

Strasbourg, 12 April 2013  
[files21e\_2013.doc]

**T-PVS/Files (2013) 21**

CONVENTION ON THE CONSERVATION OF EUROPEAN WILDLIFE  
AND NATURAL HABITATS

**Standing Committee**

33<sup>rd</sup> meeting  
Strasbourg, 3-6 December 2013

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**Possible file**

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

**REPORT BY THE GOVERNMENT**

*Document prepared by  
The Ministry of Forestry and Water Affairs, Turkey*

**GOVERNMENT REPORT ON  
PRESUMED DEGRADATION OF NESTING BEACHES IN FETHIYE AND PATARA SPAS (TURKEY)**



**T.C.  
ÇEVRE VE ŞEHİRCİLİK BAKANLIĞI  
Tabiat Varlıklarını Koruma Genel Müdürlüğü**

Sayı : 37120320-3000  
Konu : Barın Sözleşmesi

26/08/2013

**ORMAN VE SU İŞLERİ BAKANLIĞINA  
(Doğa Koruma ve Milli Parklar Genel Müdürlüğü)**

İlgi: 13.00.2013 tarih ve 49698 sayılı yazınız.

İlgi yazıda; Barın Şikâyetleri Sekreteryasından alınan, Patara ve Fethiye Özel Çevre Koruma Bölgelerinde bulunan Çarşıta çarşısı ilüçü deniz kıyılarında bulunan yazılarda bulunan yapıların ve tesislerin durumu ile ilgili olarak şikâyet formu ekte gönderilmektedir olup, Barın Bölgesel Sekreteryasına yapılacak cevaba esas olabilecek raporun Bakanlığımıza iletilmesi talep edilmiştir.

Bu kapsamda Bakanlığınız (Tabiat Varlıklarını Koruma Genel Müdürlüğü) tarafından talep edilen raporunuzun ilgili olarak hazırlanmış rapor yazınız ekinde gönderilmektedir. Bilgilerinizi ve gereğini rica ederim.

**Orman ÜZÜMLÜKÜ  
Bakan a.  
Genel Müdür Yardımcısı Y.**

Ekte: Rapor ( 6 sayfa)

Çevre ve Şehircilik  
Bakanlığı

Tarih: 01.04.2013  
Sayı: 31371

## **SUMMARY**

Following the request of the Bern Convention Secretariat, General Directorate for the Protection of Natural Assets (GDPNA) has prepared this report in order to provide information on the conservation status of some nesting beaches for marine turtles in Special Environmental Protection Areas (SEPA) in Turkey.

The Environmental Protection Agency for Special Areas (EPASA) was restructured as the General Directorate for the Protection of Natural Assets under the Ministry of Environment and Urbanization by the “Decree on the Organization and Functions of the Ministry of Environment and Urbanization” with number 644 which was published in the Official Gazette in August 2011. Within the framework of this restructuring, in addition to the Special Environmental Protection Areas, Natural Sit and Natural Protection Areas regulated under the Decree on Protection of Cultural and Natural Assets with number 2863 were also brought under the responsibility and functioning areas of the GDPNA which is in the guiding position for developing and monitoring national protection areas which are decided to be protected at the national level, such as land, coasts, rivers, lakes and marine areas etc. planning to be made on all these areas.

Special Environmental Protection Areas particularly large areas that already under pressure of urbanization, tourism and agricultural activities. Human population have negative impact on the environmental health of the areas. However, developments are not intended to allow for widescale industrial production.

Master Plans is the statutory land use plans which guides and enforce the permissible land use and density for developments in SEPA’s and reviewed according to requirements of the area. In this regard, there are many plan decisions are taken and put into effect in SEPAs such as hotel, marinas, secondary houses and ship docks etc.

### **PATARA SEPA**

Ancient City of Patara and its environs was declared as “Patara Special Environmental Protection Area” by the Cabinet of Ministers in 1990. Patara SEPA 1/25000 scaled master plan was prepared by EPASA and sent to Antalya Conservation Commission. Additional and partial revision of Patara SEPA 1/25000 scaled master plan including the changes made at the subject area during that process was approved in 2010.

The area where the villas are constructed remains within 3<sup>rd</sup> Degree Archaeological Site (village built-up area) established with the Decree of Antalya Conservation Commissions dated 30.09.1996 with the number 3106.

Reconstruction plan for conservation prepared for Patara 1<sup>st</sup> and 3<sup>rd</sup> Degree Archaeological Site and for 1<sup>st</sup> Degree Natural Site which is approved by SEPA, was approved by the decree of Antalya Conservation Commission in 2004.

Approved 1/5000 scaled reconstruction plan for conservation included the borders of 1<sup>st</sup> and 3<sup>rd</sup> Degree Archaeological Site and for 1<sup>st</sup> Degree Natural Site; 1/1000 scaled reconstruction plan for conservation contained 3<sup>rd</sup> Degree Archaeological Site on which structuring is allowed with the decree of resolution of Higher Conservation Commission.

The area opened to structuring has the status of 3<sup>rd</sup> Degree Archaeological Site, as described “archeological areas where new arrangements can be allowed in line with the conservation-utilization decisions”.

On the other hand, the distance of the cooperative area remaining within the 3<sup>rd</sup> Degree Archaeological Site to the Patara beach which is the nesting area of the sea turtles is approximately 2.5 km. Additionally, according to EIA Regulation which is mandatory for over 2000 housing in Turkey.

### **Sea Turtle Conservation and Monitoring Studies**

Field studies conducted between 21 May 2012 and 15 September 2012 in Patara Beach. During this period, totally 169 *Caretta caretta* nests and 2 *Chelonia mydas* nests has been determined.

In addition, 388 *C. caretta* tracks and 5 *C. mydas* tracks has been determined. Based on these data for *C. caretta* nesting density 12,07 nest/km and *C. mydas* nesting density 0,14 nest/km, respectively. 46 of 171 nests have undergone semi predation and 49 of 171 nests have undergone full predation. Average incubation time for 98 *C. caretta* nests is calculated 49 days and average incubation time for 2 *C. mydas* nests is calculated 52 days.

Total number of eggs in 162 *C. caretta* nests was 11440 and average number of eggs per nest is calculated 67,69. While 43,10% of this eggs became hatchling, and 34,23% of this eggs suffered predation. Total number of eggs of *C. mydas* was 148 and the average number of eggs per nest was 74. While 58,78% of this eggs became hatchling and %31,08 of eggs didn't complete their embryonic stage. 90,94% of 3916 suffered predation.

*C. caretta* eggs were destroyed by foxes. 4 of 8 suffered predation *C. mydas* eggs were destroyed by foxes. 66% portion of uncompleted their development *C. caretta* eggs was early stage. 65% portion of uncompleted their development *C. mydas* eggs was early stage again. 88% of hatched *C. caretta* juveniles managed to reach the sea. 75 of 87 hatched *C. mydas* juveniles managed to reach the sea. 50% of exposed to predation *C. caretta* juveniles were destroyed by crabs. All of exposed to predation *C. mydas* juveniles were destroyed by seagulls.

This season 2565 eggs in 38 nests was moved to appropriate fields. Average depth and diameter of *C. caretta* nests were found 52,02 cm and 17,43 cm, respectively. Average depth and diameter of *C. mydas* nests were found 70,50 cm and 18,50 cm, respectively. 7 *C. caretta* marked in 2012. In addition, temperature gauges was placed into the 6 nests. Given this temperature gauges data is composed 69,4% and 91,6% female individuals in Patara Beach. This studies will be implemented during the nesting season in 2013.



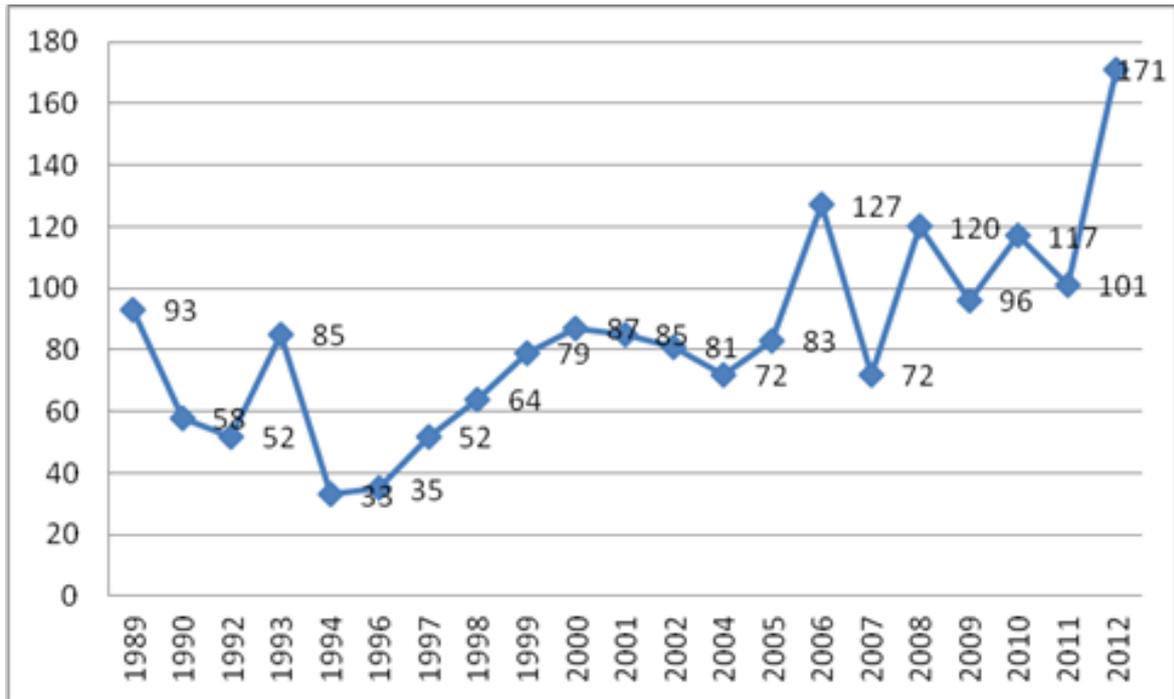
General view of the Patara SEPA *Caretta caretta* nesting sites



Field studies in Patara SEPA.



Public awareness in Patara SEPA



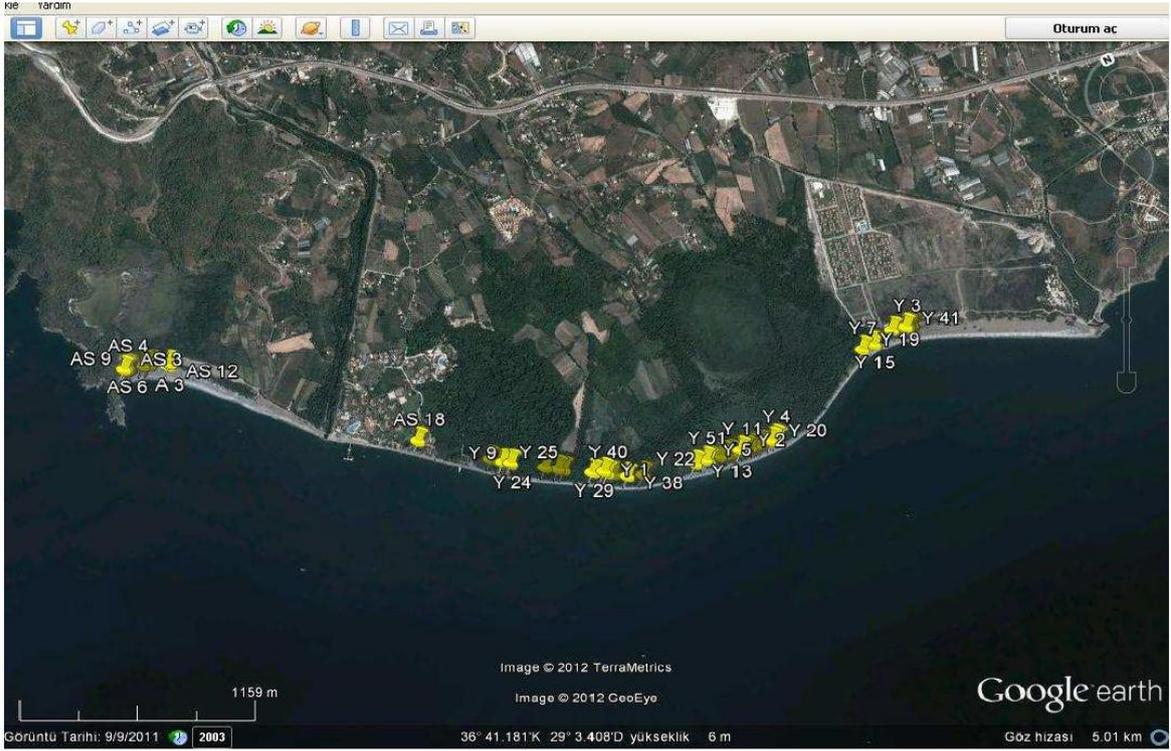
Patara SEPA *Caretta caretta* nest 1989 between 2012 years.

## FETHİYE SEPA

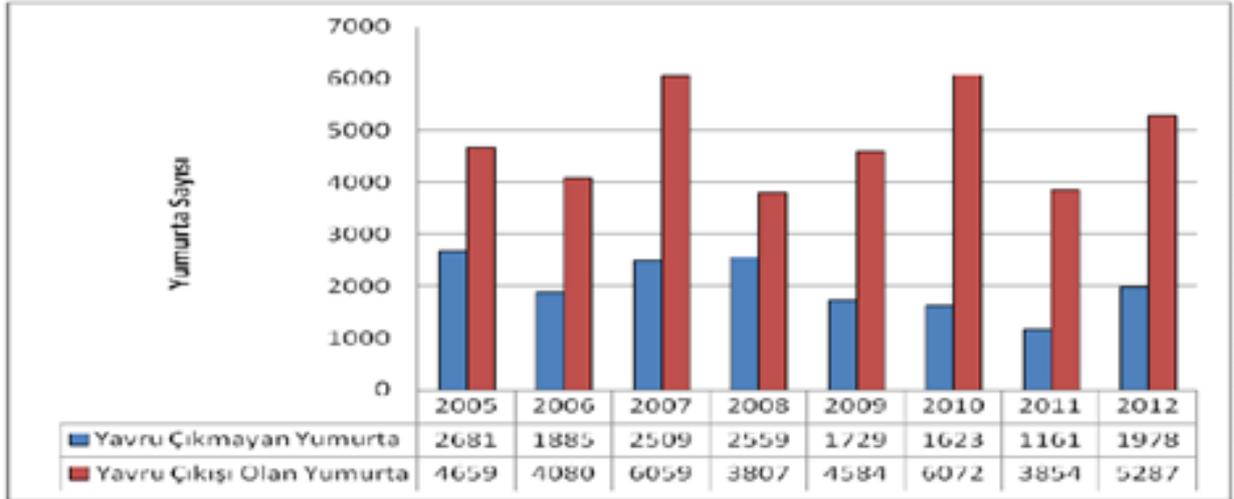
Breeding and nesting activities of sea turtles on Fethiye Beach, which take place in Fethiye-Göcek Special Environmental Protection Area, were studied in 2012 nesting season. A total of 247 emergences, all of which belongs to loggerhead sea turtles, occurred in 2012, of which 89 (36,03 %) nests were deposited and the remaining 158 (63,97 %) non-nesting emergences were recorded. GPS records of the nests were taken and the distances of emergences from the sea were also measured. Mean nesting density was 10,72 nests/km in 2012 for the length of 8,3 km long beach. Mean depth of the nests was 47,98 (39-61) cm, diameter of egg chamber was 24,13 (17-36) cm with a mean clutch size of 81,62 (17-134). A total of 3 nesting females were tagged, one of them re-observed during their second nesting.

The nests were caged against predation and human activities. A total of 11.23 % nests were caged against human activities and against predators. Hatching was observed in 97.7 % of the nests and only 2.3 % of the nests were not produced any hatchlings. After excavating the nests, a total of 7265 eggs were counted, of which 669 of them were unfertilized. 1309 dead in shell embryos and 5287 empty eggshells that produced hatchlings. The hatching success was calculated as 92.37 %.

For the public awareness, monthly meetings with hotel owners and personnel have taken place and powerpoint presentations were also made to the tourists and visitors. This public awareness campaigns for both local and international tourists were active every night at Caretta Info Desk on Çalış beach. This studies will be implemented during the nesting season in 2013.



General view of the Fethiye-Göcek SEPA *Caretta caretta* nesting sites.



Fethiye-Göcek SEPA egg number between 2005 and 2012.

Red: Eggs with hatchling  
Blue: Eggs without hatchling



Public awareness campaign in Fethiye-Göcek SEPA.