



NEW ZEALAND  
ARCHAEOLOGICAL  
ASSOCIATION

**NEW ZEALAND ARCHAEOLOGICAL ASSOCIATION NEWSLETTER**



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## 2. NOTES ON THE SIGNIFICANCE OF THE LEATHER JACKET FISH IN MIDDENS

During 1967, I had occasion to take a number of field excursions along the North-east coast of the North Island in which it was possible for me to examine many of the coastal midden deposits. After careful examination in the field, I find from my notes that the remains of the leather jacket fish, Novodon convexirostris, are not only common but on occasion represent the most numerous fish. I have found this to be the case with deposits at Whanganumu Bay (near Cape Brett), Shoal Bay (Great Barrier Island), Kowhi Beach (near Mount Camel), and at Whatipu (Manakau Heads). In these middens the single erectile head spine is a conspicuous and easily recognizable bone. It is a solid stout spine with numerous barbs along the shaft, and a hook-like process on its proximal end. None of the rays have barbed spines anything like it.

According to John Moreland's very useful little book, "Native Sea Fishes", the leather jacket usually lives on "shallow rocky ground down to about ten fathoms", and feeds on tiny marine organisms among the rocks and seaweeds. Also, I have seen them trawled up from sandy bottom at 25 fathoms.

As can be seen from the drawing, the mouth is relatively small. In fact, the jaws are not at all easily recoverable from midden material because of their small size. It seems unlikely, then, that any of the known New Zealand Polynesian fish-hooks would be suitable for catching leather jackets. In fact, I understand that these fish are hardly ever caught even on small steel hooks.

It would appear, therefore, that some means other than fish-hooks and hand-lines would have to account for the presence of these fish in the middens. While it is possible to obtain leather jackets by catching them by hand or by spearing, I doubt that much quantity would be secured in this way. It would be possible to fish for them with nets but, if this were done on the shallow rocky ground that is near most of the "leather jacket middens", the rocks would probably tear and tangle the nets. The other alternative is fish-traps.

In Catherine Bay on Great Barrier Island and on Red Mercury Island, I have seen crayfish pots made of flax, manuka, and supple-jack. The design was simple and they looked "easy" to make. It seems to me that this type of crayfish pot could be also designed to catch fish on shallow rocky ground. Such fish-traps also would be able to keep fish alive for a period of time as a sort of reserve source of meat. I suspect, therefore, that fish-traps may have had a rather important role at some time in the Auckland Province at least.