



EDITORIAL

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Lalith Ekanayake joins me, as co-editor of IOTN, in presenting this special issue on the Andaman and Nicobar Islands. We would like to thank the authors for their papers describing the results of historical and recent surveys, and an update on current research and conservation efforts in the region. ■

SEA TURTLE SURVEYS AND RESEARCH IN THE ANDAMAN AND NICOBAR ISLANDS

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There are many historical accounts of sea turtles in the Andaman and Nicobar Islands from the 1800s, mostly accounts of their capture and consumption by the British stationed there, or of hunting by the aboriginal communities. Mouat (1863) cites records of large numbers of turtles in Diamond Bay off the coast of Burma, and of a ship's crew capturing more than 100 turtles (probably green turtles) in 3 days. Later, Alfred Alcock, a naturalist aboard the Royal Indian Marine Survey Ship "Investigator" writes of seeing 'shoals of turtles' near South Sentinel Island, and of seeing hatchlings emerge (Alcock, 1902). Man (1883) and Portman (1899) documented the hunting culture and rituals of the Andaman indigenous tribes, emphasizing their great love of turtle meat. Similarly, Kloss (1902) recorded the presence of turtles in the Nicobars and wrote that skulls were often seen in Nicobari households.

The first surveys of the Andaman and Nicobar Islands for marine turtles were conducted in the late 1970s

by Satish Bhaskar, a pioneer of sea turtle surveys and conservation in India (see IOTN 12: 23 for a special profile of Bhaskar, including a personal account by R. Whitaker, and a compilation of his publications and surveys). Bhaskar visited the Andaman and Nicobar Islands for the first time in 1978–1979, and surveyed most islands during his eight month stint there (Bhaskar, 1979), including much of the Andamans, and Central and Great Nicobar. He returned in 1981 to survey Great Nicobar and Little Andaman Island, and in 1983–84, to visit North Andamans (summarized in Bhaskar 1993). Bhaskar revisited many of these islands during a series of surveys in the 1990s; during his last few years in the islands, he spent a substantial part of his time on South Reef Island, monitoring the hawksbill population there (Bhaskar, 1996). Bhaskar's surveys over two decades were critical in identifying many important nesting sites in the Andaman and Nicobar Islands, many of which are legally protected today (see review by Namboothri et al., this issue).

Other researchers also started surveying the Andaman and Nicobar Islands for sea turtles. In 1991, Manjula Tiwari visited the islands of Little and Great Nicobar and helped identify these sites as the few remaining strongholds for leatherback turtles in the region (Bhaskar and Tiwari, 1992; Tiwari, this issue). Subsequently, Arjun Sivasundar carried out his masters dissertation project from Pondicherry University on nest site selection by leatherback turtles on Little Andaman Island (Sivasundar, 1996). In addition, the Forest Department maintained hatcheries at several sites, but these data have not been published, except for a review of nesting in Cuthbert Bay, Middle Andamans (Fatima et al., 2011).

Though herpetological surveys in the islands had been initiated in the mid 1970s by Romulus Whitaker and Satish Bhaskar, it was only in 1990 that the Andaman and Nicobar Environment Team (ANET) was established as a field research station by the Madras Crocodile Bank Trust (MCBT). In 2000, a Government of India – UNDP sea turtle project funded a survey of the sea turtles in the Andaman and Nicobar Islands by the ANET/MCBT (Andrews et al. 2001). An extensive survey was conducted on most of the Andamans and a substantial part of the Nicobar Islands (Andrews et al. 2006a). Based on Bhaskar and Tiwari's surveys, Galathea Bay, Great Nicobar Island had been identified as an important leatherback nesting site in the Nicobars. Given the presence of a road leading to this site, ANET established a field station at Galathea Bay and initiated a long-term leatherback monitoring programme at this site. The surveys and monitoring were subsequently supported by a UNEP-CMS (Convention on the Conservation of Migratory Species) project during 2003-2004 (Andrews et al., 2006b). During this period, genetic studies were initiated on the islands by the Wildlife Institute of India, and leatherback turtles were sampled intensively at Galathea and other rookeries in Great Nicobar Island during 2001–2002 (Shanker et al., 2011).

Andrews and Shanker (2002) used this information to estimate that about 1000 leatherback turtles nested on Great and Little Nicobar Islands, making it one of the largest rookeries in the Indian Ocean. Unfortunately, the 2004 earthquake and the subsequent tsunami destroyed the nesting beach of Galathea Bay along with the survey camp, leading to the tragic death of the researcher working on the project, Ambika Tripathy, but also the extraordinary survival of ANET's field assistant, Saw Agu (see account by Chandi, 2009). The impact of the tsunami on the islands was devastating and large stretches of coastlines were permanently

altered. Post-tsunami rapid surveys of nesting beaches in the Andamans revealed that beaches had reformed in some areas with evidence of nesting at these sites (Andrews et al., 2006c). Recent surveys also indicate that beaches have formed again in Galathea as well as on the west coast of Great Nicobar Island, and that substantial leatherback nesting occurs at these sites (N. Namboothri, pers. obs.; M. Chandi, pers. comm.).

A survey of Little Andaman Island in 2007 (by M. Chandi and K. Shanker) suggested that there was significant nesting of leatherback turtles at both South Bay and West Bay beaches. In December 2007, with funds from the National Ocean and Atmospheric Administration (NOAA), the Centre for Ecological Sciences (CES), Indian Institute of Science, in partnership with ANET, initiated a long-term leatherback monitoring programme at South Bay Beach (Swaminathan et al., 2011). Monitoring was also initiated at West Bay beach in 2010. The programme involved monitoring nesting and predation, as well as beach temperatures. Leatherback turtles were tagged with PIT tags to monitor re-nesting and re-migration intervals. In 2010, CES initiated satellite telemetry of leatherback turtles of West Bay beach (Namboothri et al., this issue). CES, Dakshin Foundation and ANET plan to support long term monitoring at this site, and start monitoring sea turtles at Great Nicobar Island again when infrastructure and logistics make it feasible.

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