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COMMENSALS ON NESTING HAWKSBILL TURTLES (*ERETMOCHELYS IMBRICATA*), MILMAN ISLAND, NORTHERN GREAT BARRIER REEF, AUSTRALIA. *Memoirs of the Queensland Museum 49(2): 674. 2004:-* Sea turtles carry a large array of commensals (Frazier et al., 1985; et al., 1991; et al., 1992; Hollenberg & Norris, 1977; Monroe & Limpus, 1979) that are often overlooked. Witzell (1983) noted the incomplete commensal data set for hawksbill turtles (*Eretmochelys imbricata*). Studies of hawksbill turtle nesting patterns and behaviours at Milman Island (Dobbs et al., 1999; Loop, 1996; Loop et al., 1995) allowed collection of commensals during summers January 1991- February 1995.

Commensals were found on 88% (n=1225) of 1392 nesting hawksbill turtles. The most frequent commensal was the barnacle *Chelonibia caretta*, found on the carapace, plastron or head of 1123 turtles (81%); egg-bearing *C. caretta* were observed December 1994 - February 1995. *Balanus* sp. (carapace) and *Platylepas* sp. (skin) were other barnacles randomly noted on nesting hawksbills. The burrowing barnacle *Tubicinella cheloniae* was found in the carapace of 30% of nesting turtles (n=422). Barnacles were encountered at all locations on the carapace. No consistent barnacle attachment pattern was noted. On some turtles, *Tubicinella cheloniae* covered up to 75% of the carapace, while some burrowed through the edge of marginal scutes.

Filamentous algae occurred on 47% (n=649) of nesting turtles. *Gelidiopsis intricata*, *Gelidiella pannosa* and *Polysiphonia* sp. were identified. Nongeniculate corallinaceae (encrusting algae) was found on the carapace or on attached barnacles of 18 turtles (1.3%). Algae was encountered everywhere on the carapace and predominantly under the trailing edge of the last vertebral and costal scutes.

Ozobranchus sp. leeches occurred around the cloaca, attached to the underside of front flippers, around a crater wound or on the face of 25 hawksbills (1.8%). The only period during which leech eggs were recorded was January - April 1993. The eggs were on the posterior ventral end of the carapace and on the plastron of nesting turtles. Marine worms (Cirratulidae, Eunicidae, Nerieididae) occurred on 18 turtles (1.3%). Other items on the carapaces included a vermetid gastropod (2 turtles), marine crabs (4 turtles), Ophiurid brittlestars (2 turtles), half of an oyster shell (1 turtle), mud (2 turtles) and amphipods.

Commensals on most hawksbills at Milman Island were similar to those noted by Limpus et al., (1983) who reported 100% of their nesting conspecifics had commensal barnacles. Diamond (1976), Pritchard (1969) and Ross (1981) found most hawksbill turtles nesting at Cousin Island, Seychelles, Guyana and Oman, respectively, had large barnacles on their carapaces. Vaughan (1981) reported commensals from 55% of Solomon Island hawksbills. All species of barnacle recorded on hawksbills herein had been reported by Monroe & Limpus (1979).

Hawksbill turtles range over a variety of habitats and may migrate long distances between foraging and nesting areas (Miller et al., 1998; Parmenter, 1983; Vaughan & Spring, 1980). Their preferred foraging habitats commonly include rocky areas, coral reefs, lagoons, bays and estuaries in the circumtropical Atlantic, Indian and Pacific Oceans (Witzell 1983). Terrigenous material, found here on 2 turtles and on 1 at Campbell Island (Limpus et al., 1983) indicates migration from inshore waters where mud may have been encountered whist foraging. Coral reefs that surround most hawksbill nesting beaches (Witzell, 1983) do not contain mud.

An in-depth analysis of sea turtle commensals, their biology and distribution should provide new insights on habitats in which they have lived. Careful collection and identification of organisms living in association with the epibiotic communities require further attention. Sadly specimens collected during this study were lost during a flood.

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