

A Stranded Leatherback Sea Turtle in the Northeastern Mediterranean, Hatay, Turkey

Bektaş Sönmez¹, Dennis Sammy², Şükran Yalçın-Özdilek³, Özgür Ahmet Gönenler¹,
Ufuk Açıkbaş¹, Yaşar Ergün⁴ & Yakup Kaska⁵

¹Department of Biology, Mustafa Kemal University, Tayfur Sökmen Campus, 31024 Antakya Hatay Turkey (E-mail: bektass@gmail.com); ²Nature Seekers, Toco Road, Matura, Trinidad and Tobago (E-mail: dennispsammy@gmail.com); ³Çanakkale Onsekiz Mart University, Faculty of Education, Anafartalar Campus, 17100 Çanakkale Turkey (E-mail: yalcin.ozdilek@gmail.com); ⁴Faculty of Veterinary Medicine, Mustafa Kemal University, Tayfur Sökmen Campus, 31024 Antakya Hatay Turkey (Email: yasarergun@yahoo.com); ⁵Department of Biology, Pamukkale University, Kınıklı Campus, Denizli Turkey (E-mail: caretta@pamukkale.edu.tr)

Three species of sea turtle, the loggerhead turtle *Caretta caretta*, green turtle *Chelonia mydas* and leatherback turtle *Dermochelys coriacea*, regularly occur in the Mediterranean (Margaritoulis 2001; Rees et al. 2004). In the eastern Mediterranean, loggerhead and green turtles nest along the coasts of Greece, Northern Cyprus and Turkey (Kasperek et al. 2001; Margaritoulis et al. 2003). However there are no confirmed records of nesting by leatherbacks in Mediterranean so individuals observed in this region are assumed to originate from Atlantic Ocean colonies (Geldiay et al. 1982; Groombridge 1990; Margaritoulis 2001). Here we report on a stranded leatherback found in the Mediterranean coast of Turkey that had previously nested in Trinidad.

On June 6, 2006, a leatherback turtle was found on the beach in Iskenderun Bay, Northeast Mediterranean, Turkey (36.80° N and 36.18°E, see Fig. 1). The turtle had 2 monel flipper tags attached to its rear flippers (tag numbers 28192, 24752). The curved carapace length (CCL) from nuchal notch to posterior tip measured 158cm and straight carapace length was 150cm, however due to the advanced state of decomposition these sizes may be inaccurate. Curved (CCW) was 99cm and straight carapace width was 92cm. Each front flipper measured 95cm in length measured along the leading edge. Holes which resembled bullet wounds were found in the left side of the neck and under the left eye, though we did not dissect the wounds

to confirm the presence of bullet fragments.

This turtle was originally tagged while nesting at Matura Beach, Trinidad (approximate location: 10.646° N, 61.034° W) on May 5, 2005, and subsequently nested again on 5 July 2005. CCL was reported as 157cm, CCW at 113cm.

This is not the first record of a sample of *D. coriacea* in the most eastern part of Mediterranean. Taşkavak et al. (1998) reported a stranded leatherback, which was smaller than this specimen, from Edremit Bay, Turkey, Rees et al. (2004) reported a live leatherback turtle during a survey in the coast of Syria in the East Mediterranean, and Levy et al. (2005) reported a leatherback incidentally captured in a trawler just off the coast of Israel. The presence of the Trinidad turtle as well as other records from the Eastern Mediterranean might indicate that the region is a foraging area for Atlantic leatherbacks. Leatherbacks from Trinidad nesting colonies have been shown to move across the Atlantic to foraging areas in the Eastern Atlantic (Eckert 2006) and this tag record shows that some can move into the Eastern Mediterranean

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Figure 1. Approximate straightline distance between Matura Beach where this turtle was tagged while nesting and recovery site in the Eastern Mediterranean Sea, on the coast of Turkey.

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Preliminary Study on Sea Turtles in Bintan Island, Riau Archipelago, Indonesia

C.K. Winata, A. Nadina & M. Rofik

*Research and Development Dept., Environmental & Health Division,
PT. Bintan Resort Cakrawala, Indonesia (E-mail: catharinewinata@bintan-resorts.com)*

Six out of seven species of sea turtles in the world live in Indonesia. All of them are under the Indonesian law protection (Act. no. 5 1990 re Conservation of Nature Resource and its Ecosystem; Government Regulation no. 7 1990 re Conservation Species of Flora & Fauna) and are protected by international trade by CITES (Convention of International Trade on Endangered Species). According to local people in Bintan, one could easily find 2 nests each evening in the nesting season of 1950s. However, in recent years only few nests have been observed on the beaches. To better characterize the population, we initiated a survey along Bintan Resorts coastline with two objectives: the identification of potential nesting beaches and nesting season in Bintan Resorts; and the identification of threats at nesting sites.

Bintan is the largest island among many in the Province of Riau Archipelago, located just south of Singapore. Bintan Resorts is located at the northern part (01.17° to 01.20° N and 104.30° to 104.58° E) and comprises 23,000 hectares of area, of which 3,000 hectares have already been developed. Within the resorts, there are more than 50 kilometers of white sandy beach (Figure 1). Between 2004 and 2006, we conducted ground surveys along beaches within Bintan Resorts at least once every two weeks. Between March and October, the frequency of patrols increased to 2-3 times a week on Pasir Panjang beach (01.1833°N, 104.1942°E; site 4 in Figure 1). All turtle tracks, nests, eggs, and egg shells were recorded, following Schroeder & Murphy (1999). In some cases, we relocated freshly laid nests to 3x5 m hatchery enclosures on more protected areas of beaches, for safe incubation.

Within the Bintan Resort, we identified four nesting beaches where both hawksbill turtle (*Eretmochelys imbricata*) and green turtles (*Chelonia mydas*) laid nests (Figure 1). Hawksbill turtles were the most common species nesting on the four beaches, with most nesting activities occurring between March and September (Figure 2). No nests were observed between November and February, which coincides with the monsoon season in Bintan. The phenology of sea turtle nesting in Bintan is similar to that reported for nearby

Tembelan Island (February to May) and Johor, Malaysia (March to August) (Ali et al. 2004). Although the survey design did not allow us to fully monitor all nesting activities, it appeared that nesting density was greatest on Pasir Panjang beach.

When we began our monitoring project in 2004, we found that >90% of observed nests had been collected by local people for consumption. Given the anthropogenic pressures on sea turtle nests in the area and the logistical challenge of trying to monitor widely dispersed beaches, starting in 2005 we used hatcheries to protect some incubating eggs. In 2005, there were 550 hawksbill hatchlings produced from 5 nests in the hatchery (85% successful hatching rate) that we released to the ocean. In 2006, 1224 hawksbill

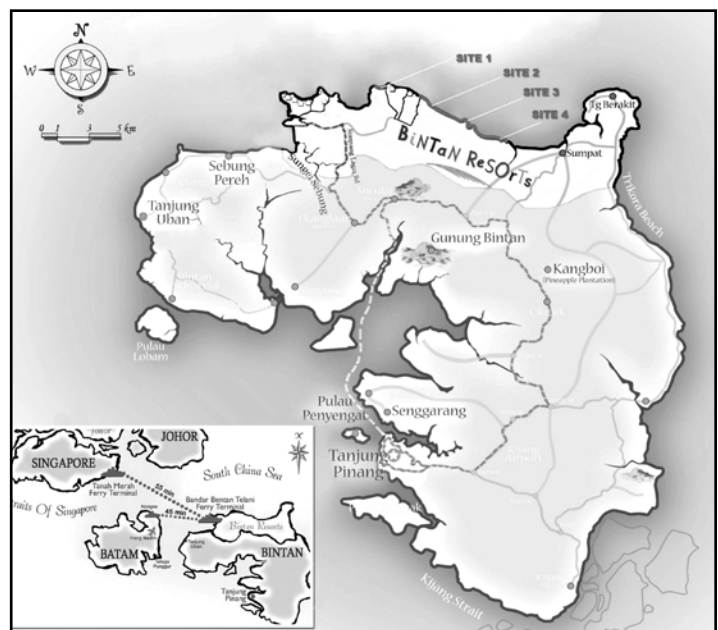


Figure 1. Map of Bintan Island, with four nesting areas identified within the Bintan Resorts Area (map source: Bintan Resorts website, used with permission).