

Pressure on the Endangered Mediterranean Marine Turtles is Increasing. The Role of MEDASSET

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The last remaining important nesting beaches of endangered marine turtles in the Mediterranean are threatened with development, tourism, disturbance and pollution. Added to these pressures are accidental or deliberate captures at sea, the flouting of their protection laws and the indifference of Governments in not enforcing them. MEDASSET, a non-governmental organisation, was launched in October 1988. Our aims are to maximise efficiency in Mediterranean marine turtle conservation by updating, pursuing and publicising the conservation priorities including all sound projects on applied research.

Introduction

About ninety million years ago, turtles abandoned the marshes where they lived and went on to conquer the seas. Of the seven species, living today, all over the world, three are commonly found in the Mediterranean: Loggerhead (*Caretta caretta*), Green (*Chelonia mydas*) and Leatherback (*Dermochelys coriacea*) and of those only the two first nest there. All marine turtles are classified globally as threatened species and are protected by most Mediterranean countries. In the past females used to nest on several Mediterranean shores. According to present information there may be some 2,000 female Loggerheads still nesting in the region (Groombridge 89) with Greece, Turkey and Cyprus retaining the largest concentration of nesting females. By world standards nesting populations of both species is not large in the area. The Mediterranean being an enclosed sea, the situation here may be different from other seas. The variety of their pattern of movements, their migratory habits, the distribution and dispersal of different age groups and sexes and different nesting populations, the geographical position of their foraging and wintering grounds, are so far almost entirely unknown and inconclusive (B. Groombridge 89 and I. Baran and Max Kasperek 89). More research in this field is necessary in order to protect the species.

Threats:

A. Impact of tourism on nesting beaches.

Habitat degradation (terrestrial and marine) due to coastal development, mainly for tourism and industry, has been responsible for the total destruction of nesting beaches in several Mediterranean countries and has confined nesting females to a few islands and beaches of the Eastern Mediterranean. The "selling of sun and sand on the cheap" has proven to be destructive beyond repair to marine ecosystems and to the turtles. Destruction seems to continue "as a sort of happy apocalypse." In Greece the island of Zakynthos in the Ionian sea, supports in Laganas Bay by far the largest single nesting colony of *C. caretta* in the Mediterranean. National legislation, international conventions and campaigns, have met with government inactivity. As a result illegal beach front development, including sea walls, noise and light in the evening, vehicles, sun

umbrellas and deck chairs on nesting beaches, propeller powered speed boats and out-of-control tourism, disturb, disorientate, frighten, injure turtles and prevent them from nesting. Hostility from local affected landowners, who are still waiting for promised land compensation, is a major problem. Laganas Bay should be declared a National Park as soon as possible. On the S.E. Mediterranean coast of Turkey in Patara, uncontrolled tourist development is destroying one of the remaining key C. caretta nesting beaches of Turkey, a vast archaeological site of global importance and a strategic wetland ecosystem all before being properly assessed. A seven storey hotel is being built on an archaeological site and permission has been granted for more hotels to be built near the beach. Petitions by local villagers and tourists and pressure exerted by national Turkish and international organizations resulted in compelling the Government to declare Patara a Special Protected Area. (L. Venizelos 89).

B. Incidental catch through fisheries interaction and intentional fishing (harvest and exploitation.)

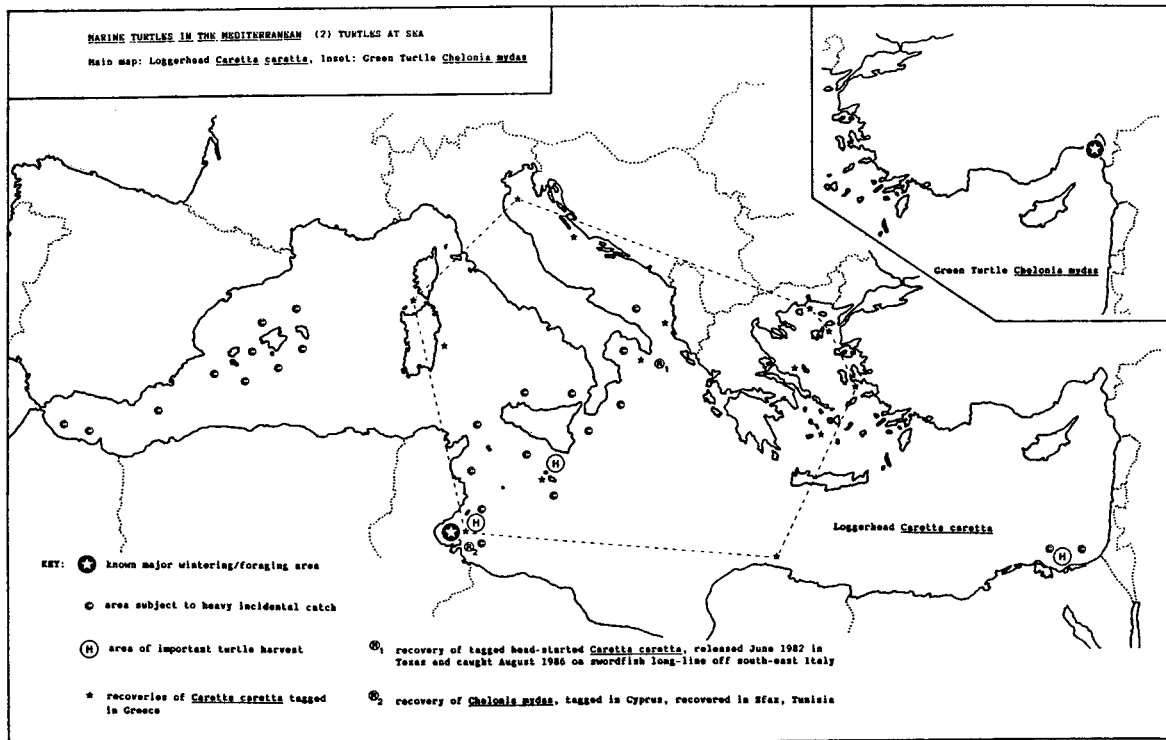
A severe threat to turtle populations in the Mediterranean is incidental catch through fisheries interaction. It is possible that between 50-100 thousand mature and young turtles are being caught each year on long line hooks and in nets destined for shark, swordfish, and tuna fishing, especially around the Balearic islands and the Alboran Sea in Spain, around Malta, and in Sardinian and Sicilian waters in Italy. Turtles are generally released by fishermen. Their survival, with an embedded hook in the mouth or throat, is unknown although mortality is thought to be significant (B. Groombridge 89). Recently powerful Japanese fishing fleets and Italian vessels have been using many miles of drift nets for tuna and swordfish fishing, also longer lines and smaller size hooks are causing even more damage to turtle populations, (not to mention the overfishing of swordfish) (A. Panou & Spyros Moschonas 90). Turtles caught incidentally are sometimes used for carapace preparation or for tourist souvenirs (Malta, Tunisia). In Tunisia very large numbers of C. caretta are harvested for domestic consumption. Israel's over-exploitation from the 1920's to well into the 1960's and sand removal from nesting beaches has reduced nesting to almost nil. In Turkey intensive fishing for international trade purposes in the 1950's and 1960's has resulted in the severe decline of Turkish Chelonia populations (B. Groombridge 89). Deliberate fishing and harvest of turtles should be stopped immediately given the present poor conservation status of Mediterranean populations. It could be that incidental catch has been removing a larger number of turtles than the annual nesting contingent from the total population in the Mediterranean. It is possible that when populations surviving the present nesting contingent end their reproductive activity, the Mediterranean sea turtle will suffer a rapid decline, unless it is being continually restocked, as suspected, with turtles coming through the Straits of Gibraltar from the Atlantic (B. Groombridge 89).

C. Impact of pollution.

Because the Mediterranean is an enclosed sea, it gets rapidly affected by toxic effluents, dumped waste, coastal destruction etc. The critical situation the Mediterranean marine turtle population is in, clearly reflects the variety of factors that play a role in this ecosystem. Mostly young turtles get entangled in broken nets, ropes and pieces of plastic floating in the sea, resulting in a slow death. Plastic floating in the water often resembles organisms on which turtles feed, as for example jelly fish, their preferred food, but it cannot be digested and blocks their intestinal tract. Young turtles fill their stomach with plastic and become so buoyant that they cannot dive for food and starve to death.

Others have been observed contaminated by tar in Maltese waters. A turtle drifting partially immobilized by oil contamination and hundreds of others reported washed up dead on coasts in S. Italy are thought to be affected by pollution (B. Groombridge 89). Oil can also be very dangerous for young turtles because it covers seaweed colonies where they feed. Little is known on the occurrence and effects on turtles of other pollutants.

MEDASSET: the "Mediterranean Association to Save the Sea Turtles". There can now be little doubt that the situation facing these ancient animals in the Mediterranean is grave in the extreme, yet, despite the various research programmes, political debates and paper protection measures of the 1980's, their plight continues to worsen year by year. The sole purpose of MEDASSET is to rationalize and update the conservation requirements for marine turtles in the Mediterranean, and to assess and advise on the considered priorities to all funding and involved bodies. MEDASSET was founded in October 88. Projects achieved in Greece relate to accidental captures by commercial swordfish fleets in the Ionian Sea and a conservation assessment of the S.W. Peloponese coast. Current projects include nesting beach assessment of S.E. Sardinia (Italy) and also covering the reported exploitation of *C. caretta* in this region. Funding for this project has been allocated by the EC. We are continuing at this time our project on accidental captures in the Ionian. MEDASSET has participated to date in ten relevant international meetings and symposia. Our activities include publicity in various media for the general problems; for specific and important cases, national and international pressure to improve conservation situation of Laganas Bay (Greece), an international campaign to "Save Patara" (Turkey) and the issue of a series of conservation stamps by the Greek Post Office that includes the Loggerhead turtle.



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References

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