

vertebral column along the caudal region. Indeed, pigment is only otherwise found on the myosepta of the segments immediately level with the deep caudal groups of chromatophores and sparsely along the anal base. In these respects this specimen conforms well with *L. echeloides* Ancona, 1928 (124 myomeres), *L. decipunctum* Fowler, 1938 (ca. 152), *L. tredecimpunctum* Fowler, 1938 (ca. 135–143) and *L. multimaculatus* Steindachner, 1869 (number of myomeres unknown). In the present specimen and in *L. echeloides* the pectoral is present but very short, and the dorsal origin is very close to the level of the vent even though the specimen described here is probably full-grown and is indeed the largest ophichthid larva in the present collection. In the other species the pectoral is absent, and although the condition of the caudal fin was not recorded in *L. multimaculatus*, in all others the caudal is very short but does not project as a free point. The absence of pectoral, the probable relative shortness of the dorsal, and the complete but reduced caudal are all characters of the genus *Muraenichthys* Bleeker, 1853, and I therefore confidently refer the present specimen to this genus. The ophichthid leptocephalus described previously from the collection made by the *Tui* cruise to the South Fiji Basin (Castle, 1964b, p. 82), and which I have tentatively referred to *Muraenichthys australis* probably belongs with *?Caecula* sp. (149 myomeres).

There are numerous species of *Muraenichthys* present in the Indo-Pacific, some species even characteristic of temperate waters. However, since there has been no serious attempt to examine these species for vertebral counts, identification of the present specimen to the species level is virtually impossible at the present time. Nevertheless, it may be of some value to note in passing that a specimen of *M. breviceps* taken from the Bay of Plenty, New Zealand, stained in alizarin and cleared, showed 164 vertebrae, about 350 dorsal rays and 240 anal rays, while the leptocephalus described has 172 myomeres, 290 dorsal rays and 217 anal rays and may possibly belong in this species although it is of a much later stage in development far from New Zealand (the specimen was taken close to New Caledonia) than would be expected of a leptocephalus of a species which is probably restricted to New Zealand waters.

The three groups of species described below all possess in common clusters of chromatophores at about 5–11 equally-spaced positions along the anal base. In two of these groups pigment also occurs between the midlateral level and the ventral and/or dorsal margins. This lateral pigment is in addition in all three groups to a series of midlateral circular patches of chromatophores equally-spaced along the body (as in leptocephali of *?Bascanichthys*). Two well-known genera of ophichthids in which a spotted or banded colour pattern similar to that suggested in these leptocephali occurs are known from the Indo-Pacific. These are *Leiuranus* Bleeker, 1853, and *Myrichthys* Girard, 1859. *Cyclophichthys* Whitley, 1951, also has a banded colouration which is strikingly similar to that of *Leiuranus*. Two species are currently accepted for *Leiuranus*: *L. semicinctus* (Lay & Bennett, 1839) with 168 vertebrae and *L. phoenixensis* Schultz, 1943 (number of vertebrae unknown), both from the Indo-Pacific. Four species of *Myrichthys* are recognised by Schultz (1953, pp. 51–53): *M. colubrinus* (Boddaert, 1781), *M. maculosus* (Cuvier, 1817), *M. elaps* (Fowler, 1912) and *M. bleekeri* Gosline, 1950 (a substitute name for *M. semicinctus* (Bleeker, 1864)), all from the Indo-Pacific. To these may be added the type species, *M. tigrinus* Girard, 1859 from the eastern Pacific. Smith (1962, p. 448) states that his material of *Myrichthys* from the western Indian Ocean does not support the distinction of *M. bleekeri* and *M. elaps* from *M. colubrinus*. *Cyclophichthys* is represented by the single species *C. cyclorhinus* (Fraser-Brunner, 1934) from Queensland and Lord Howe Island. With little detailed knowledge on vertebral counts and without intermediate metamorphic forms showing both larval and juvenile characters the generic identifications below in the three groups of species are to be regarded as most tentative. I have assigned these designations on the basis of the numbers of species within each group, having mind to the division of the three genera listed.