



Caretta caretta/Kyparissia - Application of Management Plan for *Caretta caretta* in southern Kyparissia Bay

LIFE98 NAT/GR/005262



[Project description](#) [Environmental issues](#) [Beneficiaries](#) [Administrative data](#)

Contact details:

Project Manager: D. DIMOPOULOS

Tel: +30 1 3844146

Fax: +30 1 3844146

Email: spts@archelon.gr

Project description:

Background

The pSCI of Kyparissia (GR 2550005) in western Peloponnese comprises the extensive sand dune system along the coastal zone of the Bay of Kyparissia, split into two by the river Neda. The present project focused only on the southern part of the bay which is the most significant one for sea turtles, and which belongs to the Prefecture of Messinia. The project area is a 10-km strip coastal zone and is the second most important breeding area for *Caretta caretta* in the Mediterranean (the first one being in Zakynthos) hosting an average of 600 nests per breeding season. So far, the area has been spared by intense tourist pressure, but the mere length and relatively pristine state of the beach has been attracting more and more visitors in the last few years. The main threats for the area, and consequently for the *Caretta caretta*, are the degradation and erosion of the sand dunes and the coastal forests, caused by road construction and building activity and the encroachment of land for touristic and agricultural use. The population of *Caretta caretta* is also threatened from the destruction of its nests by animals (dogs, foxes) and from human interventions during the breeding season. The high level of mortality at sea level, due to incidental catch by fishermen, is another factor that endangers the long-term survival of the species.

Objectives

The project's objective was to undertake the necessary management actions in

order to conserve and restore the coastal zone of southern Kyparissia bay. The expected results were:

- Protection and restoration of sand dunes and associated vegetation from erosion and habitat destruction (relative actions to be undertaken by the forest service – cost not charged to the project)
- Maintenance and long-term increase of the sea turtle population
- Increase of public awareness and information of local target groups
- Promotion of legislative protection for the site and the sea turtle
- Improvement of scientific knowledge and management practices on sea turtles and habitat restoration.

The aforementioned results were tackled with four groups of actions:

- Restoration, protection and maintenance of sand dunes and associated coastal forest
- Management of the species population through protection of nests with eggs from predation and inundation and of hatchlings from disorientation and reduction of sea mortality through the collaboration with fishermen
- Public awareness increase
- Elaboration of species management plan and Specific Environmental Study.

Results

In order to achieve the expected result, the beneficiary worked in different yet complementary directions:

- For the protection of nests and hatchlings, all necessary actions for nest management (patrolling, recording and measurement of turtles and hatchlings, protection of nests and hatchlings, tagging, creation of hatchery) were conducted annually by permanent staff and volunteers between May and October. The number of nests recorded (total: 2,288) confirmed that Kyparissia Bay hosts the second largest nesting population of *Caretta caretta* in the Mediterranean. About 90% of those nests were fenced, and according to the final report, nest predation by animals decreased to 10%, as opposed to about 50% if no fences had been placed. In addition, a total of 507 nests that would have been destroyed (e.g. by inundation) were saved by being relocated to safer spots on the beach. According to the beneficiary's calculations, a total of 149,000 hatchlings emerged from the nests out of which 60% are considered as being saved thanks to project's actions. Over 200 volunteers from 15 countries were trained for the execution of summer activities. Their contribution was key to the project's success, since the management actions related to nest protection are very labour-intensive.
- Continuous contacts and interviews were conducted with fishermen in the main ports of Eastern Peloponese (Patra, Killini, Katakolo and Kiparissia) and their views about sea turtles were collected. Fishermen supplied valuable information to the project about turtles in the sea and reported throughout the project 143 incidental captures and 17 injuries. The 143 captured turtles were released on the spot, while the 17 injured were sent to the Glyfada rehabilitation centre. The work with fishermen led to the discovery that sea turtles are mainly captured by coastal fishing vessels using gill nets. Archelon and the Fishing Association of Katakolo also co-signed a Memorandum of Agreement. This document contains specific proposals/statements for the improved protection and management of the

marine environment such as compensation for damage caused to fishing equipment by protected species through one-off payments and/or compensation measures (reductions in prices of fishing nets, etc.), continuation of registration of damage, immediate and continuous awareness-raising of fishermen by scientific experts. This output was not originally foreseen, but can be considered as a major success and innovative element of the project, since it makes the first step towards solving an issue considered of prime importance by fishermen and that has a direct impact on the species.

- Throughout the project, Archelon was very vigilant about activities that might have a negative impact on the coastal habitat and/or the species. For example, an entire NATO military exercise that was going to take place in 2000 in the southern part of the bay was relocated to the northern part, which is less important for sea turtles and, for the last year of the project, an annual beach volley tournament that used to take place on the nesting beach was relocated to an area close to a sensitive part of the Kyparissia beach. Actions towards beach cafes also took place to avoid sound and light pollution, particularly at night, and municipal light sources disorienting hatchlings were reduced, with some public and private light sources turned off, particularly during the hatching season.
- The Specific Environmental Study, required by law for the establishment of a National Park, and the Management plan for *Caretta caretta*, were elaborated as part of the project in order to promote the legislative protection of the site. The SES was officially submitted to the Ministry of Environment. It proposed the designation of three zones: a Nature Protection Area which includes the sand dune zone and runs from river Neda to the village of Kalo Nero, a Protected Natural Formation which was added following the request of the local community so as to protect the Neda river, and an Eco-development Area which covers the inland area along the aforementioned coastal zone.
- The scientific knowledge on sea turtles was improved thanks to innovative genetic analysis undertaken in order to check the ongoing theory that adult sea turtles return to their beach of origin in order to lay their eggs. A total of 288 samples (dead nestlings) were collected in 1998 from all the main breeding areas in Greece (Zakynthos, Crete, Lakonikos and Kyparissia). A first analysis indicated no genetic difference between turtles in the main nesting areas in Greece. Furthermore, the results gave evidence of multiple paternity (i.e., eggs in one nest coming from more than one males), while they gave no evidence of restricted genetic diversity, implying that the populations are healthy from a genetic point of view.
- An extensive campaign was undertaken through the media, through the information kiosks and the information centre. It increased awareness of five key local target groups: beach users, hotel owners, local inhabitants, school children and fishermen. The project also participated in a number of workshops, and various scientific publications were elaborated, some of which were published in scientific journals, and some of which were presented in workshops. The topics covered a wide range of conservation issues related to the species (genetic analysis, public awareness, and interaction with fisheries).

Environmental issues addressed:

Themes

Species - Reptiles

Keywords

population dynamics, protected area, sensitive area, public awareness campaign, coastal area, environmental training, voluntary work, management plan

Target EU Legislation

- Nature protection and Biodiversity
- Directive 92/43 - Conservation of natural habitats and of wild fauna and flora- Habitats Directiv ...

Target species

Caretta caretta

Target Habitat types

- 9540 - Mediterranean pine forests with endemic Mesogean pines
- 2110 - Embryonic shifting dunes
- 2120 - Shifting dunes along the shoreline with *Ammophila arenaria* ("white dunes")
- 2220 - Dunes with *Euphorbia terracina*
- 2250 - Coastal dunes with *Juniperus* spp.
- 5420 - *Sarcopoterium spinosum phryganas*

Natura 2000 sites

SCI GR2550005 THINES KYPARISSIAS (NEOCHORI - KYPARISSIA)

[Top](#)

Beneficiaries:

Coordinator	Archelon/The Sea Turtle Protection Society of Greece
Type of organisation	NGO-Foundation
Description	ARCHELON - the Sea Turtle Protection Society of Greece is an independent, non-profit environmental organisation that runs conservation projects, specifically on sea turtles, throughout Greece.

[Top](#)

Administrative data:

Project reference	LIFE98 NAT/GR/005262
Duration	01-APR-1998 to 30-JUN -2002
Total budget	616,817.33 €
EU contribution	431,772.13 €
Project location	Peloponnisos(Ellas)

[Top](#)

[Project description](#) [Environmental issues](#) [Beneficiaries](#) [Administrative data](#)
[Read more](#)