Mediterranean. Relatively new threats such as incidental catches and mortality in fishing gear and loss of nesting habitats face the remaining populations. The conservation of turtles as a result of their biology, therefore, needs to address threats and issues both on land and in the sea. Marine turtles are long living reptiles and the recovery of populations is therefore a long process. Their reproduction on land does not only pose threats. It also provides opportunities, in a practical way, to help the species recover by reducing, for example, predation. Good knowledge of their biology and needs is essential if this opportunity is to be used properly. Turtles do not nest every year and significant fluctuations from year to year in nesting activity are common, especially in green turtles. As a consequence long term data are needed in studying populations and in drawing conclusions.

5. The wider issues of biodiversity conservation need to be taken into consideration in conserving any species, such as sea turtles. Threatened species are components of an ecosystem and the interdependence of the implementation of the various RAC/SPA Action Plans for endangered species and biodiversity conservation is stressed here.

6. There is clear evidence of important negative impact on the populations of Mediterranean marine turtles by human activities. The most serious current threats/effects to turtles are:

- deterioration of the critical habitats for the life cycle of marine turtles, such as nesting, feeding and wintering areas, and key migration passages
- direct impacts on turtle populations, of incidental capture in fisheries, intentional killing, consumption, eggs exploitation and boat strikes

• pollution, which can have impact on both habitats and species

7. Knowledge of the genetic stocks, status, biology and behaviour of marine turtles is increasing rapidly in the Mediterranean and though gaps still exist, sufficient information is available for conservation purposes. This information has been used in updating and improving the provisions of the present MAP Action Plan for the Conservation of the Mediterranean Marine Turtles<sup>1</sup>. Sufficient information is also available in most cases to draw up national Action plans for the conservation of marine turtles.

8. Information from various sources has been taken into account in this Action Plan. Effective protection and management of nesting areas, practical measures to reduce turtle by-catches, as well as the management of feeding grounds, based on scientific information, are some of the key elements that can help to ensure the survival and the recovery of populations of marine turtles. These elements have been paid due attention. Scientific information on population dynamics, tagging, biology, physiology, public awareness and etc... campaigns and capacity building have also been given due attention in this plan.

9. The effective and sustainable protection of the Mediterranean marine turtles implies management of the Mediterranean as a whole, taking into account the ecosystem approach, and should take advantage of the action of all the concerned stakeholders and be carried out in cooperation with organisations, programmes and plans, at the supranational and national level such as the Mediterranean Action Plan (MAP); Fisheries Management Plans (FAO/GFCM); the Marine Turtle Specialist Group (IUCN/SSC); International Commission for the Conservation of Atlantic Tunas (ICCAT); International Commission for the Scientific Exploration of the Mediterranean Sea (ICSEM); relevant NGOs, Research institutions, Universities etc.

10. This Action Plan outlines objectives, priorities, and implementation measures in different fields as well as their coordination. The different components of the Action Plan are mutually reinforcing and may act synergistically.

11. The progress in implementing the Action Plan will be reviewed at each meeting of the National Focal Points for SPAs, on the basis of national reports and of reports by RAC/SPA on the regional aspects of the Action Plan. The Action Plan will be assessed and revised and updated as necessary, every five years, unless the SPA Focal Point Meetings deem otherwise.

#### II. OBJECTIVES

12. The objective of this Action Plan is the recovery of the populations of *Caretta caretta* and *Chelonia mydas* in the Mediterranean (with priority accorded to *Chelonia mydas*, wherever appropriate) through:

- Appropriate protection, conservation and management of marine turtle habitats, including nesting, feeding and wintering areas and key migration passages.
- Improvement of the scientific knowledge by research and monitoring.

<sup>&</sup>lt;sup>1</sup> As understanding the status of sea turtles is fundamental to their conservation, the present Action Plan take into account the Marine turtle specialist group status assessment of the three concerned species in the Mediterranean Sea. For the *Dermochelys coriacea* it could be found at : <u>http://www.iucn-mtsg.org/red\_list/cm/MTSG\_Chelonia\_mydas\_Assessment\_April-2004.pdf</u>.

For Chelonia mydas and Caretta caretta, a draft assessment should be ready by the end of May 2007.

#### **III. PRIORITIES**

13. Acknowledging the progress achieved over the past years and the proliferation of projects, activities and actions in many countries in the region it is considered an overarching priority action to continue and enhance such ongoing projects and activities related to marine turtle conservation, research and monitoring. The following priorities have been identified for each component of this Action Plan:

#### **III.1.** Protection and management of the species and their habitats:

- Development, implementation and enforcement of legislation;
- Protection and effective management of nesting areas (include adjacent sea);
- Protection and management of feeding, wintering and mating areas and key migration passages;
- Minimization of incidental catches and elimination of intentional killings.
- Restoration of degraded nesting beaches

#### III.2. Research and monitoring:

Knowledge needs to be improved in the following topics:

- Identification of mating, feeding and wintering areas and key migration passages;
- Identification of new nesting areas;
- Biology of the species, in particular aspects related to life cycles, population dynamics and population trends and genetics;
- Assessment of fisheries interactions and associated mortalities, including modification of fishing gear and related socioeconomic issues;
- Assessment and improvement of nesting beach management techniques;
- Data collection through stranding networks;
- Assessment of population trends through long term monitoring programmes on both on nesting beaches and at sea.
- Impact of climate change.

#### III.3. Public awareness and education:

For the implementation of this action plan, public support is needed. Information and education campaigns on relevant turtle conservation issues should target groups such as:

- Local residents and visitors to nesting areas;
- Fishermen and other stakeholders;
- Tourists and tourism-related organizations;
- Schoolchildren and teachers;
- Decision makers at national, regional and local levels.
- Appropriate training/education of stakeholders can be given (e.g., to fishermen and tourism workers)

#### III.4. Capacity building/Training

Training of managers and other staff of protected areas in conservation and management techniques and of scientists, researchers and other staff in conservation, research and monitoring in the priority issues covered by the Action Plan

#### III.5. Coordination:

Promote and enhance cooperation and coordination among the Contracting Parties, as well as cooperation and networking among the relevant organisations and experts in the region. Priority should be given to the regular assessment of the progress in the implementation of this Action Plan.

#### IV. IMPLEMENTATION MEASURES

14. The implementation of the measures recommended in this Action Plan will only be possible with the appropriate support by the Parties and by competent international organizations, particularly as regards the provision of adequate financial support, through national and regional funding programmes and through support for applications to donors for projects. Much progress has been achieved over the past years, with the proliferation of projects, programmes, activities and actions in many countries around the Mediterranean. The implementation of such ongoing activities related to marine turtle conservation, research and monitoring is expected to benefit from the provisions of this Action Plan.

#### **IV.1. Protection and Management**

15. With regard to protection and management, the following measures are recommended:

#### a Legislation

16. The Contracting Parties that have not yet extended legal protection to marine turtles should do so as soon as possible,

17. Each Contracting Party should develop and implement the necessary legislation for the protection, conservation and/or management of areas important for marine turtles, such as nesting (including adjacent sea), feeding, wintering and mating areas and key migration passages as soon as possible.

18. In pursuing the above the Contracting Parties should take into account the provisions of the relevant international conventions and supranational legislation as well as the RAC/SPA "Guidelines to Design Legislation and Regulations Relative to the Conservation and Management of Marine Turtles Populations and their Habitats"

#### b Protection and Management of Habitats

19. Integrated management plans should be elaborated and implemented for terrestrial and marine areas critical for nesting, feeding, wintering and mating, as well as key migration passages.

20. Measures and management rules aimed at protecting critical habitats, on land and at sea, should be developed and implemented. In the case of nesting areas, such measures should cover issues such as public access, use of vehicles and horse riding, use of artificial lights, nautical activities, minimization of predation, inundation, disturbance during nesting, disturbance in adjacent waters etc. In the case of marine areas such measures should address boat traffic and fishing.

Training of the staff involved in protection and management activities is a prerequisite to good management.

21. Restoration to natural conditions of degraded nesting beaches.

#### c Minimisation of Incidental Catches and Elimination of Intentional Killings

- 22. A reduction of incidental catches and mortality can be achieved by:
  - Applying appropriate regulations concerning fishing depth, season, gear, etc... especially in areas with a high concentration of turtles;
  - The modification of fishing gear, methods and strategies proven to be effective, and as appropriate, their introduction in fisheries legislation and fishing practices
  - Education/training of fishermen to correctly haul, handle, release and record incidentally caught turtles. Use of appropriate methods are described inter alia in the RAC/SPA publication "sea turtle handling guidebook for fishermen"
- 23. Deliberate killing and exploitation of marine turtles can be eliminated by:
  - Applying and enforcing appropriate legislation;
  - carrying out campaigns among fishermen in order to urge them to release marine turtles caught incidentally and to participate in the information networks on turtles (report sightings of turtles, of tags, participation in tagging programmes, etc.);
  - Carrying out campaigns for fishermen and local populations to facilitate the implementation of legislation to ban the exploitation/consumption and trade/use of all products derived from marine turtles.
  - The above will help also in reducing mutilations and killing of turtles due to ignorance and/or prejudice.

#### d Other Measures to Minimise Mortality

24. The setting up and proper operation of Rescue Centres and First Aid Stations is suggested as an additional means to minimise individual turtle mortality. Rescue Centres may also play an important role for the conservation of the populations by contributing to activities such as awareness, education, and data collection. The use of the RAC/SPA "Guidelines to Improve the Involvement of Marine Rescue Centres for Marine Turtles" is recommended. Training of the staff involved is necessary. In addition, a Mediterranean-wide rescue-network should be set-up, to assist the exchange of knowledge and experience among those who work with turtles in difficulties. The network should include already existing rescue centres and promote the establishment of new rescue centres in countries, which are currently lacking adequate structures.

#### **IV.2. Scientific Research and Monitoring**

25. The development of research and monitoring programmes and the exchange of information, should focus on the priority fields for the conservation of marine turtle populations, by using various methods, such as beach surveys and monitoring of nesting beaches, especially long term monitoring, tagging (keeping in mind the provisions of the RAC/SPA tagging guidelines), data logging, satellite telemetry, Geographic Information Systems (GIS), genetics, on-board observers and modelling.

#### a Scientific Research

For research these should cover inter alia the following (not in order of priority):

- Identification of mating, feeding and wintering areas and key migration passages;
- Identification of new nesting areas;
- Biology of the species, in particular aspects related to life cycles, population dynamics and population trends and genetics;
- The assessment of turtle by-catch and respective mortality rates from different fishing gear, including small scale and artisanal fisheries;
- Data on the effects of gear modifications (new hooks etc) and fishing strategies should be collected to evaluate the effects of these on turtle mortality and catch rates as well as the effects on other species;

- The socioeconomic effects of the implementation of turtle conservation measures that can impact fisheries need to be evaluated;
- Development of management techniques for nesting beaches and foraging areas;
- Impact of climate change on marine turtles;

#### b Monitoring

For monitoring, programmes should cover inter alia the following (not in order of priority):

- Encourage long term monitoring programmes for important nesting beaches. All Contracting Parties that have nesting beaches should encourage the uninterrupted and standardized monitoring of their nesting beaches. Where such programmes do not exist the Parties should set up such programmes or encourage them. Surveys of nesting beaches of lesser importance and of scattered nesting need also to be undertaken occasionally if possible, so that a more complete picture of populations can be formed.
- Encourage long term monitoring programmes for important foraging areas. All Contracting Parties that have foraging areas should encourage their uninterrupted monitoring. Where such programmes do not exist the Parties should encourage or help establish such programmes.
- For monitoring of populations a standardised collection of data on nesting beaches should be aimed at. This should be supplemented by onboard observation programmes to gather precise data on species biology and fisheries induced mortality;
- Data collection through existing or new stranding networks;

26. For some Contracting Parties there is still little information on turtle nesting beaches and size of breeding populations. These Parties should undertake urgently more comprehensive surveys and encourage the setting up of long term monitoring programmes.

#### IV.3. Public Awareness And Education

27. Public-awareness programmes, including appropriate multiple information tools (special documentary information material, electronic media etc), should be developed for fishermen, local residents, tourists and tourism-related organizations, to help reduce the mortality rates of marine turtles, to induce respect for nesting, feeding and wintering and mating areas, and to promote the reporting of any useful information concerning sea turtles. Appropriate training/education of stakeholders can be given (e.g., fishermen, tourism workers)

28. Information campaigns directed at local authorities, residents, teachers, visitors, fishermen, decision makers at local, regional and national levels and other stakeholders, are urgently needed in order to enlist their participation in the efforts for the conservation of marine turtles and for their support for conservation measures.

#### IV.4. Capacity Building/Training

29. Existing training programmes should be continued, particularly for those Parties that need more expertise and/or experts with specialized knowledge of marine turtles, and for managers and other staff of protected areas, in the conservation and management techniques needed (these include inter alia beach management, tagging and monitoring). Also training programmes in the setting up and operation of Rescue Centres should be continued. Training programmes to be elaborated for other fields, as needed especially where fisheries managers are concerned.

#### IV.5. National Action Plan

30. Contracting Parties should establish national Action Plan for the conservation of marine turtles in the Mediterranean.

31. National action Plan should address the current factors causing loss or decline of the turtle population and their habitats, suggest appropriate subject for legislation, give priority to the protection and management of coastal and marine areas and ensure continued research and monitoring of populations and habitats.

#### **IV.6. Regional Coordination Structure**

32. It is necessary to develop cooperation and exchange of information among the Contracting Parties for the implementation of the Action Plan and to improve the coordination of activities within the region.

33. RAC/SPA is considered to be the most appropriate existing mechanism for this coordination. The implementation of the Action Plan may be carried out, in cooperation with other bodies concerned, through establishing MoUs, as necessary.

34. The major function of the coordinating mechanism with regard to marine turtles would be to:

- Assess the progress achieved in implementing this Action Plan. RAC/SPA will request at regular intervals, not exceeding two years, update reports from the Parties and on the basis of these ongoing national reports and of its own assessment of the progress in the regional component of this Action Plan, prepare reports to be submitted to the SPA National Focal Point meetings, which will make follow-up suggestions to the Contracting Parties.
- Collect and evaluate the data at Mediterranean level;
- Prepare inventories of existing and potential networks of protected areas for marine turtles;
- Contribute to the setting up of a Mediterranean network of protected areas for marine turtles covering known areas for reproduction, feeding, wintering and key migratory passages of marine turtles.
- Prepare a timetable of activities and financing proposals for the Contracting Parties' meetings;
- Contribute to the dissemination and exchange of information;
- Assist and/or organize expert meetings on specific topics regarding marine turtles
- Continue and support the organisation of the Mediterranean conference
- Assist and/or organise, training courses and support and catalyse the participation of appropriate scientists and other staff in such courses including NGOs.

35. Complementary work carried out by other international bodies and NGOs aiming at the same objectives should be encouraged, promoting coordination and preventing possible overlapping.

36. Coordinate the activities needed for the revision/updating of this Action Plan every six years, or earlier, if this is deemed necessary by the SPA National Focal Point meetings, or on the basis of important new information becoming available.

37. An inventory of marine turtle critical habitats, including migrations passages, in the Mediterranean should be prepared urgently by RAC/SPA, and should be regularly reviewed

in the light of increased knowledge.

#### IV.7. Participation

38. Any interested international and/or national organisation is invited to participate in actions necessary for the implementation of this Action Plan

39. Links with other bodies responsible for Action Plans dealing with one or more species of marine turtles should be made, to strengthen co-operation and avoid duplication of work.

40. The co-ordination structure shall set up a mechanism for regular dialogue between the participating organisations and where necessary, organise meetings to this effect. Dialogue should be mainly by mail, including email.

#### IV.8. "Action Plan Partners"

41. To encourage and reward contributions to the work of applying the Action Plan, the Contracting Parties may at their ordinary meetings grant the title of "Action Plan Partner" to any organisation (governmental, nongovernmental, economic, etc.) that has to its credit concrete actions likely to help the conservation of marine turtles. Conditions for the awarding of the Partner title shall be adopted by the Contracting Parties following advice given by the meeting of National Focal Points for SPA.

#### V. ANNEX I - IMPLEMENTATION TIMETABLE

ACTION Deadline/period/ By Whom			
ACTION	Deadline/period/	By Whom	
A. PROTECTION AND MANAGEMENT	periodicity		
A.1 Legislation		Dortion	
a. Protection of Turtles – general species protection	As soon as possible	Parties	
b. enforce legislation to eliminate deliberate killing	As soon as possible	Destina	
c. Habitat protection and management (nesting, mating, feeding, wintering and key migration passages)	As soon as possible	Parties	
A.2 Protection and Management of habitats			
a. Elaborate guideline for the management of protected Areas including key habitat	1 year after adoption	RAC/SPA	
b. Setting up and implementing management plans	2 year after adoption	Parties	
d. Restoration of damaged nesting habitats	3 years after adoption	Parties	
A.3 Minimisation of incidental Catches			
a. Fishing regulations (depth, season, gear) in key areas	3 years after adoption	Parties	
b. Modification of gear, methods and strategies	4 years after adoption	RAC/SPA, Partners & Parties	
A.4 Other Measures to Minimise individual Mortality			
a. Setting up and/or improving operation of Rescue Centres	Ongoing	Parties	
<b>B. SCIENTIFIC RESEARCH AND MONITORING</b>			
B.1 Scientific Research			
a. Identification of new mating, feeding and wintering areas and key migration passages;	Ongoing	Parties	
b. elaboration and execution of cooperative research projects of regional importance aimed at assessing the interaction between turtles and fisheries	As soon as possible		
c. Tagging and genetic analysis (as appropriate)	As needed or requested	RAC/SPA and Parties	
d. Facilitate the networking between managed and monitored nesting sites, aiming at the exchange of information and experience	As needed	RAC/SPA	
B.2. Monitoring			
a. Guidelines for long-term monitoring programmes for nesting beaches and Standardisation of monitoring methods	1 years from adoption	Parties	
b. Setting up and/or improving long-term monitoring programmes for nesting beaches, feeding and wintering areas	Ongoing	Parties	

### UNEP(DEC)/MED WG.308/7 page 10

B.2. Monitoring		
c. Elaboration of protocol for data collection on stranding	2 year from adoption	RAC/SPA
d. Setting up stranding networks	3 year	Parties
e. standardization of methodologies to estimate demographic parameters for population dynamics analysis, such as population modelling.	4 years from adoption	RAC/SPA
C. PUBLIC AWARENESS AND EDUCATION		
Public awareness and Information campaigns in particular for fishermen and local populations	As needed	Parties and/or RAC/SPA
D. CAPACITY BUILDING		
Training courses	As needed	RAC/SPA
E. COORDINATION		
a. Assessment of progress in the Implementation of the Action Plan	Every two years	RAC/SPA and Parties
Cooperation in organising the Mediterranean Conferences on marine turtles	Every three year	RAC/SPA
Updating the Action Plan on Marine Turtles	After five years from adoption	RAC/SPA

# VI. ANNEXE II - RECOMMENDATIONS AND GUIDELINES ON TAGGING IN THE MEDITERRANEAN

#### VI.1. General Recommendations:

- It is stressed 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
- 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
- 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 **support** for tagging, with equipment, materials etc for projects that are qualified for such work (having undertaken adequate planning, training etc)
- Tagging equipment should if possible be provided after a request and the tags provided should carry the **return address** of the project or country
- There is a need in the countries for advice and guidelines, given inter alia through RAC/SPA and its website <u>www.rac-spa.org</u>, on tagging issues, providing links to key websites such as <u>www.seaturtle.org</u> and its Tag Finder site, as well as to the ACCSTR Sea Turtle Tag Inventory <u>www.accstr.ufl.edu</u>, encouraging visitors to register their tag series in this database. Duplication of effort will be avoided this way
- Tagging is not to be taken lightly and minimum guidelines are needed to ensure the wellbeing of turtles (basic **Guidelines to minimizing damage/disturbance to turtles by tagging** were drafted by the RAC/SPA WG see below)
- The development of simple practical materials (stickers etc) for **awareness** campaigns for fishermen and other stakeholders (e.g., coastal communities) will be useful.
- 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. (A **questionnaire** was drafted by the working group and was submitted to the participants in the workshop for completion. It available from RAC/SPA for anybody who wishes to be included in the Inventory).

#### VI.2. Guidelines to minimize disturbance/damage to turtles by tagging

#### Metal tags

- Do not use Style 1005-49 metal tags (National Band and Tag Company (NBTC) USA)
- Use size 681C (National Band and Tag Company (NBTC) USA) for turtles over 30 cm CCL (i.e., do not tag turtles smaller than 30cm CCL)
- Do not use tags in juvenile turtles in such a way as to constrict the growth of the flipper

#### **Plastic tags**

- Do not use Jumbo tags (Jumbotag Dalton supplies Ltd, UK) for turtles smaller than 50cm CCL
- Do not use Rototags (Rototag Dalton supplies Ltd, UK) for turtles smaller than 30 cm CCL

#### Pit tags

- Do not use PIT tags (Passive Integrated Transponder tags) in turtles smaller than 30 cm CCL
- If you use PIT tags, then apply them 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

**NOTE:** Though explicit mention is made in the Guidelines above, of specific trade names (Dalton and National Band and Tag Company) the guidelines are applicable to any other similar tags (material, size etc) made by other manufacturers. Specific mention was made of these manufacturers and tags as these are the tags most commonly used for tagging turtles and are hence well known.