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KEEPING MARRON IN A BACKYARD POND OR AN INDOOR AQUARIUM

Keeping Marron in back yard ponds or pools

Marron, and other Western Australian freshwater crayfish, may be successfully kept in small backyard pools, ranging in size from as small as 1½ metres in diameter (plastic wading pools) to larger pools, or ponds of the concrete fish pond type.

Water depth need not be in excess of 50 cm. New concrete pools should be well flushed and weathered before use and the bottom should be covered with coarse sand. The development of a natural food supply depends on having soil or organically enriched sediment on the bottom of the pond, and will stop the freshwater crayfish getting blistered tail sores which can occur from crawling on bare concrete. If a normal tap supply is used, the water should be allowed to de-chlorinate for a week or so, with aeration upon first filling of a pool. If bore water containing iron in solution is used, the iron must first be able to oxidize and precipitate out of solution before the water is added to the pool. Complete changes of pond water are not required, unless the marron are frequently overfed, which causes a decrease in the levels of dissolved oxygen.

The pond should be completely shaded from direct sunlight during the summer to prevent water temperatures exceeding about 25°C. Aeration of small ponds may be provided by several air stones running off a small aquarium type compressor. Aeration may only be necessary when water temperatures are high (usually late afternoon) or in the early morning if green algae are present.

Algae may be present in the form of long green strands or as minute green cells giving the water a green, 'soupy' appearance. Such an algal "bloom" adds oxygen to the water during daylight hours but rapidly removes oxygen from the water overnight. Water oxygen levels for marron may become unsuitable just before sunrise without aeration devices.

Male marron are distinguished by having two bluish penes (small protrusions) at the base of the most posterior (last) pair of the five pairs of legs. Females have a round opening at the base of each of the third pair of legs. One male can service five or more females.

In the smallest size backyard pool suggested at the beginning of this article, no more than half a dozen legal sized (76 mm head to tail) marron can be stocked. Some initial fighting may result in deaths, particularly if no shelters are provided.

Marron are mainly active during the night and they like to hide during daylight hours in clear water. Marron exhibit this behaviour in the natural environment where there are many

predators. The marron should be provided with shelter, for example short lengths of PVC piping, bunched and weighted shade cloth or 'islands' of small rocks. The pond may require netting or chicken wire over the surface to prevent predation by birds, eg by kookaburras.

Mating and spawning of marron occurs in the early springtime as water temperature rises over 12°C. The so-called "berried" female carries the developing eggs attached to the swimmerets under her tail. The young marron, resembling their parents, will be released from the female in late spring. Bunches of shade cloth or onion bag material (hessian) should be placed in the pond in anticipation of the release of young. When release occurs the young will seek out this shelter and remain in or close to it during early life.

Rather than disturb the female to see how spawning is progressing, examination of the shelter in late spring (usually December) will tell whether spawning has finished or not, for the young marron, if present, cling to the shelter when it is pulled of the water. For the very best breeding results, large adult non-spawning crayfish should be kept in a separate pond from the small young. It is possible to maintain a number of small ponds on schedule of growing, cropping and restocking. Females can breed at two years of age, but usually breed for the first time at three years of age.

The worst practice in growing marron is any zealous tendency to overfeed. Excessive feeding will pollute the water, cause deoxygenation and deaths. Lumps of meat are particularly bad in this respect. All feeds leach nutrients in water which accumulate, eventually producing toxic algal blooms. However, nutrients can be "stripped" from the water very effectively by planting bank-side sedges and similar aquatic plants with roots and leaves in pots in the pond.

Poultry pellets can be fed but require some weeks to break down to a rich bottom layer of detritus. Red earthworms found in compost or manure heaps are a better feed for a small pond and just a few marron. Earthworms can be eaten immediately and do not pollute the water. These worms can be cultured the year round in a wooden box, kept in a cool place, initially filled with a mixture of pre-soaked cow manure and garden peat moss (at a ratio of 1:1). Soaked poultry pellets or kitchen vegetable scraps (non-acid) can be placed on the surface of the mixture occasionally to feed the worms. Larger worms with a "collar" are breeders.

Periodically, each marron will become inactive and tend to remain in its shelter or when moving about appear very sluggish and perhaps its shell will become dirty. This behaviour is normal and the marron should not be handled or interfered with, since it is preparing to cast off its old shell which will allow it to grow in size by expanding a new soft shell underneath (the growth process in crayfish called ecdysis). The empty shell will be seen some time later while the marron will be, after a short period of shell hardening (when again it should not be handled) most active in its shiny new shell and eat more food per day than at any other time.

Keeping Marron in an indoor aquarium

Crayfish can also be kept in an indoor aquarium. The best set up is one which has a sand bed or gravel filter on the bottom of the glass tank. This filter is a perforated plastic plate which sits just off the bottom, covered by a layer of fibreglass mesh which supports a layer of fine gravel covered by coarse sand. The plate has one or more air lift tubes and a small air blower provides a stream of air bubbles up the tubes to pump and circulate the tank water through the sand bed, which filters wastes from the water. All filter and air equipment can be found in an aquarium fish shop. The sand bed provides a good foraging sediment for crayfish. The indoor aquarium may be used to hold non-breeding marron from the outdoor pond. Several small crayfish can be maintained for many months with careful feeding to avoid overloading this mini ecosystem with nutrients. Earthworms are a safe feed.

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By Dr Noel Morrissy
Fisheries Research Services Division
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