with the average about 198; in specimens of over 100mm the fin-rays are numerous and number about 275 in the dorsal and about 230 in the anal; smaller specimens have only a few rays, numbering about 25 in each fin. These counts suggest that the specimens may possibly be referred to *B. infans* on the number of vertebrae or to *B. gilli* on the number of fin-rays. Unfortunately, there is no way of determining whether the full complement of fin-rays has formed in the large leptocephali; at full growth the number may be somewhat greater. In view of this the above leptocephali cannot therefore be referred to either one or both of *B. infans* or *B. gilli* although I suggest that because there are no full-grown larvae in the collection the dorsal and anal fin-ray number may be less than the adult total, in which case the specimens would properly be referred to *B. infans*.

There are also no very small larvae of *B. infans–B. gilli* in this collection, most specimens being over 70mm, and therefore no positive suggestions can be made as to the location of the spawning areas for the species. In view of the location of capture of most specimens in the area around New Caledonia, however, it is likely that the spawning area in the south-west Pacific is a wide, tropical one. The two specimens from Western Australia may have originated from a spawning area in the Indian Ocean.

Two species of *Leptocephalus*, whose adults have previously remained undetermined, may now also be referred to *Borodinula*. These are *L. oxycephalus* Pappenheim, 1914, from the Atlantic and with 220–230 myomeres (180–190 + 40) and *L. acuticeps* Regan, 1916, from the Central Atlantic with 174 + 33 = 207 myomeres, teeth $\frac{1+6}{1+5}$, and pigment as "a series of dots along the axis and along the dorsal border of the gut; a group of similar dots at the end of the tail"—Regan (1916, p. 141). In his re-examination of the type of *L. acuticeps*, Bertin (1936, p. 7, fig. 4) found that the last blood vessel to the viscera was placed at myomere 74 and that the three groups of lateral somatic chromatophores were placed at myomeres 25–28, 59–60, 102–105. These are essentially identical with the condition in the present specimens. I therefore have confidence in referring both *L. oxycephalus* and *L. acuticeps* to *Borodinula*. Both Ancona (1928, p. 109) and Bertin (1936, pp. 8 and 12) refer these species to the Congridae, but they were clearly in error. Furthermore, in number of myomeres both species fall readily within the range shown in the leptocephali described above (188–224) and may therefore be referred to *Borodinula gilli* and/or *B. infans*. Studies on the adults of these latter species have shown that *B. gilli* has a range of 156–181 lateral line pores (Castle, 1961), while *B. infans* has 166–195 (Roule & Bertin, 1929, p. 25). There is thus an appreciable discrepancy between the number of myomeres in the supposed adults and that in the larvae.

SERRIVOMERIDAE

The detailed studies of Bauchot (1959) have now clearly established the distinguishing characters of serrivomerid larvae. Leptocephali of this family are elongate-oval in general body shape (rather similar in shape to anguillid larvae) and reach about 60mm at full growth; they have a sharp, peg-like snout, a vent placed about two-thirds of the way along the body just before the onset of metamorphosis, a well-developed pectoral fin and pigment restricted to minute chromatophores spaced fairly regularly every four or five segments along the midlateral line on the myosepta. Three genera are currently recognised for the family: *Serrivomer* Gill & Ryder, 1883, *Platuronides* Roule & Bertin, 1924 and *Stemonidium* Gilbert, 1903. *Serrivomer* has 10 species, separated mainly on the nature of the attachment of the branchiostegal rays to the hyoid arch, dentition and number of fin-rays and vertebrae. *Platuronides* has three species and *Stemonidium* one.