

Strasbourg, 26 October 2020  
[files62e\_2020.docx]

T-PVS/Files(2020)62

CONVENTION ON THE CONSERVATION OF EUROPEAN WILDLIFE  
AND NATURAL HABITATS

**Standing Committee**

40<sup>th</sup> meeting  
Strasbourg, 30 November - 4 December 2020

---

**Specific Sites - Files open**

**Threats to marine turtles in Thines Kiparissias  
(Greece)**

**- REPORT BY THE COMPLAINANT -**

*Document prepared by  
ARCHELON*

## **ARCHELON, the Sea Turtle Protection Society of Greece**



### **Conservation efforts during 2020 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 Standing Committee of the Bern Convention

Athens, October 2020

Copyright © 2020 by ARCHELON

No part of this report may be reproduced in any form or by any means without the written permission of ARCHELON

\*\*\*\*\*

ARCHELON, the Sea Turtle Protection Society of Greece

Solomou 57

GR-104 32 ATHENS

Greece

Tel./Fax: +30-210-5231342

e-mail: [info@archelon.gr](mailto:info@archelon.gr)

## Contents

Prologue	p. 5
1. Background	p. 5
1.1. The long-term field project of ARCHELON (core nesting area)	p. 5
1.2. The Presidential Decree for the whole Kyparissia Bay	p. 5
2. International pressure for the protection of southern Kyparissia Bay	p. 6
2.1. Condemnation of the Greek State by the Court of Justice (Oct 2012 - Nov 2016)	p. 6
2.2. The case file in Bern Convention	p. 6
3. Follow up to the commitments of Greece	p. 6
3.1. The issuance of the Presidential Decree (October 2018)	p. 6
3.2. Shortcomings in the Presidential Decree and continuing problems	p. 7
4. The actual situation in the field during the 2020 nesting season	p. 7
4.1. Anthropogenic disturbances at the core nesting area (sectors O, A-C)	p. 7
4.2. Anthropogenic disturbances at the rest of the habitat (sectors D to K)	p. 8
4.3. Turtle Strandings	p. 8
5. Conclusions and Recommendations	p. 9
References	p. 9
Illustrations	p. 10
Photos	p. 12

## Prologue

This report, a follow up to the previous reports submitted annually since October 2012, presents the main events in the efforts to protect the habitats of southern Kyparissia Bay (Natura 2000 site GR2550005 “Thines Kyparissias: Neochori – Kyparissia”) in general and the marine turtles in particular, during 2020, in the light of compliance with the Judgement of the European Court of Justice of 10 November 2016 (case C-504/14) and the Bern Convention Recommendation No. 174.

As the issued Presidential Decree (see Section 1.2 and 3.1.) for the site GR2550005, includes also the neighboring Natura sites GR2330005 (“Thines kai Paraliako Dasos Zacharos, Limni Kaiafa, Strofylia, Kakovatos”) and GR2330008 (“Marine area of Kyparissia Bay: Katakolo Cape – Kyparissia”), information about the conservation status of these sites, as recorded through the fieldwork of ARCHELON, is also included.

## 1. Background

### 1.1. The long-term field project of ARCHELON (core nesting area)

Kyparissia Bay, at the western coast of central Peloponnese, has significant ecological value. The Bay’s coastline consists of approximately 44km of continuous sandy beach, backed by dunes and coastal forests, from the river Alfios in the north to the river Arcadikos in the south, with a small number of additional beaches separated by rocky outcrops further south. The terrestrial part of the Bay includes two Natura 2000 sites (GR2550005 in the south and GR2330005 in the north) while the marine area includes another Natura 2000 site (GR 2330008) (Illustration 1). Although loggerhead sea turtles (*Caretta caretta*) nest along the entire 44km beach (between Alfios and Arcadikos rivers), the core nesting area is located in the southernmost 9.5km, between Neda and Arcadikos rivers, where approx. 82% of the total nesting activity was recorded during the initial years of monitoring (1984-89) (Margaritoulis & Rees, 2001) (Illustration 2). The 9.5km core nesting area (southern Kyparissia Bay) is entirely included in the site GR2550005.

Since 1992 the great majority of nests, within the core area, are protected against predation by animals, inundation by the sea and disorientation of hatchlings. In 2017 ARCHELON started again to monitor the remaining 34.5km of Kyparissia Bay (i.e. Alfios river to Neda river). For monitoring purposes, the core nesting area is divided into four beach sectors (O, A, B, C), while the remaining 34.5km is divided into seven sectors (D to K) (Illustration 3).

The 2020 nesting season was marked by the COVID-19 pandemic that affected the human societies around the globe. ARCHELON was affected gravely by travelling restrictions that resulted in extremely low number of volunteers arriving, but still managed to operate the monitoring and conservation project in Kyparissia Bay. Due to the expected shortage on ARCHELON’s international volunteers, the monitoring protocols were adjusted to ensure absolutely necessary data collection and nest protection. In particular, ARCHELON had to adjust the field work to maintain small teams that were safe from the spread of the coronavirus. For that reason, the field work was modified, and priority was given to the recording and protecting of nests and hatchlings, while all other actions aiming raising public awareness were reduced.

During the 2020 nesting season, and according to preliminary data, more than 3,800 nests were recorded in the core area. This is the 8th year in a row (2013-2020) that the number of nests in the core nesting area of Kyparissia Bay exceed those recorded in Laganas Bay (Zakynthos Island). The increase in nest numbers, that has been noted since 2006, combined with an increase of neophyte turtles (i.e. turtles nesting for the first time), is likely attributed to the mass protection of nests applied in the core nesting area since 1992 (Margaritoulis et al., 2013).

### 1.2. The Presidential Decree for the whole Kyparissia Bay

Despite the evident ecological value of Kyparissia Bay, no specific protection or management measures had been adopted or implemented, nor conservation objectives were laid for the area by the Ministry of Environment up until very recently. As a result, the sea turtle nesting area and the other habitats in the Bay (dunes, coastal vegetation, etc.) remained unprotected. In contrast, significant management and conservation issues remained unresolved and resulted in the gradual degradation of habitats, as well as in the increase of

direct and indirect disturbances to sea turtle nesting. Following substantial pressure from the European Commission and the Council of Europe (Bern Convention) (see Section 2), as well as from domestic NGOs, and after several years of deliberations (from 2012 until 2018), the Greek State eventually issued in October 2018 the Presidential Decree for the three Natura 2000 sites of Kyparissia Bay (GR2550005, GR2330005 and GR2330008), including the core nesting area.

## **2. International pressure for the protection of southern Kyparissia Bay**

### **2.1. Condemnation of the Greek State by the Court of Justice (Oct 2012 - Nov 2016)**

As a consequence of the lack of protection and management measures for the core nesting area, in October 2012 Greece received from the European Commission a Reasoned Opinion (EL2011/2156 ENVI) for violation of articles 6 and 12 of Habitats Directive 92/43/EEC in the Natura 2000 site GR2550005 “Thines Kyparissias: Neochori – Kyparissia”.

Despite the commitments of the Ministry of Environment to take appropriate measures to safeguard the core nesting area in southern Kyparissia Bay, most of conservation issues remained unresolved. Thus, in March 2014 the European Commission decided to take the Greek State to the Court of Justice over failure to provide adequate protection for the endangered sea turtles and their nesting habitat. The Court hearing took place on 13 January 2016 and the relevant Judgment was posted on 10 November 2016. The Court (completely coherent with the opinion of the Advocate General) declared that:

- The Greek State has failed to fulfil its obligations under Article 6, paragraph 2 of Directive 92/43/EEC on the conservation of natural habitats and wild fauna and flora on southern Kyparissia Bay.
- The Greek State has failed to fulfil its obligations under Article 6, paragraph 3 of Directive 92/43/EEC.
- The Greek State has failed to fulfil its obligations under Article 12, paragraph 1 (b) and (d) of Directive 92/43/EEC.

### **2.2. The case file in Bern Convention**

Regarding southern Kyparissia Bay, the Bern Convention opened a case file in 2013, on the lack of protection measures for sand dunes and loggerhead turtles (*Caretta caretta*), a species listed in Annex II of the Convention. In July 2014 experts of the Bern Convention carried out an on-the-spot appraisal in the core nesting area, during which they had the chance to see firsthand all the anthropogenic disturbances.

In December 2014, the Standing Committee of Bern Convention issued the Recommendation No. 174 on the conservation of the nesting habitat in southern Kyparissia Bay. The Recommendation consists of 12 points, which address the main anthropogenic threats for sea turtle nesting.

The case file is reviewed annually during the Bureau and the Standing Committee meetings since December 2015. During the meeting in December 2019, the Standing Committee decided to keep the case file open because the Presidential Decree has not yet been properly enforced, and a Management Plan has not been prepared<sup>1</sup>.

## **3. Follow up to the commitments of Greece**

### **3.1. The issuance of the Presidential Decree (October 2018)**

Since the issuance of the European Commission’s Reasoned Opinion, the Greek State has attempted to protect the sea turtle nesting habitat either in the core area or in the whole Kyparissia Bay through various legislative acts (successive Ministerial Decisions).

Eventually, the Presidential Decree was issued in October 2018 (Government Gazettes D 391/03-10-2018, D 414/12-10-2018), almost two years after the Judgment of the European Court of Justice (November 2016) and four years after the Bern Convention Recommendation (December 2014).

---

<sup>1</sup> List of Decision on the 39<sup>th</sup> Standing Committee meeting, pages 8, 9.

After the issuance of the Decree, seven cancellation requests were submitted to the Hellenic Republic Council of State (known by its Greek acronym as “StE”) requesting the repeal of the Presidential Decree. The requests were submitted by the Municipalities of Tryfilia and Andritsaina, the Municipality of Zacharo, the real estate firm "Neos Kotinos S.A." [which owns the coastal area behind 2,5km of beach length at the core nesting area (C Sector)], the firm “Olympia Golf Club S.A.” (which owns land in the northern part of the Bay) and in three cases by citizens of the area. The trial hearing was conducted on 3 June 2020. ARCHELON in cooperation with MEDASSET and WWF Greece intervened in defense of the Presidential Decree. The Court Decision is expected by the end of 2020. If any of the cancellation requests are approved, then the southern Kyparissia Bay will yet again be without any protection against building interests.

### **3.2. Shortcomings in the Presidential Decree and continuing problems**

The Presidential Decree protects Kyparissia Bay against building interests behind the nesting beach. But still there are some important conservation issues, which are not addressed by the Decree (e.g. absence of an Annex with the legally existing road network, fisheries regulations, beach management measures in the core nesting area, control of light pollution). These conservation issues are necessary to be included in a Management Plan for the 3 Natura 2000 sites, which is not issued yet.

The negative aspects of the Presidential Decree include the facts that: (a) the designation of the whole area as a Nature Protection Area (not as National Park), (b) building is the basic characteristic in the Agricultural Landscape Zone (Greek acronym “ZAT”) and (c) that the provisions in the whole ZAT are the same (although the neighboring Nature Protection Zones are different). In the opinion of the environmental NGOs these provisions should be amended, as they are expected to compromise achieving favorable conservation status for the area in the long-term.

Furthermore, as described below (see Section 4), until today there is very low enforcement and implementation of the Decree provisions. As a result, very little progress was made after the Decree’s issue concerning either the implementation of the 12 points of the Bern Convention Recommendation (see Section 2.2.), or the compliance with the European Court of Justice Judgment of 10 November 2016 (see Section 2.1.).

The management of Kyparissia Bay is under the jurisdiction of the Management Agency of Kotychi, Strofilia Lagoon & Kyparissia Bay, based close to Patras (according to the Presidential Decree and the law 4519/2018). The Management Agency is not active yet in managing and protecting the habitat. This situation is not expected to change soon due to a new law (4685/2020), according to which all Management Agencies of protected turned into Management Units. Those will be supervised and coordinated by a central agency - the Natural Environment and Climate Change Agency (known by its Greek acronym as “OFYPEKA”).

## **4. The actual situation in the field during the 2020 nesting season**

This section focusses on the anthropogenic disturbances that resulted in direct and indirect damage to sea turtles (adults and hatchlings), their nests and the nesting habitat in Kyparissia Bay during the 2020 nesting season, as recorded by ARCHELON. It should be noted that local authorities as well as part of the local community maintain a rather hostile attitude towards ARCHELON, as sea turtles are considered the main reason for the imposed restrictions by the Presidential Decree. As it will be described in detail below the conservation status of the protected area did not improve at all during the 2020 nesting season.

### **4.1. Anthropogenic disturbances at the core nesting area (sectors O, A-C)**

The distinction of Kalo Nero (sector O) from the rest of the core area is very important, because this part of the beach is already severely affected by tourism development. As in previous years, during 2020 a large part of the nesting beach was occupied by sunbeds, umbrellas, wooden paths, showers, and other structures, while the light pollution remained a serious conservation problem. Despite the provisions of the Presidential Decree and the appeals of ARCHELON towards local and national authorities, neither the beach furniture was stacked during nighttime (Photo 1), nor the existing intensive light pollution (from private and public light sources) was decreased at all (Photos 2,3). It must be noted that the light pollution in Kalo Nero renders useless the standard method of “nest-shading”, used by ARCHELON in other areas, to protect emerging hatchlings from light disorientation, and forces the unorthodox practice of “nest-boxing” (Theodorou et al., 2018). According to preliminary data during 2020, “nest-boxing” was applied on 279 nests in Kalo Nero (approximately 41% of all nests laid in Kalo Nero). In addition to the above, because of the delayed start of the touristic season due to the COVID-19 pandemic, ARCHELON recorded two beach cleanings with the use of heavy vehicles during the peak of the nesting season (3 and 6 July) (Photo 4). Apart from the above mentioned anthropogenic

disturbances in Kalo Nero, the refusal of the Municipality of Trifylia towards setting up the seasonal information station of ARCHELON, resulted in a severe draw back to the efforts of minimizing the disturbances to the sea turtles by the visitors of the area.

If sea turtles are to be effectively protected in Kyparissia Bay, sectors A, B and C of the core nesting area (beaches of Vounaki, Agiannakis and Elaia respectively) hosting about 75% of all nests in the 9.5km core nesting area, must be maintained at its current almost pristine condition. This area is characterized by a very wide beach with an appropriate inclination, backed by low sand dunes with vegetation. Unfortunately, for these beach sectors most of the main conservation issues remained unresolved during the 2020 nesting season. In particular, the beach bar in C sector operated for the third year in a row, resulting in destruction of dune vegetation (Photo 5), while a new beach bar was given permission to operate in B sector (Photo 6). While the two beach bars were being set up, a beach clean with the use of a heavy vehicle was organized by the Municipality of Trifylia in C sector, during the peak of the nesting season (9 July). Moreover, due to the situation followed by the COVID-19 pandemic, during August (which coincides with the peak of the hatching season) the area was inundated by holidaymakers. As a result, in the coastal forest behind C sector ARCHELON estimates that during August 2020 more than 3,000 people were camping simultaneously. This resulted in extensive trampling of the sand dunes by people walking to the beach and back (Photo 7), as well as increase of the light pollution, because in many cases tents and caravans were placed on the sand dune zone or even on the nesting beach (Photos 8a, 8b, 8c). Regarding sand dune degradation and fragmentation it must be noted that in sectors A, B and C a large number of 4x4 vehicles, was observed on the beach almost on a daily basis (Photos 9a, 9b), while at the exit to the beach of legal and illegal roads the sand dune vegetation is totally destroyed (Photo 8b), as no barriers for vehicles were placed for one more year, despite the commitments of the Ministry of the Environment. Mostly on the sectors A and B extensive stretches of land are used for agriculture and negatively affect the state of the sand dunes (Photo 10). In addition to the above, the owners of one of the newly built houses in 2019 (this house according to Environmental inspectors of the Ministry is illegal), planted many non-native plants in the dunes zone (Photo 11). Regarding light pollution in sectors A, B and C, despite the appeals of ARCHELON, no efforts have been made to reduce photo pollution from the relatively small number of artificial lights (2 private houses with flood lights and a few public street lights).

As mentioned in this Section, different levels of light pollution are present in the whole of the core nesting area (sectors O and A-C), resulting to extensive disorientation of emerging hatchlings. According to ARCHELON's preliminary data for 2020, besides the 279 nests that were boxed in Sector O (Kalo Nero), a significant percentage of nests was affected by light pollution in the other three sectors of the core area (A: 6% of all nests in sector A, B:12%, C:20%).

#### **4.2. Anthropogenic disturbances at the rest of the habitat (sectors D to K)**

At the northern part of the Bay there was a similar range of anthropogenic disturbances. These include vehicles on the beach, light pollution and the presence of beach bars with permanent illegal constructions. Fishing activities are also occurring widely across all sectors, with many small boats anchored or stationed on different parts of the beach, creating potential obstacles for incoming turtles. From the Neda river in the south to Zacharo and Kato Samiko in the north there were numerous businesses operating on the beach during the nesting season, both during the day and after sunset (Photo 12), without stacking their beach furniture, despite the provisions of the Decree. The most prevalent issues regarding the beach bar's operation are light pollution, occupation of the nesting habitat by sunbeds and degradation of the dunes because of vehicles.

#### **4.3. Turtle Strandings**

During the 2020 nesting season 10 dead turtles (one was *Chelonia mydas*) and 1 injured were found in Kyparissia Bay. The injured turtle had a severe fracture on the top of the head and was transported immediately to the ARCHELON Rescue Centre in Glyfada, Athens, for rehabilitation. This type of injury is usually caused deliberately by fishermen that aim to harm the turtles that are accidentally caught in their nets (Nestoridou et al., 2018). Generally, fishing boats and stationary nets were observed to be very close to the shore in all beach sectors, in some cases at distances less than 30m from shore (Photo 13). Set nets are usually left for the entire duration of the night, so any females attempting to emerge for nesting are at risk of getting trapped. As mentioned above the fisheries conservation issue is not addressed in the Presidential Decree (see Section 3.2).



## 5. Conclusions and recommendations

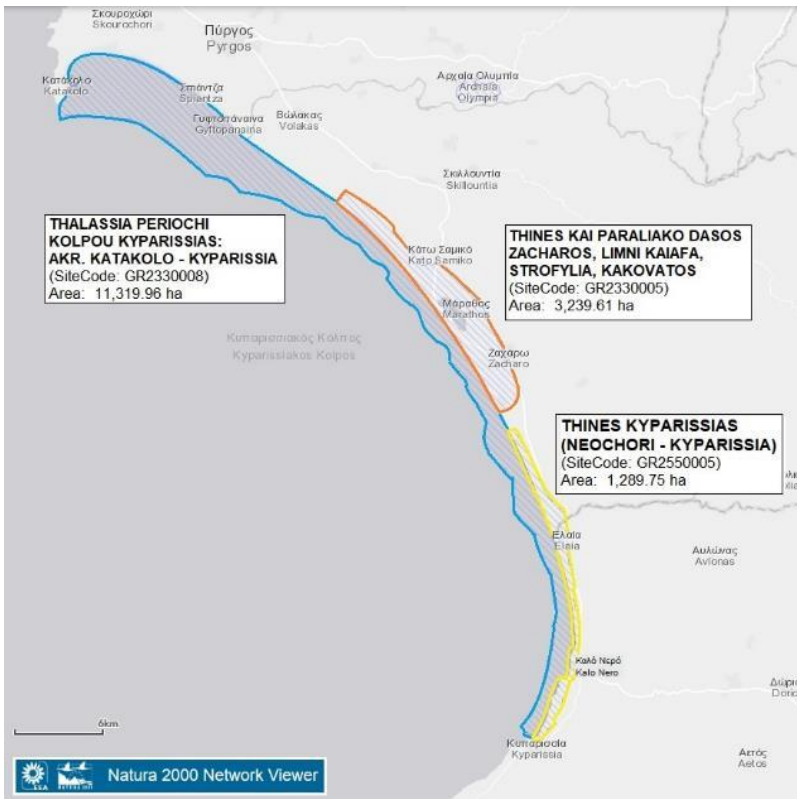
In conclusion, during 2020, sea turtle nesting was completed successfully, as the vast majority of the nests were recorded and protected against predation, trampling and light pollution, due to the intensive efforts of ARCHELON and despite the difficulties caused by the COVID-19 pandemic. However, none of the existing conservation issues affecting the habitat in general and the marine turtles in particular was resolved, despite the commitments of the Ministry of the Environment, as the Decree regulations were not enforced and implemented.

In order to fully comply with the implementation of the 12 points of the Bern Convention Recommendation and the European Court of Justice Judgment of 10 November 2016, the following steps are essential: (a) Strict enforcement and implementation of the Decree, (b) adoption of a Management Plan, which will complement protection measures included in the Decree, and (c) the quick and smooth transition to the new scheme of the Management Units under “OFYPEKA”.

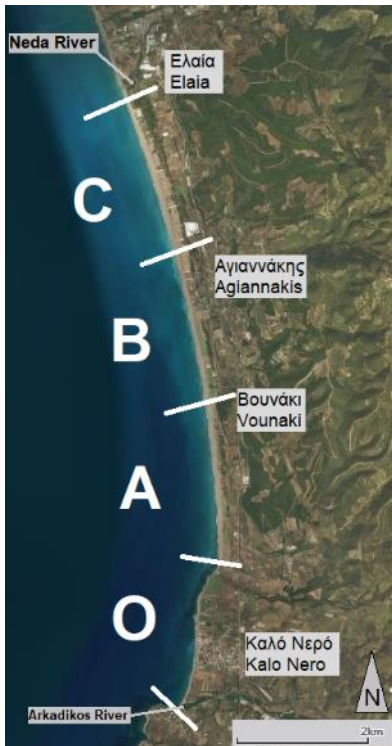
## References

- Margaritoulis D., Rees A.F. 2001. The Loggerhead Turtle, *Caretta caretta*, population nesting in Kyparissia Bay, Peloponnesus, Greece: Results of beach surveys over seventeen seasons and determination of the core nesting habitat. *Zoology in the Middle East* 24: 75-90.
- Margaritoulis D., Rees A.F., Riggall T.E. 2013. Connecting record levels of loggerhead nesting in Kyparissia Bay, Greece, to long-term nest protection. Page 184 in *Proceedings of the 33rd Annual Symposium on Sea Turtle Biology and Conservation* (compilers: T. Tucker, L. Belskis, A. Panagopoulou, A. Rees, M. Frick, K. Williams, R. LeRoux, K. Steward). Baltimore, Maryland, USA, 5-8 February 2013. NOAA Technical Memorandum NMFS-SEFSC-645. National Marine Fisheries Service, Southeast Fisheries Science Center, Miami, USA. 263 pp.
- Nestoridou P., Kasimati E., Tsaros P., Panagopoulou A., Margaritoulis D. 2018. Insights on deliberate head traumas on sea turtles in Greece. Page 122 in *Book of Abstracts* (Eds: B. Lazar, M. Jančić), 6<sup>th</sup> Mediterranean Conference of Marine Turtles, Poreč, Croatia. 168 pp.
- Theodorou P., P. Nestoridou, A.F. Rees, T. Riggall, A. Panagopoulou, and D. Margaritoulis. 2018. “Boxing” nests: An “unorthodox” but necessary method to save hatchlings from severe light pollution. Page 51 in *Book of Abstracts* (Eds: B. Lazar and M. Jančić), 6<sup>th</sup> Mediterranean Conference on Marine Turtles, Poreč, Croatia. 168 pp.

## Illustrations



**Illustration 1:** Map of the Kyparissia Bay showing the three Natura 2000 sites that are included in the Presidential Decree issued in October 2018.



**Illustration 2:** Map showing the core nesting area of *Caretta caretta* in southern Kyparissia Bay.



**Illustration 3:** Map of the entire Kyparissia Bay and the separation by sectors used by ARCHELON for the monitoring of *Caretta caretta* nesting activity.

## Photos



**Photo 1:** As the Decree was not enforced and the beach furniture was not stacked, on 1 July 2020 a turtle was found trapped under a sunbed during her attempt to nest in Sector O. After the sunbed was moved, the turtle managed to get back to sea.



**Photo 2:** Light pollution on the nesting beach of Kalo Nero (O sector). Light sources are both municipal streetlights and private owned ones.



**Photo 3:** Examples of private lights (yellow arrow) and streetlight (red arrow) that are causing intensive light pollution on the beachfront of Kalo Nero. The private lights, even if they are not located directly above the beach, their non-directional light is visible from a large part of the beach. The yellow circle shows an in-situ protected nest that was severely affected by light pollution.



**Photo 4:** Beach clean in Kalo Nero with use of a heavy vehicle during the peak of the nesting season.





**Photo 5:** The beach bar at C sector (Elaia) operated on the dune zone and caused further deterioration of the habitat.



**Photo 6:** The new beach bar at B sector (Agiannakis) also located on the sand dune zone.





**Photo 7:** Camping in the coastal forest and signs of sand dune degradation (loss of dune vegetation) due to the uncontrolled access to the beach through the sand dune zone (Sector C).



**Photo 8a:** Camping on the nesting beach on C sector. The red circles are indicating the location of in-situ protected sea turtle nests. In front of the camping equipment are visible 4 fishing rods fixed in the sand. Fishing from the beach is an activity that is not forbidden in the Presidential Decree, but it is a common threat to sea turtles.





**Photo 8b:** Overnight stay of caravans on the sand dune zone on B and C sectors. The caravan of the photo remained on that location for more than 3 weeks.



**Photo 8c:** Camping on the beach and beach equipment that stayed overnight on the nesting beach (C sector).





**Photo 9a:** Vehicle tyre tracks on the nesting beach of C sector.



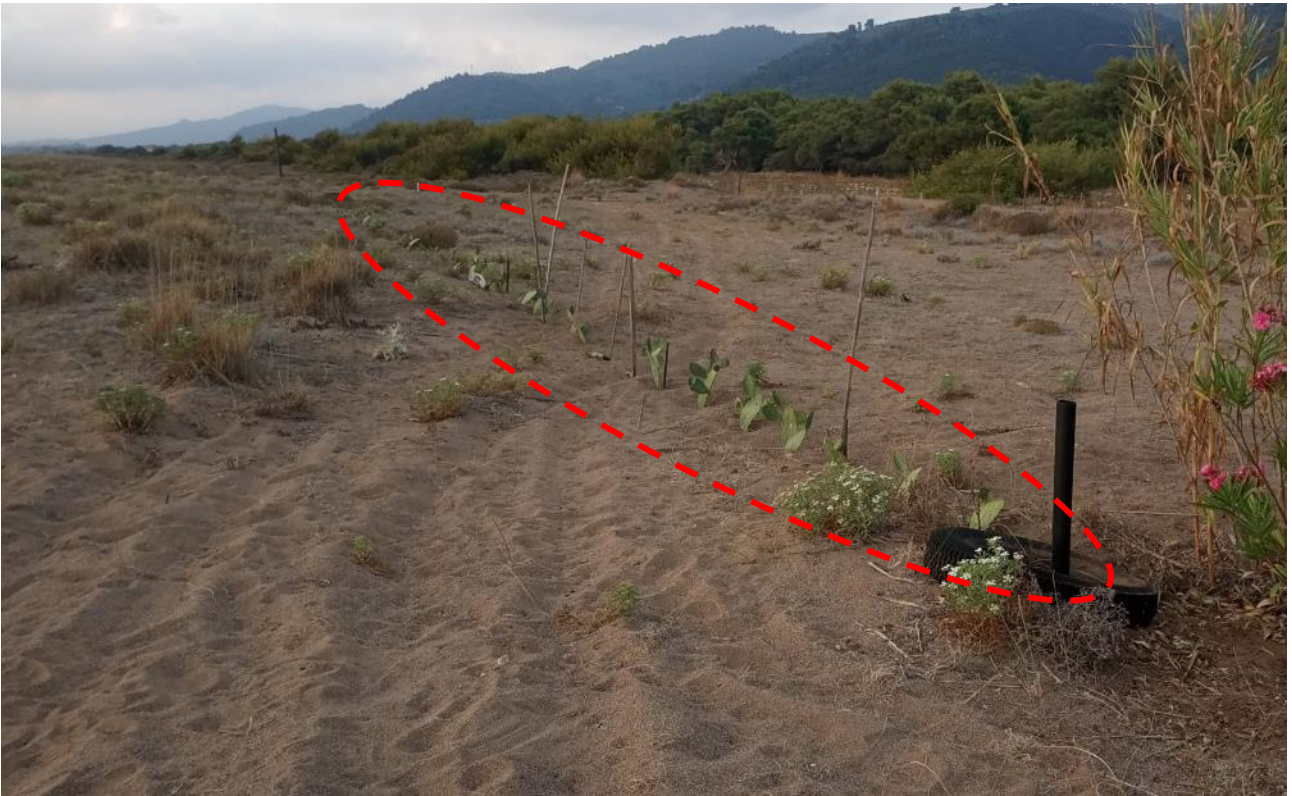
**Photo 9b:** A sea turtle track on top of tire tracks.





**Photo 10:** Sand dune destruction due to agricultural uses behind A and B sectors.





**Photo 11:** Non-native species planted in front of one of the newly built houses, on the sand dune zone, behind B sector.



**Photo 12:** Beach bars at the south part of D sector. They operated also at night time and did not remove their beach furniture during the night.



**Photo 13:** Fishing boat laying nets too close to the shore.