SEVEN NEW RECORDS OF THE FAMILY LUCICUTIUIDAE FROM PAKISTAN (COPEPODA, CALANOIDA)

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The Indian Ocean in general remains little explored with regard to the bathypelagic plankton, compared to other oceans. To some extent, information on the taxonomy, distribution, and abundance of epipelagic plankters, especially copepods, is available in literature. Such information on bathypelagic calanoids is rare; the most important contributions include Farran (1926), Sewell (1947), De Decker & Mombeck (1965), Hulsemann (1966), Grice & Hulsemann (1967). This short paper records new localities for seven species of bathypelagic calanoids belonging to the family Lucicutiidae. All seven species are reported for the first time from Pakistan. Taxonomic and distributional remarks are given for each species, as far as considered necessary. Vertical distribution of these species has been summarized by Hulsemann (1966), and Grice & Hulsemann (1967).

Material was collected on board P.N.S. "Zulfiquar" from deep sea station 10 (24°09' N 64°27' E; 29 March, 1967; 1715 hour local time; approximate depth 3219 m). An Indian Ocean Expedition Standard Net (Currie, 1963), was employed to collect a vertical haul from a depth of 1500 m.

DESCRIPTIVE PART

**Lucicutia clausi** (Giesbrecht, 1889)

Material examined. — Single female (1.6 mm).

Remarks. — The specimen agrees well with the description of Giesbrecht (1889, 1892); it resembles more the western North Atlantic form than the Red Sea one. Head with indication of protrusions. Hulsemann (1966) described the distribution of this species from 21°N to 37°S in the Indian Ocean, based on a Red Sea record. It is now reported from Pakistan waters (Arabian Sea).

**Lucicutia curta** Farran, 1905

Material examined. — Single female (2.5 mm).

Remarks. — Our specimen agrees with the description by Farran (1905) and remarks by Hulsemann (1966). Its known distribution in the Indian
Ocean was from 14°N to 65°S (Hulsemann, 1966). The northern limit may now be extended up to 24°09’N in the Arabian Sea.

**Lucicutia flavicornis** (Claus, 1863)

Material examined. — Three females (1.32-1.41 mm) one male (1.06 mm).

Remarks. — Our specimens agree best with those studied by Grice (1962) from the equatorial waters of the Pacific Ocean. The sizes of our specimens are smaller than recorded so far by other workers. Hulsemann (1966) studied the

Figs. 1-4, *Lucicutia clausi* (Giesbrecht, 1889), female. 1, dorsal view; 2, head; 3, fifth leg; 4, last thoracic segment + abdomen, lateral view. 5-8, *Lucicutia curta* Farran, 1905, female. 5, dorsal view; 6, fifth leg; 7, first leg; 8, last thoracic segment + abdomen, lateral view.