

Strasbourg, 8 March 2011
[files05e_2011.doc]

T-PVS/Files (2011) 5

CONVENTION ON THE CONSERVATION OF EUROPEAN WILDLIFE
AND NATURAL HABITATS

Standing Committee

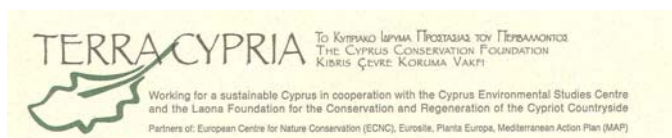
31st meeting
Strasbourg, 29 November – 2 December 2011

Other complaints

**Sea turtle mortality in the British Sovereign Base
Areas (SBAs) of Episkopi and Akrotiri
(Cyprus)**

REPORT BY THE NGOS

Document prepared by:
MEDASSET, Terra Cypria, Episkopi Turtle Watch



Information note for the Bern Convention Bureau Meeting on 11th April 2011

Following the complaint submitted jointly by MEDASSET, *Terra Cypria* to the Secretariat (16.8.2010) before the last meeting of the Convention regarding the important increase in turtle mortality in Episkopi and Akrotiri, Cyprus, (T-PVS (2010) 16), we would like to update the Bureau on this issue.

The British Bases reassured *Terra Cypria*, during a meeting that took place on 31 January 2011, that the turtle survey they are conducting will be completed within March. As soon as the survey report is ready a meeting will be organized between the British Bases, MEDASSET, *Terra Cypria*, Episkopi Turtle Watch and the Republic of Cyprus to discuss the issue and try to find solutions regarding the increased mortality of sea turtles in the area.

Since the complaint was submitted, seven more turtles were found dead in the area: three adult loggerheads (*Caretta caretta*), one sub adult and three juvenile green turtles (*Chelonia mydas*).

While we all wish to reach a common understanding on the issue, we also feel that the matter should be kept under scrutiny and included in the 2011 Agenda.

Increase in turtle mortality in Episkopi and Akrotiri areas

➤ Episkopi Turtlewatch (“ETW”) contacted MEDASSET and Terra Cypria in 2009 regarding the alarming increase in the number of sea turtle deaths recorded at Episkopi, the majority of which are *Chelonia mydas*. ETW is a volunteer organisation which undertakes sea turtle conservation and monitoring activities in the Episkopi area of Cyprus. It has been responsible for these activities since 1995.

Episkopi is an area under the control of the British Sovereign Base Area Administration (SBAA). See “EpiMap.pdf” for a detailed map of the area. Since 2008 the SBAA has issued conservation licenses to individuals within ETW to carry out the abovementioned activities on its behalf and to submit reports on an annual basis.

Both *Caretta caretta* and *Chelonia mydas* nest at Episkopi and nearby Akrotiri which is overseen by Akrotiri Turtlewatch (“ATW”). Gatherings of adult and juvenile turtles occur off the Episkopi coast from April until October each year, mainly in the depth range 4-15m (confirmed by aerial surveys in 2009 and 2010; detailed reports are available upon request). Additional evidence of the gathering was obtained by ETW from local pilots and water users. It was established that throughout the April to October period the largest daytime gatherings of adult and juvenile turtles were consistently occurring in the area bounded by the west tip of Evdimou beach and the west side of Curium beach in waters between 4 and 15m deep. A boat survey of the same area confirmed that the area is populated by *Cymadocea nodosa* a preferred food of *Chelonia mydas*.

Prior to 2008 the ETW average annual stranding (death) rate was 4 per annum. ATW reported similar levels. At the end of 2007 SBAA, despite objections from ETW, altered its fishing regulations to allow fishing with nets in water 5m deep during peak mating, nesting and hatching months (The Fisheries (Consolidation) Ordinance 2005 as subsequently amended). The previous limit was 10m. The 10m isobath is approximately 1km offshore. There are parts of the Episkopi coastline where 5m depth occurs less than 20m from the beach (See EpiMap.pdf). Recorded deaths since the reduction of the depth limit are:

| Year | ETW total | <i>Caretta caretta</i> | <i>Chelonia mydas</i> | ATW total | <i>Caretta caretta</i> | <i>Chelonia mydas</i> |
|------|---------------------------------|-------------------------------------|------------------------------|--|------------------------|---|
| 2008 | 21 | 9 adults (8 female), 2 sub adult | 10 juvenile and sub juvenile | Not known but a significant increase noted | | |
| 2009 | 26 | 6 adults (4 female), 1 sub adult | 19 sub adult and juvenile | 21 | 11 adults (9 female) | 2 adult (1 female), 8 sub adult and juvenile |
| 2010 | 23 to date (1 August) | 9 adult females | 14 juvenile and sub adult | 15 (split not known) | | |

The casualty rate significantly exceeds levels recorded by the Republic of Cyprus which has a significantly larger nesting population but better protection off its main beaches. Available evidence indicates that nearly 100% of deaths recorded by ETW and ATW were a result of interaction with fishing activities and specifically net fishing – a finding supported by the SBAA funded post mortems conducted in 2009. (See attached FILE TITLE and fig 7-10) Approximately 40% of turtles examined by ETW were deliberately killed by a blow to the head. ETW also found that in 2008 80% of deaths were freshly dead when first sighted in the area, the figure for 2009 was 70% and to date in 2010 it is also 70%. It should be noted that dead turtles are often reported to ETW 1-2 days after first being found and that some of those which were deliberately killed had actually been hidden in areas only accessible by sea. Throughout the period 2008 to date ETW has reported with supporting evidence to the SBAA many incidents of fishermen breaking both depth and timing laws when placing nets in known turtle gathering areas. (See attached FILE TITLE and fig 1-6). In 2010 aerial photographs of identifiable boats trawling illegally above

Posidonia beds in turtle gathering areas were also supplied to the SBAA. ETW is aware of only two small fines having been imposed in 3 years for breaches of fishing with nets regulations. ETW acknowledges that in 2010 SBAA enforcement officers are using their best efforts to try to tackle illegal fishing, but those officers have stated that they regard the existing law as largely unenforceable. They are also hampered by a lack of resource which means at best they are only able to send a marine patrol to the area 2-3 times per week.

A 5m limit is evidently inadequate for the safe passage of turtles. The SBAA repeatedly refuses requests to implement stricter fishing limits of any form on either a temporary or permanent basis in the Episkopi area. The SBAA has the power under its fisheries legislation to suspend fishing or boat traffic in specified areas for the protection of wildlife, but it has consistently declined to exercise it, having first been requested to do so in 2008. Since then, turtle deaths have continuously increased in frequency. The SBAA also refuses to acknowledge that most of the deaths occur in its waters, despite the fact that most turtles are fresh when found. In 2010 the SBAA announced that its plan to deal with the issue was based upon better education of local fishermen. This is exactly the same plan as the SBAA had in 2008 and 2009. ETW, MEDASSET and Terra Cypria acknowledge that education can bring long term benefits but its ineffectiveness in dealing with an immediate crisis is obvious from the figures in the table above. The SBAA is consistently failing to take effective measures to safeguard two endangered species, despite having the means to do so under existing legislation without incurring significant cost. It explains its refusal to take action as “not wishing to upset the fishermen”.

The SBAA has exacerbated the situation by publicly suggesting that turtles are entirely responsible for excrement which has washed up on Curium beach on several occasions in the past two years (Cyprus Mail: July 21, 2010). Subsequent to this the Episkopi mayor publicly stated in early August 2010 that the number of turtles in the area needed controlling. Three deaths immediately followed this comment. The Cyprus Tourism Organisation (“CTO”) has confirmed that following this at least one lifeguard outpost on the ETW beaches has reported on 12/8/2010 that the number of “accidentally” killed turtles is notably increasing, which the CTO describes as “immensely disturbing”. No action has been taken against the mayor for inciting people to break the law.

- The population of turtles nesting annually in the Mediterranean is estimated to consist of just 339-360 *Chelonia mydas* and only 2,280- 2,787 *Caretta caretta* (Broderick et al,2002). Cyprus is an important nesting area for both species and for *Chelonia mydas* in particular (Casale P and Margaritoulis D (eds) (2010) Sea turtles in the Mediterranean: Distribution, threats and conservation priorities. Gland, Switzerland. ICUN 294 pp). The main nesting areas are on the Karpas and Akamas peninsulas. However, significant nesting also takes place within the SBAA and ATW and ETW report a combined average of 60-80 nests per annum of which 10% are likely to be *Chelonia mydas* (ATW and ETW nest reports available upon request). This equates to approximately 25-30 turtles nesting in the area each year. Although the majority of nests are on the ATW beaches, the turtles congregate in the shallow waters off the ETW beaches, where many fall prey to fishermen.
- The most affected categories have been adult female *Caretta caretta* and juvenile and sub adult *Chelonia mydas*. Regarding the *Caretta caretta* there is a danger of localised extinction of the nesting population. For what concerns *Chelonia mydas*, it should be pointed out that boat and aerial surveys began in 2010 and results so far indicate that the area is a foraging ground for juvenile and sub adult turtles. *Cymadocea nodosa* fringes much of the Episkopi coastline in the 3-15m range. Nesting levels elsewhere in Cyprus will be adversely affected in the longer run by the deaths of so many sub adult and juvenile turtles. Nesting in Episkopi and Akrotiri is already sparse and could quickly cease totally if a small number of adults continue to be killed
- The Parties to the Barcelona Convention included among their priority targets for the period 1985-1995 the protection of Mediterranean marine turtles (Genoa Declaration, September 1985) and to this end the Mediterranean countries adopted in 1989 the first Action Plan for the Conservation of Mediterranean Marine Turtles within the framework of the Mediterranean Action Plan. In 1996, the Parties confirmed their commitment to the conservation of marine turtles by including the 5 species of marine turtle recorded for the Mediterranean in the List of Endangered and Threatened Species annexed to the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean (Barcelona, 1995).

Cyprus and the EC are contracting parties to these international Treaties and the affected species fall under their scope.

Sea turtles are included in Appendix I (Endangered migratory species) of the Convention on the Conservation of Migratory Species of Wild Animals (also known as CMS or Bonn Convention). They are also protected by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES - Appendix I for the most endangered species). Cyprus and the UK are both contracting parties to these Conventions.

➤ In February 2008 ETW officially expressed concern to the SBAA about the inadequacy of a 5m limit and specifically the degree of illegal fishing taking place in the area. The probable (and actual) effect that this would have on turtle mortality rates was made explicit. The mortality rate did indeed rise significantly to a record level before the full nesting had even started and throughout 2008, 2009 and 2010 this trend has not abated. During this period ETW has constantly reported deaths and fishing problems to the SBAA and has consistently requested that the Chief Officer of the SBA take action which is within his powers to restrict fishing in the area. Documentary evidence (mainly generated by the SBAA) is available to support these facts.

Despite this the SBAA refused to take any immediate action to deal with the deaths and disputed the assertion that significant numbers of turtles congregated off its coastline. The SBAA refused to accept the findings of the 2009 aerial surveys conducted by the ETW as valid and decided in May 2010 to conduct a boat and aerial survey to evaluate the population in the area. ETW has participated in some of the 2010 aerial survey flights with SBAA personnel and also conducted independent flights. SBAA personnel have confirmed orally to the ETW that although the survey missed the early part of the mating and nesting season their findings have in fact mirrored those of ETW. They have reported a maximum surface gathering of 97 turtles to date in the same area reported by the ETW following the 2009 aerial surveys (see section 1). The depth of the water in this area is 4-15m. Despite this the head of the SBAA environmental team has reported to Terra Cypria that foraging takes place far out at sea and amendments to fishing regulations are unnecessary.

REPORT PREPARED BY EPISKOPI TURTLEWATCH GROUP
SEA TURTLE DEATHS IN EPISKOPI SBA 2008-2010

Deaths Episkopi SBA 2008

| | Date | Location | Turtle Status | Species | Sex | CCW | CCL | Probable Cause |
|----|-------------|---------------------------|--|----------------|------------|------------|------------|------------------------|
| 1 | 07-Mar | Curium E on stoney area | Adult. Dead. Slight flipper damage | LH | M | 69 | 74 | Drowned in fishing net |
| 2 | 11-Mar | Curium W. Sandy area | Adult. Dead. Wedged in beach chair | LH | F | 62 | 70.5 | Entrapment in chair |
| 3 | 13-Mar | Curium at road bend | Adult. Dead. Slight flipper damage | LH | F | 61 | 64 | Drowned in fishing net |
| 4 | 21-Mar | Tunnel W near cliffs | Adult. Dead. Slight flipper damage. Dead several days | LH | F | 62 | 65 | Drowned in fishing net |
| 5 | 09-Apr | Curium E on stoney area | Adult. Dead. Slight flipper damage | LH | M | 63 | 69 | Drowned in fishing net |
| 6 | 29-Apr | Tunnel E | Adult. Dead. Slight flipper damage | LH | F | 64 | 70 | Drowned in fishing net |
| 7 | 05-May | Long beach middle section | Adult. Dead. Slight flipper damage | LH | F | 53 | 61 | Drowned in fishing net |
| 8 | 17-May | Curium E near fish farm | Juvenile. Dead. Decay very advanced | LH | n/a | 26 | 30 | Unknown |
| 9 | 20-May | Tunnel pulled from water | Adult. Dead. Slight flipper damage | LH | F | 61 | 64 | Drowned in fishing net |
| 10 | 25-Jun | Tunnel pulled from water | Juvenile. Dead. Slight flipper damage | LH | n/a | 28.5 | 30.5 | Drowned in fishing net |
| 11 | 04-Jul | Lemmings E end | Adult. Dead. Slight flipper damage. One side of skull bashed | G | F | 52 | 57 | Bludgeoned |
| 12 | 13-Jul | Long beach west | Juvenile. No signs of damage or decay | G | n/a | 22.2 | 25.6 | Drowned in fishing net |
| 13 | 17-Jul | Curium E on stoney area | Juvenile. Damage to front flippers and head bashed in | G | n/a | 29 | 36 | Bludgeoned |
| 14 | 07-Sep | Curium stoney side | Adult. Dead. Puncture wounds on neck. Decayed for week? | G | F | 54 | 60 | Unknown. |
| 15 | 16-Sep | Long beach | Juvenile. Removed and buried before full details established | G | n/a | n/a | n/a | Unknown |
| 16 | 19-Sep | Curium | Juvenile. Dead. No marks. Reports of dynamite fishing in area. | G | n/a | 30 | 50 | Unknown |
| 17 | 18-Nov | Curium | Adult. Dead. | G | n/a | | | Bludgeoned |
| 18 | 18-Nov | Curium | Juvenile . Dead | G | n/a | | | Drowned in fishing net |
| 19 | 03-Dec | Long | Adult. Dead. One front flipper missing but old injury. | LH | F | 61 | 68 | Unknown |
| 20 | 17-Dec | Tunnel Beach | Adult. Dead. No Obvious injuries. | G | F | 65 | 71 | Drowned in fishing net |
| 21 | 21-Dec | Curium | Juvenile. Dead. Slight flipper damage. No Head | G | n/a | 34 | 38 | Bludgeoned |

| Deaths Episkopi SBA 2009 | | | | | | | | | |
|---------------------------------|-------------|----------------------|--|----------------|------------|-----------------|------------|--------------------------------|----|
| | Date | Location | Comments | Species | Sex | CC W | CCL | Probable Cause | |
| 1 | 08-Jan | Long Beach | Adult. Dead. Badly decomposed | G | n/a | 52.5 | 60 | Unknown | |
| 2 | 26-Jan | Long Beach | Adult. Dead. Partly decomposed. Defecation still fresh. | LH | F | 68 | 74.5 | Laceration mark on neck | PM |
| 3 | 04-Apr | Tunnel Beach (bay) | Adult. Fresh dead. Signs of precise head injury. | LH | F | 54 | 58 | Bludgeoned. | |
| 4 | 04-Apr | Tunnel Beach (bay) | Adult. Dead. Badly decomposed. No head or tail remaining | G | n/a | 60 | 70 | Unknown | |
| 5 | 05-Apr | Tunnel Beach (bay) | Adult. Dead. Decomposing but no obvious injury marks | LH | M | 56 | 59 | Unknown | |
| 6 | 02-May | Curium Beach | Juvenile. Dead. Cut marks on underside of left front flipper | G | n/a | 41.5 | 50.5 | Drowned in fishing net . | PM |
| 7 | 06-Jun | Tunnel Beach (bay) | Adult. Fresh dead. No obvious injuries. Old scars on shell. No signs of disease. | LH | F | 63 | 74 | Drowned in fishing net. | |
| 8 | 12-Jun | Curium | Adult. Badly decomposed. Moved by taverna owner | LH | n/a | | | Unknown | |
| 9 | 17-Jun | Lemmings (bay) | Sub Adult. Dead. Line marks on rear flippers and head. | G | F | 59 | 61 | Drowned in fishing net . | |
| 10 | 20-Jun | Curium (stoney side) | Juvenile. Dead. Head missing. Extensive front and back flipper damage | LH | n/a | 35 | 47 | Drowned in fishing net . | |
| 11 | 04-Jul | Curium (stoney side) | Large juvenile. Dead some time. Shell split in two. | ? | n/a | | 58 | Environment department removed | |
| 12 | 11-Jul | Avdimou | Large juvenile. Found after illegal nets off Long beach. Information awaited from SBA. | G | n/a | | | Drowned in fishing net . | PM |
| 13 | 11-Jul | Avdimou | Large juvenile. Found after illegal nets off Long beach. Information awaited from SBA. | G | a/a | | | Drowned in fishing net . | PM |
| 14 | 17-Jul | Tunnel Beach (bay) | Sub adult. Dead 5-6 days. Flipper damage. | G | F | 57 | 57 | Drowned in fishing net . | |
| 15 | | Curium | Juvenile. Alive but died soon after | G | n/a | 29 | 31 | Drowned in fishing net . | |
| 16 | 23-Aug | Zapalo | Juvenile. Head deliberately caved in. | G | n/a | 28 | 30 | Bludgeoned. | PM |

| | | | | | | | | | |
|----|--------|---------------|---------------------------------------|---|-----|----|----|---------------------------------------|----|
| 17 | 23-Aug | Zapalo | Juvenile. Head deliberately caved in. | G | n/a | 29 | 31 | Bludgeoned. | PM |
| 18 | 23-Aug | Zapalo | Juvenile. No visible markings | G | n/a | 28 | 30 | Drowned in fishing net | PM |
| 19 | 27-Aug | Curium | Adult. Badly decomposed. | G | n/a | | | Attempt to remove shell | |
| 20 | 08-Sep | Tunnel/Zapalo | Juvenile | G | n/a | 20 | 22 | Caught in hand net and left to drown. | |
| 21 | 11-Sep | Zapalo | Juvenile | G | n/a | | | Bludgeoned. | |
| 22 | 11-Sep | Curium | Juvenile Green | G | n/a | 42 | 47 | Bludgeoned. | |
| 23 | 15-Sep | Curium | Juvenile | G | n/a | | | Decapitated | |
| 24 | 17-Sep | Curium | Juvenile Green | G | n/a | 53 | 56 | Netted | |
| 25 | 17-Sep | Curium | Juvenile Green | G | n/a | 33 | 34 | Bludgeoned. | |
| 26 | 12-Dec | Lemmings east | Juvenile Green | G | n/a | 29 | 31 | Drowned in fishing net | |

| Deaths Episkopi SBA 2010 | | | | | | | | |
|---------------------------------|-------------|----------------------------------|----------------|------------|------------|------------|---------------|---|
| No. | Date | Location | Species | Sex | CCL | CCW | Status | Observations |
| 1 | 19-Mar | Lemmings Beach west | LH | F | 59 | 57 | Dead | No signs of deliberate injury. Flipper damage. Probable net drowning. |
| 2 | 08-Apr | Curium beach - stoney side | G | juv | 19 | 16 | Dead | Dead some time. Significant decomposition. |
| 3 | 18-Apr | Tunnel Beach | G | juv | 44 | 42 | Dead | Head injury - dead several days before reported. |
| 4 | 18-Apr | Tunnel Beach | LH | F | 73 | 67.5 | Dead | Possible head injury but maggots too advanced to check- dead several days |
| 5 | 21-Apr | Curium beach - stoney side | G | Sub ad | 60 | 60 | Dead | Floating belly up. Unable to reach from shore. Looked recently dead. |
| 6 | 24-Apr | Curium beach - stoney side | G | juv | | | Dead | Head injury . Decomposed. |
| 7 | 08-May | Tunnel Beach bay - shallow water | G | juv | 32 | 30 | Dead | Very recent. No obvious injuries. |
| 8 | 27-May | Lemmings - shallow water | LH | F | | | Dead | Drowned in fishing net. Flipper damage. |
| 9 | 29-May | Curium - stoney side | LH | F | 60 | | Dead | Drowned in fishing net. Flipper damage. |
| 10 | 30-May | Long | G | juv | | | Dead | Drowned in fishing net. Flipper damage |
| 11 | 03-Jun | Curium | LH | | | | Dead | Drowned in fishing net. Flipper damage |
| 12 | 07-Jun | Curium | G | Juv | | | Dead | Drowned in fishing net. Flipper damage |
| 13 | 07-Jun | Curium | G | Juv | | | Dead | Drowned in fishing net. Flipper damage |
| 14 | 12-Jun | Tunnel | G | Juv | | | Dead | Pulled from bay. Recently dead. Drowned in fishing net. |
| 15 | 22-Jun | Tunnel 500m offshore | G | Sub ad | 60 | 58 | Dead | Depression to skull and probable broken neck. Bludgeoned. |
| 16 | 03-Jul | Curium | G | juv | 33 | 28 | Dead | Drowned in fishing net |
| 17 | 07-Jul | Lemmings | G | juv | | | Dead | Awaiting info from SBAA environment department. |
| 18 | 14-Jul | Tunnel E in surfline at east | ? | F | 76 | 69 | Dead | Broken front flipper. Fairly decomposed. Stomach full of sea grass |
| 19 | 23-Jul | Curium Beach Restaurant side | LH | F | | | Dead | Very decomposed. Damage to left front flipper. Guts exposed. |
| 20 | 26-Jul | Tunnel near watersports | LH | F | 73.5 | 65.5 | Dead | Deliberate skull injury plus rear flipper damage |
| 21 | 27-Jul | Curium sandy side | G | Juv | 48 | 46 | Dead | Bleeding from nose. Apparent net drowning |
| 22 | 27-Jul | Curium sandy side | LH | Juv | 15 | 10 | Dead | Very decomposed. Cause of death unknown |
| 23 | 31-Jul | Curium sandy side | G | juv | 50 | 46 | Dead | Blood from nostrils. Drowned in fishing net. |

Key:

LH: *Caretta caretta*, loggerhead sea turtle

G: *Chelonia mydas*, green sea turtle

CCL: curved carapace length

CCW: curved carapace width

Juv: juvenile

F: female

Sub ad: sub-adult

PM:post mortem conducted