

Turtle conservation in Cyprus

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Of the marine turtle two, the Green Turtle (*Chelonia mydas*) and the Loggerhead Turtle (*Caretta caretta*) have been found to breed regularly on the island's beaches. Both have evidently been more abundant in past. In Cyprus turtles and their eggs have been protected by law (Regulations made under the Fisheries Law, Cap.135) since 1971.

In 1976 and 1977 a thorough survey of the turtle breeding beaches was undertaken. It showed that the Green Turtle breeds almost exclusively in the desolate beaches on the west coast of the island north of Paphos, mainly in the Lara area. Loggerhead turtles breed on most beaches that provide some "privacy" after midnight.

In 1978, after the diagnosis was made that the turtle populations of Cyprus are declining and are in danger, a conservation project was launched, by the Fisheries Department and a hatchery was set up to increase hatching success and survival. It is the first and only hatchery in the Mediterranean and in Europe. The project was mainly aimed at protecting the Green Turtle which was more in danger than the Loggerhead Turtle. The main dangers to the turtles are destruction of their breeding habitats and predation by foxes on eggs and hatchlings. Recent estimates of their populations put them at about 100. The Loggerhead turtle population is also at the same time being looked into and aided, though there is evidence that this is larger.

The project is administered directly by the Department of Fisheries of the Ministry of Agriculture and Natural Resources and is financed by Government funds. For three years (1980-1983) it has received substantial help from the World Wildlife Fund as a IUCN/WWF project.

The study of populations is being carried out through tagging and surveys and the restocking of the sea by hatchery work and by "head starting". Hatchery work includes collection of the eggs and hatching with various methods, primarily by reburying the eggs in the sandy beach of the station, but also by laboratory hatching. The project also includes collection of data on environment and hatchery conditions. Hatchling and young turtle nutrition are being studied in a special laboratory set up in Nicosia. Rearing to various ages is being undertaken and will continue primarily with a view to investigating the possibility (and success) of releasing ongrown turtles as well as hatchlings.

The methods that have been used in the project have been the protection of "natural" nests in situ and the removal and hatching of nests that could not be adequately protected in situ, in the turtle hatchery at Lara.

Each year since 1978 about 3000-4000 hatchlings are released to the sea. Hatching rate has been in the region of 60%-75% which though a little lower than that of "wild" nests it is multiple of the number of hatchlings that would have reached the sea from these nests should they have been unprotected.

The Lara beaches are leased by the Department of Fisheries and are managed as a nature reserve. The intent is of course to have the main breeding beaches permanently protected in such a way during nesting and during hatching.

Loggerhead (*Caretta caretta*) in Italian waters (Reptilia, Cheloniidae)

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Loggerheads are relatively frequent in Italian waters. They are accidentally captured in remarkable number, mainly by drifting longlines, in a smaller amount by trawling and gillnets.

More loggerhead (64%) than swordfish were exceptionally fished in August 1982 using drifting longlines in the Gulf of Taranto (Miccoli, 1985); obviously it is an unusual case: the normal number of turtles captured in the same month and in the same area with this kind of fishing is in average the 3% compared with captured swordfish.

From 1985 to 1987, thanks to the co-operation of fishermen in Salento (mainly S. Maria di Leuca, Otranto, Tricase), Molise (Termoli) and other parts of Italy, it has been possible to rescue, to tag and to release 537 specimen.

The 87% of those were captured using drifting longlines, 6% by trawling, 2% by gillnets and the remaining 5% using different manual methods.

We had tag returns: turtles were collected in Sardegna, Tunisia, Albania and along the Italian shores both Adriatic and Tirrenian. A loggerhead released in the Gulf of Mexico on June 2, 1982, was recaptured by us in S. Maria di Leuca on August 19, 1986.

Furthermore a remarkable number of specimen were rescued by distraint, strandings, occasional captures, and so only a small number of those could be tagged. Totally we rescued and released more than 800 turtles.

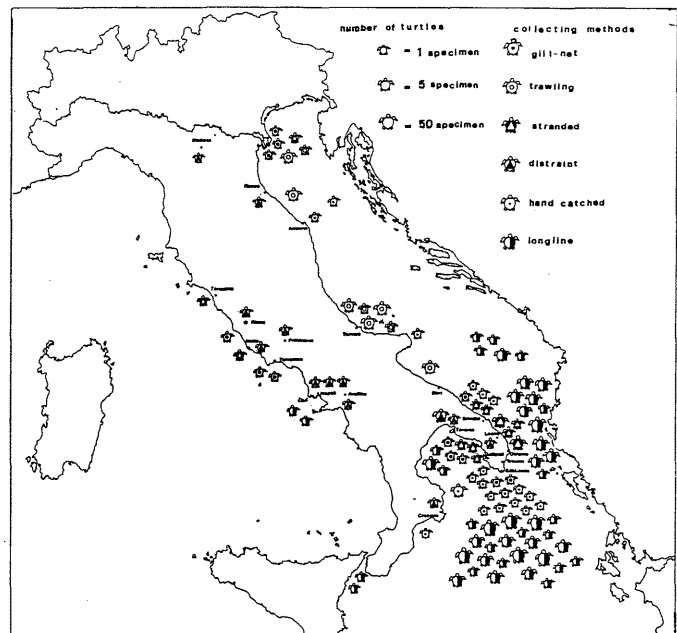
The rescue and the releases of adult specimen request an organisation of stalling centers for animals in sickness or in bad conditions.

We consider this as a fundamental operation both on the educational and conservational purpose: we work to make it more efficient, but we need suitable means, that needs to be amplified, when possible.

So it will be possible to control fishing damages, to educate people to a better use of the natural resources and to restore natural populations with specimen in a reproductive age.

Regarding to the breeding areas, single nests were located along the Sicilian coasts from Marsala to Mazara del Vallo, Gela, Capo Passero, over Pelagian Islands (Lampedusa and Linosa).

As well as a continuous control in the depositional sites, a mapping of the beaches of Southern Sicily was done, describing all the trouble data, with the aim to report further exploitations and to reduce the present ones.



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