

Freshwater crayfish of Australia

Freshwater crayfish belong to the phylum Arthropoda and subphylum Crustacea, along with prawns and crabs. Crustaceans are closely related to insects, and have been around for at least 500 million years. The oldest records of fossilised crayfish are 285-million-year-old claws found in Antarctica. Opalised fossil gastroliths 110 million years old have been found in New South Wales, and Aborigines have been catching crayfish in Australia for 26 000 years.

Arthropoda represents 85% of all known creatures, and includes four living subphyla: Chelicerata contains the spiders and scorpions; Myriapoda includes the centipedes and millipedes; Crustacea contains shrimp and crayfish; and Hexapoda includes the insects. These are all creatures

with an exoskeleton. The three most important features that identify arthropods are the tough exoskeleton, a series of jointed appendages, and a segmented body.

Across the world there are three families of freshwater crayfish, but only one, the Parastacidae, is found in Australia.

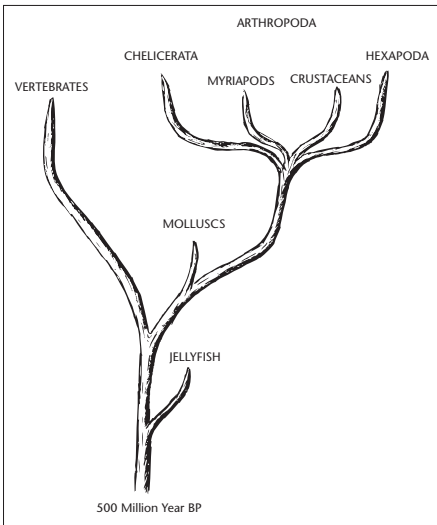
All freshwater crayfish belong to the class Malacostraca, the subclass Eumalacostraca, the superorder Eucarida, the order Decapoda, the suborder Pleocyemata and the infraorder Astacidea.

The infraorder Astacidea is divided into two superfamilies (Astacoidea and Parastacoidea). Astacoidea is restricted to the northern hemisphere, and Parastacoidea is restricted to the southern hemisphere. Parastacoidea contains one family, the Parastacidae. All southern hemisphere crayfish belong to this family, with representatives being found in Australia, New Zealand, New Guinea, Madagascar and South America.

In Australia, there are currently 137 named species and numerous more requiring formal scientific description.

In Australia, 10 different genera of freshwater crayfish are known:

1. *Astacopsis* – 3 species
2. *Cherax* – 26 species with 4 others under investigation
3. *Engaeus* – 35 species
4. *Engaewa* – 5 species with 2 others under investigation
5. *Euastacus* – 50 species with 4 others under investigation
6. *Geocharax* – 2 species



Simplified tree of life