

MARINE TURTLES IN MALTA: LEGAL FRAMEWORK, CONSERVATION EFFORTS AND STATUS UPDATE

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INTRODUCTION

Five species of marine turtles are recorded in the Maltese Islands. The Loggerhead Turtle is the most common; with the Green Turtle and the Leatherback turtle being relatively rare. Hawksbill and the Kemp's Ridley are also recorded. The negative impacts of man's activities were more pronounced in the past, mainly because of lack of public awareness, with accidental and sometimes even intentional capture through fisheries, being the chief threat in Maltese waters. Through the recent adherence to a number of regional and international conventions, the publication of local regulations, and public awareness campaigns, marine turtles are nowadays facing a much better future in Maltese waters. Tagging of these turtles as well as data gathered from stranding or accidental capture is also accruing our knowledge on these reptiles. The additional rehabilitation measures available today, the drawing up of a code of practice, the establishment of a data base, the drafting of a national plan of action for protecting turtles and the additional planned educational material will contribute to the desired protection strategy targeted towards more effective conservation of these marine reptiles.

SPECIES PRESENT INCLUDING RARE AND VAGRANT SPECIES

All five species of marine turtles recorded in the Mediterranean, have also been documented for the Maltese waters (Brongersma and Carr 1983). In the Maltese Islands the loggerhead turtle is relatively common, with highest numbers occurring between June and September (Groombridge 1990). The leatherback (*Dermochelys coriacea*) has been recorded on several occasions with at least 13 records of sightings in the Maltese waters mainly attributed to Gramentz (1989) from 1970-1980 and Lanfranco (1977, 1983) (also quoted in Baldacchino and Schembri 1993). The green turtle has been recorded once in the Maltese waters (Despott 1930 a, b) however, local fishermen may misidentify it due to its resemblance to the loggerhead turtle. The hawksbill (*Eretmochelys imbricata*) and the Kemp's ridley (*Lepidochelys kempfi*) are known from a few records. The latter record is of a specimen captured off the north-eastern coast of Malta in 1929, one mile from the Grand Harbour (Brongersma and Carr 1983), whilst the former was recorded in 1980 some five miles off the East of Gozo (Vella Gaffiero pers. comm. in Gramentz (1989)).

STATUS OF TURTLES IN MALTA: NESTING AND THREATS

Caretta caretta is recorded to have formerly nested in very small numbers in the Maltese Islands, prior to 1940s (Balzan 1988, Lanfranco 1988, and Baldacchino 1988 in Groombridge (1990)). Nesting was probably irregular and quite minor, according to Groombridge (1990). Disturbance from sea crafts may pose quite a threat to marine turtles in the Maltese territorial

waters. The high incidence of accidental catches of marine turtles during the fishing seasons, through the use of long lining mostly for the blue fin tuna (*Thunnus thynnus*) and the broadbill swordfish (*Xiphias gladius*), also have their toll during such fishing periods. Some fishermen (Mifsud pers. comm. with numerous fishermen) recount encounters or accidental captures of between 8-15 marine turtles per fishing episode. Furthermore, some marine turtles ingest multiple hooks either from the same line on which they are captured or else from previous incidents, which were not fatal. According to Despott (1915) large numbers of loggerhead turtles (*Caretta caretta*) are captured at sea between August and November. Before the publication of the Reptiles (Protection) Regulations (Legal Notice 76 of 1992), *Caretta caretta* used to be caught for food by locals. An estimated 1000 to 2000 loggerheads used to be caught annually (Groombridge 1990) with August and September being the months with the maximum fishing activity for swordfish, tuna and dolphin fish (Balzan in Groombridge 1994). Gramentz (1988) also estimated that 2000-3000 loggerhead turtles are caught on longline hooks during the swordfish season and that 500-600 loggerhead turtles were caught during that time and used as food or for souvenirs each year. Groombridge (1990) also estimated that mortality is around 15-50% of the total number of marine turtles caught. Sometimes carapaces were also sold as souvenirs for tourists. Before 1992 turtle meat was quite frequent in homes but less common in restaurants (Groombridge 1990). Presently loggerheads are still caught by fishermen, but, nowadays nearly all such captures are attributed to accidental captures mainly on the tuna, swordfish and dolphin fish long-lining. Incidental captures in trawling, which according to Balzan (in Groombridge (1990)) was on the increase in 1988, is nowadays apparently not such a big threat in view of the short trawl time and the small numbers of trawlers registered (Gruppetta pers. comm.). Corroborating this is the fact that very few comatose turtles are actually landed. Most of the accidentally caught turtles are usually thrown back after cutting the line. Today the lost hook and nylon are compensated for, when the turtle is handed in to the Fisheries Department, which proves an incentive for landing injured turtles, rather than disposing of them, or killing them. Loggerheads taken from Maltese waters have been examined by Gramentz (1986b, 1988) and found to be contaminated with tar and having swallowed other plastic and metal litter. Lately samples were taken of dead stranded turtles to investigate occurrences of heavy metals and the presence other pollutants, however we are still awaiting results.

CONSERVATION AND MANAGEMENT MEASURES IN MALTA

Malta is party to the Protocol for Specially Protected Areas and Biological Diversity in the Mediterranean, which has the protection of Mediterranean marine turtles as one of its priority targets. Such regional agreements or treaties oblige parties to take appropriate measures for the conservation of marine turtles. In the light of such obligations, the Fisheries Conservation and Control Division and the Nature Protection Unit of the Malta Environment and Planning Authority are also presently drafting a National Plan of Action for Conservation of Turtles with strategies, priorities and activities to be undertaken. Malta has also acceded to and/or ratified a number of other international treaties, which also provide for the further protection of marine turtles. The Reptiles (Protection) Regulations, mentioned above, which are published under the Environment Protection Act 1991 (Act V of 1991 - sections 32 and 33), protect the three most commonly occurring marine turtles in the Maltese territorial waters. However following accession to the European Union, the EU Habitats Directive was transposed into national legislation, and published under Legal Notice 257 of 2003, and the latter give protection to all the species of marine turtles ever recorded in the Maltese Islands. Apart from prohibiting killing, attempts to kill and selling, even conspiring to do so will be considered as an offence. Specimens or other parts in the hands of persons prior to this legislation had to be registered.

Marine turtles accidentally caught by fishermen have to be surrendered immediately to the Director of Fisheries and eventually, at the discretion of the Director, the fishermen shall be compensated for any loss of tackle, this being an incentive for fishermen to land injured turtles for subsequent rehabilitation and data gathering. Permits for *bona fide* scientific studies can also be issued by the Director responsible for the Environment. Any person who commits an offence against these regulations shall on conviction be liable to a fine, which fine shall in each case apply to each specimen.

ENFORCEMENT, THE STRANDING NETWORK AND THE RESCUE AND REHABILITATION CENTRE

Through the Nature Protection Unit Inspectorate, the Environment Protection Directorate administers any contravention to the above regulations. Stranding of marine turtles or any illegal acts committed vis-à-vis marine turtles are reported by the public or other entities to the Inspectorate who are on call on a 24 hour basis. Based upon the nature of the emergency, necessary action is then taken. Injured turtles are generally taken to the rehabilitation centre, to be operated upon or for any other necessary treatment or rehabilitation. The Department of Fisheries and Aquaculture (Fisheries Conservation and Control Division) centre, in collaboration with the Environment Protection Directorate (EPD), run a relatively small rescue and rehabilitation facility at the Malta Centre for Fisheries Sciences at Torri San Lucjan, M'Xlokk for injured, or accidentally caught, marine turtles. This centre periodically houses up to a maximum of 20 marine turtles. Through the assistance and involvement of dedicated personnel, a number of marine turtles are cured and rehabilitated each year, after the necessary operations needed generally for the extraction of hooks. Before release they are usually tagged using tags provided by the Regional Activity Centre for the Protocol for Specially Protected Areas and Biodiversity in the Mediterranean (RAC/SPA). During recovery they are fed on cephalopods and subsequent to the operations, they are given antibiotics or vitamins according to necessity. Some necropsies are also carried out to help in identification of the possible causes of death. Subsequent to rehabilitation, most of the recovered turtles are then released in mass. Over the last three years more than 30 turtles have been released in such mass release events. In order to aid the smooth release a number of divers also help in this endeavour. The tags have a RAC/SPA code and a number, which is specific to every turtle (each forelimb is tagged with corresponding tags). The RAC/SPA tagging system is a regionally recognised scheme, although one of the major disadvantages is that the turtles' 'tagging origin' is not immediately recognised because of the lack of the country's name on the tag.

STRANDING NETWORK, OTHER CONSERVATION MEASURES AND PUBLIC AWARENESS

Through the Environment Protection Directorate personnel, we have a 24-hour system where persons encountering marine turtles can phone and immediate help will be summoned. The Armed Forces of Malta, the Malta Maritime Authority and/or the Administrative Law Enforcement Section generally provide a helping hand through provision of a sea-craft when needed. This network provides for recording sick, dead and injured turtles, which are either stranded or sighted at sea. This network also provides for help from veterinarians, biologists and other turtles experts as well as local NGO's and other volunteers. Although the code of practice (CoP) for beached or landed turtles is still at its initial phases, its actions are incorporated into the already existent and finalised cetacean COP. In the case of beached turtles the same general guidelines as that of the cetaceans COP are followed. Preparations are presently being made to launch a questionnaire regarding turtle interactions with fisheries. This

questionnaire aims to collect more data on the type of fishing tackle used during the accidental capture of the turtles, the type of bait used, data on the type of boats used during such expeditions and finally data pertaining to the status of the turtle i.e. measurements, sex etc. Some data is already incoming through questions asked at the point of entry of landed turtles. Over the years a number of posters on reptiles (including marine turtles) have been issued by the Environment Protection Directorate, emphasising their importance and their vulnerability. A number of other publications also highlight the vulnerability of turtles. Other private publications, like books on Maltese reptiles (Baldacchino and Schembri 1993), Amfibji, Rettili, u Mammiferi (Baldacchino and Schembri 2002) and others also help to illustrate the vulnerable and threatened status of these reptiles as well as explaining their biology, which all contribute to an increase of public awareness. Presently the RAC-SPA booklet on the handling of marine turtles by fishermen is being translated into Maltese through financial aid by the same centre and is to be distributed to the general public and particularly to fishermen to increase public awareness for conservation. A demonstration session to fishermen is also planned. Local NGOs like Nature Trust also contribute significantly to these awareness campaigns. They have produced a number of leaflets, stickers and other informative material and a leaflet for sea-users to track any sightings, which also includes information on distinguishing features for the identification of three different species of marine turtles. A database for sighted or landed turtles has been created by personnel from the Environment Protection Directorate for reported sightings or landings made subsequent to the 1997 local legislation. Biometrics are also taken and are listed. This will help in assessing the status of these reptiles in the Maltese Islands.

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