SYSTEMATIC ACCOUNT: LARVAE

Family CYEMIDAE

L. Cyema atrum Günther, 1878 (Text-fig. 1, A-E)

1878. *Cyema atrum* Günther, *Ann. Mag. nat. Hist.*, 5 (2): 251.

1929. *L. Cyema atrum* Günther. Roule & Bertin, *Dana Rep.*, 1 (4): 101–111 (description).

MATERIAL EXAMINED. One specimen: 52.2mm total length, Tui Station AUZ 067, 35° 36′ S, 176° 20′ E, 22/7/62, IKMT (10ft), 1,280m wire out.

DESCRIPTION. Measurements in mm: head 6.7, snout 3.8, eye 1.0, cleft of mouth 3.9, postorbital 1.9, preanal 35.5, predorsal 35.9, depth just before eye 3.2, at pectoral origin 13.0, at midpoint between pectoral and vent 26.0, at vent 21.5. Branchiostegal rays not developed, dorsal rays 87, anal rays 84, caudal rays not developed. Teeth $\frac{\text{IX} + 6}{1 + \text{IX} + 5}$. Myomeres 47 + 33 = 80. Last vertical blood vessel at myomere 34. Anterior margin of gall bladder at myomere 8.

Body short, much compressed, leaf-like, its depth about twice in total length, snout pointed and conspicuous, caudal region pointed. Head long, about 7.5 in total, but only that part of it from the level of eye forwards clearly differentiated from trunk: snout acutely pointed, beak-like, 1.8 in head; nasal organ small, inconspicuous, placed close in front of eye; eye small, about six times in head, round; upper jaw oblique, reaching to below middle of pupil; teeth in both jaws acute, in two groups and those of anterior group larger than those of posterior group. Pectoral fin pointed, equal to postorbital; dorsal and anal fins with well defined rays, the dorsal originating only slightly in advance of level of vent.

Pigmentation restricted to about seven, intense, scattered, stellate, somatic chromatophores on the lateral surface; a small spot on the dorsal aspect of each upward loop of intestine and a minute chromatophore on the ventral aspect of each downward loop; a few minute spots on the ventral bodywall from the pectoral region to level of gall bladder; a few small spots deep on the pectoral region, on the brain and on tip of snout; chorioid pigment present.

Intestine conspicuous with three well-defined upward loops at about segments 26, 36, 45. Gall bladder, liver and kidney ducts also well developed.

REMARKS. The single leptocephalus described here conforms remarkably well with descriptions of *L. Cyema atrum* by Lea (*Michael Sars,* Atlantic, 4 specimens: 1913, pp. 16–17, fig. 11, Pl. II, no. 6) and by Roule & Bertin (*Dana,* Atlantic, 30 specimens: 1929, pp. 101–111, figs. 55–57, table 22, Pl. 9, figs. 1–10). The *Tui* specimen has the same short, oval, leaf-like body, the beak-like snout and the looped intestine with large chromatophores scattered over the lateral surface of the body. The myomeres number 80 with 47 before the level of the vent while in the 34 Atlantic examples comparable figures are 68–78 and 37–46 so that there are insignificant differences between the *Tui* specimen and those from the Atlantic. In Lea's four specimens dorsal rays were 83–84 and anal rays 75–77 compared with 86 and 75 respectively in the present specimen. According to Munro (1957, p. 48) adult *Cyema atrum* have been collected in the south-west Pacific area south-east of Tasmania, although the present record is the first for the larvae of this species in this area.