

Elseya dentata

Belinda Zunker, 2000 © 2001 James Cook University

Authority: Gray, 1863

Common Name: Northern Australian Snapping Turtle

Description (Cann 1978; Cogger 1980; Ernst and Barbour 1989; Galloway 2000; Kennett 1996): Adults have a flattened, oval carapace, maximum length approximately 45cm. The carapace is usually widest posterior to the center. Adults lack a medial keel and have a smooth posterior rim. Degree of serration of the posterior margin of the juvenile's and hatchling's round carapace varies between drainage systems. The adult's carapace is dark brown to black whilst juveniles are pale brown or olive, with a dark spot on the shield of the carapace in some specimens. Their plastron and bridge are cream or yellow. They have a large head with a prominent nose and an unnotched to slightly notched upper jaw. The jaws are yellow in colour. The maxilla has a medial ridge on the triturating surface. They have two barbels on their chin. The top of the head is capped with a large horny shield instead of smooth skin. The dorsal surface of the neck is covered with blunt tubercles that become progressively larger towards the nape. The neck is noticeably shorter than in other chelid turtles. The size of the head increases considerably with age. With the exception of a broad, light stripe, which passes below the eye to the neck, the head, neck and limbs are grey to olive or dark brown. Males can easily be distinguished from females as they have a longer, thicker tail. Sexual dimorphism occurs with females larger than males at maximum size. Several distinct forms of this turtle exist and are best distinguished by range.

Similar species (Ernst and Barbour 1989): *Elseya latisterum*, which can be distinguished by the strong serrations of the posterior rim of the adult carapace. *Elseya novaeguineae* usually has a vertebral keel and is found in New Guinea.

Range (Ernst and Barbour 1989): Kimberly district Western Australia through the Northern Territory to the Burnett River in southeast Queensland.

Ecology and behaviour (Ernst and Barbour 1989; Kennett 1996; Kennett 1999; Kennett and Tory 1996; Legler 1976; Webb 1978): *Elseya dentata* inhabits large permanent rivers that empty into the sea and their associated billabongs and lagoons. Each morning turtles emerge from the water to bask on a platform and on warming they return to the water to forage and reappear later in the day. Limbs of living trees and tangles of dead wood provide favourable habitats for these turtles. They are primarily herbivorous and most of the diet consists of the fruit and leaves of riparian trees. Seasonal changes of the fruiting pattern of these trees is reflected by changes in fruit consumed. Other seasonal changes in diet involve filamentous algae which makes up 30% of their diet during the dry season but is absent from rivers during the wet season flooding, and is therefore absent from the diet. They will also readily feed on fish carrion and other meat, such as shrimp, and freshwater sponge when available but these only form a small part of their diet. The energetics of this turtle may be limited by their largely herbivorous diet. Despite year-round warm temperatures their growth is slow and they mature late. *Elseya dentata* relies heavily on riparian vegetation, which makes it extremely vulnerable to land clearing.

Breeding biology (Ernst and Barbour 1989; Kennett 1999): Ovulation and then follicular regression follow ovarian cycles which, in turn follow an annual cycle of enlargement beginning in December. Nesting begins in the late wet season and is complete by May and is determined by the presence of gravid females. Only one clutch is laid each year with 3-5 eggs. Clutch size is related to female size. The eggs are brittle-shelled and

elongate (48-50mm x 27-28mm). Despite access to permanent water and warm temperatures, fecundity is low and the nesting season is short. This may be due to their largely herbivorous, protein-poor diet.

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