

Strasbourg, 29 July 2021  
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CONVENTION ON THE CONSERVATION OF EUROPEAN WILDLIFE  
AND NATURAL HABITATS

**Standing Committee**

41<sup>st</sup> meeting

Strasbourg, 29 November – 3 December 2021

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**Open file: 1986/08**

**Recommendation No. 9 (1987) on the protection of  
Caretta Caretta in Laganas bay, Zakynthos  
(Greece)**

**- REPORT BY THE GOVERNMENT -**

*Document prepared by  
the Ministry of Environment and Energy*

**Ministry of Environment & Energy**  
**General Directorate of Environmental Policy**  
**Directorate of Natural Environment Management &**  
**Biodiversity Department of Biodiversity**

Athens, 29 July 2021

**To the Secretary of the Bern Convention**

Dear Ms Sticker,

**Subject:** File 1986/8: Greece: Follow-up to Recommendation No. 9 (1987) on the protection of *Caretta caretta* in Laganas Bay, Zakynthos.

Greece would like to provide the following information concerning the open Case File No. 1986/8 to the attention of the Bureau of the Bern Convention with regard to the September 2021 meeting.

**A. Update on the implementation of the EULIFE project**

As referred to in the April 2021 report, a comprehensive Action Plan over *Caretta caretta* was formulated and submitted for public consultation by the NGO ARCHELON in 2020 as part of the LIFE Euroturtles Project in cooperation with LIFE IP-4 Natura Project (A.1. action), which is coordinated by the Hellenic Ministry of Environment & Energy (hereafter 'Ministry'). The 6-year Action Plan was recently adopted by the Ministry and is bound to be issued as a Ministerial Decision.

It is highlighted that A.1. action LIFE IP-4 Natura Project entitled 'Development and legal adoption of Action Plans (APs) for species and habitats of Community Concern' entails the selection of the specific habitats and species for which the APs will be formulated. This process will be based on the latest data from the Monitoring & Assessment Project of the Conservation Status of Protected Species and Habitats in Greece and experts' opinion, through workshop organization, where the conservation status, conservation needs, threats/pressures and economic aspects of habitats and species will be assessed. It is also expected that, if further data and information are necessary to be collected, targeted field work will also be carried out. The action will result in formally developing a national and binding specification document for drafting species and habitat APs, the formulation of several APs for species and habitats of Community Concern (Annexes III, IV and V of 92/43/EEC and Annex I of 2009/147/EC) and, finally, their legal approval.

**B. Implementation of strong mitigation measures against extreme touristic pressure on the beaches ahead of the summer season 2021 and enforce existing legislation**

First of all, the Presidential Decree (PD) No. 906 Δ (Government Gazette No. 906/Δ/22.12.1999) includes conservation targets and related management measures (articles 4, 5 & 6).

In accordance to the letter of the Secretariat of the Bern Convention to Greece's focal point on the 30<sup>th</sup> April 2021 presenting the results of the spring meeting of the Bureau over Complaint No. 1986/8, the Ministry recently issued a document urging the Municipality of Zakynthos, the Head of the Region of Ionian Islands, the Head of the Decentralized Administration of the Peloponnese, Western Greece & Ionian Sea and the National Marine Park of Zakynthos (NMPZ) to take all the necessary mitigation measures to protect *C. carreta* against extreme touristic pressure in Laganas Bay during the summer season 2021.

From its side, the NMPZ has officially informed the Ministry that the NGOs<sup>1</sup> complaints and claims

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<sup>1</sup> MEDASSET and ARCHELON

over the current conservation status of *C. caretta* in the protected area under its jurisdiction, are more than questionable, since the available dataset regarding the nesting activity of the afore-mentioned species depicts an increasing trend of the number of nests over the last 10 years and has been scientifically assessed that the global conservation status of *C. caretta* in Laganas Bay is satisfactory<sup>2</sup>. The NMPZ also insists that it fully abides by national and EU laws especially as regards the implementation of the management measures stipulated in the above-mentioned PD and cooperates with environmental NGOs, namely WWF Hellas and ARCHELON, having signed with the latter a Memorandum of Understanding (MOU). The NMPZ files a complaint with the competent local authorities for law enforcement, namely the Hellenic Police, the Hellenic Coast-Guard, the Municipality and the Urban-Planning Authority, every time that an illegal action is noticed in the area. Since 2018, an official procedure by the Zakynthos prosecution authority has been launched, following NMPZ numerous formal complaints, concerning all of the operators that were violating the maximum allowed number of umbrellas in Kalamaki and Gerakas and a trial due to be held in May 2021 has been postponed because of measures taken to tackle the Covid-19 ongoing pandemic. NMPZ has also formulated and is currently implementing a series of mitigation measures in 2021 as described in the Annexes of this report.

Although the number of tourists has triple-folded in 2020 compared to 2000, the reproduction rate of *caretta* is slowly recovering (in comparison to the period 1995-2011). By contrast, a constant positive trend of nesting rate was recorded in the last ten years and yet in beaches with the highest touristic pressure in Laganas Bay (e.g. in the areas of Gerakas and Kalamaki) proving the effectiveness of management measures undertaken during the last 20 years in the NMPZ area.

**C. Information on the Management Plan and the new legislation, especially in reference to the plans for their enforcement and presentation of the new governance model for the management of protected areas entails.**

As regards Laganas Bay, the common practice up till now was the approval by the Ministry of the management measures submitted and implemented by the NMPZ each year. These management measures have been based on the very detailed legislation governing the NMPZ area (PD No. 906/Δ/1999) about allowed and forbidden activities, maximum carrying capacity ratios, permits needed and specific measures all based on a Special Environmental Study.

Regarding the new legislation regulating management plans, law No. 4685/2020 (Government Gazette 92/A/7.5.2020) entitled 'Modernization of environmental legislation and inclusion of EU Directives No. 2018/844 & 2019/692 of the European Parliament and the Council into Hellenic legislation and other provisions' reformulates the legal framework of management plans and stipulates all required criteria (article 47, par. 3):

1. The conservation targets and potential ranking of management priorities within a protected area
2. All necessary management actions, interventions and measures in order to reach or preserve the satisfactory conservation status, although these actions and measures can be specified depending on the ecological requirements, the extent of conservation achieved and pressures and threats to be addressed
3. The specification of terms & conditions for any activity exercise and implementation of all necessary work to protect species & habitats as well as the inclusion of special studies to finalize all management actions and measures
4. Guidelines and priorities for carrying out all required projects, actions and measures for the effective protection, management and recovery of species & habitats as well as all suitable monitoring programmes

Article 47 (par. 3) also stipulates the inclusion of action plans into management plans specifying all necessary actions, measures and programmes, stages of implementation, total cost, funding sources and funding bodies as well as timelines and implementation bodies. The management plans are approved by Ministerial Decision signed by the Minister of Environment & Energy. Management plans involving

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<sup>2</sup> 2015- Third assessment of conservation status of protected species and habitats in Greece- Directive 92/43 EE

agricultural, fishing or aquaculture activities are approved by Joint Ministerial Decisions signed by both Ministers of Environment & Energy and Rural Development & Food. Finally, a PD may also be issued by proposal of the Minister of Environment & Energy and after the advisory of the Natura 2000 National Committee for the designation of a protected area having taken into consideration the special environmental study of that area in conjunction with its management plan.

The new law also provides the framework for the management of the protected areas in Greece as stipulated in article 27 with the establishment of the Natural Environment and Climate Change Agency (NECCA/OFYPEKA). NECCA/OFYPEKA<sup>3</sup> is a legal entity of private law supervised by the Ministry, which:

- coordinates the implementation of the Ministry's policy for protected areas
- conducts scientific research and studies
- prepares a 5-year Action Plan
- monitors the implementation of the Priority Actions Framework (PAF)
- organizes a dedicated web portal
- undertakes support for natural state monitoring networks
- implements programmes
- cooperates with European and international organizations, public and private scientific and productive bodies, and NGOs for the management of protected areas

NECCA/OFYPEKA will take over the management of protected areas as soon as a declaratory act is issued by the Minister of Environment & Energy (article 43 of the law).

#### **D. Overview of the illegal constructions in Laganas Bay and their possible threat to the ecosystem**

Greece would like to insist on its position expressed in the submitted April 2021 report. In particular, there is an issue of illegal constructions in Dafni, but this area is closely monitored during the day and night (no umbrellas on the seafront in contrast to Gerakas and Kalamaki and continuous patrolling) by the NMPZ staff. There is also an illegal road (landscape protection-F1) and two illegal buildings within the NMPZ protected area (Gerakas-Nature protection-P2), but even if these constructions do not directly put in danger the protected nesting beaches, the future threat that they impose to the ecosystem has to be assessed in conjunction with the existing legislation (e.g. Forest law and Environmental law). It is noteworthy that the majority of serious cases of violations related to the complaints (e.g. illegal roadway, illegally placed beach equipment or other illegal constructions) have ended up in court and have either been tried or are under pre-trial investigation.

#### **E. Information on the impact of the government's decision for the exploration and exploitation of hydrocarbon on Laganas Bay**

A Ministerial Decision approving the Strategic Environmental Assessment (SEA) on the exploration and exploitation of hydrocarbons in the Ionian Sea was issued on 3 July 2017. As referred to in the A.I. point of the SEA, the exploration and exploitation programme of the government is aligned with the EU Directive No. 94/22/EC on the conditions for granting and using authorizations for the prospection, exploration and production of hydrocarbons (Official Journal of the European Union, Notice No. 2014/C 400/03).

In point B.II., par. 3, of the SEA it is clarified that any areas belonging to the Natura 2000 network which make part of the exploration and exploitation areas must be left intact and not to be disturbed by the programme activities. For this reason:

- No project or programme activity is allowed within the afore-mentioned areas

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<sup>3</sup> <https://necca.gov.gr/en/home/>

- These areas are surrounded by a 1 km buffer zone to reduce any disturbance. This buffer zone is also free of projects and the programme activities
- The above-mentioned restrictions also apply to all of the programme stages as described in A.II. point of the SEA, namely prospecting, exploration, development & production, decommissioning & rehabilitation
- Any sound device will be turned off during seismic surveying in the buffer zone and the latter will only be used for the passage of ships or vessel manoeuvring
- The 1 km boundary also applies to any other Natura 2000 network areas that are adjacent to authorized areas, but do not make part of the latter.

In point B.II., par. 4, of the SEA it is also stipulated that a specific Environmental Action Plan (EAP) of seismic surveying will be carried out:

1. to ensure the compliance of seismic surveying with existing environmental legislation encompassing any provisions related to species and area protection as well as pollution avoidance
2. to minimize the impact of seismic surveying on marine turtles (especially *C. caretta*), seals, Cetaceans and other sea mammals as well as any other significant marine species
3. to apply all necessary measures for preventing any pollution incident at sea
4. to reduce any disturbance of existing marine activities, namely fishing

The EAP must also ensure that all protection measures on Cetaceans are adequate enough to protect *C. caretta*, especially emphasizing the population conservation and reproduction rate of the latter in the Ionian Sea either by providing adequate documentation and specialization of these measures or proposing additional measures if the existing ones are inadequate.

#### **F. Timeline for the adoption of the Ministerial decision for the designation of conservation targets**

The first Ministerial decision for the designation of national conservation targets for 21 natural habitats and 55 species of Union concern was recently issued in the Government Gazette (April 2021, No. 1375/B/7.4.2021 as corrected by No. 1915/B/13.5.2021) entitled 'Designation of national conservation targets for types of habitats and species of Union concern'.

The rest of the conservation targets as well as those over *C. caretta* are expected to be issued after the completion of the 'Monitoring and evaluation of the conservation status of amphibians/reptiles (except for marine species) of Community & National Concern, in Greece' Project, which is currently under tender process and is expected to last 26 months after the award of the contract.

Finally, a second draft Ministerial Decision will have been elaborated by the end of 2021 for the designation of Special Areas of Conservation (SACs) conservation targets based on the first Monitoring & Assessment Project of the Conservation Status of Protected Species and Habitats in Greece which ended last decade.

I remain at your disposal for any clarification you may need.

Sincerely yours,

Evangelos Badieritakis  
Jul 29 2021 1:14 PM

Evangelos Badieritakis

Dr Evangelos Badieritakis

The national focal point to the Bern Convention

## -ANNEXES-

**Annex I.** The designated and implemented mitigation measures in 2021 within the NMPZ area are described below, per nesting site as well as per NMPZ marine area<sup>4</sup>:

- 1. Sekania Beach:** Sekania nesting beach is situated at the east part of Laganas Bay being 650 m long and constitutes the core of the NMPZ (Site A1 Strictly Protection Site). It is a secluded beach without human activities, where on average 45-50% of the total nesting process of the nesting beaches in Laganas Bay takes place. Sekania nesting beach is a benchmark/reference point for the other nesting beaches, Therefore, pilot research programs for the monitoring of environmental parameters and reproduction activity of the loggerhead sea turtle are applied:

	Terrestrial Area		Adjacent Marine Area
1.	Placement of a wooden road barrier that prohibits the access, about 2 km from the nesting beach	1.	Buoys immersion that prohibit the access in the maritime zone A (summer months)
2.	Placement of information signs about the prohibition	2.	On-board patrol by the staff of NMPZ
3.	Daily surveillance and patrol by the eco-guards of the NMPZ (winter time)	3.	Daily patrol by the Coast Guard (if available)
4.	Daily surveillance (night and day) from WWF Hellas staff for fire prevention (June-October)		

- 2. Dafni Beach:** Dafni nesting beach (Nature Protected Site P1) is a significant nesting beach of Zakynthos for the loggerhead sea turtle *C. caretta*. Its length reaches 850 m and is close to Sekania nesting beach, the core nesting beach of the NMPZ. Dafni nesting beach protection is important due to the conservation of the reproduction biotope of the loggerhead sea turtle *C. caretta* as well as of the natural landscape of the surrounding zone of the beach:

	Terrestrial Area		Adjacent Marine Area
1.	Daily surveillance by NMPZ eco-guards. Visitor control at the nesting beach by keeping a maximum number at the same time (100 persons) during the day on the beach as well as the prohibition of access to the beach during night. Control of lights and noise from the surrounding human activities, outside of the nesting beach	1.	Buoys immersion that prohibit the access in the maritime zone A (summer months)
2.	Placement of wooden poles, warden kiosk and awareness panels to control the access to the beach	2.	On-board patrol by the staff of NMPZ
3.	Placement of protection cages on nests	3.	Daily patrol by the Coast Guard (if available)

<sup>4</sup> Information provided by the NMPZ in July 2021

4.	Keeping visitor distance on the beach at a maximum of 5-6 m from the sea		
5.	Nest relocation when nests are located at an improper site (e.g. by the sea)		
6.	Ban of the use of umbrellas on the beach		
7.	Continuous cleanings and rubbish removal from the nesting beach		
8.	Ensuring that visitors and local operators are well informed about management rules and conservation objectives		

**3. Gerakas beach:** Gerakas nesting beach (Nature Protected Site P2) is 600 m long and located at the eastern part of Laganas Bay. Main management goals are the conservation of the reproduction biotope of the loggerhead sea turtle *C. caretta*, the protection of the unique geological formations and the conservation/maintenance of the landscape aesthetic value while [due to the special natural beauty (geological formations of high interest, area morphology, sand quality etc.)], Gerakas nesting beach attracts a high percentage of visitors in Zakynthos:

	Terrestrial Area		Adjacent Marine Area
1.	Daily surveillance by NMPZ eco-guards. Visitor control at the nesting beach by keeping a maximum number at the same time (350 persons) during the day on the beach, regulate the maximum duration of visitors' stay accordingly to the season period as well as the prohibition of access to the beach during night	1.	Buoys immersion that prohibit the access in the maritime zone A (summer months)
2.	Placement of wooden poles, warden kiosk and awareness panels to control the access to the beach	2.	On-board patrol by the staff of NMPZ
3.	Placement of protection cages on nests	3.	Daily patrol by the Coast Guard (if available)
4.	Keeping visitors on the beach at a maximum of 5-6 m from the sea through the delineation (ropes) of the nesting area		
5.	Nest relocation when nests are located at an improper site (e.g. by the sea)		
6.	Video surveillance of the beach (24 hours) for measuring the impacts of erosion on nesting activity as well as potential beach intruders during the night		
7.	Compliance with the rules regarding the professional use of umbrellas and beach chairs		
8.	Continuous cleanings and rubbish removal from the nesting beach		

9.	Ensuring that visitors and local operators are well informed about management rules and conservation objectives		
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- 4. Kalamaki- East Laganas** nesting beach (Nature Protected Site P3 – Protected Landscape F2) is 3,500 m long and has the largest nesting beach in Laganas Bay. Its integrated management is challenging as it gathers high amounts of tourists during summertime and is adjacent to the villages of Laganas and Kalamaki, which are the top tourist destination in Zakynthos:

	Terrestrial Area		Adjacent Marine Area
1.	Daily surveillance by NMPZ eco-guards. Visitor control at the nesting beach ensuring the prohibition of access to the beach during night.	1.	On-board patrol by the staff of NMPZ
2.	Placement of wooden poles, warden kiosk and awareness panels to control the access to the beach	2.	Daily patrol by the Coast Guard (if available)
3.	Placement of protection cages on nests		
4.	Keeping visitor distance on the beach at a maximum of 5-6 m from the sea through the delineation (ropes) of the nesting area (Zante beach-Chrysal beach)		
5.	Nest relocation when nests are located at an improper site (e.g. by the sea)		
6.	Shading of nests under artificial light glow		
7.	Compliance with the rules regarding the professional use of umbrellas and beach chairs		
8.	Continuous cleanings and rubbish removal from the nesting beach		
9.	Ensuring that visitors and local operators are well informed about management rules and conservation objectives		

- 5. Marathonisi nesting beach** (Protected Area A2, Protection of Nature) is about 150 m long and located at the northeastern part of the island, close to the villages Limni Keriou, Lithakia and Laganas (2 nautical miles). The lowest incubation temperature occurs in the Marathonisi nesting beach when compared to the other nesting beaches of Laganas Bay. The incubation duration is the highest resulting in a high percentage of male hatchlings. The management goal is to secure the important nesting density of the loggerhead sea turtle *C. caretta* and to protect the dunes. An additional management goal is the natural environment conservation as it constitutes a natural habitat of typical Mediterranean vegetation, endemic flora, threatened/endangered avifauna, as well as a shelter for the Mediterranean monk seal *Monachus monachus*:

	Terrestrial Area		Adjacent Marine Area
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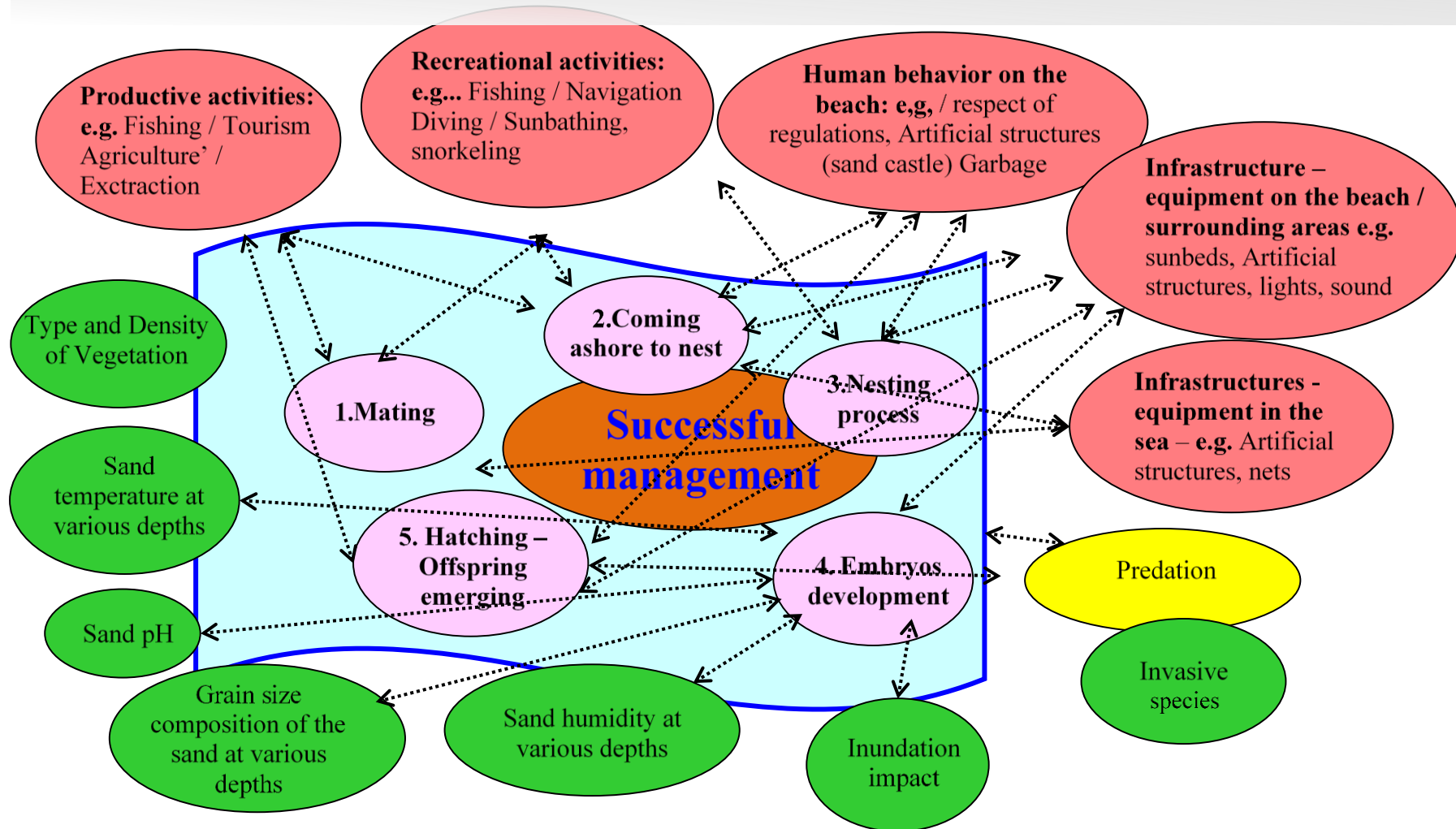
1.	Daily surveillance by NMPZ eco-guards. Visitor control at the nesting beach by keeping a maximum number at the same time (200 persons) during the day on the beach as well as the prohibition of access to the beach during night	1.	On-board patrol by the staff of NMPZ
2.	Keeping visitors on the beach at a maximum of 5-6 m from the sea through the delineation (ropes) of the nesting area	2.	Daily patrol by the Coast Guard (if available)
3.	Placement of protection cages on nests		
4.	Nest relocation when nests are located at an improper site (e.g. by the sea)		
5.	Control navigation and visitors access from the sea		
6.	Umbrella banning on the beach		
7.	Continuous cleanings and rubbish removal from the nesting beach		
8.	Ensuring that visitors and local operators are well informed about management rules and conservation objectives		

**6. Marine area:** The main management goals in the marine area (89 km<sup>2</sup>) are the conservation of the ecological value of the marine area (Natura 2000 Protected Area Ia and Ib), since it constitutes a habitat for the priority species (according to the Directive 92/43/EEC) of the loggerhead sea turtle *C. caretta* and the Mediterranean monk seal *Monachus monachus*, the conservation of the submarine and coastal ecosystems and the protection, enhancement and rational management of the fishing resources.

<b>Marine Area Ia Protection of Nature</b>	
1.	Daily surveillance by NMPZ eco-guards (boat patrols) regarding the main infringements of rules in the marine area (e.g. zone A forbidden to any boat access, zone B and C boat speed restricted to 6 nautical miles, zone B mooring is prohibited, only daily activities, recreational fishing forbidden)
2.	Visual control of any source of marine pollution
3.	Compliance with the rules regarding the sea turtles watching activity (according to the Code of Conduct established by the NMPZ since 2002 and the Decision of the Zakynthos Coast Guard' authority number 2131.13/2063/18-29/05/2018 that allows the imposition of fines in case of the violation of those rules)
4.	Buoys immersion according to the no-go marine zone A' and for boats access to the islet of Marathonisi
5.	Cooperation with the businessmen that are specialized in loggerhead sea turtle observation

6.	Ensuring that visitors are well informed about management rules and conservation objectives in the marine area
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ADAPTIVE MANAGEMENT ON NMPZ NESTING BEACHES





**Annex II. Photos of equipment/ infrastructure and management measures in the NMPZ Area in 2021 (by courtesy of the NMPZ)**



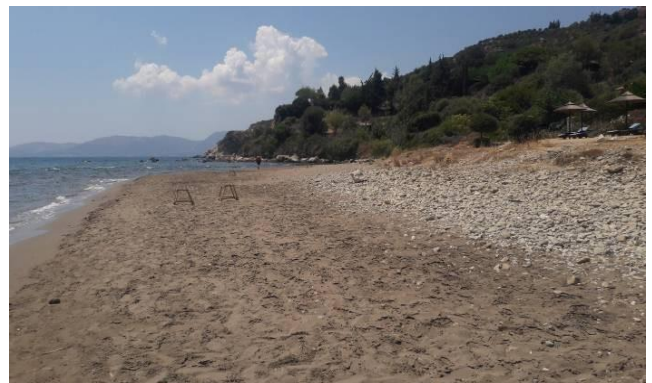
**Photo 1.** Sekania Nesting Beach



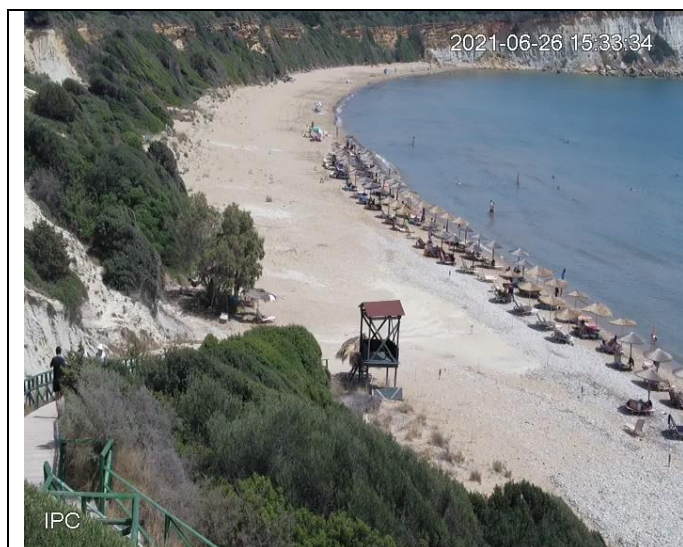
**Photo 2.** Dafni Nesting Beach



**Photo 3.** Buoy immersion that prohibits the access to the maritime zone A (summer months)



**Photo 4.** Protection cages on nests in the nesting beach of Dafni



**Photo 5.** Video control Gerakas Nesting Beach



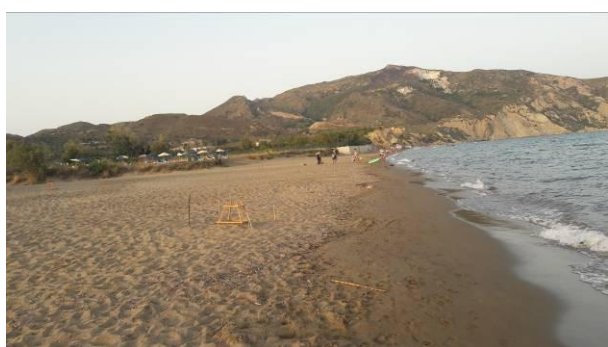
**Photo 6.** Implementation of management measures on the nesting beach of Gerakas regarding the ban of entering the beach during the night



**Photo 7.** Nesting beach cleaning by the Park Rangers from the M.A. of the N.M.P.Z.



**Photo 8.** Terrestrial Park Rangers from the M.A. of the N.M.P.Z. informing visitors for the regulation measures in the nesting beach of Kalamaki



**Photo 9.** Protection cages on nests in the nesting beach of Kalamaki.



**Photo 10.** Delineation of the acceptable upper limit of beach furniture presence on the nesting beach as a management measure for nest protection (Kalamaki nesting beach).



**Photo 11.** Implementation of management measures on the nesting beach of Sekania regarding the prohibition of approaching visitors to the beach



**Photo 12.** Implementation of management measures at Kalamaki nesting beach (i.e. signs and polls) for the information of the visitors.



**Photo 13.** Implementation of management measures on the nesting beach of Kalamaki regarding the prohibition of approaching vehicles, horses, etc at the beach.



**Photo 14.** Delineation of the acceptable upper limit of beach visitors presence on the nesting beach of Marathonisi as a management measure for nest protection.

**File 1986/8: Greece: Follow-up to Recommendation No. 9 (1987) on the protection of *Caretta caretta* in Laganas bay, Zakynthos**

Greece would like to provide the following information concerning File 1986/8 to the attention of the Bureau of the Bern Convention.

Regarding the trend of nesting as a whole, there is an upward trend from 2010 onwards, as shown by the graphs provided in the attached Appendix. The annual fluctuations are mainly due to the biology of *Caretta caretta* which arrives in Zakynthos for reproduction every 2 years. Because it is a migratory species, its protection does not cover its wintering-feeding areas and its transport corridors, and considering the effects of climate change, it is extremely difficult to draw conclusions on an annual basis. Therefore, the general upward trend should be considered over a period of at least 5-6 years, but ideally 20-25 years corresponding to the period required for the adult turtle to mature. In short, the generation of turtles that were born in 1984, appeared in Zakynthos (as it is known that sea turtles return to the place where they were born) for reproduction 20-25 years later. Given that anthropogenic pressure has increased at least fivefold from 1984 to date (approximately 1 million visitors per year), in an area that is not very large, the rational explanation for the growing trend of nesting is the protection and management of the area. Moreover, scientific studies have shown that the level of conservation of the species is satisfactory (2015 - third application report of Directive 92/43).

Regarding the nesting trend per spawning beach (6 distinct beaches), the conclusions are even more complex if it turns out that the highest growth trend is in beaches that receive the greatest human pressure. A good example is Gerakas which had an average of 70 nests in seasons with a limited number of visitors while in the last 10 years (corresponding to a period of greater human pressure) this average reached 130 (this year there were 300 nests recorded, which is the highest level of spawning in 36 years). The same applies to Kalamaki (eastern Laganas), ie in the area that gathers a very large part of the hotel infrastructure of the island. On the contrary, the beach of Sekania, which is completely protected (closed to the public), has proportionally lost part of its importance (in the past it received about 60% of the spawning while today it receives about 40-45% of the total effort), which proves that the level of protection in areas under pressure is satisfactory and effective. Finally, the issue is raised with the Beaches of Daphne and Marathonisi, where there is indeed a downward trend over the years, despite the management and protection measures that are applied on an annual basis.

In Daphne, where there is the issue of illegal structures, the situation is monitored during the day (there are no umbrellas on the seafront in contrast to Gerakas and Kalamaki) and during the night (presence of security personnel day and night). The problems on this beach are quite different (according to the experience of the Management Body of the area) and the decline is difficult to explain, as it is clear that the turtles come out undisturbed during the night, the nests are not disturbed, there is no obstacle or there is no particular disorientation affecting the hatched turtles. The change in the morphology of the beach (due to climate change) can be a substantial argument for reducing nesting, if there is a spread of pebbles on the beach (indicating loss of sand). There is no substantial answer yet, but the issue of erosion concerns all the beaches of Laganas gulf with consequences that differ depending on the case (eg in Gerakas, while the loss of sand is proven, the phenomenon does not concern the whole area but part of it, while in Daphne it seems to concern the whole beach).

Finally, for the islet of Marathonisi, a place that does not face any pressure during the night (uninhabited island, ban on yachts during the night), the downward trend is even more intense. Despite efforts by the Management Body, it has not yet been scientifically explained, but enough data is collected on an annual basis that will enable us to understand this phenomenon. In any case, we suspect that the real cause will be the result of a combination of environmental and human parameters and not just human ones. For example, this year, with very limited boat traffic and a large reduction in visitors during the spawning season, no substantial and significant improvement of spawning was observed compared to the last 20 years, which in a way refutes the argument of excessive human exploitation as a cause of reduced nesting in that particular area.



In general, and in relation to the received complaints, the reference to isolated incidents is not evidence of a substantial impact on the sea turtle life cycle (eg, sea turtle failures to reach the water due to sunbeds may account for perhaps 0.1% of cases) and inaccuracies in the descriptions of incidents have to be taken into account. For example, when a case of nest "vandalism" is reported, it might just be a child (or a turtle in several cases) that "teased" the rope that surrounds a nest for protection and of course it is not mentioned that the rope protection is re-installed immediately by the security personnel. The exact same issue is raised with reported cases of vehicles on the beaches, a phenomenon that is extremely rare due to extensive marking of the protected areas and the presence of security personnel. Real cases of violations related to the complaints (eg illegal roadway, illegally placed beach equipment, illegal constructions) have ended up in court and have either been tried or are under pre-trial investigation.

As a more general matter of policy, we present the following initiatives by the Ministry of Environment and Energy for the safeguarding of protected areas of the NATURA 2000 network.

### **I. SPECIAL ENVIRONMENTAL STUDIES (SES)**

Within the program period of the NSRF (2014-2020) the crucial project of elaboration of Special Environmental Studies, draft Presidential Decrees and Management Plans for all areas of the NATURA 2000 network has been launched. In total the project is structured around 12 separate studies, of which 11 concern the elaboration of the SESs for all NATURA 2000 areas of the country, and one (1) study concerns the coordination of the remaining 11 studies and the final drafting of the Presidential Decree for the designation of the areas and the Ministerial Decisions for the respective Management Plans for each area. The elaboration of these Studies started in February 2019. Following the recent necessary modification of the contracts with the contractors (30/12/2020), the completion of the elaboration, the consultation and the submission of the final SESs will be completed in December 2021, while the rest of the project, which includes the public consultation and the submission of the drafts for the Presidential Decrees and Ministerial Decisions, will be completed in March 2022.

### **II. SUPERVISION AND EVALUATION OF THE CONSERVATION REGIME OF PROTECTED SPECIES AND HABITATS IN GREECE**

The competitive process of a co-financed project is in progress, the object of which is the "on the field" monitoring of the protected habitat types and species, of national and EU importance, with the aim of assessing their conservation status.

The objectives of the project include: the supplementing/updating of the databases related to the protected entities, the re-evaluation of the degree and the state of conservation as well as the identification of the reasons for any changes over time, the re-evaluation of the bird populations and their trends on national level, the revision / updating of the Favorable Reference Values and the Conservation Objectives of the habitat types and species in the NATURA 2000 areas.

By the project's completion, there will be available targets, priorities and conservation measures for the species and habitats, and the necessary data will have been updated. The outcome will be a strengthening of environmental protection policies at national and local level, as the deliverables of the project will be utilized by the competent authorities of the Ministry of Environment and Energy in order to meet the country's European and international obligations in matters of biodiversity and protected areas.

### **III. MINISTERIAL DECISION ON CONSERVATION TARGETS**

Following the Bilateral Agreement between the European Commission and the Directorate for the Management of the Natural Environment of the Ministry of Environment and Energy (March 2019), and in compliance with the recent C-849/19 decision of the Court of Justice of the European Union, a ministerial

decision is being drafted within the Ministry of Environment and Energy for the designation of conservation targets within the Special Conservation Areas of the country that are part of the NATURA 2000 network, as required by Article 6 par. 1 of Directive 92/43 / EEC

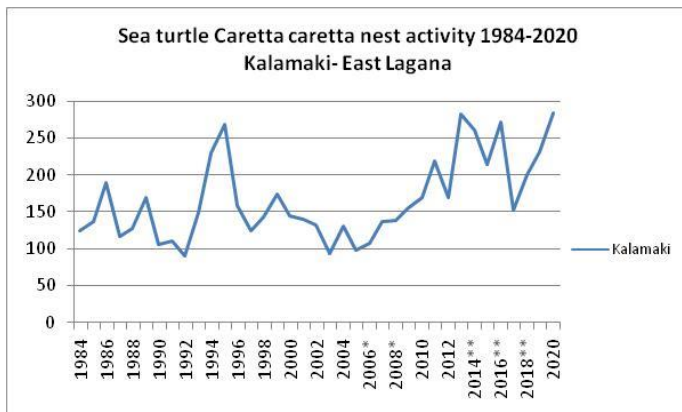
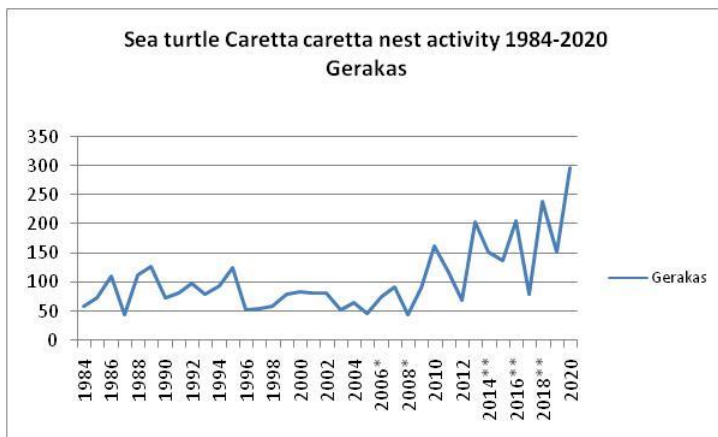
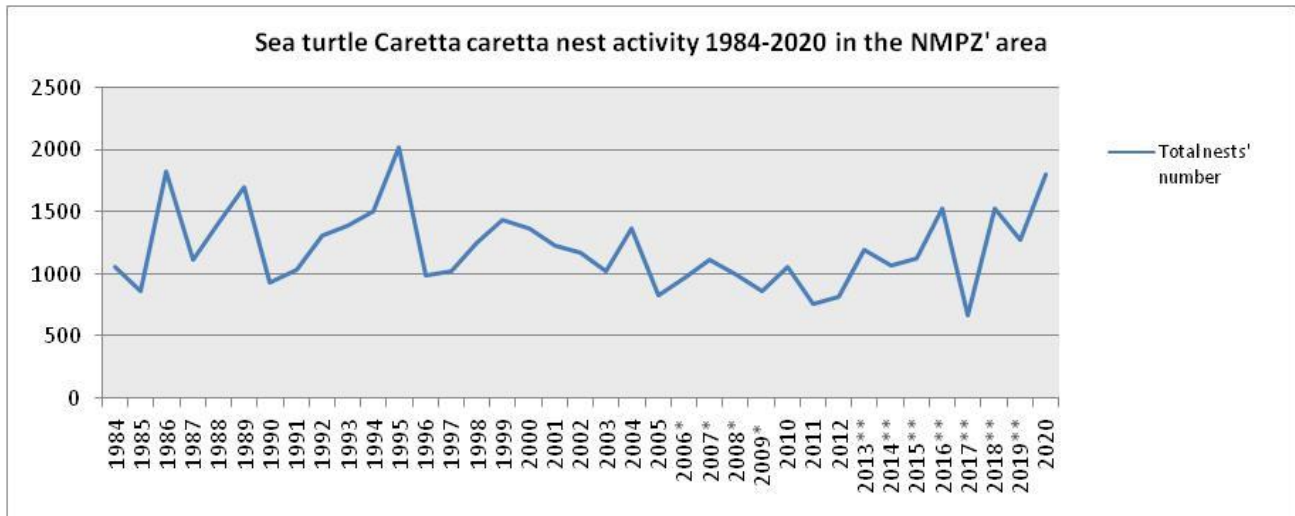
#### **IV. LAW 4685/2020 – NEW MANAGEMENT STRUCTURE**

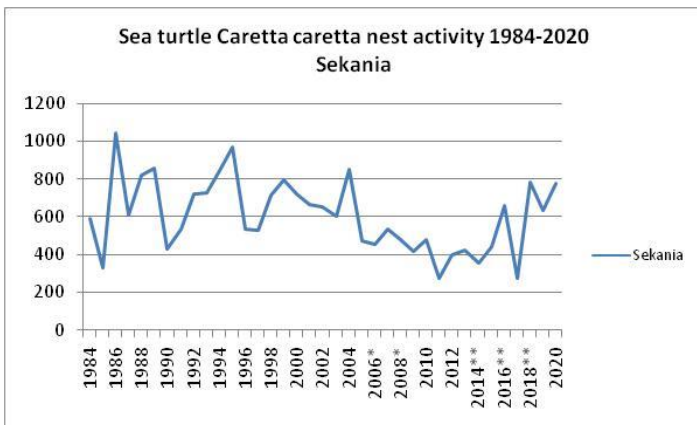
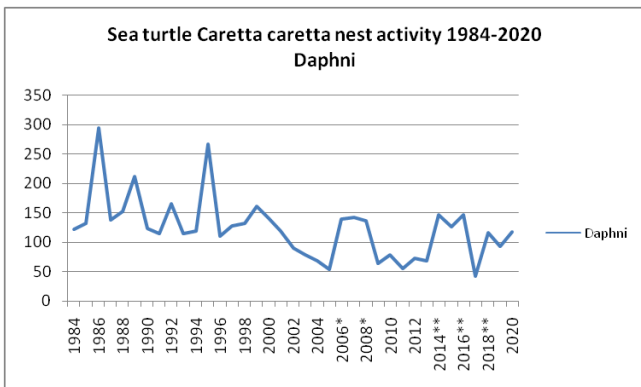
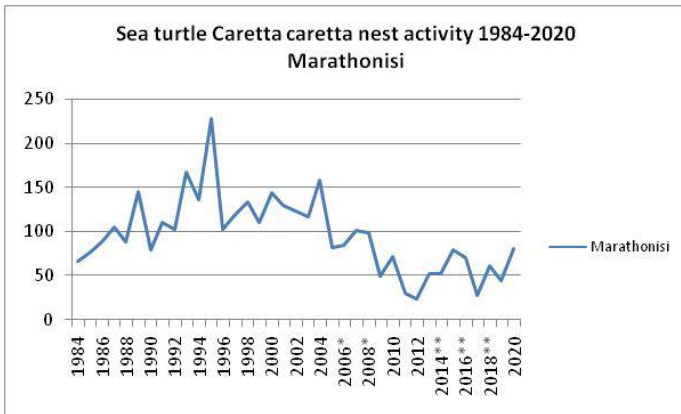
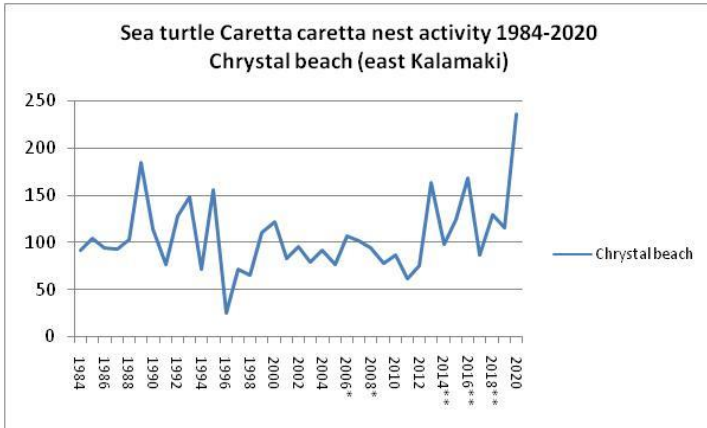
On May 7, 2020, Law 4685 (Government Gazette 92 A ') was issued under the title: "Modernization of environmental legislation, incorporation into Greek legislation of Directives 2018/844 and 2019/692 of the European Parliament and of the Council and other provisions", with Chapters C and D referring respectively to the management of protected areas and the zones within them. The aim of the new law is to reform the management system of the protected areas of the NATURA 2000 Network so that it becomes more targeted and effective. The management of all the Greek protected areas of the NATURA 2000 Network, will be taken up by the newly established central structure named "Agency for Natural Environment and Climate Change" (OFYPEKA) and the new Management Units that will be replacing the previous Management Bodies for the Protected Areas.

#### **V. ACTION PLAN FOR CARETTA CARETTA**

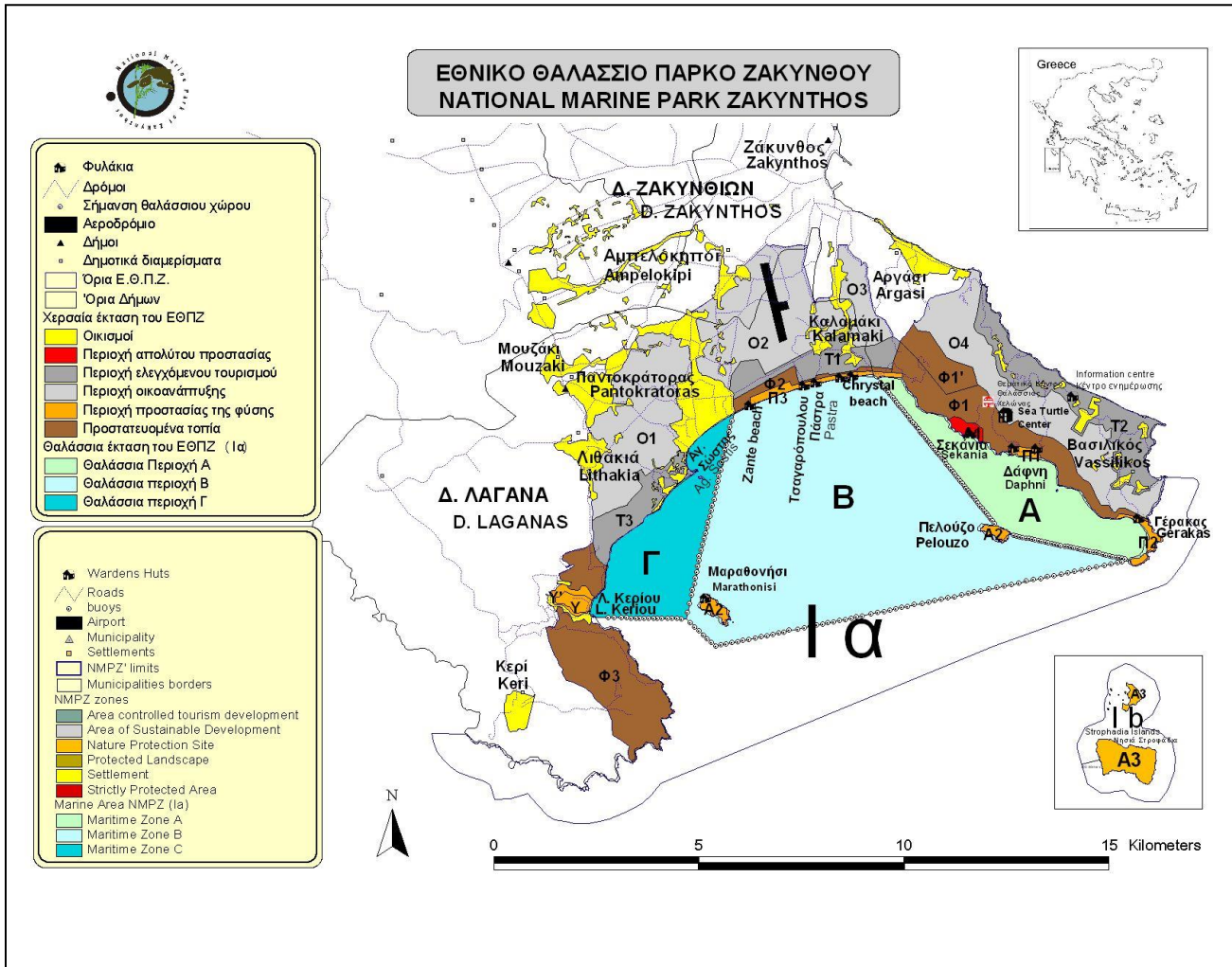
The LIFE-IP 4 NATURA project, the first Life Integrated Project (LIFE IP) ever approved for Greece, is the most important nature conservation project of the last decades for the country. It constitutes the first centrally coordinated initiative to implement the Greek Priority Action Framework on a national regional and local scale. The project has a duration of 8 years (2018-2025) with a total budget of €17 million (co-financed by the European Commission's €10.2 million contribution, the Green Fund's €4 million national contribution and the project partners' contributions). An integral Action within the LIFE-IP 4 NATURA project entails the development and legal adoption of Action Plans for species and habitats of Community Interest, as well as their implementation on the field. One of the species that has been selected is *Caretta caretta*. A comprehensive Action Plan for the species has been formulated and submitted for public consultation and is expected to be legally adopted as a Ministerial Decision within 2021.

**Appendix 1: Nesting activity in the different nesting beaches of the Laganas Bay (1984-2020)**





**Appendix 2: Map of the N.M.P.Z. area in Laganas Bay and Photos with Activities of the M.A. of the N.M.P.Z.**

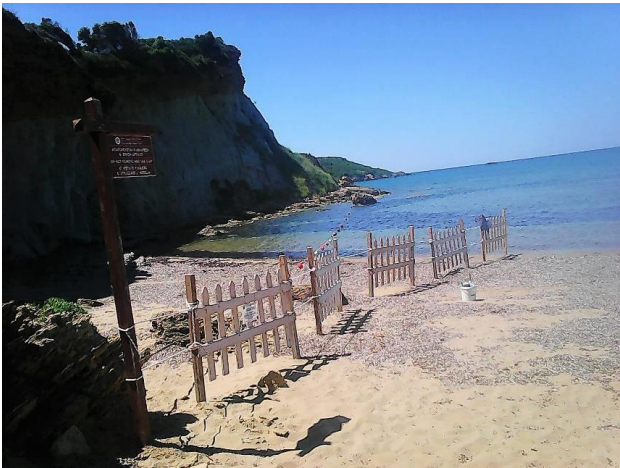




**Photo 1.** Informative billboards set by the N.M.P.Z. in Kalamaki Nesting Beach



**Photo 2.** Informative Billboards and Road Barriers set by the N.M.P.Z. in Kalamaki Nesting Beach



**Photo 3.** Prohibitive Access Fence set by the N.M.P.Z. for the protection of glines (geological formations) in Gerakas Nesting Beach



**Photo 4.** Marine Park Rangers from the M.A. of the N.M.P.Z. informing visitors for the regulation measures in the Marine Area of the Park



**Photo 5.** Terrestrial Park Rangers from the M.A. of the N.M.P.Z. informing visitors for the regulation measures in an Information Kiosk in the nesting beach of Kalamaki



**Photo 6.** Arresting of illegal spearfisherman by the Marine Park Rangers from the M.A. of the N.M.P.Z. in collaboration with the Zakynthos Port Police Authority



**Photo 7.** Nesting beachcleaning by the Park Rangers from the M.A. of the N.M.P.Z.



**Photo 8.** Monitoring of a nest of *C. caretta* by the Park Rangers from the M.A. of the N.M.P.Z. in a nesting beach in the framework of the Environmental Education Programme of the Park



**Photo 9.** Informing MPA managers from all the Mediterranean region for the management strategy and actions of the NMPZ during a workshop that was held in Zakytnhos (May 2017). This activity took place in the Thematic Exhibition Centre of the M.A. of the N.M.P.Z. in the vicinity of the nesting beach in Dafni.



**Photo 10.** Presentation of the measures taken in the MPA of NMPZ for the conservation of the sea turtles by the Port Authority of Zakytnhos during a workshop that was held in Zakytnhos (May 2017) and hosted MPA managers from all the Mediterranean region. This activity took place in the Thematic Exhibition Centre of the M.A. of the N.M.P.Z. in the vicinity of the nesting beach in Dafni



**Photo 11.** Implementation of management measures at Gerakas nesting beach regarding visitors' allocation on the beach and on-site nest protection.



**Photo 12.** Implementation of management measures at Kalamaki nesting beach (i.e. signs and polls) for the information of the visitors.



**Photo 13.** Delineation of the acceptable upper limit of beach furniture presence on the nesting beach as a management measure for nest protection.



**Photo 14.** Sea Platform which is placed at the front of Marathonisi nesting beach and allows a better management of marine traffic and visitors.





**Photo 15.** Mean density and spatial distribution of human movement on the beach provided by the surveillance camera system at the Gerakas nesting beach. It is evident that that the upper parts of the beach where all the sea turtle nests are located is free of human presence.



**Photo 16.** International Scientific Symposium '*Marine Protected Areas in Greece & the Mediterranean: Designing for the Future by Applying Lessons Learnt from the Past*' organised by the M.A. of the N.M.P.Z. in collaboration with the Technical University of Zakynthos and the Greek Ministry of Environment (250 participants - December 2015)