Family OPHICHTHIDAE

L. ?*Muraenichthys australis* Macleay, 1882 (Text-fig. 1, J-L).

1882. *Muraenichthys australis* Macleay, *Proc. Linn. Soc. N.S.W.* (1881), 6: 272.

MATERIAL EXAMINED. One specimen: 48.1mm total length, *Tui* Station AUZ 087, 31° 47′ S, 177° 44′ E, 24/7/62, 1m cone net, 183m wire out.

DESCRIPTION. Measurements in mm: head 3.7, snout 1.2, eye 0.5, cleft of mouth 1.8, postorbital 1.9, preanal 28.0, predorsal 38.1, depth just before eye 1.2, at pectoral origin 1.8, at anal origin 4.9, maximum depth 5.5. Teeth $\frac{1 + IV + 5}{VIII}$ Myomeres 70 + 85 = 155. Last vertical blood vessel at myomere 70.

Body moderately elongate, compressed, its maximum depth just posterior to vent and about 8.5 in total, tapering more gradually in front of vent than behind it; head not clearly differentiated from trunk; intestine with nine pigmented swellings; about eight pigment spots on the lateral line posterior to vent.

Head relatively short, 12.5 in total length, conical; snout acutely pointed, its dorsal profile slightly convex, contained about three times in head; nasal organ oval, midway along snout; eye round, small, 3.5 in postorbital; cleft of mouth slightly oblique, extending to below posterior margin of eye, twice in head; teeth acute. Pectoral fin small, about as long as eye, rounded; dorsal originating midway between level of vent and caudal tip; caudal pointed, reduced.

Pigmentation as two large chromatophores on the ventral aspect of the throat; a group of chromatophores below the pectoral; groups of up to 12–14 stellate, somatic chromatophores on the lateral body wall at the level of each of the nine swellings of the intestine; a large splanchnic chromatophore on the dorsal aspect of each intestinal swelling; six equally spaced groups of chromatophores on the lateral line from the level of the vent to the caudal tip with subsidiary smaller groups midway between them (some of the pigment extending into the grooves between the myomeres); continuous pigment along the bases of the anal and dorsal tips with a patch on the tip of the spinal cord; chorioid pigment present.

Intestinal swellings at myomeres 10, 16, 24, 31, 38, 44, 51, 59, 68.

REMARKS. The leptocephalus described above is referred to the Ophichthidae in having an elongate body which is relatively deep, an intestine which is swollen at various points along its length, groups of chromatophores above these swellings and deep pigment spots below the lateral line posterior to the level of the vent (see Ancona, 1928, p. 114). The pectoral fin is markedly reduced and the caudal, although pointed, retains fin-rays. The larval development of species of ophichthid genera such as *Ophichthus* and *Muraenichthys* has yet to be followed out, and thus it is at the moment a difficult task to correctly identify, even to the generic level, leptocephali of this family. The task is made the more difficult because of inadequate knowledge of generic categories in the adults. It is probable that loss of the pectoral and/or caudal in early larval life occurs quite normally in larvae of this family. I am satisfied that the reduced state of the pectoral in the present leptocephalus suggests ultimate loss of this fin, and I tentatively refer the larva to *Muraenichthys* (although there are several ophichthids in the south-west Pacific which have neither pectoral nor caudal). If this identification is correct then the larva may possibly belong to *M. australis* which has about 152 vertebrae and would be the first record of the leptocephalus of this species.