

Sea Turtles of Kerala

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Little information is available on sea turtles in Kerala apart from sporadic reports of olive ridley nesting along the Kerala coast, and reports of leatherback bycatch and stranding (Kar and Bhaskar 1982, Bhaskar 1984). A substantial part of the coast has been walled to prevent erosion and this has made these beaches unsuitable for nesting. In recent years, there has been an increased interest in sea turtles thanks to the efforts of a group of young fishermen in Kolavipaalam in north Kerala, who have started a sea turtle conservation programme.

Kar and Bhaskar (1982) reported that olive ridley turtles nest frequently along the Kerala coast. However, green turtles have been reported to occur along this coast (Shanmughasundaram 1968), leatherback turtles were reported to nest at Kozhikode (Jones 1959) and were also reported to visit the Kollam coast yearly for a period of one or two months (Cameron 1923). Cameron (1923) was informed by fishermen that, at the turn of the century, about 40 leatherbacks were caught annually when attempting to come ashore or while at sea. By 1915, they were seen only occasionally, and about two were caught annually. Leatherbacks were also seen frequently near the Thangacheri reef about 3 km offshore (Smith 1931), and sea turtles were reported round the year at Sacrifice Rock (Bhaskar 1984). In recent times, leatherback strandings have been reported from many sites in Kerala (reviewed in Pillai et al 2003a). Kar and Bhaskar (1982) and Bhaskar (1984) reported that much of the coast was walled, and that both turtles and eggs were taken for local consumption.

Study Area and Methods

Kerala has a 590-km-long coastal belt, rich in biodiversity, with a relatively narrow beach, broken at many places by rocks, seawalls, inlets and backwaters. There are numerous fish-landing sites, with over 45 major landing centres, including Vizhinjam, Neendakara,



Kochi, Ponnani, Puthiyappa, Chombal, Aayikkara and Azheekal. Most beaches are well-populated with habitation on the coast. The study assessed the viability of the beach for turtle conservation, and identified the threats that impede turtle survival. Fieldwork was conducted along the entire coast, identifying nesting beaches and conducting informal interviews and discussions with members of local fishing communities and others.

Results

Hawksbill turtles have been sighted occasionally in a few areas (information gathered from the questionnaire given to fisher folk). Most nesting occurs near river mouths where wide beaches are present, but in Kerala, a majority of the river mouths now face severe sand mining problems.

Table 1. A list of beaches where egg depredation occurs and areas where turtle meat is consumed.

Name of the Beach	Poaching of Eggs	Meat Consumption
<i>Kasaragod district</i> Uppala, Shiria, Muttam-Bengara, Koipady, Kavugoly, Nellikunnu (Adakathuvayal)-Kasaba, Kizhoor, Chembarikka-Odoth, Kottikulam-Bekalam, Pallikkara, Chitari Ajanoor, Bella-Hosdurg, Mavila-Padanna	Yes	–
<i>Kannur district</i> Pudiyangadi-Choottad, Matool, Vayparambu, Neerkadavu, Thalai, Mahe (Pondichery)	Yes	–
<i>Kozhikode district</i> Kappad-Thuvappara, KannanKadavu (Kattila Peedika), Kappakkal, Marad	Yes	–
<i>Malappuram district</i> Chaliyam, Thevar (unniyal), Kuttai, Pandai, Nayarthodu, Kuttai Azhimugam, Veliamcode, Perumbadappu	Yes	–
<i>Trissur district</i> Periyambalam-Andanthodu, Pappally, Mannalamkunnu, Edakkayur, Vadanapally, Thalikulam, Nattika, Kothalam-Kazhimbran, Kaipamangalam, Azhikode	Yes	–
<i>Ernakulam district</i> Munambam, Cherai, Malippuram	Yes	Yes
<i>Allapuzha district</i> Thaikkal, Thumpoli, Aleppy, Punnapra, Pallana, Arattupuzha-Thrikunnapuzha, Valiyazhikkal, Vellanathuruthu	Yes	–
<i>Kollam district</i> Kollam-Thangassery fishing harbour, Eravipuram, Mukkam Bay, Pozhikkara	Yes	Yes

Table 1 (contd.)

Name of the Beach	Poaching of Eggs	Meat Consumption
Thiruvananthapuram district Anjengo, Thazhampally, Perumathura–Mariayanad, Thumba–Puthenthura, Valiyathura–Veli, Bimapalli–Poonthura, Poovar–Pulinkudy, Pozhiyoor	Yes	Yes

TREATS TO NESTING HABITATS

The coast is extensively walled to prevent erosion; seawalls cover a total length of over 420 km, thus rendering over 70 per cent of the coast totally unsuitable for nesting. Many individual entrepreneurs and business houses are setting up resorts along the coast. The Ports Department, Government of Kerala is proposing 18 minor ports along the Kerala coast. There are proposals for ports, coastal highways, fish-landing sites, power projects and tourism projects along the entire length of the coast. The Coastal Area Development Authority (CADA) in its present form is mainly intended to industrialise and urbanise the coast. New varieties of mechanisation in the artisanal fishing sector have increased intensity of fishing in the sea and pollution on the beaches.

TREATS TO ADULT TURTLES AND EGGS

Egg depredation occurs throughout the coast, while meat consumption is prevalent in some communities (Table 1). Consumption of meat is high in the southern districts of Kerala. Turtles are caught at sea using the hook and line and nets, and also captured opportunistically when they come ashore to nest. Many turtles (10–100) die each year as incidental catch in trawl nets. In the southern districts, turtles entangled in nets are either brought ashore for sale or killed and disposed off at sea. Recently, a leatherback turtle was reported to have been sold as food in southern Kerala (Pillai 2003). During the survey, several carcasses of olive ridleys, green turtles and hawksbill turtles were reported.

CULTURAL ATTITUDES TOWARDS SEA TURTLES

There are distinct differences between north and south Kerala in their attitudes towards sea turtles. In south Kerala, most turtles that come ashore or get entangled in fishing nets are killed and consumed or sold. In north Kerala, the eggs are poached but the turtles are usually not killed. Fishermen also release turtles when they are caught in their nets. The influence of the *Kadal kodathi* (sea court), a community-based institution for conflict resolution, has been instrumental in maintaining this tradition; harming turtles, whales, etc are against local tradition.

The Christian community was found to consume the meat of turtles throughout the coast, though eggs are consumed by all communities. Consumption of turtle meat along the coast is believed to be linked to the migration and arrival of fisher folk from Tamil Nadu (mainly from Kolachal, Kanniyakumari). While the practice of eating turtle meat has been acquired by some communities, many traditional Hindu and Muslim



communities still do not approve of it. The publicised appearance of a few offences booked by the Kerala forest department has helped to create awareness about the Indian Wildlife (Protection) Act, 1972 and the protection accorded to sea turtles. This has, to a large extent, stopped public trading and killing of turtles. However, the fisher folk are reticent in speaking about turtles or trade.

COMMUNITY EFFORTS FOR CONSERVATION

In the mid-1990s, a community-based turtle conservation effort was initiated by the youth of Kolavipaalam¹ when they read a newspaper clipping regarding threats to sea turtles (Kutty 2001a,b). The Kolavipaalam turtle conservation initiative has become a model for community groups in Kerala and several groups are now showing interest in sea turtles. In Cherai beach, Ernakulam district, another turtle conservation effort has been initiated to protect turtle nests from poaching. In Azheekode, a community-owned arts club has shown interest in conserving turtles after learning about the Kolavipaalam experience from newspapers. Community participation in the release of a leatherback has also been reported (Pillai et al 2003b).

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¹ see Chapter 22 for a detailed report on the conservation efforts at Kolavipaalam.