

**THE WHITE GHOSTS OF KAZANLI: SEA TURTLE CONSERVATION IN TURKEY**

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Kazanli's 4.5 km long beach in Turkey, is the second most important nesting site for the critically endangered green turtle, *Chelonia mydas*, in the Mediterranean. An annual average of 74-216 green turtle nests were recorded between 1988 and 2000, in 2004 more than 350 and in 2005 only 38. In many respects, Kazanli is the most problematic green turtle nesting beach in the Mediterranean:

To the rear of the beach, a Soda Chrome Factory (built between 1975-84) is situated. On the nesting beach, by-product from the factory's activities during the 1990s forms a mountain of over 1.5 million tons of hazardous toxic waste, which is covered with plastic sheeting! This poses a disturbing threat to both wildlife and humans. In 2001, the bulldozing of the factory's effluent basin wall and the subsequent release of highly toxic waste into the sea in front of the nesting beach turned the sea red. Contaminated seawater samples, which MEDASSET had analysed, were found to contain chromium concentration 13,500 times higher than natural levels. Following this incident, more than 23 green turtles were found dead on Kazanli beach. Repeated soda discharges into the sea have resulted in turtles emerging ghost-like to nest, with their carapace, limbs and head encrusted with white CaCO<sub>3</sub>.

The beach is receding about one metre a year owing to accelerated erosion, exacerbated by underwater remains of a jetty built by the Soda Chrome factory. Over the years greenhouse agriculture has encroached onto the beach. Owing to severe erosion there is no longer space for nesting between the greenhouses and the splash line. 15-20% of Kazanli's nests were destroyed through beach erosion in 2004, and some 5-10% of the Mediterranean's green turtle nesting effort fell victim to this erosion in 2005!

MEDASSET's conservation efforts have been through lobbying, media exposure, research and international campaigning, focusing on the release of toxic wastewater into the sea by the Soda Chrome factory. Annual update assessment reports by MEDASSET (since 1999) to the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) at Council of Europe, resulted in an on-the-spot appraisal mission to Kazanli by the Convention in 2002, following which a case file was opened. Case files enable the Convention to exert pressure on governments to report on and implement its conservation recommendations.

Following MEDASSET's campaigning and subsequent Bern Convention activities as well as public pressure through the media, the factory has put significant effort into acting in a more transparent manner: waste water monitoring and actual discharge values are made public through the real-time publication of data on a display screen at the centre of Kazanli Municipality and new facilities for the treatment of toxic waste have been established. Nevertheless, the mountain of hazardous waste remains as a time bomb!

Immediate remedial measures must be taken in order to provide a healthy environment for people and marine and terrestrial wildlife:

- Take measures to stop beach erosion;
- Rehabilitate the destroyed nesting beach;
- Remove the hazardous toxic waste time bomb.

## **Bibliography**

- Aureggi, M. 2001. Green turtle monitoring programme Kazanli beach, Turkey, 2001. UNEP, Mediterranean Action Plan, Regional Activity Centre for Specially Protected Areas – Boulevard de l'Environnement, BP 337 – 1080 Cedex – Tunisie (pdf).
- Baran I. & M. Kasperek. 1989. Marine turtles – Turkey. Status survey 1988 and recommendations for conservation and management. WWF, 123pp.
- Coley S.J. & A.C. Smart. 1992. The nesting success of green turtles on beaches at Kazanli, Turkey. *Oryx* 26(3): 165 – 171
- Corbett, K. 2001. Conservation of the Green Turtle *Chelonia mydas* in Turkey, MEDASSET. Report submitted to the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) Strasbourg, T-PVS (2001) 70, 18pp.
- Corbett, K. & M. Kasperek. 2003. Status update and conservation priorities for the Green Turtle (*Chelonia mydas*) in the Mediterranean. In: Margaritoulis D. and A. Demetropoulos (Eds). Proceedings of the First Mediterranean Conference on Marine Turtles. Barcelona Convention – Bern Convention – Bonn Convention (CMS). Nicosia, Cyprus, pp. 108-112.
- Kasperek, M., B. J. Godley and A. C. Broderick (2001) Nesting of the Green Turtle, *Chelonia mydas*, in the Mediterranean: a review of status and conservation needs. *Zoology in the Middle East* 24: 45-74, Heidelberg
- Kasperek, M. 2002. Conservation of the marine turtles in Kazanli beach (Turkey). Report of an on-the-spot appraisal undertaken for the Council of Europe. Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) Strasbourg, T-PVS/Files (2002) 2, 6pp.
- MEDASSET. 2001. Habitat assessment of the remaining significant nesting sites of the Green turtle (*Chelonia Mydas*) on the Turkish Mediterranean coast: Kazanli, Akyatan and Samanadag. *Testudo, The Journal of the British Chelonia Group* 5(3): 60-70.
- Yerli S.V. & A.F. Canbolat. 1998. Results of a 1996 survey of *Chelonia* in Turkey Marine Turtle Newsletter 79: 9 –11