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A New Subspecies of *Carettochelys* (Reptilia: *Carettochelydidae*) from Northern Australia - *Carettochelys insculpta canni* ssp. nov.

by

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Carettochelys insculpta canni Ssp. Nov.

Holotype: Northern Territory Museum R1213. Caught on fishing line by John Edwards, near Ooloo Crossing, Daly River, Northern Territory on 1 September, 1975.

Diagnosis: A large turtle of the family *Carettochelydidae* readily identified by the following combination of characters: head and neck vertically retractable beneath carapace; nostrils large, positioned at tip of a soft extended snout; limbs paddle-shaped, each with only two claws; mature carapace with a posterior vertebral ridge and the surface of the carapace is without horny plates; carapace extensively pitted with small depressions and covered with a thin fragile skin; plastron much smaller than carapace; juveniles have distinct vertebral keeling and serrated edges to the carapace. In mature specimens, the carapace has scattered patches of pale creamish-white on a greyish or olive base, and the dorsal skin colour greyish, but the ventral skin is whitish. There is a distinctive whitish temporal patch behind the eye that extends in a broken pattern to the lower neck. Juveniles are steely-grey dorsally, with the rim of the carapace strongly contrasting with white, as is the entire undersurface. In size, *Carettochelys insculpta canni* is not as large as the nominate population (about 50 cm carapace length and about 30 cm in width versus about 80 cm in length and 60 cm in width in the nominate form) and both the eggs and hatchlings are much smaller in *C. i. canni*. The overall appearance of this turtle is heavy-bodied, and indeed it may reach 10-15 kg in weight (although the nominate form can reach around 25 kg in weight). This subspecies is only known from the far north of the Northern Territory in Australia, being confined to the Victoria River, Daly River and Alligator River systems. It is also considered likely that the subspecies occurs in the Roper River system as well. The nominate form is restricted to southern Papua New Guinea. This subspecies is confined to freshwater conditions of large tropical rivers, favouring Dry Season depths of around 1 to 5 metres, but during the Wet Season water depths in their habitat can reach around 15 metres. Unlike the nominate form, *Carettochelys insculpta canni* is not known to populate saltwater or even

brackish water conditions. This turtle prefers sandy stretches of rivers and when not active, remains largely hidden beneath the sand on the bottom with only the head and parts of the carapace exposed. It mainly forages around patches of aquatic vegetation, as well as near the overhanging banks, and will retreat underneath bank cavities or under submerged logs when disturbed, or attempt escape by rapidly swimming off into deeper open waters. Mating has been recorded during June and probably occurs throughout much of the Dry Season (April-September). Nesting occurs from June to late November, when eggs are laid in sandy banks around 0.5 to 5.0 m. above the water's edge. A typical egg-chamber is dug into slightly sloping or level sandy river banks, and is around 20 cm deep. From 7-19 eggs are produced in a clutch, with each egg being white and circular in shape. The incubation period is around 70 days at 30°C and hatching coincides with the onset of the Wet Season so incubation times may vary in accordance with site conditions and weather patterns. Males reach sexual maturity when around 300 mm carapace length (at age 14-16 years), but females mature more slowly (sexual maturity is reached at a carapace length of about 300 mm to 340 mm - at age 20-22 years). Although omnivorous in dietary habits, it feeds mainly on aquatic plants, such as *Vallisneria spiralis*, as well as the fruits of *Ficus* and *Pandanus* that fall into the water. Invertebrates are also significant as prey items - such as small molluscs, freshwater prawns, and numerous kinds of both terrestrial and aquatic insects and their larvae. Carrion is also readily taken in some parts of its range.

Etymology: The name 'insculpta' means 'carved', and probably refers to pitted nature of the carapace; the name 'canni' honours Australian naturalist John Cann.

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[Note: Although the above references are only a selection of articles that refer to *Carettochelys insculpta*, I have tried to include those that I thought contained the most relevant biological data on the species. However, a much more extensive bibliography on *Carettochelys* may be obtained from the author if required].

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