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Status of sea turtles along the Pondicherry coast, India

Pondicherry is a small town in the eastern coast of India. It has a coastline of about 15 km, although only 11 km comprise sandy beaches suitable for nesting sea turtles. In other areas, boulders have been placed along the beaches to avoid erosion. Many works regarding sea turtle nestings have been done in the neighbouring areas, such as Madras (Valliappan and Whitaker, 1974; Silas and Rajagopalan, 1984; Abraham, 1989), but no record exists on sea turtle nesting on the Pondicherry coast. A survey was undertaken during the months of December-April in 1998. Along the Pondicherry coast, there are nine coastal villages: Kanagasettikulam, Chinnakalapet, Periakalapet, Periyaveerampatinam, Chinnaveerampatinam, Nallavaadu, Pannithittu, Narambai and Moorthikuppam. A questionnaire was prepared and the fishermen living in the coastal villages where interviewed, during the months of December and January for collecting secondary information on sea turtle nesting.

The villagers reported seeing over 100 nests annually 10 years before, but in recent years, the number of nestings has reduced considerably. According to the villagers, sea turtle nests were not seen in the beaches other than Nallavaadu and Pannithittu for the past three years. Based on this information, the beaches of Nallavaadu and Pannithittu were patrolled every night from January to April. Other villages were visited once a week and villagers were asked to collect information on nests. During the entire season, only five nests were recorded, all belonging to the olive ridleys (*Lepidochelys olivacea*). Nesting occurred only in the beaches of Nallavaadu and Pannithittu. The beach stretch of the Nallavaadu and Pannithittu is about 3.5 km long, of which

only 0.5 km is inhabited by fishermen. The other villages are located in close proximity to each other, and almost the entire area of beach utilized by fishermen, including huts, kattamarans (fishing vessels), fish markets, etc. This appears to be the primary reason for the preference of turtles to nest on the beaches of Nallavaadu and Pannithittu where there is minimal disturbance.

During the survey, the number of dead turtles washed ashore was 54. The trawlers operating in these areas are suspected to be responsible for the mortality. Fishermen working in the trawlers also confirmed this. The secondary information collected from the villagers revealed that almost all nests are collected for sale in the fish markets of Pondicherry. This year, of five nests collected, three were relocated and two were incubated in pots.

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**A note on reproduction
in *Polypedates leucomystax*
(Gravenhorst, 1829)**

Polypedates leucomystax (Gravenhorst, 1829) is a widely distributed species, being recorded from India to south-east Asia (Dutta, 1997). Within this range, it inhabits disturbed areas, as well as evergreen forests, and is generally seen on low vegetation, up to an elevation of 300 m above msl. A study was conducted on the reproduction of this species from April 1997 to May 1998 at Guwahati (91° 36'–49'E; 26° 06'–09'N), Mayeng Reserve Forest (91° 21'–32'E; 25° 48'–55'N) and Garbhanga Reserve Forest (91° 37'–49'E; 25° 55'–26° 05'N), in Assam State, north-eastern India, and the reproductive behaviour of 16 pairs noted.

The breeding season of *Polypedates leucomystax* extended between April to August. Deuti and Bharati Goswami (1995) reported it to last for a month in the state of West Bengal, fur-

ther west of our study sites. However, amplexus in April and early May continued for a longer duration than in the peak period of June and July (Table 1).

Amplexus was initiated with a female approaching a calling male, performing sinistral movements and jumping onto the male. On contact, the male mounted the female, commencing axillary amplexus. The time spent in amplexus showed considerable variation.

Egg deposition and formation of foam nest was observed in a variety of microhabitats (Table 1), all in proximity of temporary or permanent water bodies. Before laying, both the sexes oriented themselves with the hindlimbs remaining free. The males start secreting a sticky substance, which was followed by secretion by the female. Only the females took part in construction of the foam nest, as reported in *Polypedates maculatus* by Mallick and Mallick (1982). Eggs were laid in batches of 12–16, egg-laying taking about 15 minutes (Table 1). Foam nests were constructed in moist, shady locations, such as bushes, grass blades or at the base of herbs in wa-

TABLE 1: Data on reproduction in *Polypedates leucomystax* in Assam State, north-eastern India.

Sl.	Date	Duration of call	Height from substrate	Minimum distance of calling mate	Duration of amplexus	Nest site	Duration of nest construction	Number of eggs
1	22.4.97	1 h 22 min	fence/0.67 m	> 20 m	5 h 12 min	ground	15 min 32 sec	13
2	12.5.97	2 h 05 min	fence/0.65 m	> 15 m	4 h 10 min	grass	12 min 45 sec	12
3	14.5.97	1 h 16 min	bush/0.8 m	> 10 m	3 h 30 min	ground	13 min	13
4	7.6.97	1 h 53 min	shrub/1.2 m	> 10 m	3 h 45 min	grass	14 min 12 sec	13
5	8.6.97	1 h 47 min	shrub/0.37 m	1.7 m	3 h 25 min	grass	12 min 30 sec	16
6	13.6.97	1 h 30 min	fence/0.75 m	2.5 m	3 h 45 min	bush	12 min 50 sec	12
7	22.6.97	1 h 55 min	bush/0.95 m	1.8 m	3 h 05 min	grass	26 min	13
8	24.6.97	1 h 50 min	shrub/1.5 m	3.0 m	3 h 55 min	ground	14 min 8 sec	16
9	5.7.97	1 h 50 min	shrub/1.5 m	2.1 m	3 h 30 min	bush	18 min 3 sec	12
10	19.7.97	1 h 55 min	shrub/1.6 m	2.8 m	3 h 50 min	ground	16 min 15 sec	12
11	20.7.97	2 h	fence/0.54 m	3.2 m	3 h 20 min	ground	15 min 50 sec	15
12	3.8.97	1 h 25 min	shrub/1.3 m	> 10 m	4 h 12 min	ground	26 min 18 sec	13
13	25.8.97	1 h 30 min	fence/0.70 m	1.8 m	4 h 25 min	ground	12 min	12
14	19.4.98	3 h 40 min	concrete slab/0.42 m	0.75 m	49 h 03 min	grass	16 min 32 sec	14
15	26.4.98	4 h 12 min	concrete slab/0.42 m	1.2 m	10 h 40 min	grass	14 min 20 sec	15
16	26.4.98	5 h 50 min	concrete slab/0.42 m	1.2 m	6 h 00 min	base of herb	13 min	12