



ANNUAL ACTIVITY REPORT SOUTH PELOPONNESE PROJECTS

———— 2024 ————

Athens, December 2024

**ARCHELON, The Sea Turtle
Protection Society of Greece**



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1 INTRODUCTION

ARCHELON has been monitoring and protecting the nesting activity of the Loggerhead sea turtle (*Caretta caretta*) in southern Peloponnese annually, specifically in Lakonikos Bay since 1985 and in Koroni since 1995. The main nesting beaches in the area are included in two Natura 2000 network sites, as follows:

- The beaches of Lakonikos Bay (Vathi, Mavrovouni, Selinitza, Valtaki and Evrotas) in GR2540003 “EKVOLES EVROTA, PERIOCHI VRONTAMA KAI THALASSIA PERIOCHI LAKONIKOU KOLPOU”.
- The beach of Koroni (Zaga - Memi) in GR2550010 “THALASSIA PERIOCHI NOTIAS MESSINIAS”.



2 RESULTS

ARCHELON's monitoring and conservation project took place from the end of May to the end of September 2024, by two distinct groups of volunteers/researchers. According to preliminary data, 1,100 loggerhead nests were recorded in the aforementioned areas. Most of the nests were protected from predation, flooding, trampling and light pollution.

Another 160 nests (preliminary data) were recorded in the South-eastern part of Lakonia (from Plytra to Monemvasia) and in Elafonissos by the team of the local "Tulipa Goulimi" Association trained by ARCHELON.

ARCHELON volunteers also carried out public awareness activities at the nesting beaches, at tourist units and at the seasonal Information Stations in key locations. Through these efforts, 3,700 visitors and local residents were informed (2,000 people in Lakonikos Bay and 1,700 in Koroni).

Furthermore, ARCHELON, as part of the LIFE MareNatura programme, placed five satellite transmitters on turtles to monitor their migrations after nesting in Lakonikos Bay. Tissue samples were also taken from turtles to identify their feeding areas using stable isotopes.

Regarding strandings, during the projects' course, 17 incidents were recorded; 16 (14 dead and 2 injured) were found in Lakonikos Bay, and 1 (dead) in Koroni. All injured turtles were transferred for treatment to ARCHELON's Sea Turtle Rescue Centre in Glyfada.



3 THREATS

In Limeni Bay, within the Municipal Unit of Itylos (located far from the nesting beaches), a local business has been feeding sea turtles regularly since 2019. This practice disturbs the protected species by providing them with inappropriate food, but also lead to sea turtle attacks on bathers. In the summer 2024, 78 incidents of attacks on bathers were recorded by the local Port Authorities, the Areopolis Health Center and NECCA's Management Unit (MU) for the Protected Areas of Southern Peloponnese. Thanks to the persistent efforts of the MU (informational signs, events for local business owners, on-site inspections), the illegal feeding practice appears to have ceased.

General protection measures for the nesting beaches of sea turtles are outlined in the Joint Ministerial Decision (FEK B 1864/15-05-2020 and, amendment FEK B 2198/05-06-2020, Annex 2I), which regulates the "concession of simple use of coast and beach". According to these provisions Municipalities in sea turtle nesting areas may grant local businesses the right to "simple use of the coast and beach", provided that specific management measures are enforced during the nesting and hatching periods. These measures include, the removal of beach furniture (sunbeds, umbrellas) after sunset, beach cleanings without the use of heavy vehicles, the prohibition of vehicle traffic on the beach, the reduction of light pollution, and the banning of beach parties.

It is concerning that, even in 2024, many cases of non-compliance with these management measures were observed, causing short-term or long-term impacts on the conservation of sea turtles and their habitats. Information regarding Lakonikos Bay and Koroni is outlined below.



3.1 LAKONIKOS

Beaches:

Mavrovouni (4 km), Selinitza (1.5 km), Valtaki (1.1 km), Vathi (1.8 km)

The available nesting space for adult females was significantly reduced, as 82.8% of the businesses failed to remove beach furniture at night. On the beaches of Selinitza, Mavrovouni and Vathi, only 5 out of the 29 businesses implemented the management protection measures. Continued efforts are essential to ensure full compliance with the aforementioned protection measure.

An additional problem arose with the private equipment left on the beach (i.e. sun loungers and parasols), which remained on the beach after sunset, thus further limiting available nesting space. The Joint Ministerial Decision does not include any provisions for this matter. During the project's duration, a total of 12,912 incidents were recorded.

The problem of light pollution in the coastal zone remained extremely intense. The situation was more severe at the western end of Vathi beach and the eastern end of Mavrovouni beach, where no dark areas were recorded whatsoever. Notably, the severity of this threat became evident, as hatchlings were frequently observed being disoriented by light pollution. In some cases, hatchlings were even spotted coming back to the beach after entering the sea. Additionally, even though Valtaki beach has minimal light sources, a significant area of the beach was still affected. The percentage of nests affected by light pollution on Selinitza beach was 36.6%, on Mavrovouni 74.5%, on Vathi 25.7% and on Valtaki 18.9% (the total percentage of nests affected was 44.5%).



Additionally, incidents of vehicle traffic on the beaches and human presence at night were recorded. While the Joint Ministerial Decision does not regulate human presence on nesting beaches, this issue remains a significant threat; adult female turtles may abandon their nesting efforts, and hatchlings are at risk of getting trampled. Human presence on the beaches at night is associated with amateur fishing, free camping and lighting fires.

Destruction of sand dunes along the beaches of Selinita, Mavrovouni and Vathi has escalated due to the opening and usage of illegal dirt roads. In Mavrovouni beach, the situation significantly worsened in the spring of 2022, due to the construction of a waste treatment plant in the , where aggregates were used along a length of 2 km of beach. Furthermore, the width of the dirt road along Vathi and Mavrovouni beaches is so large that it also allows for car parking, destroying the dunes and coastal vegetation.

Illegal parking is also observed on Valtaki beach, which has caused the degradation of the protected dune vegetation.

Evrotas Beach (15.1 km)

Light pollution is limited at Evrotas Beach. However, at Trinissa and Kyani Akti, abandoned illegal accommodations from the 1980s have been reopened. Additionally, 3 catering businesses were recorded operating on the beachfront and using beach furniture in 2024. These activities, combined with the constant presence of vehicles and the existence of illegal parking lots, places significant pressure on the beach, particularly on the coastal vegetation (dunes).



3.2 KORONI

At the nesting beach of Zaga-Memi (2.7 km), 7 businesses were recorded using beach furniture (sunbeds, umbrellas). However, only 3 of them (43%) complied with the protection measure of removing them after sunset. Private equipment (for which there is no provision in the legislation) was also left on the beach every day after sunset, creating obstacles for nesting turtles. A total of 3,991 cases of private sun loungers and parasols left overnight were recorded .

Light pollution from private and municipal lamps was intense at the eastern and western ends of the nesting beach, increasing the risk of hatchling disorientation. 4 new high-rise floodlights installed in 2023 from the Karoni Municipal Stadium contributed to the issue. However, in 2024, these floodlights were turned off for most of the project's duration. Despite this, in 2024, 36.5% of the nests on Zaga-Memi beach were affected by light pollution.

Additional issues were recorded such as human presence on the beach, free camping, fires in the evening hours, and vehicles on the beach. Furthermore Karoni's biological waste treatment plant was announced to be placed on the beach, but no information regarding their environmental licensing has been made public.



4 CONSERVATION

ARCHELON has been carrying out annual systematic monitoring and conservation efforts for the sea turtle reproductive activity in Lakonikos Bay since 1985 and in Koroni since 1995. Long-term data show that in recent years there is an increase in the number of nests in these areas. If nest protection is not continued, negative trends in the breeding population may be observed; it is therefore important to continue the conservation efforts in these areas.

Although most of the nesting beaches in southern Peloponnese have been included in the Natura 2000 Ecological Network, there is still no specific legislative framework for their management and conservation, such as Presidential Decrees (PDs) or Management Plans (MPs). These are expected to result from the Special Environmental Studies (SES) that are carried out for all Natura 2000 sites nationwide by the Ministry of Environment and Energy. However, the project faces major delays. The completion of the SESs, PDs and MPs (currently under preparation) is of vital importance for the conservation of sea turtle habitats and must be finished immediately. These will provide solutions to the aforementioned problems (illegal roads and parking lots, light pollution, etc.) through institutional protection and the provision of special management measures. The parts of the beaches that face environmental degradation must be restored, and the rest (e.g. Evrotas beach) must be conserved in their existing state.

The Management Unit (MU) responsible for protecting and managing sea turtle habitats are the “MU of Southern Peloponnese” in Lakonikos Bay, and the “MU of the Strofylia National Park and Protected Areas of Western Peloponnese” in Koroni. Both MUs are part of the Natural Environment & Climate Change Agency (N.E.C.C.A.) but have yet to be active in guarding the sea turtle habitat, with limited other management activities.



The lack of a legislative framework described previously creates delays in the implementation of appropriate beach management and furthers the greater habitat degradation every year. Also, the shortcomings and understaffing of NECCA's MUs pose serious obstacles to the imposition of sanctions in cases of violation of environmental legislation and, generally, to the effective conservation and management of these areas.

The MUs' future activation in the protection, safeguarding and management of the areas would have positive results. Until the completion of the PDs and MPs, the cooperation of all competent authorities is needed to ensure proper implementation of the Joint Ministerial Decision on the "simple use of the coast and beach", as well as environmental legislation in general. Finally, flow of information and good communication between all involved bodies (businesses, local community, authorities, environmental NGOs) could yield significant results in the improvement of the habitat's conservation status through the implementation of simple solutions.

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