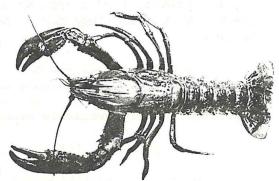
## MARRON RESEARCH

Dr. N.M. Morrissy, B.Sc. Hons., Research Officer, gave the following talk on A.B.C. Radio on June 10, 1969:

"In this brief talk I will tell you about the research being done on amateur and commercial exploitation of our native marron, or large freshwater crayfish, <a href="Cherax">Cherax</a> tenuimanus.

Marron are a very tasty animal. For both by country dwellers and tourists they are easy, and great fun, to catch on bush picnics during the summer months.

The presence of large marron in abundance in the many natural streams and large dams of the Southwest is a considerable sporting asset to the State and is available to everyone.



Many Western Australians would not be aware perhaps that in heavily populated countries overseas, and even interstate, considerable effort and money has to be spent to maintain similar amateur sport fisheries for the general public.

With the population of Western Australia now increasing dramatically the problem of overfishing of our marron populations has become a reality.

Research initiated by my Department in the past year or so has shown the real need for more control of marron fishing so that as many people as wish to can share in good marron fishing in years to come.

Apart from the sporting aspect of marron we are also lucky in that marron have what can only be described as an exciting and prominent future as a commercial fish product.

Overseas very large scale farming of freshwater crayfish has existed for many years, particularly in southern U.S.A. and continental Europe, where the very small native cray-

fishes are regarded as a great delicacy. These people and also the eastern states of Australia have become very interested in our large marron.

Does it need very much foresight to realize that in years to come we may be exporting marron to these countries where there is such a tremendous demand for crayfish? This of course will be possible only if marron remain exclusively in Western Australia.

My Department, with a view to the future commercial farming of marron, has been researching, for the past year or so, the potential of marron as an economic venture and also the means by which they may be best farmed to get a maximum return.

This research has shown that under certain conditions marron will grow to at least a saleable size of a  $\frac{1}{4}$  lb. in two years from spawning. They can also live and grow on cheap and readily available plant material.

So the potential for farming marron is there already.

Two lines of research have and are being pursued to discover the exact conditions of best farming marron.

Firstly, experiments in artificial ponds at Pemberton have shown to date means of reducing injury when the very agressive marron are crowded.

However, the growth of marron on different foods and at various densities has been very poor until recently. The latest experimental conditions have given more promising results and some marron have grown ½" in two months.

Measurements of the amount of food eaten by each marron has shown the need for using high water temperatures throughout the year.

From adult marron held in the ponds we have successfully bred young marron this year and these are being reared in artificial shelters imitating their natural habitat.

Besides three concrete outdoor ponds we now have two large earth ponds for holding very young and adult marron, respectively, for experiments. A laboratory in the new Trout Hatchery at Pemberton will have aquaria where experiments will be done on marron feeding at controlled high water tempera-

tures, and also on their tolerance of very high values of salt and temperature.

Secondly, research has been done on the success of marron sold to farmers, from Pemberton, in the Great Southern Wheat belt and sheep grazing areas. These marron go into the excavated earth type of dam which is very common in this very large region.

We have had considerable success in finding the characteristics of dams where marron establish themselves.

In the particular type of dam where they become established, marron without any care or farming, are very successful.

In some cases we found dams which were not being fished enough each year. Per acre of surface water up to 100 lbs. of large marron can accumulate in such dams with moderate fishing.

Techniques of improving these dams for marron farming are now known and methods of maintaining large catches can be recommended.

Although sale of marron is at present prohibited to protect the amateur sport fishery there is a considerable likelihood that with a moderate amount of work and the right methods farmers could exploit marron commercially in these farm dams.

A booklet containing information about marron in general, and in farm dams, will be available from the Department shortly. (A similar booklet is now available on trout).

There has been a considerable demand from people for information on marron farming as a commercial venture. The idea is not a new one. The advice necessary can only come from careful, detailed research which the Department is actively pursuing."

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I believe there is nothing among mankind swifter than a rumour.

- Plautus

