

THE MARINE CROCODILE, *CROCODYLUS POROSUS*, FROM PONAPE, EASTERN CAROLINE ISLANDS, WITH NOTES ON FOOD HABITS OF CROCODILES FROM THE PALAU ARCHIPELAGO.—A marine crocodile was captured on 28 March 1971 in a crude trap constructed of mangrove poles by residents of the Kitti Municipality on the south side of Ponape Island (7° N, 158° 20' E). The trap was built after three domestic pigs, which had been tied near the shoreline, had mysteriously disappeared over a six-month period. It was set in a mangrove area and baited with a live pig tethered at one end of the enclosure.

This record is particularly noteworthy because crocodiles are unknown from Ponape and the Eastern Caroline Islands in general. The specimen was identified as *Crocodylus porosus* Schneider by Peter T. Wilson, Director of the Marine Resources Division of the Trust Territory Islands. Wermuth (1953) recorded this species, which frequents mangrove swamps and brackish coastal areas, from the southeast Asian coast, extending from southern China to India; Ceylon; Sunda Islands (including Sumatra, Java, Borneo, Celebes, and Timor); Philippine Islands; Moluccas; Kei and Aru Islands; New Guinea; Bismarck Archipelago; Solomon Islands; New Hebrides; Fiji Islands and northern Australia. It also occurs in the Palau Archipelago, Western Caroline Islands, which is located approximately 800 km east of the Philippines. It is doubtful that this species has become established at Ponape. The captured specimen probably represents a migrant from an area within the normal distributional range. Ditmars (1957) reported that large and half grown individuals are frequently sighted from vessels far out to sea. The nearest known populations of this species are from the Bismarck Archipelago, some 1360 km to the south. Wilson (1964) reported this species common at Palau, in the western extremity of the Caroline Islands, but Palau lies nearly 2400 km west of Ponape.

Dispersal of this individual may have been achieved via the Bismarck Archipelago-Solomon Islands region. The South Equatorial Current which flows in a westerly direction is the dominant surface current in these latitudes (Sverdrup, Johnson and Fleming, 1942). However, a northerly gyre is created when this current system contacts the eastern boundary of the aforementioned island groups. Conceivably a crocodile swept out to sea in this system could be transported

across the equator in a northeasterly direction and would then be further aided on the course to Ponape by the North Equatorial Countercurrent. Another possible avenue of current-aided dispersal would be the longer route from Palau, Eastern Indonesia, or the Philippines via the easterly flowing North Equatorial Countercurrent.

The Ponape crocodile was a male measuring 380 cm total length. The specimen was not preserved, but several photos of it appeared in a publication of the Pacific Islands (Saipan) Trust Territory entitled *Highlights* (1 May 1971). The stomach contained a piece of mangrove wood, several unidentified crabs, an unidentified eel and fragments of a small green turtle. Crabs appear to be a common item in the diet of *C. porosus*, at least in smaller individuals. In specimens collected at Palau by Mr. Robert Owen during September–October, 1969, crabs were found in 15 of 16 specimens, ranging in total length from 118 cm to 300 cm. The stomachs also contained seaweed, fishes, bird feathers and sea snakes. Humans are occasionally attacked at Palau. The most recent fatality occurred in December 1965. A man was attacked and killed by a crocodile while spearfishing at night (0300). Local officials stated the victim was badly maimed with loss of one arm, a portion of the other, a lung and the liver. The attack was witnessed by a fellow spearfisherman. Wilson (1964) described a non-fatal attack at Palau which also occurred while the victim was spearfishing at night.

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LITERATURE CITED

- DITMARS, R. L. 1957. Reptiles of the world. Macmillan Co. New York.
- SVERDRUP, H. U., M. W. JOHNSON AND R. H. FLEMING. 1942. The Oceans. Prentice-Hall, Inc. New York.
- WERMUTH, H. 1953. Systematik der rezenten Krokodile. Mitt. Zool. Mus. Berl. 29:375–514.
- WILSON, P. T. 1964. Report of a crocodile attack in the Western Caroline Islands. *Micronesica* 1:151–153.
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