

Strasbourg, 6 October 2016
[files35e_2016.docx]

T-PVS/Files (2016) 35

CONVENTION ON THE CONSERVATION OF EUROPEAN WILDLIFE
AND NATURAL HABITATS

Standing Committee

36th meeting
Strasbourg, 15-18 November 2016

Specific Sites - Files open

**Presumed degradation of nesting beaches in
Fethiye and Patara SPAs (Turkey)**

- REPORT BY THE NGO -

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

ADDENDUM TO T-PVS/Files (2016) 35

6 October 2016

**UPDATE REPORT BY THE NGO
Marine Turtle Conservation in the Mediterranean
LOGGERHEAD SEA TURTLE (*CARETTA CARETTA*) CONSERVATION
MONITORING
IN FETHIYE AND PATARA SPAs, TURKEY**

Document presented by

MEDASSET - the Mediterranean Association to Save the Sea Turtles

for the 36th 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

COMMENTS TO T-PVS/Files (2016) 28

With reference to Recommendation No. 182

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;

On p.4, five volunteers/staff appear in the photograph; however, two were present during our survey in July. Nevertheless, five persons are not sufficient to monitor nests along the 12 km beach and also implement educational and awareness-raising activities.

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;

The sign appearing on p.2 and p.6 (2nd photograph) was not observed during our survey, hence we assume it was installed after July. Apart from this single sign, there were no other efforts to install clearer signage along the 12 km beach.

We did not observe the new lodge described on p.2 and it seems that the photo on p.2 depicts the side view of the existing beach bar at Patara beach. As noted in T-PVS/Files (2016) 28, at Patara beach entrance, there is a pre-existing information kiosk and there is no other information point along the 12 km beach.

The code of conduct during sea turtle tourism activities needs improvement. For example, on p.7 a flashlight is directly shined on a nesting turtle and on p.6 hatchlings are kept in a bucket that is held directly in sunlight. This does not conform with international standards¹ during such activities, which should instead inform tourists and demonstrate best handling and observation practices.

¹ Choi, Ga-Young and Karen L. Eckert. 2009. Manual of Best Practices for Safeguarding Sea Turtle Nesting Beaches. Wider Caribbean Sea Turtle Conservation Network (WIDECAST) Technical Report No. 9. Ballwin, Missouri. 86 pp.

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

UPDATE & COMMENTS TO T-PVS/Files (2016) 25

MEDASSET re-visited the area in late August 2016 to assess and document the conservation situation on the nesting beaches in Fethiye SPA. The following presents new observations in comparison to the July 2016 survey findings and should be assessed in parallel with T-PVS/Files (2016) 35. Observations are presented in relation to each measure under Recommendation No. 183 (2015). Comments are also made in relation to T-PVS/Files (2016) 25 (government report).

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;

The road connecting Calis to Karatas/Yaniklar and the road connecting Karatas (small beach) to Barut TUI Sensatori Resort were asphalted.

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;

In Akgöl, most of the equipment remains on the nesting beach as described in T-PVS/File (2016) 35 (sunbeds, wooden pathway, pavilions, shaded sitting area with tables, shower, volleyball court, tents). In addition, at the north end of the nesting beach, the number of pavilions increased from 12 to 14 (Fig. 1) (No. of pavilions in July 2015: 4). At the south end of the beach “Karaot buffet” moved its 9 wooden pavilions closer to Acacia trees at the upper part of the beach (Fig. 2). A hut with toilets and showers (with a drain that channels water away from the sand) was installed in the upper part of the nesting beach between “Karaot Buffet” and the north end of the beach (Fig. 3). All pavilions and fixed equipment should be moved to this area, as this section is outside the nesting zone.

In Karatas, behind this previously pristine nesting area, the new huge hotel (Barut TUI Sensatori Resort) maintains the equipment reported in T-PVS/File (2016) 35: playground, tennis court, snack bar and toilets, 3 large tents for sports equipment; vertical and horizontal wooden walkways, 21 pavilions and 200-300 sunbeds and umbrellas. Several pavilions, at least two rows of sunbeds and two walkways remain inside the nesting zone (Fig. 4).

In Yaniklar nesting beach, Hotel Lykia Botanika added wooden platforms to its new additional sunbed area that includes permanent shades (Fig. 5). Hotel Club Tuana maintained its 2 new wooden pavilions and 3 wooden walkways, as described T-PVS/File (2016) 35.

In Calis Section A, shower water still leaks onto the nesting beach as shower drains are no longer attached to the cabins (Fig. 6).

Water sport vessels were observed on the nesting beach between sunset and dawn. This problem has been aggravated due to the opening of the new Surf Blue Café in 2016 in Calis Section B.

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

In Akgöl nesting beach, some plants seem to have been removed around the “Karaot buffet” area.

In Karatas nesting beach, Barut TUI Sensatori Resort maintains an artificial lawn that is expanding into the sandy nesting beach and water is leaking into the adjoining sandy areas (Fig. 7). Palm trees are also being watered on the nesting beach by Deniz Incisi Bufet (Fig. 8). At the so-called “small beach” new tree plantations were observed on the sandy zone bordering the road; though trees could prevent vehicle access on the beach, their roots and shadow may negatively affect nests in the future (Fig. 8).

5. Map the whole Fethiye coast [...] and define (A) coastal tracts less suitable for turtle nesting, where beach furniture is allowed at appropriate densities [...]. Enforce beach furniture removal/stacking at night along the entire nesting beach complex during the nesting/hatching season;

No improvement in comparison to July 2016. No beach furniture management or removal at night on 6.5 km of the 8 km nesting beaches.

See also No. 2

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;

See No. 2

7. Reduce light pollution to a minimum along the whole coast during the nesting/hatching season [...]

There was no evidence of light pollution reduction and the situation remains as per T-PVS/Files (2016) 35. Though the government report states that many businesses use turtle friendly lights, there was no substantial indication that such a change has been made so far.

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;

There is no vehicle access control in Karatas, Yanıklar and Agkol, and car access on nesting beaches was observed (Fig. 9). Vehicle access control measures that were observed in a small section of Çalış Section B in July 2016, have been extended to close-off the area between Jiva Resort and Sport Cafe (Fig. 10).

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;

Though the government reports that beach use is controlled by an officer, we observed no such officer, other than the personnel of the Çalış Tourism and Promotion Association who are not rangers or similar personnel and are only responsible for beach furniture management on 1.5 km of the 8 km of nesting beaches. As in July 2016, visitors were observed accessing all nesting beaches at night.

15. Improve information to local community and tourists about sea turtle nesting and sustainable use of the beach. [...]

In Çalış Section A, as in July 2016, we observed 1 new sign about turtle ecology and numerous new small signs installed next to existing signs, which makes a chaotic impression with no clearly defined guidelines for the visitors (see Fig. 4 in T-PVS/Files (2016) 35). Two new signs were installed at the end and at the middle of Akgöl beach. No signs were observed in Karatas, Yanıklar and Çalış Section B. The two old signs that exist in Yanıklar and Karatas are illegible.

FIGURES (PHOTOS TAKEN END OF AUGUST)

Fig. 1. Fethiye SPA. Akgol. August 2016. Wooden pavilions directly installed on nesting hotspot increase from 4 in 2015 to 14 in 2016.



Fig. 2. Fethiye SPA. Akgol. August 2016. Nine wooden pavilions moved to upper part of the nesting beach.



Fig. 3. Fethiye SPA. Akgol. August 2016. Toilet and shower hut at the upper part of the nesting beach. All equipment currently in the nesting hotspot, could be moved to this area that is not inside the nesting zone.



Fig. 4. Fethiye SPA. Karatas. Satellite imagery, top: 2003, middle: 2015, bottom: 2016. Barut TUI Sensatori Resort installed permanent structures on the previously pristine nesting beach. Several pavilions—the first two sunbeds rows, two walkways and water sport tent are inside the nesting zone. Additional pavilions have been added since 2015 (red arrow). Note area behind pavilions, that was formerly a sandy area but has been transformed into artificial lawn via irrigation. Note that Fig. 9 in T-PVS/Files (2016) 35 should have read “bottom: ~~2015~~ 2016”



Fig. 5. Fethiye SPA. Yaniklar. August 2016. New wooden platforms were added under sunbeds and permanent sunshades installed by Hotel Lykia Botanika this year.



Fig. 6. Fethiye SPA. Calis Section A. August 2016. Shower water still leaks onto the nesting beach as drains are not attached to cabins.



Fig. 7. Fethiye SPA. Karatas. August 2016. Barut TUI Sensatori Resort artificial lawn is expanding into the sandy nesting beach and water is leaking into the adjoining sandy areas.



Fig. 8. Fethiye SPA. Karatas. August 2016. Left: Palm trees are also being watered on the nesting beach by Deniz Incisi Bufet. Right: At the so-called “small beach” new tree plantations were observed on the sandy zone bordering the road.



Fig. 9. Fethiye SPA. August 2016. Car access on nesting beaches was observed at Karatas and at the end of Akgöl. Note vehicle tracks in red circle.



Fig. 10. Fethiye SPA. Calis Section B. August 2016. Vehicle access control measures were extended to close-off the entire between Jiva Resort and Sport Cafe.

**August 2016 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 2016

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

*for the 36th 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 2016) on the conservation status of sea turtle nesting beaches in Patara Specially Protected Area (SPA) in Turkey.

Contents:

- *BACKGROUND*
- *UPDATE*
- *CONCLUSION & RECOMMENDATIONS*
- *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.

UPDATE

Patara nesting beach description (Fig. 1-2): the 12 km beach is split in a north and south beach 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 North beach there is an entry point at the Özden river outlet (Özden beach) and another entry point at the Esen river (Letoon beach). At the South beach there are three entry points: at the mouth of the Esen river (Çayağzı beach), at the middle of the beach on the top of the dune, and at the south end of the beach (Patara main beach)

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;

To our knowledge there was no improvement in Patara’s legal protection or management. No local management unit was responsible to design and enforce measures, regulations and fines in the protected area.

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;

(i) The abandoned illegal facilities of the beach bar and pool at Çayağzı beach have not been removed from the dunes (Fig. 4). At Letoon beach the former SPA facilities that are not in use, remain on the beach in decay; old shower pipes are still supplied with water and are used by visitors on the nesting beach (Fig. 5).

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

(ii) 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 400 sunbeds, 93 fixed umbrellas and another 103 umbrellas that are inserted in the sand randomly without any nesting zone determinations. The 5-6 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). Although the two 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 and hence furniture is partly inside the nesting zone. In Patara nesting occurs 10-80 m from the waterline² whereas the posts are placed at approx. 40m from the waterline. For example, three caged nests were located within the sunbed area (Fig. 6-7). In addition, there is a volleyball court and three vertical wooden pathways lead to the sea from the beach bar, forming an additional barrier for nesting turtles trying to reach the nesting zone (Fig. 8-9).

Sunbeds were not removed or stacked during the night (Fig. 6).

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

(iii) Vehicle tracks could be observed along several beach section. Mostly quads but also motorbikes and heavy 4x4 tracks criss-crossed with sea turtle tracks (Fig. 10). At Esen river, trucks and car tracks criss-crossed a wide sandy area between the entry point and the river; an adult sea turtle track and a nest were observed in this area.

Access is possible via the 2 entry points at the Esen river and at the top of dunes (though no tracks were observed in the dune area). On the road leading to the archaeological site and Patara main beach, during daytime there was a barrier and a guard collecting an entrance fee. 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.

(iv) prohibit illumination of the beach;

(iv) There is barely any artificial light affecting the beach, though there are some street lamps influencing the beach area at the entry points.

At Patara beach there are two street lamps in the parking area that are visible from the beach; light strength was measured at night and had the same value as the moonlight (11 pm, lamps: 1,1lx and 1,2lx; moon: 1,2lx). The monitoring team artificially increases the light stimulus for the hatchlings by leading them to the sea via flashlight. About 1.5km of Patara beach, towards the northwest, a few village lights and minor sky-glow behind the dunes are visible from the beach, though it doesn't seem to currently influence the hatchling orientation; however, it seems likely that once the remaining 310+ summer houses are built on the hill, light pollution visible from this part of the beach may increase.

At Özden beach there is a street lamp 150m away from the shore and just 50m away from the beach, which is highly possible to have impact.

At the entry points around Esen river, no lights were visible.

² 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.

25.80m 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

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

(v) Nearshore fishing activity was observed in the area around Esen river. Nets were not only put in the river but also in the sea, covering the river mouth area (Fig. 11). Ghost nets and fishing lines were found in the sand around the river and along the whole beach area; they pose a threat especially for birds, crabs and sea turtle hatchlings (Fig. 11).

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

(vi) There is a camping area behind the north entry of Özden beach. Other than that it is known that the area at the dune-entry point and around Esen river is used as a picnic or camping area especially during Bayram (religious holidays in June or July), though no camping was observed during the survey.

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

(vii) Evidence of quads and 4x4 vehicles were found along extensive beach areas (see (iii)). ATV tours at Patara are advertised in local newspapers (Fig. 12). Evidence of horse riding on the beach was found in several parts of the south beach section (Fig. 13).

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

(viii) No information was found 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.

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;

Trash bins are provided at Patara main beach and Özden beach. Few litter found on the beach and most of it seemed to be washed ashore by the sea or the river (Fig. 14). A newspaper article (Fig. 12) reported litter removal efforts by a local volunteer team in July after Bayram, when the beach and dunes are highly frequented by (local) picnickers. At the entry point connecting the dunes and the new summer houses there was few litter indicating some litter removal effort.

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

Predation of eggs and/or emerging hatchlings takes place along the whole beach and tracks indicated that predators were wild pigs, foxes and/or jackals, birds and crabs. Most of the nests were not protected against predation; when used, predation cages may be ineffective as their design does not prevent animals from digging nests (Fig. 15). There were no stray dogs observed at the time of the survey.

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;

Along the whole beach the observed nests were either unmarked, were marked with wooden sticks or fenced by a cage (Fig. 16). Predation cages buried in the sand for some nests (see above). At Patara main beach, there were three caged nests inside the beach furniture area; either side of this area is also used by visitors but nests there were not protected. For example, between the sunbed area and the east end of the beach, approximately 40 nests were only marked by wooden sticks.

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 2016 project, which was contracted by the Ministry to a company that assigned the project to Adnan Menderes University, was limited to one season and started in mid-May. The monitoring team that was on-site at the time of appraisal consisted of only two experienced volunteers. The small team could only monitor part of the southern beach, nightshifts were conducted irregularly and morning shifts started at 8 am (late).

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;

There are no new information signs about the protected area or nesting site. At the Letoon beach entry point there is a sign prohibiting littering (Fig. 5).

At Patara main beach, existing old signs include: a sign at the parking space, now partly hidden by vegetation, informing about the SPA and the regulations; a sign in Turkish informing that the beach is a sea turtle area, placed along the wooden pathway from the parking area to the beach; an information board at the wooden pathway leading to the beach bar informs about the night access restrictions. At the beach entrance there is an information kiosk which the monitoring team operates three times a week, though it was not observed in operation during the survey. A mobile phone number written on a poster invites visitors to call for further information. The monitoring team informs tourists about the project once a week in a bar in the village and occasionally organises public hatchling releases at night, which are conducted by the experienced team members. Visitors are invited to watch while one of the expert members guides hatchlings to the sea using a flashlight; during the release, information is provided about correct behaviour and the sea turtle ecology.

The nesting zone is not clearly delimited and there are no new zoning efforts. At Patara main beach, only two old wooden posts remain, indicating the nesting zone and the area that visitors are allowed to use (Fig. 7). The posts are placed approximately 40m away from the shoreline at the left and right end of the sunbed zone. As explained above (1.ii), in addition to being unclear, the zoning is likely inaccurate. There is no such zoning in the rest of the 12 km 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. 17): In 2016, construction work 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 in different stages of construction were counted. The survey documented foundations and frames built for 118 buildings, 15 buildings with foundations and outer walls, foundations laid for 70 houses and 52 plots prepared for foundation 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, though rare, is possible via all five entry points as there are no guards or barriers at night. The two beach bars were not open at night, though music was heard from the bar during a night visit at Patara main beach.

- Wastewater pollution: Esen river water is murky and has a strong odour; it seems to be chemically polluted by the surrounding farmland, though this requires further analysis.
- Dune conservation: No new plantations were observed but no dune conservation/restoration efforts were visible. Some dune areas are ecologically degraded by plantations.

CONCLUSION & RECOMMENDATIONS

In 2016, there was no improvement in the conservation status of the nesting beaches and conservation problems remain: lack of management staff and insufficient nest monitoring personnel, poor beach furniture management, lack of zoning and information, nearshore fishing, vehicle access, horse riding and derelict facilities on beaches, etc. There were no signs of new efforts or conservation activities, with the exception of litter collection. 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 2017 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.
- Inform about plans to allow beach business to operate on the sand dunes and sea turtle nesting beaches.

MEDASSET calls upon the Bern Convention Standing Committee to:

- Discuss the case file at the 36th 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 2017.

REFERENCES - 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: <i>Caretta caretta</i> 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. |

MAPS & PHOTOS

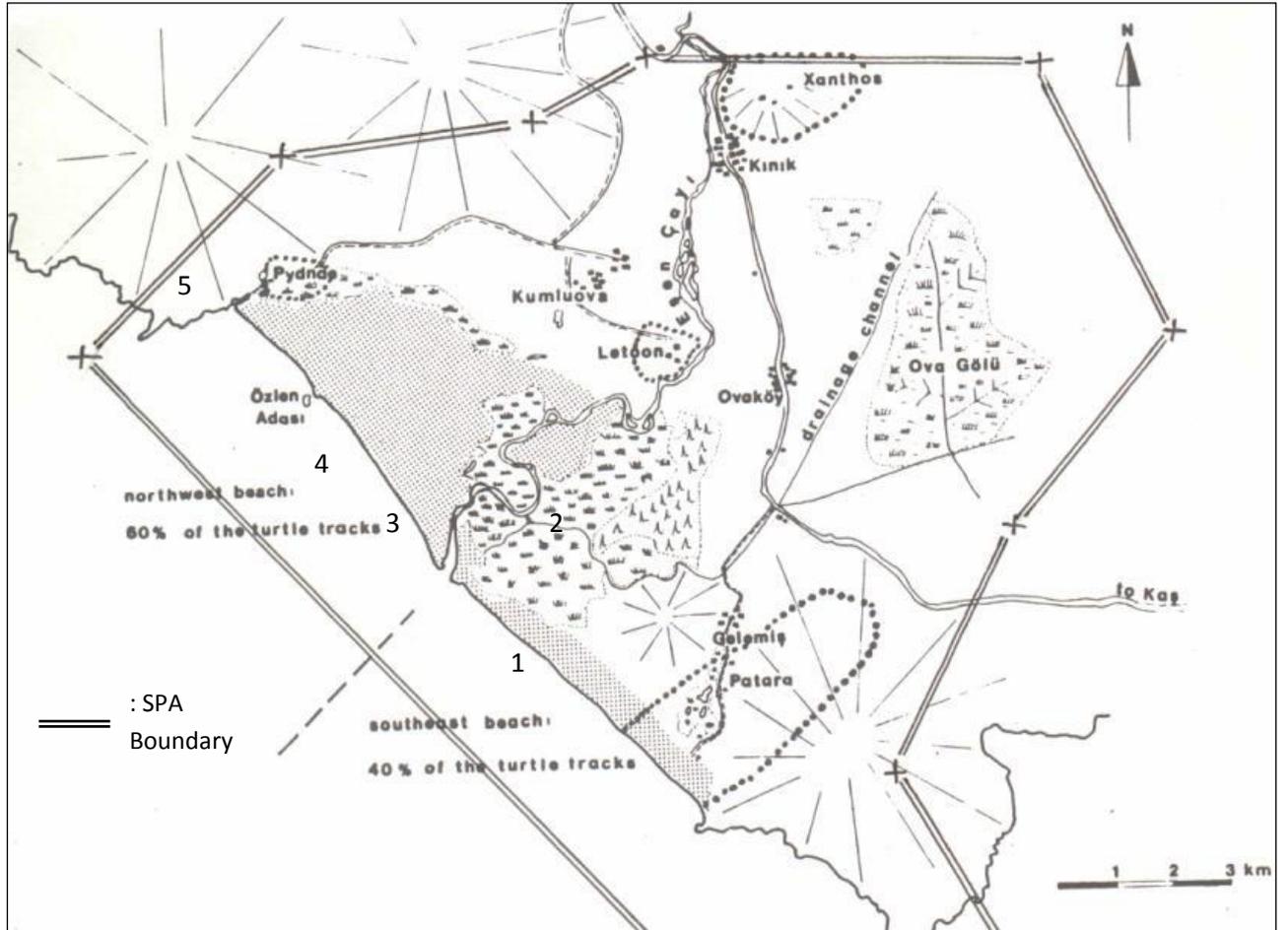


Fig. 1. Patara SPA. Patara main beach is No. 1, entry point via sand dunes is No.2. Çayağzı beach is No. 3 (Esen River outlet at the north edge of the south beach), Leteon beach is No.4 (Esen River outlet at the south end of the north beach) and Özden beach is No. 5 (next to Özden river outlet). *Map Source: Baran I., and M. Kasperek. 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.

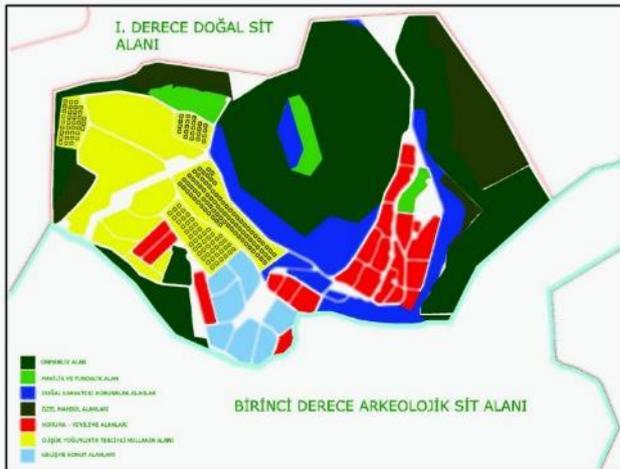


Fig.3. EPASA Management Plan Map of Patara SPA “3rd Degree Archaeological Site” (see blue area in Fig. 2). Construction is allowed in the red and blue areas, which include Gelemis village, and in the yellow area which includes the summer housing cooperative lands.



Fig. 4. Patara SPA. Çayağzı beach entry point next to Esen River. July 2016. The snack bar that operated on the nesting beach in 2014, was closed in 2015 due to its illegal status. Most facilities have not been removed and remain on the dunes such as a lifeguard tower (left), platform and large hut (right).



Fig. 5. Patara SPA. Letoon beach (north of Esen River outlet). July 2016. SPA facilities (top: changing rooms, kiosks, lifeguard tower) have been abandoned and have not removed from the dunes. Shower pipes (bottom left) are still supplied with water and are used by visitors on the nesting beach. A sign prohibits littering (bottom right).



Fig. 6. Patara SPA. Patara main beach. July 2016. Three fixed rows of sunbeds with umbrellas are installed on the beach and are not removed at night (photo taken 6 am).



Fig. 7. Patara SPA. Patara main beach. July 2016. Nests (red circles) are laid among the dense rows of sunbeds (top left and right). This is inside the area that is marked with two old wooden posts (top right) as an umbrella and sunbed area, suggesting that the zoning is not appropriate. In this area, visitors are allowed to insert their own umbrellas or umbrellas they can rent on site (bottom left and right).



Fig. 8. Patara SPA. Patara main beach. July 2016. Wooden pathways from the sea to the beach bar.



Fig. 9. Patara SPA. Patara main beach. July 2016. Volleyball court on nesting beach near nests.





Fig. 10. Patara SPA. July 2016. Widespread vehicle tracks on all nesting beaches indicate uncontrolled vehicle access. Note adult sea turtle tracks indicated by red arrows. In addition to quads and motorbikes, tractors and other 4x4 vehicles are driven on the nesting beach.



Fig. 11. Patara SPA. July 2016. Left: fisherman prepares nets for nearshore fishing. Right: discarded “ghost” nets litter the nesting beach, posing a trap for adult turtles and hatchlings.



Fig. 12. Patara SPA. July 2016. Local newspaper cutting. Left: litter collection on Patara beach. Right: Patara quad (ATV) tour advertisement.



Fig. 13. Patara SPA. July 2016. Horse tracks and feces indicate horse riding on nesting beaches.



Fig. 14. Patara SPA. July 2016. Litter found on the beach was mostly washed ashore.



Fig. 15. Patara SPA. July 2016. Nest predation. Most nests are not protected against predation. When cages are placed these seem ineffective (left).



Fig. 16. Patara SPA. July 2016. Several nests were not marked and those that were, were mostly marked with sticks (left); only three nests were marked with large cages (right).

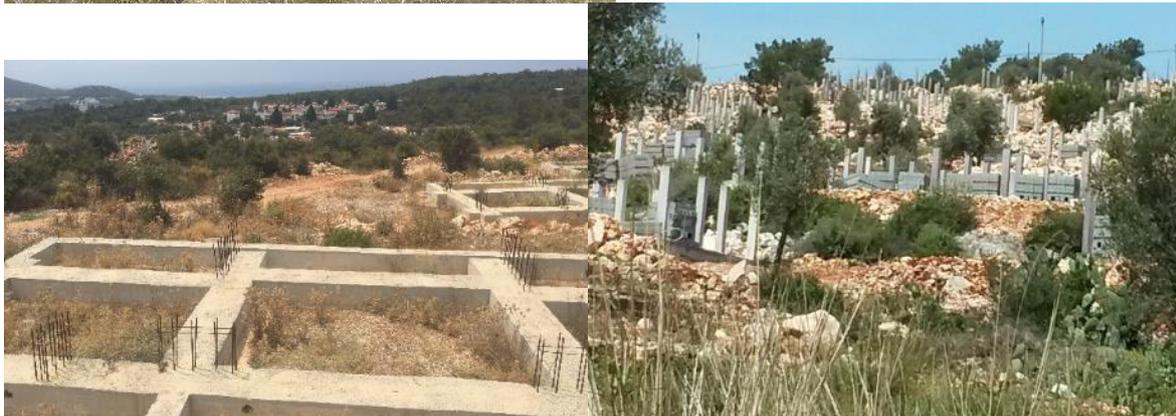




Fig. 17. Patara SPA. 3rd Degree Archaeological Site. June 2016. Construction work continues for approx. 310 buildings in different stages of construction: ground work, foundations, shells, semi-completed buildings.



Fig. 18. Patara SPA. 3rd Degree Archaeological Site. June 2016. View of part of the construction area.

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 2016) 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.³ Recently, the northernmost green turtle nest was also recorded here (Patara previously held this record).⁴ Protection is not only significant in terms of nesting numbers but also to ensure the genetic diversity of the loggerhead population in the Mediterranean.⁵ Fethiye's importance increases because of the relatively higher proportion of male-producing nests.⁶ 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.⁷ Threats to the nesting population have constantly been increasing since 1993-4.⁸ 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.⁹ 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.¹⁰

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*”.

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

³ Türkozan 2000; Margaritoulis *et al.* 2003; Canbolat 2004

⁴ Fellhofer-Mihcioglu *et al.* 2015

⁵ Yılmaz *et al.* 2008

⁶ Kaska *et al.* 2006

⁷ Ilgaz *et al.* 2007; Katilmis *et al.* 2013

⁸ Oruc *et al.* 2003

⁹ See references.

¹⁰ 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.

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,¹¹ 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 Turkey 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 lead 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.

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 the area in July 2016 to assess and document the conservation situation on the nesting beaches in Fethiye SPA. The following presents the survey findings in relation to each of the measures under Recommendation No. 183 (2015).

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;

Unbuilt beach zones continue to be developed and sandy nesting zones reduced.

At Çalış beach Section B the occupation and transformation of the sandy area continues (Fig. 2). Existing businesses have further expanded onto the beach (e.g. Spor Cafe) and there is a new beach business (Surf Blue Café). In addition, some construction work was observed directly behind the beach (Fig. 3).

¹¹ T-PVS/Files 2010 23 (Government report); Authority’s letter in Annex 1 of MEDASSET, December 2011

In Karatas nesting beach, a previously pristine nesting beach, the Barut TUI Sensatori Resort expanded their pavilion area into the nesting zone.

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;

No apparent restoration effort. Permanently fixed equipment, volleyball courts and children's playgrounds remain on the beach.

In Akgöl, sandy nesting areas are occupied by additional 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 shower water was not channelled into the sea and instead leaks directly onto the nesting beach (Fig. 4). In Çalış beach Section B, businesses that have encroached on sandy zones continue to operate as per past years (Fig. 2). In the nesting zone, wooden pathways and carpets remain, a new volleyball court was installed by a hotel, a new playground was added to Spor Café beach facilities and additional carpets cover the sandy area in front of the new Surf Blue Cafe (Fig. 5-7).

In Yanıklar, Hotel Club Tuana placed 2 wooden pavilions and 3 wooden walkways vertical to the sea (Fig. 8). Volleyball courts were installed on the nesting beach by both Hotel Club Tuana and Hotel Lykia Botanika.

In Karatas beach, the "Deniz Incisi Buffet" playground remains on the upper part of the nesting beach. Behind this previously pristine nesting area, a huge new hotel (Barut TUI Sensatori Resort) was constructed in 2014 and started operating in May 2015 (Fig. 9). The entire beach section between the waterline and the hotel has been occupied: a children's playground, tennis court, snack bar and toilets, 3 permanently installed large tents for beach sports equipment; vertical and horizontal wooden walkways (Fig. 11). The hotel increased the number of pavilions on the beach from 10 to 21 (Fig. 10) that are placed closer than 30 meters from the sea. Several pavilions and a walkway in front of these pavilions are inside the nesting zone. In addition, the walkways and sunbeds are washed every day. The sand around the sunbeds and walkways is flattened and smoothed by personnel on a daily basis. This year there was only one nest within the Resort's beach area. 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;

No clear evidence of sand extraction. Sand movement that may have involved extraction was evident in Akgöl close to Karaot Buffet. There is regular sand movement around the canals at the west end of Calis beach and in Yanıklar (Fig. 12). Before the nesting season, in April, use of heavy machinery by businesses on the beach to shape the sand and facilitate installation of infrastructure is regular across the years.

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

Bushes and trees 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 Çalış beach Section B, new plantations were observed at Spor Café (Fig. 13).

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. No zoning or demarcation of nesting zones.

There was no decrease in beach furniture and there is no beach furniture management or removal at night on 6.5 km of the 8 km nesting beaches.

In Çalış beach Section A, as in past years, Çalış Tourism and Promotion Association¹² was responsible for beach furniture management. There were 1-3 rows of sunbeds (Fig. 14). Three rows of furniture are considered too dense for this nesting beach. At night, sunbeds were occasionally removed. Some of the collection methods could lead to entanglement of adult sea turtles.

In Section B, businesses place 3 - 5 rows of beach furniture on the nesting beach that are partly and occasionally stacked together at night next to the umbrellas. It seems there is no restriction, supervision or management regarding the location and density of the furniture, which occupies the nesting zone. Additional sunbeds were placed on the beach by the new “Surf Blue Cafe”.

In Yanıklar, beach furniture was not removed at night by Hotel Lykia Botanika and Hotel Club Tuana, which placed two and three beach furniture rows with permanent sunshades respectively. Additionally, Hotel Lykia Botanika extended its sunbed area in the adjacent section and placed two new rows of sunbeds with a permanent sunshade on the nesting beach (Fig. 15).

In Karatas beach, Barut TUI Sensatori Resort installed about 200-300 sunbeds and umbrellas (5-6 rows depending on beach width; 245 sunbeds, 186 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. The “Deniz Incisi Buffet” (former Karatas Buffet) placed two rows of sunbeds close to the sea that were not collected at night; among them were two caged nests protected with cages (Fig. 16). 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. 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 and the situation has deteriorated in 2016 (Fig. 17). The west end of the beach is now full of pavilions and a shaded sitting area with tables has been moved directly on the nesting beach. The number of pavilions has increased to 12. There is a parking space and a shower provided for visitors. (Fig.18). At the other end of the beach, Karaot Buffet maintains 9 wooden pavilions and has increased beach furniture to 40 sunbeds, placed in the sandy nesting zone of the beach. It also set up a new volleyball court and offers 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;

¹² Çalış Turizm ve Tanıtma Derneği. An association of hotels and restaurants along Çalış Beach Section A.

Light pollution is severe on all beaches and there were no apparent new efforts to mitigate the problem.

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.

Along Çalış Section A, 16 of 22 street lamps are painted black on the seaward side. At all other beach sections, bright street lamps lead to severe hatchling disorientation. In Çalış Section B, beach businesses operate at night and do not turn off their lights (Fig. 19). On both sections of Calis, wedding ceremonies are organized at night, with music, lights and crowd on the beach (Fig. 20).

The Karatas nesting beach is affected by the Barut TUI Sensatori Resort's two security floodlights that shine on the nesting beach.

In Yanıklar nesting beach, camping sites, Hotel Lykia Botanika and Hotel Club Tuana continue to turn off beach lights and pier lights at night.

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 were observed on all beaches, due to the lack of barriers or guards. Bulldozer ruts were observed in Calis Section B (Fig. 21). 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 there is an irregularly controlled barrier on the road leading to the west end of the beach. During the day cars park at a flattened area at the back end of the beach (Fig. 18). There is no vehicle access control at Yanıklar and Karatas beaches.

The picnic areas are widespread along the beaches. Picnic areas are especially crowded in Çalış beach Section B. Bonfires are lit during the night and visitors sleep on the beach. (Fig. 22-24). At Karatas beach, the so called "small beach" section is frequently used as a picnic zone, and there is a truck on the beach selling snacks and renting beach equipment (Fig. 25).

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;

Water sports activities increased in Çalış and Yanıklar. The new Surf Blue Café in Çalış offers water sport activities within 100m from the shoreline with high speed vessels. In Karatas beach, traffic increased this year as the new resort provides several new motorised water sport boats launching from its new pier.

Fishing is still not controlled and nets are placed too close to the shoreline (Fig. 26).

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 entire 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, starting in early June, though nesting began in May. The contract is again short-term, for one season only.

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 was observed on the beaches and bonfires were lit in the picnic areas on the beaches (Fig. 21-24). There is no night time restriction for the

operation of the beach businesses hence lights, music and people disturb nesting and hatching. Many of them close at around midnight. As mentioned, beach weddings take place at Çalış Section A and B.

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. There was far less litter in this section and the nest cages were not vandalized/used as trash bins. No similar efforts were taken in the other nesting beach sections which were littered as per every year.

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 is 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 nor 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. The only change was at Calis Section B where a sign about turtle ecology was installed and in Çalış Section A, where new signs were installed next to existing signs which makes a chaotic impression with no clearly defined guidelines for the visitors (Fig. 4). An information booth was operated during the evening in this section. Signage is poor, derelict or inexistent in the rest of the beaches.

The 2016 nest monitoring project team developed an agreement for hotel owners to follow the SPA guidelines. The hotels are awarded a sign/diploma for being a “sea turtle friendly business”. It is unclear how the implementation of the agreement will be controlled by the team and if the award is revoked in case of noncompliance. It seems clear that even if the agreements were signed, hotels do not currently comply with the agreement criteria.

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 a problem in the SPA and although cages were used they were not always effective, hence investigation/investment in other cage types is needed.

CONCLUSION & RECOMMENDATIONS

In 2016, there was no improvement and the conservation status of the nesting beaches has mostly deteriorated: lack of management, poor beach furniture management, lack of zoning and information, nearshore fishing, no vehicle access control, more fixed structures, no light pollution control, etc. Damage and decrease of nesting habitat continues due to coastal development, in disregard of the Bern Convention’s Recommendations. There were no signs of new efforts or conservation 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 36th 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 2017. 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 2017 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.

REFERENCES

- Canbolat, A.F. 2004. A review of sea turtle nesting activity along the mediterranean coast of Turkey. *Biol. Conserv.* 116: 81-91
- Bann C. & E. Başak. 2013. Economic Analysis of Fethiye-Göcek Special Environmental Protection Area. GEF-funded 2009-13 Project PIMS 3697: Strengthening the System of Marine & Coastal Protected Areas of Turkey. Technical Report Series 11.
- Fellhofer-Mihcioglu C., Rameder E., Lambropoulos M., Stachowitsch M., Atatunc K., Canbolat A.F. 2015. The westernmost Mediterranean record of a nesting green turtle, *Chelonia mydas*: Fethiye beach, Turkey, Aegean sea. In: Kaska, Y., Sonmez, B., Turkecan, O., Sezgin, C. (Eds). Book of abstracts of 35th Annual Symposium on Sea Turtle Biology and Conservation. MACARTpress, 250pp. Turkey.
- Ilgaz, C., Türkozan, O., Özdemir, A., Kaska, Y. & M. Stachowitsch. 2007. Population decline of loggerhead turtles: two potential scenarios for Fethiye beach, Turkey. *Biodiversity and Conservation* 16: 1027 – 1037.
- Kaska, Y., Ilgaz, Ç., Özdemir, A., Bafkale, E., Türkozan, O., Baran, & M. Stachowitsch. 2006. Sex ratio estimations of loggerhead sea turtle hatchlings by histological examination and nest temperatures at Fethiye beach, Turkey. *Naturwissenschaften*, 93:338-343.
- Katilmis, Y., Baskale, E., Polat, F., Azmaz M., & Y. Kaska. 2013. Decline of loggerhead turtle nests on Fethiye beach, Turkey. In: Tucker, T., Belskis, L., Panagopoulou, A., Rees, A., Frick, M., Williams, K., LeRoux, R., and Stewart, K. compilers. 2013. Proceedings of the Thirty-Third Annual Symposium on Sea Turtle Biology and Conservation. NOAA Technical Memorandum NOAA NMFS-SEFSC-645: 263 p
- Margaritoulis, D., R. Argano, I. Baran, F. Bentivegna, M.N. Bradai, J.A. Camiñas, P. Casale, G. De Metro, A. Demetropoulos, G. Gerosa, B.J. Godley, D.A. Haddoud, J. Houghton, L. Laurent & B. Lazar. 2003. Loggerhead turtles in the Mediterranean Sea: present knowledge and conservation perspectives. In: A. Bolten & B E. Witherington (Eds.). *Loggerhead Sea Turtles*. Smithsonian Books, Washington pp. 175-198.

Oruç, A., Türkozan O. & H. Durmuş. 2003. In the Tracks of Marine Turtles: Assessment of Marine Turtle Nesting Sites 2003. WWF, Istanbul. 96pp.

Özdemir, İ., K. Özkan, A. Mert, S. Gıilsoy. 2011. Monitoring of wetlands by using multitemporal landsat data; a case study from Fethiye – Turkey. In: Gökçekus H, Türker U, LaMoreaux JW, editors. Survival and Sustainability: Environmental Concerns in the 21st Century. Springer; 2011. p. 785-793

Türkozan, O. 2000. Reproductive ecology of the loggerhead turtle, *Caretta caretta*, on Fethiye and Kızılot beaches, Turkey. *Chelonian Conservation and Biology* 3:686-692.

Yılmaz, C. ,Türkozan, O., F. Bardakçı. 2008. Population genetic structure of loggerhead turtles, *Caretta caretta*, in Turkey based on mtDNA sequences, 3rd Mediterranean Conference on Marine Turtles.

MEDASSET REPORTS & COMPLAINT (Available at: www.medasset.org/en/resource-centre)

T-PVS/Files (2015) 34 MEDASSET. September 2015. Update on Loggerhead sea turtle (*Caretta caretta*) Conservation Monitoring in Fethiye SPA, Turkey.

T-PVS/Files (2014) 16. MEDASSET. March & August 2014. Update on Loggerhead sea turtle (*Caretta caretta*) Conservation Monitoring in Fethiye SPA, Turkey.

T-PVS/Files (2014) 16. MEDASSET. March & August 2014. Update on Loggerhead sea turtle (*Caretta caretta*) Conservation Monitoring in Fethiye SPA, Turkey.

T-PVS/Files (2013) 9. MEDASSET. March & September 2013. Update on Loggerhead sea turtle (*Caretta caretta*) Conservation Monitoring in Fethiye, Turkey.

T-PVS/Files (2012) 42. MEDASSET. September 2012. Update on Loggerhead sea turtle (*Caretta caretta*) Conservation Monitoring in Fethiye, Turkey.

(No T-PVS reference). MEDASSET. December 2011. Update on Loggerhead sea turtle (*Caretta caretta*) Conservation Monitoring in Fethiye, Turkey.

(No T-PVS reference). MEDASSET. April 2011. Destruction of Sea Turtle Nesting Beaches in Fethiye SPA, Turkey.

(No T-PVS reference). MEDASSET. March 2011. Update on Loggerhead sea turtle (*Caretta caretta*) Conservation Monitoring in Fethiye, Turkey.

T-PVS (2010) 08 E. MEDASSET. March & September 2010. Implementation of Recommendation No. 66 (1998) on the conservation status of some nesting beaches for marine turtles in Turkey.

(No T-PVS reference). MEDASSET. Sept 2009. Complaint to Bern Convention addressing the threats facing the loggerhead sea turtle (*Caretta caretta*) nesting beaches in Fethiye, Muğla province, Turkey.

(No T-PVS reference). MEDASSET. September 2008. Sea turtle nesting beach degradation in Çirali and Fethiye, Turkey.

MAPS & PHOTOGRAPHS

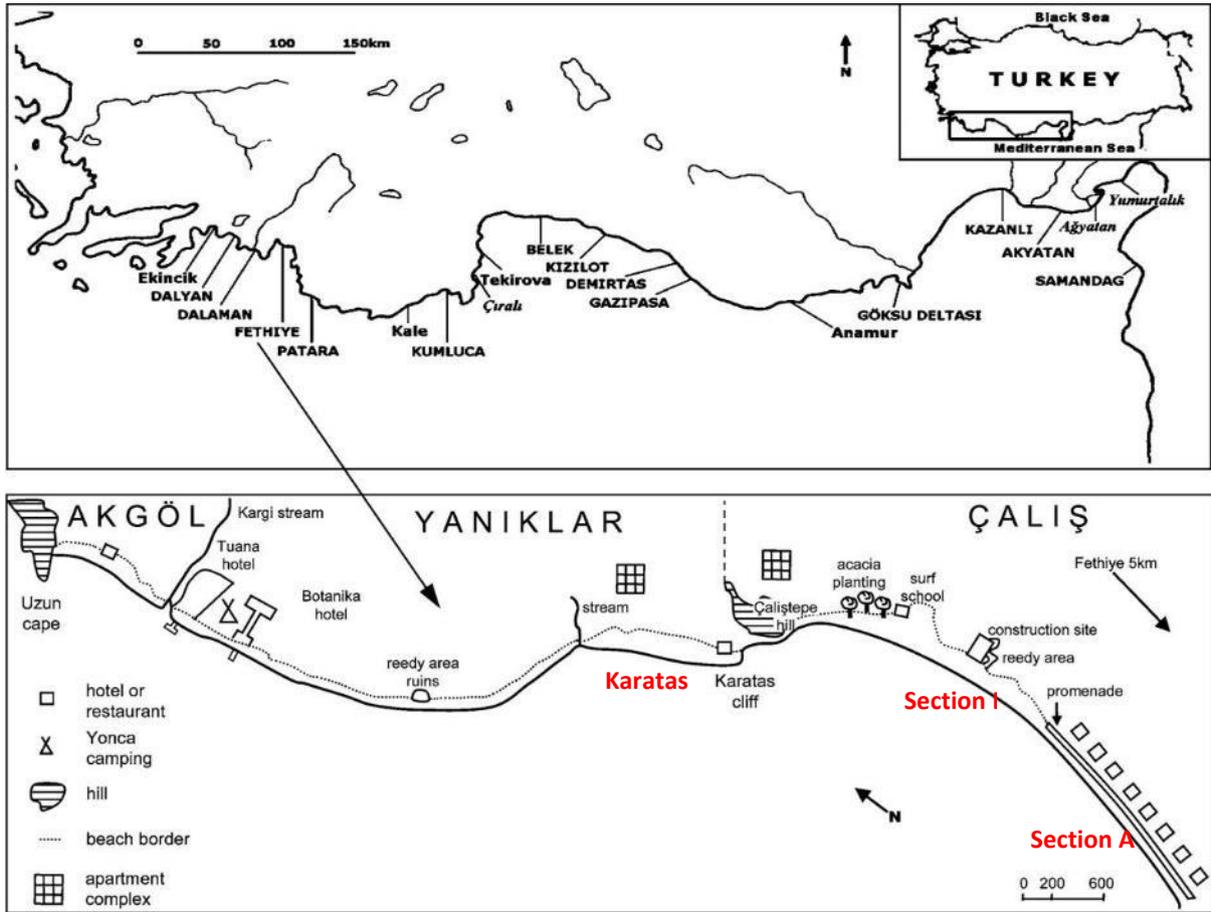


Fig. 1. TOP: Fethiye among important nesting beaches. BOTTOM: Fethiye nesting beach sub-subsections; developments since 2006-7 are not shown here. *Source: Ilgaz et al., 2007.*



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. Fethiye SPA. Çalış Section B (Spor Café). July 2016. Construction on area directly behind nesting beach, possibly connected to a new camping area.



Fig. 4. Fethiye SPA. Çalış. Section A. July 2016. Left: Showers cabins remain directly on the beach. Shower water leaks directly onto the nesting zone. Note moist sand around the hut. Right: A new small sign (far right) was added to the two existing ones. On other beach section, no signs were replaced or installed to inform visitors.



Fig. 5. Fethiye SPA. Çalış Section B (Spor Café). July 2016. New children playground on nesting beach.



Fig. 6. Fethiye SPA. Çalış Section B (Jiva Resort). July 2016. Beach volleyball court and sunbeds installed on nesting zone.



Fig. 7. Fethiye SPA. Çalış Section B. New carpets at the new Surf Blue Cafe cover the whole sandy area of the nesting beach (left). This is in addition to existing carpets, 4 rows of sunbeds and pillows by the nearby Surf Café (right).





Fig. 8. Fethiye SPA. Yanıklar. July 2016. Vertical wooden pathways, sunbed area with two wooden pavilions at Hotel Club Tuana. Note caged nest (red circle) next to one of the pathways.



Fig. 9. 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. 10. Fethiye SPA. Karatas. July 2016. Additional pavilions placed on the nesting beach by Barut TUI Sensori Resort.



Fig. 11. Fethiye SPA. Karatas. July 2016. Side view of beach facilities. Smoke/gas is presumed to be mosquito repellent.



Fig. 12. Fethiye SPA. Yaniklar. July 2016. Bulldozer drives through and flattens beach during nesting season. Note caged nest in left photo.



Fig. 13. Fethiye SPA. Çalış. Section B (Spor Cafê). July 2016. Acacia trees and grass planted on the nesting beach. Note the litter between the vegetation in the bottom photo.



Fig. 14. Fethiye SPA. Çalış. Section A. July 2016. 2-3 rows of sunbeds, not collected/stacked at night (though they were stacked on their sides on other occasions).



Fig. 15. Fethiye SPA. Yanıklar. July 2016. New additional sunbed area and permanent shade at Hotel Lykia Botanika.



Fig. 16. Fethiye SPA. Karatas (Deniz Incisi Buffet). July 2016. Two rows of sunbeds not collected at night. Note the caged nest in red circle (there were three nests around the sunbeds)



Fig. 17. Fethiye SPA. Akgöl. Satellite imagery. Business occupies core nesting zones (1 and 2).



Fig. 18. Fethiye SPA. Akgöl. July 2016 (early a.m.). Overview of the nesting hotspot occupied by a row of wooden pavilions and a shaded table. Cars park on the dried riverbed and on the adjacent flattened beach area.



Fig. 19. Fethiye SPA. Çalış. Section B (Sport Café). July 2016. Light pollution, business operation and human presence on the nesting beach at night.



Fig. 20. Fethiye SPA. Çalış. Section B. July 2016. Wedding celebration on the nesting beach at night. Several businesses hosted such beach parties at night in Çalış.



Fig. 21. Fethiye SPA. Çalış. Section B. July 2016. Left: Tracks of a trucks on nesting beach. Right: Quad and people sleeping on the nesting beach.



Fig. 22. Fethiye SPA. July 2016. Camping on the nesting beach.



Fig. 23. Fethiye SPA. July 2016. Picnics and bonfires on the nesting beach.



Fig. 24. Fethiye SPA. Çalış. Section B July 2016. People sleeping on the nesting beach at the picnic area. Background: sunbeds and boats are not collected at night.



Fig. 25. Fethiye SPA. Karatas (“small beach”, early a.m.). July 2016. Truck selling drinks and renting beach equipment on nesting beach. Note litter and bonfire.



Fig. 26. Fethiye SPA. July 2016. Fishing net is set too close to the shoreline posing a trap for adult sea turtles as well as hatchlings.