KEEPING MARRON IN SMALL BACKYARD POOLS

Marron, and other Western Australian freshwater crayfish may be successfully kept in small backyard pools, ranging in size from as small as $1\frac{1}{2}$ m in dia. (plastic wading pools) to larger ponds of the conrcete fish pond type. Water depth need not be in excess of 15 cm. New concrete pools should be well-cured with lime before use and the bottom should be covered with coarse sand. If a normal tap supply is used, the water should be allowed to dechlorinate for a week, or so with aeration upon first filling of a pool. If bore water is used and contains iron in solution, the iron must be allowed to ozidixe 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.

The pool should be completely shaded from direct sunlight during the summer to prevent water temperatures exceeding 25°C or so. Aeration of small pools 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 algae is present.

Algae may be in the form of long green strands or minute green cells giving the water a green soupy appearance. An algal "bloom" will result in an oxygen deficiency developing overnight.

The larger crayfish should be provided with individual shelters; short lengths of P.V.C. piping are suitable. If mating and spawning occurs in the early spring the young marron, resembling their parents, will be released from the swimmerets under the tail of the female in November in the Perth area. Bunches of rope fibre 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 processing, examination of the weed in December will tell whether spawning has finished or not, for the young marron, if present, cling to the fibre bunches when it is pulled out of the water. For the very best 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.

Marron *Cherax tenuimanus*.

The worst practice in marron raising 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.

Poultry pellets can be fed but require some weeks to break down to a rich bottom layer of detritus. Red manure, (compost worms) is better for a small pond and just a few marron since it can be eaten immediately and does 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 (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.

In stocking the pond, male marron are distinguished by having two bluish penes at the base of the most posterior pair of the five pairs of legs. Females have an opening at the base of each of the middle pair of legs.

In the smallest size pool suggested at the beginning probably no more than half a dozen legal sized marron can be stocked. Even then some initial fighting may result in deaths particularly if no shelters are provided.

At times each marron will become inactive and tend to remain in its shelter or when moving about appear very sluggish and perhaps are covered in a furry coat of algae. This behaviour is normal and the marron should not be interfered with as it is preparing to cast off its shell, called ecdysis, the growth process in crayfish. The empty shell will be seen some time later while the marron will be, after a short period of "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.

NATURE RESERVES

The Wildlife Conservation Act defines a nature reserve as "an area of land which is vested in the Crown and which the Governor, subject to such conditions and limitations as he thinks fit, reserves to Her Majesty or disposes of in the public interest pursuant to the provisions of paragraph (g) of subsection (1) of section twenty-nine of the Land Act, 1933, for the conservation of indigenous flora or fauna".

Prior to the Act being amended in 1975 nature reserves were known as wildlife sanctuaries and included reserves for the conservation of fauna only. With this change in definition the Wildlife Authority assumed responsibility for an additional 396 reserves.

This accounts for most of the large increase in the number of nature reserves during the past year.

A new system of reserve statistics is at present being set up at the Wanneroo Wildlife Research Centre. When information is available from this system it will follow on in the tradition of previous reserves information in S.W.A.N.S. It will be seen that future statistics will follow the figures hereunder which were recorded on June 30, 1976.