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CONVENTION ON THE CONSERVATION OF EUROPEAN WILDLIFE AND NATURAL HABITATS

Standing Committee

38th meeting Strasbourg, 27-30 November 2018

File open

Follow-up of Recommendations Nos. 182 and 183 (2015) on Presumed degradation of nesting beaches in Fethiye and Patara SPAs (Turkey)

- REPORT BY THE COMPLAINANT -

Document prepared by MEDASSET - Mediterranean Association to Save the Sea Turtles, Greece

August 2018 Update Report

Loggerhead sea turtle (*Caretta caretta*) conservation monitoring in Fethiye and Patara SPAs, Turkey

MEDASSET - Mediterranean Association to Save the Sea Turtles

UPDATE REPORT BY THE NGO

Marine Turtle Conservation in the Mediterranean

LOGGERHEAD SEA TURTLE (CARETTA CARETTA) CONSERVATION MONITORING

IN FETHIYE AND PATARA SPAS, TURKEY

24 August 2018

Document presented by MEDASSET - the Mediterranean Association to Save the Sea Turtles

for the 38th Standing Committee Meeting of the Contracting Parties to the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention)

Contents:

- LOGGERHEAD SEA TURTLE (CARETTA CARETTA) CONSERVATION MONITORING IN PATARA SPA, TURKEY
- LOGGERHEAD SEA TURTLE (CARETTA CARETTA) CONSERVATION MONITORING IN FETHIYE SPA, TURKEY

LOGGERHEAD SEA TURTLE (*CARETTA CARETTA*) CONSERVATION MONITORING IN PATARA SPA, TURKEY

MEDASSET hereby submits an update report to the second Bureau Meeting of the Bern Convention (September 2018) on the conservation status of sea turtle nesting beaches in Patara Specially Protected Area (SPA) in Turkey.

Contents:

- BACKGROUND
- UPDATE
- CONCLUSION & RECOMMNEDATIONS
- REFERENCES
- MAPS & PHOTOS

BACKGROUND

For a full description of the site and of the case background see MEDASSET 2012 Complaint.

Patara Specially Protected Area (SPA) is a unique archaeological site of global importance and a protected nature site that includes coastal forest, wetlands, shifting sand dunes and a loggerhead sea turtle (*Caretta caretta*) nesting beach that is among the most important rookeries for the species in Turkey. Patara's river and wetland systems created the most important and largest dune ecosystem on the Turkish Mediterranean coast.

Threats to Patara were first raised by MEDASSET in 1988 and has since been supported by others at the Standing Committee Meetings of the Bern Convention. In 1996 a Case File was opened and the 9-measure Recommendation No. 54 was adopted. MEDASSET submitted further detailed and specific Recommendations in 1998 (T-PVS (98) 49). The File was closed in 2001 despite some remaining problems and Turkey was asked to continue reporting to the Standing Committee on progress made. MEDASSET continued to monitor the conservation status of Patara and submit reports to the Standing Committee.

In September 2012 MEDASSET submitted a complaint (2012/9) on a large scale summer house construction project by 3 housing cooperatives within Patara SPA's 3rd Degree Archaeological protected area (Fig. 2-3) and on the failure of the current land use and management plan to secure adequate protection for both the natural and archaeological site. As described in the complaint, the project (450-700 villas for a population of around 3000 people, according to 2011 press articles) will impact the loggerhead nesting population, by increasing disturbances and habitat damage. The complaint also presents an interpretation of the multiple changes to the zoning and the Patara SPA management plan, which made construction within the the 3rd Degree Archaeological area possible, and shows a clear bias towards construction interests and disregard of expert opinion provided by archaeologists and planners since 1978. The original plan did not allow new permanent constructions in the 3rd Degree Archaeological protected area, apart from those necessary to cater to the needs of the small village, and envisaged the development of low-impact, small-scale tourism facilities, with the aim to maintain cultural, historical, archaeological and natural components of the site. In our view this large scale summer house construction project within Patara SPA is incompatible with the Bern Convention Recommendations No. 12 (1988), No. 24 (1991), No. 54 (1996) and No. 66 (1998). No information on an environmental impact assessment (EIA) or carrying capacity study prior to the approval of the project is available. To our knowledge the approval of the construction project has not been matched with an updated plan to ensure increased resources to manage and mitigate the impacts of the much higher number of users of the protected area.

In 2013, 27 villas and swimming pools were completed (by Ozlenen Deniz Housing Cooperative) and inadequate management of the nesting beach was documented (T-PVS/Files 2013 9). In December 2013, a case file was opened to address the complaint (together with the complaint regarding Fethiye

SPA) and to encourage Turkish authorities "to work towards greater accountability, cooperation and responsibility". No information, response or update was provided by Turkish authorities before or during the Standing Committee Meeting.

In 2014, constructions continued and inadequate management of the nesting beach and new beach development was documented in 2014 (T-PVS/Files 2014 16). Articles in the Turkish press (Annex 1 of T-PVS/Files 2014 16) reported that in total 300 villas will be built inside the protected area by the 3 Housing Cooperatives and that the request of one of the cooperatives to exchange their land for lands outside the protected area was not accepted by the authorities. The government stated that the summer house development is "2 km away from the beach" and at the "opposite direction" of the 1st Degree archaeological site (T-PVS/Files 2014 25). In MEDASSET's view the development site is linked to both the nesting beach and the archaeological site and cannot be viewed as a separate or isolated section of the SPA. To the best of our knowledge, the development is 1 km from the beginning of the sand dunes and 1.5 km from the nesting site. In addition, the government report did not address the concerns raised in the complaint regarding an EIA, carrying capacity study and management of the associated impacts related to the increased users and businesses that will result from this development. In December 2014, the Standing Committee decided to conduct an on-the-spot appraisal in view of identifying a set of recommended actions for consideration of the Committee at its 2015 meeting.

In 2015, the 27 new summer houses were inhabited and new foundations were laid in the cooperatives' land inside the 3rd Degree Archaeological area. A second road connecting the development to Gelemis/Patara village was asphalted. Official information was not available about the final number of summer houses to be constructed, however, during the Bern Convention's on-the-spot appraisal on 28 July 2015 an official stated that in total 312 summer houses will be constructed. As regards the status of the nesting beaches, management and conservation problems remained unsolved in 2015, such as lack of guarding and access control, poor beach furniture management at night, littering, lack of information signs, etc. In December 2015, the Standing Committee, alarmed by the findings of the on-the-spot assessment in July 2015 which confirmed MEDASSET's reports, adopted Recommendation No. 182 (2015), asking Turkey to take urgent action to improve management and conservation of Patara.

In 2016 and 2017, Recommendation No. 182 (2015) was not implemented and there was no significant improvement in the conservation status of the nesting beaches and management problems remained, such as lack of management staff and insufficient nest monitoring personnel, lack of zoning and information, nearshore fishing, predation, vehicle access etc. At the same time, construction of the summer house development in the 3rd Degree Archaeological site of the SPA continued.

UPDATE

Patara nesting beach description (Fig. 1-2): the 12 km beach is split in a <u>north and south beach</u> by the Esen river that meets the sea in the middle of the SPA. At its northern end the beach is bordered by the Özden river. There are 5 access points. At the <u>North beach</u> there is an entry point at the Özden river outlet (<u>Özden beach</u>) and another entry point at the Esen river (<u>Letoon beach</u>). At the <u>South beach</u> there are three entry points: at the mouth of the Esen river (<u>Cayağzı beach</u>), at the middle of the beach on the top of the dune, and at the south end of the beach (<u>Patara main beach</u>)

Survey observations on the implementation of Recommendation No. 182:

1. Urgently ensure that Patara nesting beach receives appropriate legal protection and management, in line with its exceptional, natural and ecological value;

No local management unit was present to enforce regulations and fines in the protected area.

To our knowledge there was no improvement in Patara's legal protection or management. In contrast, in the framework of an ongoing process to re-determine the SPA's zoning, a very small part of Patara's sand dunes are included in the new "Strictly Protected Zone", according to the maps available for the SPA section belonging to the Antalya region (section south of Esen river). Maps of the new zoning of the SPA section under Mugla region's jurisdiction are not available. Annex 1 provides more information.

2. Urgently set up, enforce and monitor the implementation of strict regulations which:

(i) prohibit further development on the beach (including buildings, structures, roads) and enable the removal of abandoned illegal facilities and restoration of the dunes; during the nesting/hatching season;

At Letoon beach, the former SPA facilities that are not in use, remain on the beach in decay, although old toilets have been removed and shower pipes are no longer supplied with water (Fig. 4-5).

(ii) regulate the extent and use of furniture on the beach and ensure furniture is removed from the nesting zone at night;

Visitors who bring their own beach umbrellas can insert them in the nesting area, as zoning or delimitation of the nesting zone does not exist along the 12 km beach, with the exception of the Patara main beach area.

At Patara main beach, furniture is provided for rent: at least 417 sunbeds and 225 umbrellas that are either already installed or can be inserted in the sand by visitors (Fig. 6-7). Although 2 remaining old wooden posts are meant to delimit the nesting zone, and furniture is placed according to these posts, it seems the zoning is inaccurate (Fig. 8). Nesting occurs 10-80 m from the waterline¹ whereas the posts are placed at approx. 40m from the waterline.

The 4 rows of sunbeds extend about 80m in length and cover the whole width from the sea to the beach bar (situated towards the back of the beach). A boat, a volleyball court and three vertical wooden pathways remain on the nesting beach, forming an additional barrier for nesting turtles trying to reach the nesting zone (Fig. 9-13).

Sunbeds were stacked at sunset.

(iii) prohibit access of vehicles by placing barriers at the beach entrances;

Vehicle access is a severe problem and vehicle tracks were observed along all beach sections. (Fig. 14-18).

Access is possible via the 2 entry points at the Esen river and at the top of dunes. Trucks, quad, motorcycle and car tracks criss-crossed and flattened the nesting beaches on either side of Esen River (Letoon and Çayağzı nesting beaches). Quad activity was also observed along the dunes leading down to the nesting beach, entering from the entrance at the top of the dunes.

On the road leading to Patara main beach, there is a barrier and a guard collecting an entrance fee during daytime. There was no guard and the barrier was open during night-time.

At Özden beach, a chain is placed at the beach entrance, with a sign prohibiting motorized vehicles to drive on the beach; however, vehicle tracks and severe sand flattening was observed on a 200 m stretch of the nesting beach.

(iv) prohibit illumination of the beach;

No change was observed.

At Patara beach there are two street lamps in the parking area that are visible from the beach (in 2016 light strength had the same value as the moonlight: lamps: 1,11x and 1,21x; moon: 1,21x). Between Patara main beach and the dunes entry point there was a hatched nest with tracks leading inland, indicating that the lights from Gelemis village may have an impact on hatchling orientation

¹ Yerli, S. & F. Demirayak. 1996. Marine Turtles in Turkey, A survey on nesting site status. WWF & DHKD. 129pp.

T.C. Çevre Ve Şehircilik Bakanlığı Tabiat Varlıklarını Koruma Genel Müdürlüğü. 2012. Patara Özel Çevre Koruma Bölgesi Tür ve Habitat İzleme Projesi Kapsamında Patara Kumsal Alanında Deniz Kaplumbağaları (*Caretta caretta, Chelonia mydas*) ve Nil Kaplumbağası (*Trionyx triunguis*) Popülasyonlarının Araştırılması İzlenmesi ve Korunması Projesi Final Rapor Kasım 2012. Türkiye Tabiatını Koruma Derneği.

^{25.80}m on average reported in: Olgun, K., Bozkurt, E., Ceylan, S., Tural, M., Özcan, S., Karasüleymanoğlu, K. Ş., & Geroğlu, Y. 2016. Nesting activity of sea turtles, *Caretta caretta* (Linnaeus, 1758) and *Chelonia mydas* (Linnaeus, 1758) (Reptilia, Cheloniidae), at Patara Beach (Antalya, Turkey) over four nesting seasons. Turkish Journal of Zoology, 40(2), 215-222. doi:10.3906/zoo-1505-8

(Fig. 19); it is likely that once the summer house village is completed, light pollution visible from this part of the beach may increase.

Artificial light from the camping area at the back of Çayağzı beach on the Esen river was also observed (Fig. 20).

(v) prohibit fishing with nets in front of the beach;

Nearshore fishing activity was not observed at the time of the survey.

(vi) prohibit camping on the beach and on riversides in view of the beach;

The area around Esen river continues to be used as a picnic and a camping area in view of the beach (Fig. 21).

(vii) prohibit horse riding and 4x4 or quad safaris on the nesting beach;

Tracks of quads, motorbikes, trucks and 4x4 vehicles were observed along all nesting beaches (see (iii)).

(viii) define fines for non-compliance with above regulations

No information about fines for non-compliance.

3. Ensure that adequate financial and human resources are allocated for the control, management and enforcement of regulations;

There is no local management team present to control the protected area and enforce regulations. The only personnel present is the nest monitoring team which does not have the responsibility or authority to charge fines or enforce measures. The day-time guard controlling the road barrier and entry fee for the Patara archaeological site does not seem to have any responsibility for the nesting beach. In a recent press article, the leader of the monitoring team highlights the need for a guard who will control vehicle and visitor access and who could be locally employed in order to benefit the local community.²

4. Continue to prevent uncontrolled human settlement behind the beach, particularly where these may result in making the beaches unsuitable for turtle nesting;

In the cooperatives' land inside the 3rd Degree Archaeological area, construction work for the summer house village continues (see next section). No new constructions behind the beach were observed.

5. Ensure that litter is periodically removed from the beach and dunes;

At Patara main beach, small pots are provided for rubbish disposal; however, visitors use the nest cages as a rubbish bin, indicating lack of awareness (Fig. 22-24). In a recent press article, the leader of the monitoring team stressed the litter problem, noting that his team collects the rubbish left behind by beach users.³ At the beaches around Esen river, a lot of litter was observed, due to the use of the area as a camping and picnic site. Trash bins are provided Özden beach.

6. Address the problem of predation, including through population control's programmes;

Predation of eggs and/or emerging hatchlings occurs along all nesting beaches. Predation control via caging was inconsistent. Most nests were not protected and predation was observed on at least 9 nests on the day of the survey (Fig. 25).

7. Ensure the proper fencing of all nests in areas with high human presence during the day, so as to protect them from trampling and from beach furniture;

Between Patara main beach and the dune entry point, which is regularly patrolled by the scientific team, half the nests were not fenced and were simply marked with wooden sticks (Fig. 26-27).

 $^{^2}$ 13 August 2018. Haber Turk. Patara professor rebels: he collects the garbage. www.haberturk.com/patara-daki-manzara-profesoru-isyan-ettirdi-cop-atip-donunu-asiyor-2100994

³ As per above.

8. Urgently set up long-term conservation and research programmes, entrusted to a permanent team that should be granted adequate man power to monitor the entire beach (north and south) during the entire nesting/hatching season and protect all nests if necessary;

The monitoring team from Adnan Menderes University consisted of only three volunteers. Such a small team cannot monitor the entire 12 km beach and hence only part of the southern beach is systematically monitored for nesting. The team was not observed on the beach before 7.30 meaning the manpower is insufficient for both night and day patrols.

9. Improve information to and awareness of tourists about sea turtle nesting and on correct behaviour for the sustainable use of the beach and install clearer signage to indicate the nesting zone;

Along the 12 km beach, information signs exist only at the entrance of Patara main beach (no signs at Letoon, Özden, Çayağzı beaches or the dune entry point).

At Patara main beach, existing signs informing about the SPA and the regulations include a sign at the parking space, partly hidden by vegetation, and a sign at the beach entrance next to the pathway leading to the beach bar. Along the wooden path from the parking area to the beach a new small sign with beach regulations was added by the Kas Municipality. At the beach entrance there is an information kiosk which the monitoring team operates twice a week at 3 pm.

As described in section 2(ii), at Patara main beach, only two old wooden posts indicate the nesting zone (Fig. 8). In addition to being unclear, the zoning is likely inaccurate. There is no such zoning in the rest of the 12 km nesting beach.

10. Improve information and education of the local community about sea turtle nesting, correct behaviour for the use of the beach, and intrinsic value of nature; and involve them in the protection, conservation, and management of the nesting beach;

To our knowledge the local community is not involved in the conservation or management of the protected area. There is no management team and the small monitoring team does not have the capacity to also provide educational activities targeted to the community. The few information signs on the beach only inform about basic regulations and there is lack of information on the ecological value of the area.

Observations on other human activities and impacts:

- Summer house village in the 3rd Degree Archaeological area (Fig 3, Fig. 28-29): Since 2016, construction work has continued. In addition to the 27 houses inhabited in 2015, and the 28 pre-existing houses (prior to the complaint and since at least 2003), a total of 310 buildings are in different stages of construction There are two asphalted roads leading to Gelemis village so far. The road leading to the beach entry point via dunes is used frequently by cars.
- Night access to the beach,, is possible via all five entry points as there are no guards or barriers at night. Trucks and bonfires were observed on Çayağzı beach at night (Fig. 21).
- Wastewater pollution: Esen river water remains murky and with a strong odour; chemical polluteion by the surrounding farmland should be investigated.
- Dune conservation: No new plantations were observed but no dune conservation/restoration efforts were visible. Some dune areas are ecologically degraded (stabilized) by plantations.

CONCLUSION & RECOMMENDATIONS

In 2018, there was no considerable improvement in the conservation status of the nesting beaches and conservation problems remain: lack of management staff and insufficient nest monitoring personnel, lack of zoning and information signs, severe vehicle access problems, camping, litter, nest predation, derelict facilities on beaches, etc. There were no signs of new efforts or conservation activities, with the exception of sunbed stacking at night and removal of derelict toilets and shower water supply. The SPA remains unmanaged and inadequately protected. To date none of the actions prescribed by Recommendation No. 182 (2015) have been implemented.

At the same time, construction of the 300-312 summer house development in the 3rd Degree Archaeological site of the SPA continues and once completed the summer population will increase by at least 120% (current population during the summer being ca. 1000). It is evident that the pressures and disturbances presently occurring will increase likewise.

MEDASSET calls upon the Turkish authorities to:

- Urgently implement Recommendation No. 182 (2015). Revise the SPA management plan and implement a comprehensive and updated action plan before May 2019 that will include measures aiming to solve the documented conservation problems on the nesting beaches and sand dunes, strengthen management and rules enforcement, and ensure adequate protection of the natural and archaeological site. Allocate the necessary financial and human resources for sea turtle monitoring of the entire beach and for the SPA management and rules enforcement.
- Address the concerns raised in MEDASSET's complaint regarding the summer house construction project, its scale, the associated impacts, the lack of an EIA and of a carrying capacity study.
- Ensure that the ongoing redetermination of the SPA's zoning ensures that the entire nesting beach (north and south sections), the nearshore areas and the entire sand dune areas are appropriately zoned and protected.

MEDASSET calls upon the Bern Convention Standing Committee to:

- Discuss the case file at the 38th Meeting of the Standing Committee.
- Encourage Turkish authorities to provide further information on the case as requested above
- Urge Turkish authorities to implement Recommendation No. 182 (2015) before May 2019.

DOCUMENTS SUBMITTED TO THE BERN CONVENTION

Available online at www.medasset.org or www.coe.int/t/dg4/cultureheritage/nature/Bern/default_en.asp

CoE Reference	
T-PVS (96) 53 A	MEDASSET: Conservation of loggerhead turtles, <i>Caretta caretta</i> , and construction projects on the beach of Patara, Turkey.
T-PVS (96) 53	MEDASSET: Conservation of loggerhead turtles, <i>Caretta caretta</i> , and construction projects on the beach of Patara, Turkey. (Brief Update on action to "Save Patara" 1989-1996).
T-PVS (97) 45	MEDASSET: Marine turtle conservation in Patara, Turkey.
T-PVS (98) 49	MEDASSET: Marine turtle conservation in Patara, Turkey.
T-PVS (99) 69	MEDASSET: Caretta caretta in Patara, Turkey.
T-PVS (2000) 57	MEDASSET: Conservation of the marine turtle, <i>Caretta caretta</i> , in Patara Turkey.
T-PVS (2001) 72	MEDASSET Review of nature conservation situation in Patara SPA, Turkey.
T-PVS/Files (2002) 14	MEDASSET. Update report and review of nature conservation measures in Patara SPA, Turkey.
T-PVS/Files (2003) 12	MEDASSET. Update report and review of nature conservation measures in Patara SPA, Turkey.
T-PVS/Files (2004) 13	MEDASSET. Update report and review of nature conservation measures in Patara SPA, Turkey.
T-PVS/Files (2005) 09	MEDASSET. Update report and review of nature conservation measures in Patara SPA, Turkey.
No T-PVS reference (2007)	MEDASSET. Update report and review of nature conservation measures in Patara SPA, Turkey.
No T-PVS reference (2009)	MEDASSET. Update Report and review of nature conservation measures in Patara SPA, Turkey.
No T-PVS reference Complaint (2012/9)	MEDASSET. Complaint to the Bern Convention: construction of summer houses within Patara SPA, Turkey.
T-PVS/Files (2013) 09	MEDASSET. Update on loggerhead sea turtle (<i>Caretta caretta</i>) conservation monitoring in Patara SPA, Turkey.
T-PVS/Files (2014)16	MEDASSET. Update on loggerhead sea turtle (<i>Caretta caretta</i>) conservation monitoring in Patara SPA, Turkey.
T-PVS/Files (2015) 34	MEDASSET. Update on loggerhead sea turtle (<i>Caretta caretta</i>) conservation monitoring in Patara SPA, Turkey.
T-PVS/Files (2016) 35	Update on loggerhead sea turtle (Caretta caretta) conservation monitoring in Patara SPA, Turkey.
T-PVS/Files (2017) 29	Update on loggerhead sea turtle (Caretta caretta) conservation monitoring in Patara SPA, Turkey.

ANNEX 1 – REZONING OF PATARA SPA

H.E. Mr. Mehmet Özhaseki

Minister

Ministry of Environment and Urban Planning

H.E. Prof. Dr. Vevsel Eroğlu

Minister

Ministry of Water Affairs and Forestry

23 March 2018 Our Ref. 24552

SUBJECT: Sea turtle nesting beach conservation in Kazanlı, Patara & Fethiye SPAs

Dear Ministers,

I am writing to express my extreme concern about the conservation status of three important sea turtle nesting beaches in Turkey. Your leadership is needed as a matter of urgency to ensure the implementation of the Bern Convention Recommendations No. 95 (2002), No. 182 and No. 183 (2015) for the protection of Kazanlı, Patara SPA and Fethiye SPA, before May 2018, prior to the launch of the sea turtle nesting/hatching season. In 2017, there was very little progress in resolving longstanding conservation problems. Urgent action is needed to reverse the severe degradation of Fethiye SPA and to safeguard Patara SPA's near-pristine status in light of the ongoing large scale tourism development inside the SPA. In Kazanlı, severe erosion is threatening the nesting beaches and the approximately 1.75m tons of toxic waste next to the beach continue to pose as serious conservation threat.

We also take the opportunity to inquire and present our views about the ongoing redetermination of Patara SPA's conservation zoning.⁴ According to the available maps (Fig. 1-2), in the south section of the SPA, a very small part of Patara's sand dunes are included in the new "Strictly Protected Zone". It is imperative that the boundaries of the "Strictly Protected Zone" are enlarged to include the entire sand dune area, in order to protect Patara's unique and fragile dune ecosystem but also to ensure the undisturbed reproduction of sea turtles. Based on the available information, we understand that the zoning of the north section of the SPA has not yet been declared, as the area belongs to the Muğla Province. The pending re-assessment should take consideration of and ensure that the north nesting beach together with its nearshore marine area are included in the new "Strictly Protected Zone". The north beach hosts sea turtle nests and marine activities such as fishing have been documented as a threat to breeding turtles and hatchlings. We understand that the redetermination of the zoning is an ongoing process and we urge you to take into account the views and comments of conservation NGOs on this matter.

We take this opportunity to kindly request further information in relation to the re-assessment of Fethiye SPA's zoning. We trust that the new zoning will reinforce protection and help reverse the degradation of the nesting beaches that have been heavily impacted by tourism developments and inappropriate beach use.

With well-managed and sufficiently protected areas, Turkey can contribute to the survival of rare and protected ecosystems and species, while achieving high-quality tourism development and sustainable livelihoods. By taking action to conserve Kazanlı, Patara and Fethiye SPAs, Turkey will fulfil its commitments as a contracting party to the Bern Convention and the Barcelona Convention which offer protection to sea turtles and the above habitats.

⁴ Regulation on Procedures, Registration and Approval of Protection Areas (Official gazette announcement 19 July 2012 No. 28358 www.resmigazete.gov.tr/eskiler/2012/07/20120719-3.htm).

Declaration of Patara SPA zoning in Antalya Province: Announcement at official gazette on 09 January 2018 (http://www.resmigazete.gov.tr/ilanlar/eskiilanlar/2018/01/20180109-4.htm#%C3%8711) and Announcement of Antalya Provincial Directorate of Environment and Urbanization on 19.09.2017 (http://webdosya.csb.gov.tr/db/antalya/editordosya/ilan_metni03.pdf)

MEDASSET remains at the disposal of your government to provide further information and to assist in the improvement of the conservation status of these important sites.

Thank you for taking the time to address our concerns. We look forward to receiving your response as soon as possible regarding this matter of extreme concern to our organisation.

Yours sincerely,

Lily Venizelos
President
UNEP Global 500 Laureate

Member of IUCN-Species Survival Commission: Marine Turtle Specialist Group

Cc:

Bern Convention Secretary

Barcelona Convention, UNEP/MAP and Compliance Committee

European Commission, Directorate-General for Neighbourhood and Enlargement Negotiations, Dir A: Strategy and Turkey

European Commission, Directorate-General for the Environment, Dir F: Global Sustainable Development

UNDP Turkey

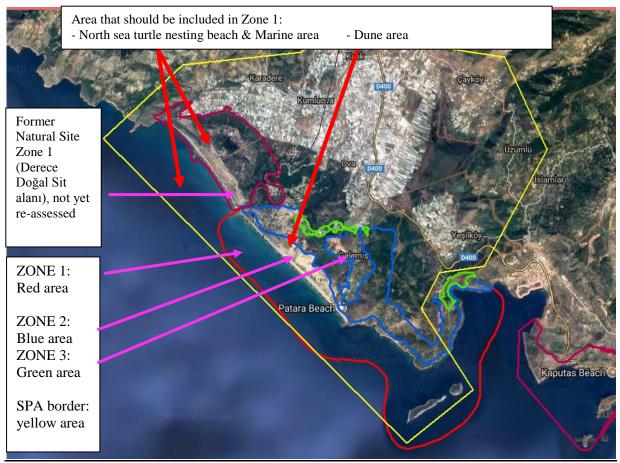


Fig. 1. Map of proposed zoning of Patara SPA. Zone 1 is "Strictly protected areas" (Kesin Korunacak Hassas Alanı). Zone 2 is "Qualified Nature Conservation Area" (Nitelikli Doğal Koruma Alanı). Zone 3 is "Sustainable Protection and Controlled Use Area" (Sürdürülebilir Koruma ve Kontrollü Kullanım Alanı). Source: www.says.gov.tr/savab/#/



Fig. 2. Map of Patara SPA zones that have been officially declared (blue: "qualified protection area", yellow area: "sustainable protection and controlled use area"). Strictly protected areas have not yet been officially declared.

MAPS & PHOTOS

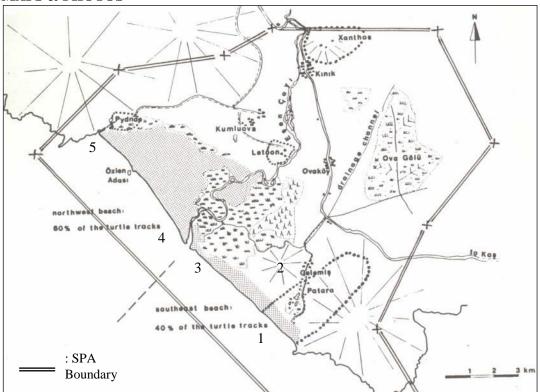


Fig. 1. Patara SPA. Patara main beach is No. 1, entry point via sand dunes is No.2. Çayağzı beach is No. 3 (Esen River outlet at the north edge of the south beach), Letoon beach is No.4 (Esen River outlet at the south end of the north beach) and Özden beach is No. 5 (next to Özden river outlet). *Map Source: Baran I., and M. Kasparek. 1989. Marine Turtles Turkey: Status Survey 1988 and Recommendations for Conservation and Management. WWF, Heidelberg, 123 + iv pp*



Fig. 2. Patara SPA Satellite Map. White arrow: construction site of summer house village. "a": new second road connecting villas and Gelemis village. "b:" is archeological site fee collection point with daytime vehicle barrier. No. 1-5 are entry points: 1 is Patara main beach entry point, snack bar & beach furniture; 2 is entry point via sand dunes, connecting beach with summer house village; 3 is Çayağzı beach entry point & illegal beach bar (est. 2014, closed in 2015); 4 is Letoon beach entry point & abandoned SPA information kiosk; 5 is Özden beach entry point, bar, camping site, 4x4 rentals (Özden river outlet). Esen river outlet lies between No.3&4.

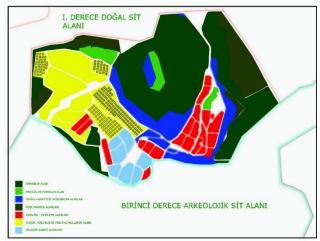


Fig.3. EPASA Management Plan Map of Patara SPA "3rd Degree Archaeological Site" (see blue area in Fig. 2). Construction is allowed in the red and blue areas, which include Gelemis village, and in the yellow area which includes the summer housing cooperative lands.



Fig. 4-5. Patara SPA. Letoon beach (north of Esen River outlet). SPA facilities have been abandoned and have not been removed from the dunes.



Fig. 6-7. Patara SPA. Patara main beach. Four rows of sunbeds with umbrellas installed on the beachm, including numerous umbrellas that can be randomly installed by visitors.



Fig. 8. Patara SPA. Patara main beach. Only two old wooden posts exist to mark the area where sunbeds and umbreallas can be insterted. Nests (red circle) are laid inside this area suggesting that the zoning is not appropriate.



Fig. 9-12. Patara SPA. Patara main beach. Boats, wooden pathways, a lifeguard tower and a furniture rental tent form additional obstacles for nesting turtles.



Fig. 13. Patara SPA. Patara main beach. Volleyball court on nesting beach.



Fig. 14-18. Patara SPA. Top: Widespread vehicle tracks on all nesting beahces indicate uncontrolled vehicle access. In addition to quads and motorbikes, tractors and other 4x4 vehicles are driven on the nesting beaches. Middle: Sand flattenning was extensive, especially in Ozden beach and on both sides of Esen river. Bottom: A quad enters the entry point at the top of the sand dunes to descend onto the nesting beach.

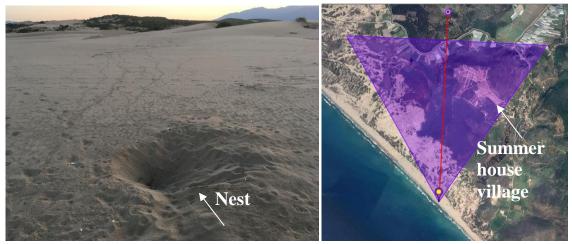


Fig. 19. Patara SPA. Between Patara main beach and sand dune entry point. Hatchling tracks leading inland instead of seaward (see image on the right for hatchling diosrienation path), indicate that lights from Gelemis village and the new summer house village may have an impact on hatchling orientation.



Fig. 20. Patara SPA. Camping at the rear of Çayağzı nesting beach, next to the Esen river



Fig. 21. Patara SPA. Hamuan presence, lights, vehicles and bonfires at night at the rear of Çayağzı nesting beach, next to the Esen river.



Fig. 22-24. Patara SPA. Visitors at the Patara main beach use caged nests as trash bins instead of the (small) rubbish bins.



Fig. 25. Patara SPA. Most nests are not protected against predation.



Fig. 26-27. Patara SPA. Over half of the nests observed were not fenced/caged and were only marked with sticks (red circles).



Fig. 28-29. Patara SPA. 3rd Degree Archaeological Site. Top: June 2016. Bottom: April 2018. Construction work continues for approx. 310 buildings in different stages of construction.

LOGGERHEAD SEA TURTLE (CARETTA CARETTA) CONSERVATION MONITORING IN FETHIYE SPA, TURKEY

MEDASSET hereby submits an update report to the second Bureau Meeting of the Bern Convention (September 2018) on the conservation status of sea turtle nesting beaches in Fethiye Specially Protected Area (SPA) in Turkey.

Contents:

- BACKGROUND
- UPDATE
- CONCLUSION & RECOMMENDATIONS
- REFERENCES
- MAPS & PHOTOGRAPHS

BACKGROUND

The loggerhead sea turtle (*Caretta caretta*) nesting beaches in Fethiye (Mugla Province, Turkey) are among the 12 most important nesting beaches in Turkey. Recently, the northernmost green turtle nest was also recorded here (Patara previously held this record). Protection is not only significant in terms of nesting numbers but also to ensure the genetic diversity of the loggerhead population in the Mediterranean. Fethiye's importance increases because of the relatively higher proportion of male-producing nests. The nesting beaches belong to the Fethiye-Göcek Special Environmental Protection Area (SPA) established in 1988.

Scientific studies have shown that nest numbers in Fethiye are severely declining. Threats to the nesting population have constantly been increasing since 1993-4. Real estate and tourism development is progressing with no regard for the sea turtle nesting population and the protected coastal ecosystems. Scientists have suggested conservation measures but these have not been applied. A recent economic analysis of the SPA identified intensive use of beaches, excessive and uncontrolled housing and tourism developments among the many threats to the SPA and recommends enforcement of use and conservation principles, improved management and sustainable tourism development. Principles is a severely declining. Threats to the seat to the

There are at least four Bern Convention Recommendations that apply to Fethiye: Recommendation No 8 (1987), No 12 (1988), No 24 (1991) and No 66 (1998), the latter requesting that Turkish authorities "secure the remaining unbuilt beach plots against development", "improve control of the effects on the beaches of local tourism, secondary summer homes, caravans, camping and other activities [...]; remove present adverse effects of these activities on nesting beaches; take urgent necessary measures to fully implement the protection status of SPAs; to enforce legislation against illegal sand extraction and assure that penalties are dissuasive; regulate and, where necessary, prohibit speed boats, jet skis and paragliding during the nesting season; ensure respect of low speed limits set and reinforce controls".

⁵ Türkozan 2000; Margaritoulis *et al.* 2003; Canbolat 2004

⁶ Fellhofer-Mihcioglu et al. 2015

⁷ Yılmaz *et al.* 2008

⁸ Kaska *et al.* 2006

⁹ Ilgaz et al. 2007; Katilmis et al. 2013

¹⁰ Oruc *et al.* 2003

¹¹ See references.

¹² Bann C. & E. Başak. 2013. Note: although the project dealt with anthropogenic impacts in some of Fethiye SPA's marine areas, it did not include implementation of conservation measures or the creation of a business plan or management plan for the land area of the SPA.

Since 2008, MEDASSET has been monitoring and reporting on the lack of management, poor spatial planning and build-up in Fethiye's coastal zone. In August 2009 MEDASSET submitted a complaint to the Bern Convention about the severe degradation of the protected sea turtle nesting beaches in Fethiye due to poor management, lack of spatial planning and uncontrolled build-up of the coastal zone due to tourism development. The complaint was discussed at the 30th Standing Committee Meeting in 2010, in relation to Recommendation No. 66/1998. Commitments for improved protection were made by the Turkish authorities, ¹³ and in 2011 some steps were taken to mitigate some of the tourism-related impacts during the nesting season. In 2012, these management measures were not sustained and further coastal build-up was recorded. At the 32nd Standing Committee Meeting in 2012, Recommendation No. 66/1998 was discussed and the Delegate of Turkev stated that authorities would monitor the situation more closely in 2013 and that matters were expected to improve. In 2013, there was no improvement of the protection and management of the nesting beaches, with the exception of beach furniture management in approx. 1.5 of 8 km of the nesting beaches and some new signage which, however, remained insufficient. Habitat destruction and coastal build-up continued. At the 33rd Standing Committee Meeting in 2013, the delegate of Turkey accepted that "the images [presented] are disturbing", regretted that due to Ministry restructuring a response was not available. MEDASSET's call for a Case File to be opened was supported by the delegate of Norway who also proposed that the Committee commissions an on-the-spot assessment. A Case File was opened to address the issue together with the complaint regarding Patara SPA (2012/9), to encourage Turkish authorities "to work towards greater accountability, cooperation and responsibility".

In 2014, yet another sea turtle nesting season passed with no improvement in the protection and management of the sea turtle nesting beaches in Fethiye SPA, and habitat destruction and coastal build-up continued. The 34th Standing Committee Meeting decided to conduct an on-the-spot appraisal in view of identifying a set of recommended actions.

In 2015, there was no progress in the protection and management of the site. The few measures, taken a few days before the Bern Convention's on-the-spot appraisal in July 2015, were reversed shortly after. Once again, there were unregulated beach furniture and fixed structures inside the nesting zone, littering, light pollution, uncontrolled visitor and vehicle access, and several other threats to sea turtles, hatchlings and nests. Businesses expanded on the sandy sections of the nesting beaches, further reducing the available habitat and increasing disturbances. A huge new resort opened on one of the last remaining pristine beach sections. The threats identified led to the destruction of nests, unsuccessful nesting attempts, mortality of hatchlings and adult turtles. In December 2015, the Standing Committee, alarmed by the findings of the on-the-spot assessment which confirmed MEDASSET's reports, adopted Recommendation No. 183 (2015), asking Turkey to take urgent actions to improve management and conservation of Fethiye.

In 2016 and 2017, there was no significant improvement of the conservation status of the nesting beaches:, lack of effective management, poor beach furniture management, lack of zoning and information, nearshore fishing, no vehicle access control, more fixed structures and development on sandy sections of nesting beaches, no light pollution control, etc. The only exception was litter collection and some beach furniture management in 1.5 of 8 km of the nesting beaches.

UPDATE

Nesting beach description (Fig. 1): the 8 km beach is split in three main sections: Çalış, Yanıklar and Akgöl. Çalış is 2.5km long, separated from the other two beaches by a small rocky peninsula. A river (Kargi) marks the border between Yanıklar (4.5km, including Karatas beach) and Akgöl (1km). For a detailed description of the Fethiye SPA nesting beaches see MEDASSET, September 2009.

MEDASSET visited Fethiye SPA in summer 2018 to assess and document the conservation situation on the nesting beaches. The following presents the survey findings in relation to each of the measures under Recommendation No. 183 (2015).

¹³ T-PVS/Files 2010 23 (Government report); Authority's letter in Annex 1 of MEDASSET, December 2011

1. Stop any further development of permanent structures (buildings, roads, shipyard, jetties/docks, etc.) along the entire coast of the nesting site complex, in order not to reduce further the nesting habitat;

At Çalış beach Section B the occupation and transformation of the sandy area continues. Existing businesses have further expanded (e.g. Spor Cafe, Ceviz beach, My beach and Lotus beach bars) and a concrete platform still remains on the beach(Fig. 3-6). Two new jetties for water sports were installed by Jiva Resort and Türkü Cadiri (Fig. 7-10).

At Karatas, a previously pristine nesting beach until the establishment of Barut TUI Sensatori Resort (est. 2015), the coastal wetland was burnt and flattened, between the Resort and the Deniz Incisi restaurant (Fig. 11). It is unclear if the destroyed wetland is also to be developed and if the adjacent unspoilt beach area, with its small natural dunes, will also be transformed into a sunbed area.

No new information or official news has been received on the final decision regarding the government plan to construct a shipyard on the nesting beaches.

2. Remove any structure (wooden paths, wooden pavilions, bars, platforms, showers, carpets, patios, etc.) from sand zones, including those to be restored, especially in areas with relatively narrow beach width and/or in tracts with narrow sandy strips; and restore the sandy areas;

There is no apparent restoration effort; instead, permanently fixed and structures have increased on the nesting beaches.

In Akgöl, sandy nesting areas are occupied by business structures and furniture (see No.6).

In Çalış beach Section A, showers and cabins remain on the edge of nesting beach since 2012 and water leaks directly onto the nesting beach (Fig. 12-13). In Çalış beach Section B, businesses that have encroached on sandy zones continue to operate as per past years. In the nesting zone, wooden pathways and carpets have increased; playgrounds, volleyball courts and showers remain on the nesting beach (Fig. 14-21). In addition, Jiva Resort has installed a new huge shaded water sports equipment area together with boats on the nesting beach (Fig. 8-10).

In Yanıklar, wooden walkways, permanent shades and a volleyball court by Hotel Lykia Botanika and Katranci Hotel remain on the nesting beach (Fig. 22-24). Similarly, Hotel Club Tuana has occupied the largest part of the sandy zone, placing a huge shaded wooden pavilion/hut, several walkways, and watersport vessels on the beach (Fig. 25-26). Doga Camping maintains a volleyball court, Onur camping placed a wooden pavilion and Yonca Lodge placed tables on wooden bases on the nesting beach (Fig. 27).

In Karatas beach, the "Deniz Incisi Buffet" playground and walkway remains on the upper part of the nesting beach (Fig. 28-30). Behind this previously pristine nesting area, Barut TUI Sensatori Resort has occupied the entire beach section between the waterline and the hotel: a children's playground, tennis court, snack bar and toilets, 3 permanently installed large tents for sports equipment; vertical and horizontal wooden walkways; 21 pavilions are placed on the beach. (Fig. 31-35). Several pavilions and a walkway in front of these pavilions are inside the nesting zone. In addition, the walkways and sunbeds are washed and the sand is flattened and smoothed on a daily basis. The regular compression of the sand and the water runoff makes the sand unsuitable for nesting, by altering sand temperature, moisture and compactness.

3. Stop sand extraction and ensure the application of deterrent penalties for these illegal activities;

Sand extraction was evident next to Barut TUI Sensatori Resort (Fig. 36). There was regular sand movement with heavy machines around bars and canals at the west end of Calis beach Section B (Fig. 37).

4. Remove planted vegetation, acacia in particular, with a view to restore the remaining sandy beach;

Bushes, trees and grass planted on the nesting beaches in previous years have not been removed and continue to expand and transform the natural profile of the beach. At Barut TUI Sensatori Resort, the sandy beach area around the wooden pavilions has been transformed into lawn through planting

and irrigation (Fig. 35). New trees were planted on the nesting beach by a business established in 2017 at Çalış Section B (Fig. 38).

5. Map the whole Fethiye coast using long-term data, maps and imagery to identify the past, current and potential most suitable zones for sea turtle nesting, and set a maximum percentage limit of sandy tracts where touristic structures are allowed on the nesting beach and define (A) coastal tracts less suitable for turtle nesting, where beach furniture is allowed at appropriate densities and (B) coastal tracts adequate for turtle nesting, where beach furniture and access at night are not allowed. Enforce beach furniture removal/stacking at night along the entire nesting beach complex during the nesting/hatching season;

No information on the recommended mapping and zoning action has been received. There is no zoning or demarcation of nesting zones. It should be noted that in several beach sections, nests are laid on the entire width of the sandy beach zones.

There was an increase in beach furniture and sunbeds are not collected at night on 6.5 km of the 8 km nesting beaches. In the 1,5 km nesting beach in Çalış beach Section A, sunbed collection at sunset was irregular.

In Çalış beach Section A. there were 1-3 rows of 234 umbrellas, 468 sunbeds (Fig. 39-40). Three rows of furniture are considered too dense for this nesting beach. Several areas were used by visitors to place their own equipment with no regulation or zoning at to where umbrellas can be inserted (Fig. 41). In Section B, businesses place 3 - 5 rows of beach furniture which fully occupy the nesting zone (Fig. 41-48). There was an increase in sunbeds and there seems to be no restriction or management regarding the location and density of beach furniture (5 rows are too dense).

In Yanıklar, beach furniture increased considerably. Hotels Lykia Botanika, Katranci and Club Tuana placed dense furniture on the nesting beach, with permanent sunshades and walkways, that are not removed at night (230 sunbeds in 3 rows; 40 sunbeds in 1-2 rows; 174 sunbeds in 4-5 rows) (Fig. 22-26). Doga and Onur Camping and Yonca Lodge also offer sunbeds and shades that are not removed at sunset (31, 13 and 15 sunbeds respectively).

In Karatas beach, Barut TUI Sensatori Resort installed sunbeds 5-6 rows of 257 sunbeds and 124 umbrellas. Sunbeds were not collected or stacked at night. The first row of sunbeds, the first horizontal walkway behind them, and the second row of sunbeds, are inside the nesting zone (Fig. 32-35). The "Deniz Incisi Buffet" (former Karatas Buffet) placed 3 rows of 35 sunbeds and 19 umbrellas close to the sea that were not collected at night (Fig 29-28). In the adjoining sandy beach (the so called "small beach") there is no zoning and beach users can place their equipment as they please; 6 wooden pavilions were observed under construction (Fig. 49).

6. Prohibit the use of beach furniture and other structures or facilities on the sandy zones of Akgöl beach, regulate use of the core nesting area in the sandy northern end of the beach, and carry-out the necessary controls to check enforcement;

Akgöl beach has the largest sandy area suitable for nesting in the area. In the last years the sandy area has been severely damaged due to touristic development. The west end of the beach is still occupied by pavilions and a shower remains on the beach (Fig.51). At the rear of the west end of the beach, the area next to river bed is flattened due to its usage as parking area in the last years (Fig. 52). At the east end of the beach, Karaot Buffet maintains sunbeds that are placed in the sandy nesting zone of the beach and are not removed at night. It offers toilets, showers and camping tents, hence there is night-time beach use and human presence. Nesting in Akgöl is under severe pressure due to human activity. There are beach sections which consist of cobbles and stones, not suitable for nesting that could instead be used by beach business following SPA guidelines.

7. Reduce light pollution to a minimum along the whole coast during the nesting/hatching season: (i) remove all lights not strictly necessary, (ii) reduce the number of lights allowed for each business company, (iii) all lights considered as strictly necessary should be reduced in power and (iv) be red or orange-yellow, (v) all lights should be shaded in the direction of the beach. Further reduce lights after a certain time in the night, for not less than 50% of the dark time. Where possible, reduce height of lights, use motion sensors and native bushes/plants as light buffers on roads and properties. Prohibit light show equipment use;

Light pollution is severe on all beaches and there were no apparent new efforts to mitigate the problem (Fig. 53-60). Beach businesses operate at night with lights and loud music, and have made no adjustments to reduce light pollution; many of them close at midnight and turn off lights.

At Akgöl, lights were not turned off on the east end at Karaot Buffet. Karatas nesting beach is affected by the Barut TUI Sensatori Resort's two security floodlights and the Deniz Incisi Buffet's artificial light that shine on the nesting beach (Fig. 53). In Yanıklar nesting beach, camping sites, Hotel Lykia Botanika and Hotel Club Tuana continue to turn off beach and pier lights at night; however light from the hotel/building area influences the beach (Fig. 54).

Along Çalış Section A, most of the 24 street lamps need to be re-painted black on the seaward side (Fig. 55-56). At all other beach sections, bright street lamps lead to severe hatchling disorientation. In addition, vendor tables along the promenade section of Çalış Section A (some of which were selling turtle souvenirs) were using very strong lights and further increased light pollution (Fig. 57). In Çalış Section B, beach businesses operate at night and do not turn off their lights (Fig. 48, 59-60). On both sections of Calis, wedding ceremonies are organized at night, with music, lights and crowds on the beach and some of the businesses are especially equipped for these occasions. In Çalış Section A, a new swimming area was enclosed by a rope with red lights that flash at night time.

8. Build permanent barriers (not ditches) on the roads to prevent vehicles from accessing the beach, designate parking spaces and official picnic areas away from the beach;

Vehicles and vehicle tracks were observed on all beaches, due to the lack of barriers or guards (Fig. 52, 61-63). In Çalış Section B the only barriers to hinder cars from entering the beach are in front of Sunset Apartments and Jiva Resort (cement spaces for plants, parallel to road and beach) and there some sand-hills towards the end of the beach; however there are numerous other access points. In Akgöl, the barrier was not closed on the road leading to the west end of the beach; the back of the nesting beach next to river bed has been flattened due to its usage as parking area in the past years. There is no vehicle access control at Yanıklar and Karatas beaches.

Picnic areas are widespread along the beaches and are especially crowded in Çalış Section B, Yanıklar and Karatas (including the so-called 'small beach'), leading to bonfires and litter on the nesting beach (Fig. 69-71).

9. Regulate maritime traffic during the nesting/hatching season, by prohibiting any motorised traffic at appropriate distances near the coast, by setting speed limits and foreseeing marked corridors from the beach to open waters;

In Karatas and Yaniklar, maritime traffic still very active. Motorised water sports activities increased in Çalış with the addition of water sports activities and jetty by Jiva Resort. In Çalış Section A, a new swimming area was enclosed with rope and red lights that flash at night (Fig. 64). Fishing with nets and angling with rods from the beach was observed (Fig. 65).

10. Set up long-term research and conservation programs conducted by a permanent team recruited on a long-term perspective. This team should have adequate manpower to monitor the entire beach and protect all nests if necessary during the entre nesting/hatching season. The team should also assess across the years and using the same comparable methods: (i) the disorienting effects of photo-pollution on hatchlings, (ii) disturbance of nesting females, and (iii) predation of nests (or attempts);

Monitoring and conservation of the sea turtle nests were carried out by Pamukkale University (as per 2016-2017), starting in early June, though nesting began in May. The contract was short-term, for one season only. It seemed that monitoring and protection of nests was conducted irregularly due to inadequate manpower.

No information about recommended assessments (i)-(iii).

11. Prohibit camping and bonfires and set appropriate time limits for the operation of beach bars at night during the nesting and hatching season;

There is uncontrolled visitor access at night. Camping and bonfires were observed on all beaches as well as people sleeping on the beach (Fig. 66-68). There is no night time restriction for the operation of the beach businesses hence lights, music and people disturb nesting and hatching.

12. Take measures to clean the beach and empty appropriately located bins on a daily basis, and ensure sewage is not discharged into the sea;

In Çalış Section A, the Çalış Tourism and Promotion Association collected trash every morning while re-arranging sunbeds. All other nesting beaches were littered, as there are no similar efforts to collect rubbish that is left behind by visitors, especially in the picnic areas (Fig. 72-73).

13. Set up adequate regulations and enforcement for the measures above, including regular day and night controls along the entire coast. Define and enforce fines for noncompliance with above regulations;

See below.

14. Ensure that adequate financial and human resources are allocated to the control and management of the beaches;

No local management unit, no apparent increase of management & control resources. No apparent rules enforcement or fining for noncompliance. No guards or rangers were present. In Çalış Section A, Çalış Tourism and Promotion Association personnel are present to manage beach furniture, but they do not have the capacity or competence to raise awareness and/or control beach access. The nest monitoring team does not have the capacity or the authority to enforce regulations.

15. Improve information to local community and tourists about sea turtle nesting and sustainable use of the beach. This should include effective communication of regulations (incl. regulations implementing the Recommendation) by the authorities to stakeholders and businesses, signs at all major beach entry points, and awareness campaigns aimed to the guests of the big resorts, in collaboration with the owners and managers. Encourage beach hotels and businesses to support scientific teams and involve the local community in the protection and management of the protected area;

Signage remains mainly unchanged compared to 2015 and hence there is lack of information in most nesting beaches and the public is largely unaware of regulations and the protected status of the beaches. In Çalış Section A, there are no signs at the east and west entry of the beach; but there area several signs at 5 beach entries along the promenade (though the multiple signs make a chaotic impression with no clearly defined guidelines). The information booth was not in operation one the night of the present survey, likely due to lack of manpower (see section 10). Signage remains derelict or inexistent in the rest of the 6.5 km nesting beaches (no sign in Karatas, 2 illegible signs in Agkol, 1 hidden old sign in Yaniklar, 1 sign in Calis Section B).

16. Continue to protect all nests with cages, until the different conditions obtained through the other measures above will allow again a more natural process;

Nest predation is still a problem in the SPA and although cages were used they were not always effective, hence investigation/investment in other cage types is needed. Nest predation was observed in Yaniklar as not all nests were caged or cages were not properly installed (Fig. 74). Some nests in crowded areas were poorly protected and some of the cages do not seem to provide protection for hatchlings in light-polluted areas.

CONCLUSION & RECOMMENDATIONS

In 2018, there was no improvement and the conservation status of the nesting beaches has deteriorated: lack of beach furniture management on the largest part of the nesting beaches, no zoning and lack of information, no vehicle access control, more fixed structures, severe light pollution, camping and human presence at night, litter, etc. Habitat destruction continues, businesses expand on the sandy sections of the nesting beaches, further reducing available habitat and increasing disturbances, in complete disregard of the Bern Convention's

Recommendations. There were no signs of new conservation or management activities. The only exception was litter collection and irregular beach furniture management in 1.5 of 8 km of the nesting beaches. The SPA remains unmanaged and inadequately protected. To date the majority of measures under Recommendation No. 183 (2015) have not been implemented.

Without urgent conservation action and effective management, the recorded negative nesting trend will not be reversed and the few remaining areas in Fethiye SPA that have not been damaged will continue to be encroached upon by unplanned and unsustainable development.

MEDASSET calls upon the Bern Convention Standing Committee to:

- Discuss the case file at the 38th Meeting of the Standing Committee.
- Encourage Turkish authorities to provide further information on the case. Request an official update on the status of the shipyard construction project.
- Urge Turkish authorities to implement Recommendation No. 183 (2015) before May 2019. Encourage and assist Turkish authorities to implement management and conservation measures.

MEDASSET calls upon the Turkish authorities to:

- Urgently implement Recommendation No. 183 (2015). Before May 2019 implement a comprehensive and updated action plan.
- Revise/produce a SPA management plan that will cover both the land and marine areas, and will include a clear description of permitted land uses and activities. Allocate the necessary financial and human resources that will ensure enforcement of regulations and measures by authorities.
- Cancel plans for the construction of a shipyard, drydock or marina, near or on Fethiye nesting beaches.

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(Available at: www.medasset.org/en/resource-centre)

- T-PVS/Files (2017) 29 MEDASSET. August 2017. Update on Loggerhead sea turtle (*Caretta caretta*) Conservation Monitoring in Fethiye SPA, Turkey.
- T-PVS/Files (2016) 35 MEDASSET. October 2016. Update on Loggerhead sea turtle (*Caretta caretta*) Conservation Monitoring in Fethiye SPA, Turkey.
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MAPS & PHOTOGRAPHS

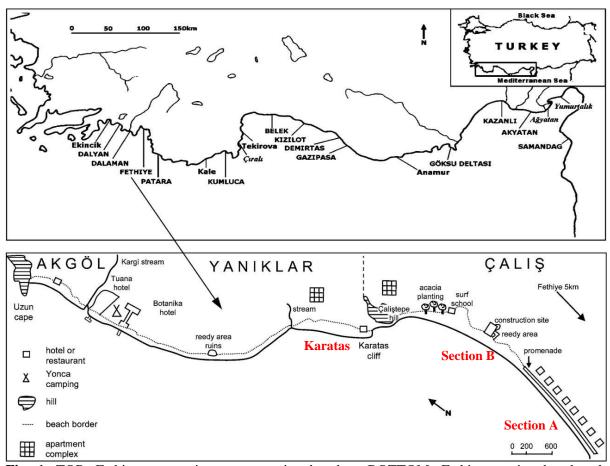


Fig. 1. TOP: Fethiye among important nesting beaches. BOTTOM: Fethiye nesting beach subsubsections; developments since 2006-7 are not shown here. *Source: Ilgaz et al.*, 2007.



Fig. 2. Fethiye SPA. Çalış Section B. 2003 – 2013 satellite imagery comparison shows the continual coastal build-up, planting of sandy area and occupation of nesting beach, in conflict with Recommendations. Note how the sandy area (nesting zone) has been occupied and in most parts only the pebbly zone near the waterline is development-free.



Fig. 3-4. Fethiye SPA. Çalış Section B. Concrete platforms on nesting beach (left: new in front of Spor Café; right: existing abandoned cement platform).



Fig. 5-6. Fethiye SPA. Çalış Section B. Business established in 2016 expands on nesting beach. Top: New tables, umbrellas, permanent shades and camping tents on the nesting beach. Note white hose on sand for watering planted trees. Bottom: showers (red circle) and construction works for new permanent shade.



Fig. 7. Fethiye SPA. Çalış Section B. New jetty by Türkü Cadiri.



Fig. 8-10. Fethiye SPA. Çalış Section B. New jetty and watersport lane by Jiva Resort. Watersport equipment is left on the beach or under the new huge shaded sports tent that is also located at the back of the nesting beach.



Fig. 11. Fethiye SPA. Karatas. Wetland burnt and flattened (red circle) next to Barut TUI Sensatori Resort.



Fig. 12-13. Fethiye SPA. Çalış. Section A. Showers cabins remain on the beach and water leaks directly onto the nesting zone. Note vegetation growth due to water runoff (right).



Fig. 14. Fethiye SPA. Çalış. Section B. Walkways and beach furniture (not collected at night) on the nesting beach.



Fig. 15. Fethiye SPA. Çalış. Section B. Carpets, tables and watersport equipment occupy the nesting beach and remain on the beach after sunset.



Fig. 16-19. Fethiye SPA. Çalış Section B. Carets, volleyball courts, wooden walkways, platforms and tables on nesting beach. Note nest in red circle in bottom right photo.



Fig. 20. Fethiye SPA. Çalış Section B. Planted trees, carpets and rows of sunbeds that are not removed at sunset from the nesting beach.



Fig. 21. Fethiye SPA. Çalış Section B. Playgrounds, pavilions and beach furniture on nesting beach.



Fig. 22-24. Fethiye SPA. Yanıklar. Lykia Botanika Hotel. Volleyball court, boats and permanent shades for sunbed area on nesting beach.



Fig. 25-26. Fethiye SPA. Yanıklar. Hotel Club Tuana. Huge shaded wooden pavilion, dense rows of sunbeds with permanent shades and walkways on the nesting beach.



Fig. 27. Fethiye SPA. Yanıklar. Onur Camping. Water runoff, pavilions and sunbeds that remain on the nesting beach at night.



Fig. 28. Fethiye SPA. Karatas (Deniz Incisi Buffet). Playground and planted trees on nesting beach.

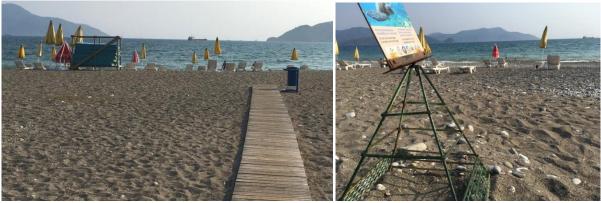


Fig. 29-30. Fethiye SPA. Karatas (Deniz Incisi Buffet). Walkway and sunbeds are not removed at night and form obstacles for nesting turtles and hatchlings (note nest in photo on the bottom right).



Fig. 31. Fethiye SPA. Karatas. Satellite imagery, top: 2003 bottom: 2015. Barut TUI Sensatori Resort installed permanent structures on the previously pristine nesting beach. Several pavilions (left circle), first two sunbeds rows, a walkway and water sport tent are inside the nesting zone.



Fig. 32-33. Fethiye SPA. Karatas. Barut TUI Sensatori Resort. Top: Wooden walkways on the nesting beach. Bottom: Watersport tents (in the background). The 5-6 rows of sunbeds are not removed at night.



Fig. 34-35. Fethiye SPA. Karatas. Barut TUI Sensatori Resort. 21 wooden pavilions are on the nesting beach, several inside the nesting zone. Planting and watering of grass among the pavilions has transformed the former sandy nesting zone into lawn.



Fig. 36. Fethiye SPA. Yanıklar. Sand extraction next to Barut TUI Sensatori Resort





Fig. 38. Fethiye SPA. Çalış. Section B. More trees were planted on the nesting beach by a business established in 2017 (My beach bar).



Fig. 39-40. Fethiye SPA. Çalış. Section A. The 2-3 rows of sunbeds are irregularly collected/stacked at night (note front row is not collected). Use of umbrellas that cannot be closed are inappropriate for nesting beaches (note nest in umbrella shade in red circle).



Fig. 41. Fethiye SPA. Çalış. Section A. Lack of zoning means visitors can insert their equipment as they wish on the nesting beach.

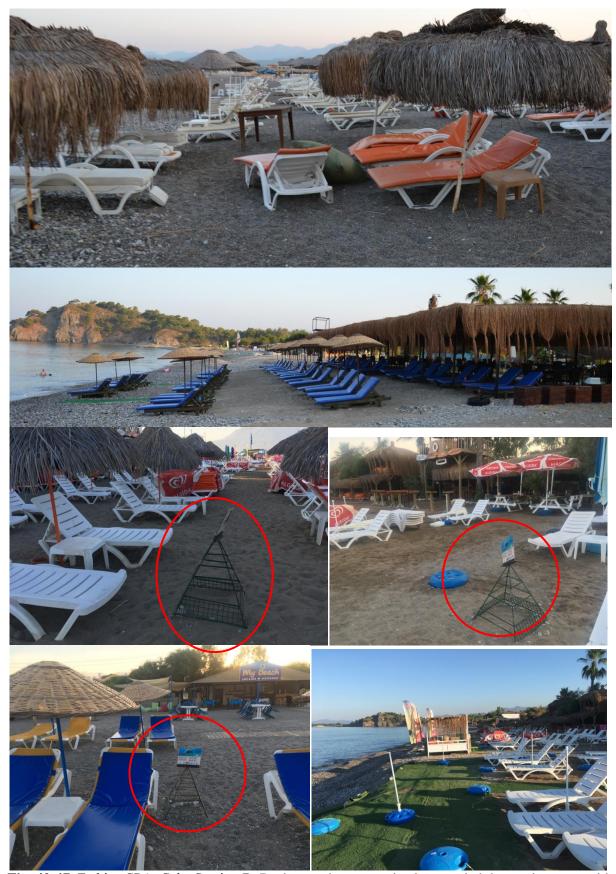


Fig. 42-47. Fethiye SPA. Çalış Section B. Businesses have completely occupied the nesting zone with dense rows of sunbeds, carpets and walkways that are not removed at night. Note nests in red circles.



Fig. 48. Fethiye SPA. Çalış Section B. Light pollution and dense rows of sunbeds that remain on the nesting beach at night.



Fig. 49. Fethiye SPA. Karatas (small beach). No zoning means visitors and place their equipment as they wish. Note in background the 2 of the 6 wooden pavilions under construction.



Fig. 50. Fethiye SPA. Akgöl. Satellite imagery. Businesses occupy core nesting zones (1 and 2).



Fig. 51. Fethiye SPA. Akgöl (early a.m. before beach users arrive). Nesting hotspot occupied by a row of wooden pavilions. Note bonfire on beach.



Fig. 52. Fethiye SPA. Akgöl (early a.m. before beach users arrive). Sand compaction due to vehicle access and use of back of beach as a parking area.



Fig. 53-54. Fethiye SPA. Light pollution is a severe problem on all nesting beaches. Left: Yaniklar, Hotel Lykia Botanika. Right: Karatas, Barut TUI Sensatori Resort.



Fig. 55-58. Fethiye SPA. Çalış. Section A. Lights on the promenade shine onto the nesting beach. Top left: strong lamps were used at vendors tables along the promenade. Top right: note use of fireworks. Bottom: street lamps are not shaded or screened.



Fig. 59-60. Fethiye SPA. Çalış. Section B. Beach bar lights on the nesting beach.



Fig. 61. Fethiye SPA. Çalış. Section B. Vehicles on nesting beach.



Fig. 62-63. Fethiye SPA. Yanıklar. Vehicle tracks on nesting beaches.



Fig. 64. Fethiye SPA. Çalış Section A. A rope with red lights runs parallel to the sea and encloses a swimming area.



Fig. 65. Fethiye SPA. Fishing net is set too close to the shoreline posing a trap for adult sea turtles as well as hatchlings.



Fig. 66-68. Fethiye SPA. Camping on nesting beaches.



Fig. 69-71. Fethiye SPA. Picnics and bonfires on the nesting beach.



Fig. 72-73. Fethiye SPA. Litter is not collected on most nesting beaches of the SPA. Note vehicle ruts in picture on the left.



Fig. 74. Fethiye SPA. Yaniklar. Predated nest that was not properly caged.