

## A Giant *Leptocephalus* from the Sea off Northern Peru

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Since the first record of "giant" leptocephali by Bertin (1954), several large specimens, though not so great as the first ones, have been reported (Castle, 1959, 1967; Headrich and Nielsen, 1966; Smith, 1970). In the trawl fishing ground off Paita, northern Peru, a remarkable leptocephalus of about 75 cm in total length was collected with a trawl net in December of 1968 by the author who was a member of Scientific Expedition on Fishes off Peru and Chile by R/V Kaiyo-maru, Fisheries Agency (Fisheries Agency, 1969). The specimen herein treated ranks the fourth in its size ever recorded. Prior to the detailed study currently in progress, the brief description and the collection data on this specimen are preliminarily reported in this paper.

**Material examined and description** One specimen, 747 mm in total length, trawled west of Paita on December 23, 1968; KUAFT

No. 680122 (Fig. 1, top). Measurements in mm: head 12.0, snout 5.1, eye 1.8, inter-orbital 2.6, postorbital 4.8, snout-anus 717, depth at about 100th segment 15.2, at just before eye 4.3, at pectoral origin 7.2, at anus 4.3. Pectoral minute. Dorsal origin at the level of 55th segment. Fin rays not developed. Myomeres ca  $334 + 6$ , i.e. ca 340 to the end of body, thence 24 mm filamentous caudal part. Teeth  $(II+6)/(I+II+6)$ . Pigmentation in the form of outstanding traverse patches of chromatophores along the ventral part spaced at about every 2 to 4 myomeres.

The specimen is a very large leptocephalus, conspicuously elongate and laterally compressed with filamentous caudal part behind the anus. In caudal part no particular structure is discernible as seen in larval fin. Head relatively long; lower jaw stout; nasal organ, a triangular structure immediately in front

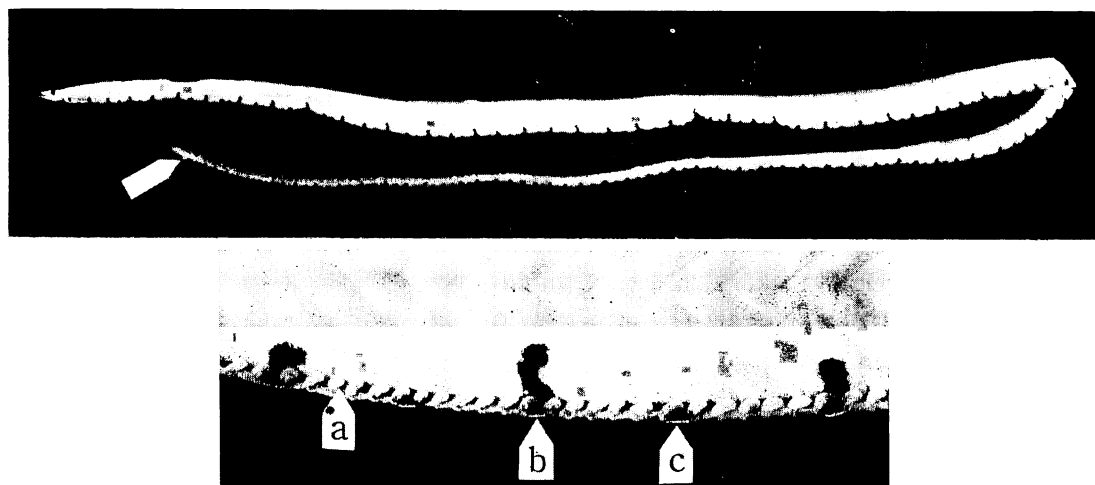


Fig. 1. A giant leptocephalus, 74.7 cm in total length, collected in the sea off northern Peru, December 23, 1968. Top: whole view, an arrow pointing the position of the anus. Bottom: enlarged view of a part of middle of body, showing minute fleshy tubercles (a), and larger (b) and smaller (c) patches of chromatophore.

of the eye. At a glance, an unbalanced development of these parts is noticed. Myomeres are comparatively narrow and V-shaped, but opaque in shape in the posterior. Two types of traverse patches of chromatophore are noticed alternately: those smaller patches along the ventral border, and the others larger, some extending upwards to the axis in the middle part of body. Minute fleshy tubercles are found along the lower side of the belly, 2 to 3 in every segment, ranging from the middle part of the body to the anus (Fig. 1, bottom).

This leptocephalus well resembles *Leptocephalus giganteus* Castle, 1959, taken from off southern New Zealand and South Africa (Castle, 1959, 1967), except for the characteristics of pigmentation and bearing the fleshy tubercles. In the latter the larger patches of chromatophore and the minute tubercles mentioned above are not recognized. According to Smith (1970), the species is believed to be referred to Notacanthiform. In this specimen, however, such ventral and dorsal fins that recognized in the Notacanthiform larvae are not visible.

**Collection data** Kaiyo-maru Trawl Station No. 20, 8° 22' S., 79° 57' W.; December 23, 1968; depth of trawl operation 211 m, depth of sea 218 m; dragging started at 12:58 and heaving-up at 13:28; water temperature at surface 21.8°C, at bottom 11.0°C.

The leptocephalus was found without any damage, moving windingly on the wing part of the trawl net just heaved up, together with some amphipod crustaceans. Judging from the fact that these animals were alive for a few minutes on the deck after dislodging from the net they seemed to have been entangled in the net in the upper water layer during the course of heaving of net. The present station is the northernmost record among the localities where the large leptocephali were collected (Bertin, 1954; Castle, 1959, 1967). As was tentatively suggested by Castle (1967), it is very interesting that these localities are restricted within the South Ocean.

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### 北ペルーで採集された巨大なレプトセファルス幼生

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ペルーの沖合で採集された大型のレプトセファルス幼生について、予報的にその形態と採集の記録を報告した。この幼生は全長 74.7 cm で、糸状の尾部をもち、腹鰭と発達した背鰭がなく、*Leptocephalus giganteus* Castle, 1959 によく似ているが、色素配列が異なる。この種は Smith (1970) によれば Notacanthiform のものと考えられている。また、今回の標本には *L. giganteus* には記載のない肉質小突起が体側下縁に認められる。採集地は 8°22'S: 79°56'W (水深 218 m) で、トロールネットによって、かなり上層と思われるところから採集された。

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