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Threats to marine turtles in Thines Kiparissias (Greece)

- REPORT BY THE NGO -

Document prepared by ARCHELON

ARCHELON, The Sea Turtle Protection Society of Greece



Conservation efforts during 2022 at the nesting habitat of *Caretta caretta* in Kyparissia Bay, western Peloponnese (Natura 2000 - GR2550005 «THINES KYPARISSIAS»)

Short report submitted to the European Commission and the Bern Convention Standing Committee

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ARCHELON, The Sea Turtle Protection Society of Greece Solomou 57 ATHENS 10432 Greece

Tel/Fax: (0030) 210 5231342 e-mail: <u>info@archelon.gr</u> URL: <u>www.archelon.gr</u> 1. The Logerhead turtle (*Caretta caretta*) nesting site of Kyparissia Bay, Western Peloponnese is included in the Natura 2000 Network with the site codes GR2550005 "THINES KYPARISSIAS: NEOCHORI-KYPARISSIA" and GR2330005 "THINES KAI PARALIAKO DASOS ZACHAROS, LIMNI KAIAFA, STROFYLIA, KAKOVATOS". The core nesting area for sea turtles is located between the rivers Arkadikos (to the south) and Neda (to the north), with an approx. length of 9,5km (Image 1). The core area is fully included in the GR2550005. The bay has been designated as a Nature Protection Area under the Presidential Decree (PD) issued in October 2018 (Government Gazette D 391/03-10-2018, D 414/12-10-2018) and it includes the aforementioned Natura 2000 areas (GR2550005, GR2330005) as well as the adjacent marine area GR2330008 "THALASSIA PERIOCHI KOLPOU KYPARISSIAS: AKR. KATAKOLO – KYPARISSIA" (Image 2)¹.

The PD divides the bay in various subareas and oversees building regulations. However, it does not regulate all habitat conservation issues, i.e. mapping of the current legal road network, fishing regulations, operation of beach bars, light pollution, human presence on the nesting beach during nighttime. The above are expected to be addressed in the Specific Environmental Studies (SES) and the Management Plans (MPs) for all Natura 2000 sites, both of which are currently being drafted. These are part of a project coordinated by the Ministry of Environment and Energy, albeit with great delays. The safety, protection, and management of the protected area is the responsibility of the Management Unit (MU) of Strofylia Wetlands National Park and Protected Areas of Western Peloponnese, which is supervised on a central level by the Natural Environment and Climate Change Agency (N.E.C.C.A.).

- 2. Since the early 1980's, ARCHELON has been present in the area, implementing conservation activities. The systematic monitoring and collection of nesting data started in 1984. Following internationally approved protocols, the majority of nests in the core nesting area is protected against predation by mammals, inundation by the sea, and hatchling disorientation since 1992. Since 2006, a gradual increase of nests, and therefore of adult females is recorded presumably as a result of the extensive nest protection. Kyparissia Bay hosts numerous protected habitat types and species, and according to recent data, hosts the largest reproductive Loggerhead population in the Mediterranean.
- 3. During the 2022 reproductive period, ARCHELON successfully completed its monitoring and protection field project in Kyparissia Bay between 4 May and 30 September. According to preliminary data, approximately 2770 nests were recorded in the core area, 86% of which were protected against predation, inundation, trampling, and light pollution. An additional 797 nests were recorded in the northern part of GR2550005 (about 7km), north of the Neda river².

According to ARCHELON's data, a significant percentage of nests in the core nesting area were impacted by light pollution. Certain parts of the core area were affected more so than others; in particular in the Agiannakis area, 28,7% of located nests were affected by light pollution, in Vounaki 13,3%, in Elaia 25,3%, whereas in Kalo Nero almost half of the located nests were impacted, i.e. 47,9%. This forced ARHCELON to implement shading and boxing protection measures on a total of 616 nests, in efforts to combat this threat. Despite these efforts, in the whole core nesting area, hatchling disorientation was recorded in a total of 668 nests due to light pollution. Another crucial threat recorded was predation by wild boars (photo 2) in the area of Vounaki ARCHELON's data reveal a total of 561 nests as having been predated and another 1005 as showing signs of attempted predations by wild boars.

¹The PD was issued as a result of the Judgement of the Court of Justice of the European Union of 10 November 2016 (Case C-504/14) as well as the Recommendation No. 174 (2014) of the Bern Convention Standing Committee.

² It should be noted that during 2022, due to the limited number of volunteers, no monitoring and protection of nests took place in the northern part of the bay between Neochori to the south and Epitalio to the north (24km).

Regarding sea turtle strandings, as recorded by the Greek Coast Guard, during the first nine months of 2022, a total of 13 dead sea turtles were reported along the entire Kyparissia Bay, of which 7 were reported by ARCHELON's field team.

Additionally, through ARCHELON's Public Awareness Program conducted on the beach and in various touristic facilities, over 3000 tourists and visitors were informed about sea turtles and mitigating the threats that they face. Furthermore, the Municipality of Trifylia gave a permit for the operation of ARCHELON's Information Kiosk at a location along the coast of Kalo Nero (2 July – 5 September), following the intervention of the Deputy Minister of the Environment.

4. The PD includes a multitude of regulations regarding the protection of the Kyparissia Bay habitat in general and the sea turtles in particular. Unfortunately, in 2022, there was a complete lack of wardening of the Nature Protection Area. This fact, combined with the lack of interest and knowledge of regulations on behalf of the local authorities led to insufficient enforcement and implementation of current legislation. As a result, many of the long-standing problems that threaten sea turtles and the habitat remain unresolved. Moreover, since the MP has yet to be issued (as mentioned above in section 1), the rest of the conservation problems cannot be addressed.

The main threats recorded during 2022 were:

- a) Extensive light pollution (see section 3),
- b) Beach furniture (umbrellas sunbeds) on the nesting beach at nighttime, which reduce available space for nesting turtles and create obstacles that hinder the nesting process (photo 2),
- c) Extensive vehicular traffic on the nesting beach and the sand dune zone, resulting in the area's degradation and damages on existing nests. Incidents of beach cleaning with heavy vehicles were also recorded (12 May, 18 May, 19 May, 28 May, 30 May, 1 June, 2 June, 3 June, 13 June, 9 July, 13 July, 30 July) (photos 3a-3b),
- d) Free camping in the coastal forest (behind the nesting beach), leading to increased human presence on the beach during the night. This may result either in disturbing nesting females, which may abandon their nesting efforts, or in the trampling of hatchlings,
- e) Local festivals behind the nesting beach in the areas of Kalo Nero (5 August) and Giannitsochori (2 August). Artificial lights, loud music, and the participation of hundreds of people, cause extensive light and noise pollution during hatching season (photos 4a-4b),
- f) Uncontrolled agricultural activities in the sand dune zone, which cause habitat degradation (photo 5),
- g) Ongoing constructions of new buildings (summer houses) in the Nature Protection Areas, ignoring the provisions of the PD,
- h) Illegal facilities established by businesses (bars, restaurants, hotels) on the beach, despite the existing protocols ruling for their demolition,
- i) Operation of beach bars in the sand dune zone (even during nighttime), causing increased light pollution and the ongoing trampling of sand dune vegetation,
- j) Uncontrolled fishing activity, which increases the danger of sea turtles getting entangled and injured by fishing nets (photo 6).

The aforementioned recorded threats during 2022 demonstrate that the situation has not been improved compared to previous years³.

³ For detailed information regarding the existing threats during the previous years, please visit https://www.archelon.gr/files/results/ARCHELON_Report_Kyparissia_Bay%202021.pdf

5. In conclusion, the lack of enforcement and implementation of the current legislation (PD and general environmental laws), the delays in the completion of a legal framework (MP) for Kyparissia Bay, the delays in the systematic management of the protected area (i.e. the total absence of wardening and supervision, and the lack of signposts and appropriate infrastructure for the reception of visitors in the area by the MU and N.E.C.C.A.), as well as the complete disregard of the local authorities are the main reasons for the ongoing degradation of the coastal habitats and of the disturbances during the sea turtle nesting period.

ANNEX: Images and photos:



Image 1: Map of Kyparissia Bay. The arrows indicate the core nesting area, ranging from Arkadikos river (south) to Neda river (north).

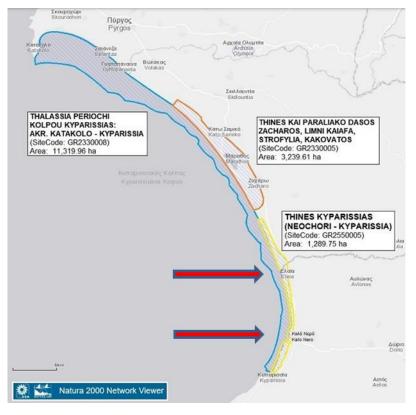


Image 2: Map of Kyparissia Bay and the relevant Natura 2000 sites. The three sites are included in the PD issued in 2018. The core nesting area is marked by the red arrows.



Photo 1: Nest predation by wild boar (June 2022).



Photo 2: Beach furniture and wooden walkways are not collected after sundown. Thus the space available for nesting is reduced (22 July 2022 06:30am). The yellow arrow shows the illegal constructions of the coastal businesses.



Photo 3a: Location Agiannakis – beach cleaning with heavy vehicles drastically affects the beach profile (17 May 2022).



Photo 3a: Location Agiannakis – the continuous passing of vehicles (blue circles) demonstrates the inefficiency of the cement pillars, which were placed by the Ministry of Environment and Energy on the illegal roads (July 2022).



Photo 4a: Location Giannitsochori – A festival with loud music and bright headlights was held a few meters behind the nesting beach (2 August 2022).



Photo 4b: Location Kalo Nero — The photo is taken a few hours after the local festival, which was held just a few meters behind nests (5 August 2022). The red arrow indicates the specific area of the festival. The yellow arrow shows a firepit from the night before. The circles indicate nests on the beach (at least 7).



Photo 5: Location Agiannakis – Agricultural activities in the sand dune zone result in the general degradation of the natural habitat type (August 2022).



Photo 6: Location Elaia – Fishing with nets at a very close distance for the shore is a constant threat to nesting females, as they may get entangled and injured as they attempt to reach the beach for nesting (June 2022).