

Identifying Freshwater Crayfish in the South West of WA



Department of
Fisheries



Freshwater crayfish are an important part of ecosystems in South West rivers and dams and are also one of Western Australia's great delicacies. There are more than 100 species of crayfish native to Australia, and at least seven species are commonly caught by recreational fishers in the streams and dams of southern WA. Other smaller crayfish species may also be seen by recreational fishers, tourists and bushwalkers in different locations.

Identifying crayfish species is very easy if you have all species present. However, most people are usually trying to identify a single animal. Many people are unaware that so many species are commonly found in South West waters, and common names (like 'yabby') have often been used by mistake to describe freshwater crayfish in general. This brochure will assist recreational fishers and other people to identify the commonly seen freshwater crayfish of the South West; marron, koonacs, gilgies and yabbies.

Crayfish from different regions or different areas can often be quite different in appearance. There is even evidence that marron from within the same waterway

can look quite different. This brochure will help to identify each species of crayfish correctly by using a simple key, photographs and drawings to highlight the features which make each crayfish species unique. Once you have used this guide a couple of times, and have looked at the four major groups of freshwater crayfish in the South West, you will quickly become an expert at identifying WA's freshwater crayfish!

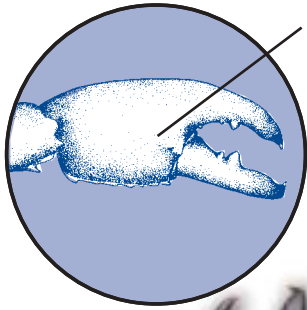
Scientists who classify plants and animals (called taxonomists) are trained in looking for differences among animals which look somewhat similar. For ease in telling species apart, taxonomists produce 'identification keys'. These keys provide two choices of information about a feature of the animal you are looking at. A simple key that has been specifically designed for the public to help classify crayfish in the South West of WA is provided in this pamphlet.

AQUACULTURE PROGRAM



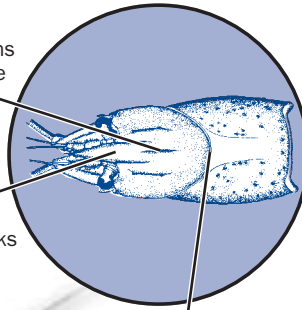
Fish for the future

Identifying Freshwater Crayfish from the South West

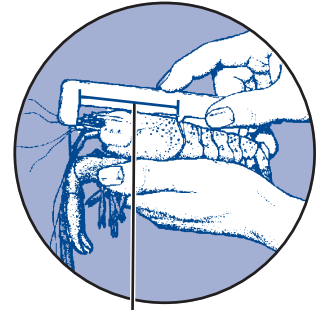


Chelipeds
The claws of freshwater crayfish.

Keel
A long ridge that runs lengthwise along the top of the head.



Rostrum
The long spike that sticks forward from the head between the eyes.



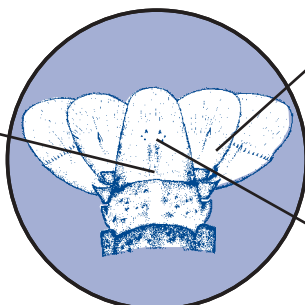
Cervical Groove
Semicircular notch that divides the head of the crayfish.

Measuring Zone
Measure from the tip of the rostrum to the back of the carapace.



(This is a smooth marron)

Telson
The middle 'panel' of the tail.



Uropods
The two pairs of 'fans' on either side of the telson that make up the tail.

Telson spine
Found only on marron.

GUIDE TO USING THE KEY

The key is very simple to use. Simply start at point 1 and read the two choices you have. Decide which of the choices fits your crayfish the best and look to the right of the description. If it provides a number, then go to that numbered point and again read the choices. Alternatively, if a name is provided, then congratulations, you have matched your crayfish to the likely species!

For example, your crayfish has four keels on the head and no spines on the rostrum. Starting at section 1, this description fits best with point 1b. After point 1b it says, "Go to 3". So you read section 3 and agree with 3b, that the claws are elongated and quite large and that there are obvious hairs on the inside of the 'elbow'. To the right it says "Yabby". Therefore, you have successfully identified a yabby. Try the key yourself next time you see or catch a crayfish.

KEY TO IDENTIFYING FRESHWATER CRAYFISH

- 1a** Five obvious keels on the head. Small spines present on rostrumGo to 2
- 1b** Four keels on the head but usually only two keels are obvious. No spines present on rostrum at all...Go to 3
- 2a** Two small spines on the telson, located about halfway up. Three pairs of small spines on rostrum. Marron (2 species) Go to 4
- 2b** No spines on the telson. Two pairs of small spines on the rostrum..... Gilgie (2 species)
- 3a** Chelipeds (claws) are oval in shape and quite broadKoonac (2 species)
- 3b** Chelipeds (claws) elongated and quite large. Obvious hairs on the inside of the "elbow"....Yabby (2 species)
- 4a** Middle keel extends all the way to the cervical groove. Head covered with short hairs.Margaret River Hairy Marron
- 4b** Middle keel does not extend to the cervical groove. No hairs on head.....Smooth Marron

SPECIES DESCRIPTIONS

Marron

The scientific names for the two species of marron are currently under review.

Marron are the largest freshwater crayfish in the South West of WA and one of the largest freshwater crayfish species on earth. Before the introduction of other freshwater fishes, marron were the largest animal in the rivers of the South West. Originally only found between Harvey and Albany, the range of marron has been extended by the 'seeding' of rivers and irrigation dams with juvenile marron, along with their use in aquaculture ventures. Marron are now found in rivers and dams between the Hutt River (north of Geraldton) to east of Esperance. There are small populations of marron in dams in the Goldfields.

Marron prefer sandy areas in rivers and dams, particularly where detritus (organic matter) accumulates. Marron like areas which have lots of structure (fallen trees, rocks) but do not tolerate high salinity.

Marron possess five keels along their head, three pairs of short spines on the rostrum, two small spines on the telson and narrow, pincer-like chelipeds (claws). They range in colour from jet-black to brown or even cobalt-blue, a rare natural version now farmed for aquariums.

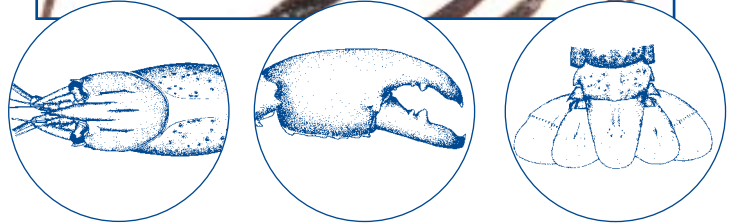
There are two marron species found in WA. Smooth marron are widespread and found in most rivers and dams of the South West. They are what most marroners have seen and captured and are the farmed aquaculture species.

Hairy marron are found almost exclusively in the upper reaches of the Margaret River. The head and sometimes tail (larger marron) are covered in clusters of short hairs. The central keel also extends all the way to the cervical groove. The upper reaches of the Margaret River are now closed to recreational fishing. So, if you capture a hairy marron in the Margaret River, please put it back immediately.

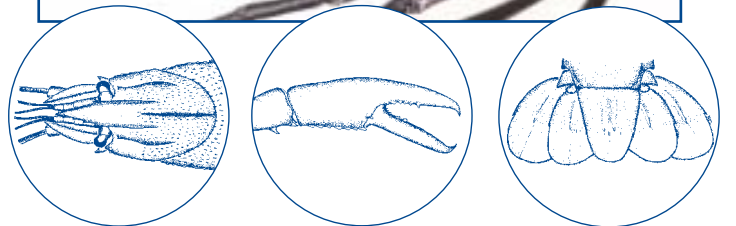
Hairy marron are threatened by the smooth marron that has become established throughout the Margaret River. Plans are underway to assist the recovery of this endangered species. You too can help by releasing all hairy marron that you may capture in the Margaret River.

Recreational fishers in WA need a licence to catch marron. During the open season (usually in January and February) a daily bag limit of 10 marron applies in most waters, except in Harvey Weir (5 per day). A detailed information brochure about marron fishing is available from Department of Fisheries offices.

Marron can grow more than 380 mm (total length) and they are usually measured from the tip of the rostrum to the back of their carapace. The legal minimum size of marron is 76mm carapace length except in Harvey Weir, where legal minimum carapace length is 90mm. Marron fishing is prohibited above the junction of Ten Mile Brook on the Margaret River in order to protect remaining stocks of the hairy marron.



Smooth Marron photo and drawings



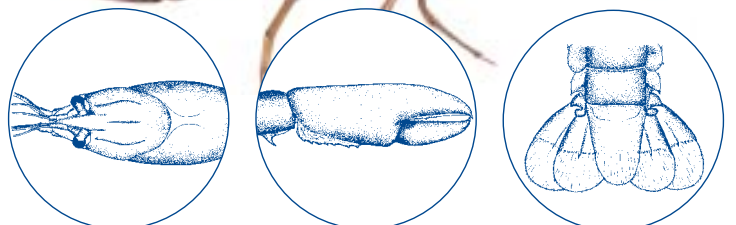
Hairy Marron photo and drawings

Gilgie (two species in WA)

Cherax quinquecarinatus* and *C.crassimanus

Gilgies can be commonly found in most streams, rivers and irrigation dams in the South West, and are often caught while marroning. Gilgies can burrow to escape droughts and have a wider distribution than marron.

Gilgies also have five keels along their heads, like the marron, but only have two pairs of small spines on their rostrum. Gilgies do not have any spines on their telson. Gilgies' chelipeds are more rounded than marrons' but are narrower than koonacs' or yabbies'. Most gilgies are small, but may reach 130 mm in total length. Gilgies range in colour from a black-brown to a light brown colour, and often have speckled patterns on their chelipeds.



SPECIES DESCRIPTIONS

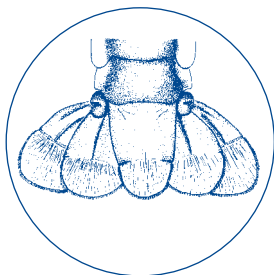
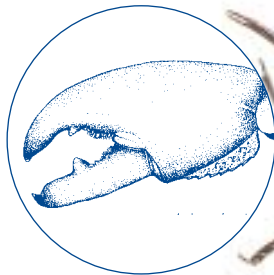
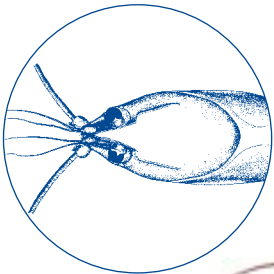
Koonac (two species in WA)

Cherax plebejus and *C. glaber*

Koonacs are also relatively large freshwater crayfish, growing up to 200 mm long. However, their distribution is more inland than for marron, and they are often found in seasonal rivers and swamps which dry up during summer.

Koonacs survive because they can burrow to avoid drought and remain in their burrows for months at a time.

Koonacs have four keels on their heads and two are very prominent. Koonacs have no spines on their rostrum or telson. Their chelipeds are unique, being very broad and serrated on the inside edge. Koonacs are usually very dark in colour, ranging from blue-black to mottled brown-black.



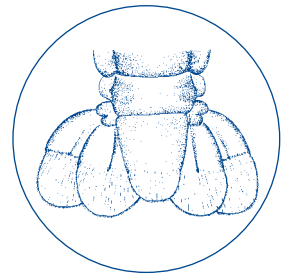
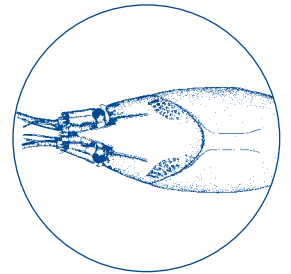
Yabby (two species in WA)

Cherax albidus and *C. destructor*

Yabbies are an introduced species to WA. They are native to New South Wales, Victoria and South Australia, and were stocked into farm dams in WA in 1932. Yabbies can now be found in some rivers and irrigation dams of the South West.

Yabbies are much smaller than marron and koonacs - very few yabbies grow 130 mm long. Their heads have four keels, with two keels being very obvious, and have short rostrums with no spines. The inner edges of the chelipeds have a mat of very obvious hairs not found on other crayfish species in WA. Yabbies can range in colour from a beige or coffee colour to almost black. They can also take on a blue colour when held in aquariums for a long time.

Yabbies are a threat to the marron fishery, as they breed faster and may carry diseases which affect other freshwater crayfish. Help preserve native species; never release yabbies into rivers, lakes and dams and do not use them as live bait. If you catch one, keep it.



Further information

Text by Dr Brett Molony, with assistance from John Bunn (Edith Cowan University). Photographs by Clay Bryce (WA Museum) and drawings by Bradley Durrant (Dept of Conservation and Land Management). If you have any questions about Western Australia's fish stocks or fisheries management please contact:

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WA MARINE RESEARCH LABORATORIES

West Coast Drive, Waterman, 6020
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Freshwater Fisheries Unit
Ph (08) 9246 8461 / 0409 013 100

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