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A KEY TO GENERA OF TASMANIAN FRESHWATER CRAYFISH

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Recent work on freshwater crayfish in Tasmania has revealed the presence of a diverse fauna, with perhaps more than twenty species in four genera, forming a significant component of the benthic and fossorial fauna in Tasmania. A review of the current state of knowledge on freshwater crayfish in Tasmania is given by Horwitz (1987), including the general ecology and distributions of each genus, their aquaculture potential, and their pests and diseases. However, the work has highlighted the need for a key so that field naturalists, biology students and survey workers can, with some degree of assurity, assign generic names to freshwater crayfish.

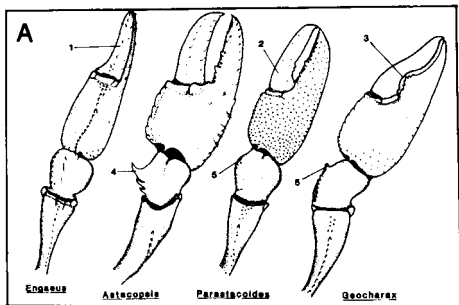
This simplified key will enable users to identify most freshwater crayfish in Tasmania (although very small, juvenile crayfish may be more difficult to identify using this key). All key characters are shown in Figure 1. some of the characters used here are from a key to most of the genera of Australian freshwater crayfishes, given in Riek (1969).

- 1a Crayfish with spines on sides of abdomen segments, and with very large spine on the carpus of the claw *Astacopsis*
1. Crayfish without spines on sides of abdomen segments, and without very large spine on the carpus of the claw 2
- 2a Small, mostly burrowing crayfish with claws operating in a vertical plane; mid-dorsal groove on carapace shallow and V-shaped *Engaeus*
- 2b Claws not operating in a vertical plane (either oblique or horizontal); mid-dorsal groove on carapace U-shaped 3
- 3a Claws (on larger animals) with a marked curve in the cutting edge of the finger; dorso-lateral grooves on carapace separated, not fused together; **never** with terminal spines on tail fans; only in north-western Tasmania *Geocharax*
- 3b Claws not as above; some species with terminal spines on tail fans; dorso-lateral grooves on carapace close, becoming fused together; found throughout western Tasmania *Parastacoides*

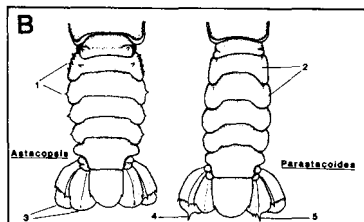
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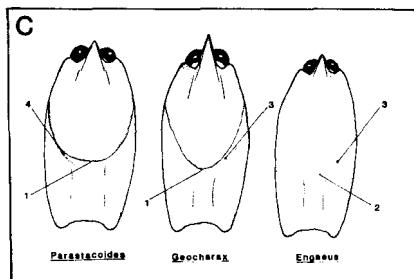
Figure 1: Key characters used to distinguish the four genera of freshwater crayfish in Tasmania.



A—The right claw of crayfish from each genus, seen from above, showing the vertical orientation of claws of *Engaeus* (1) when compared to the mainly horizontal claws of each of the other genera (eg 2), the very large spine on the carpus of the claw of *Astacopsis* (4), but not on the claws of other genera (5), and the curve in the finger of the claw of *Geocharax* (3).



B—The abdomen and tail fan of *Astacopsis* and *Parastacoides*, showing the presence (1) or absence (2) of spines on the sides of the abdominal segments, and the terminal spines on elements of the tail fan in *Parastacoides*, where the outer ramus (4) may or may not exhibit a terminal spine, and the inner ramus with one or more spines, or none at all (5). The tail fan of *Astacopsis* never has terminal spines (3).



C—The carapace of three genera of crayfish, showing the deep U-shaped dorsal grooves of *Parastacoides* and *Geocharax* (1) and the shallow V-shaped grooves of *Engaeus* (2). Laterally the grooves may be fused or almost fused (4) or widely separate (3).

PREDATION ON INTRODUCED ANIMALS BY THE TASMANIAN TIGER SNAKE

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At 11.30 am on the 10th of March, 1987 a large female Tiger Snake, *Notechis ater humphreysi*, 129cm long with a girth of 13cm was hand caught while basking outside its homesite under a wooden shed on the property of Dr Bob Brown in the Liffey Valley.

The shed is situated in an old paddock that has become partially overgrown with bracken ferns, blackberries and saplings of various trees and shrubs. This area borders forest at the foot of Dry's Bluff.

When captured a very large bulge was noticed in the posterior third of the snake. When placed in a freezer the snake regurgitated a rabbit, *Oryctolagus cuniculus*.