

A NEW GENUS OF LAOPHONTIDAE (COPEPODA: HARPACTICOIDA), WITH SEVEN NEW SPECIES AND THEIR ADAPTATION TO CORALLIGENE SUBSTRATES

HENDRIK GHEERARDYN¹, FRANK FIERS², MARLEEN DE TROCH¹, MAGDA VINCX¹

¹*University of Ghent, Marine Biology Section, Krijgslaan 281/S8, B-9000 Ghent, Belgium*

²*Royal Belgian Institute of Natural Sciences, Invertebrate Section, Vautierstraat 29, B-1000 Brussels, Belgium*

e-mail: hendrik.gheerardyn@UGent.be

Copepod communities, associated with coralligene substrates, are being studied along the Kenyan coast. The family Laophontidae is abundant and shows a wide range of habitus shapes. These body shapes can be linked to different life styles. Within the Laophontidae twenty-two species were found of which ten are new to science.

One of these species is placed in a new genus^(*). The genus is clearly discriminated from other genera within the Laophontidae by the extremely depressed body in combination with the absence of sexual dimorphism on the endopodites and by the shape of the antennule, bearing a thorn on the first and second segment. The depressed body shape is characteristic for the families Peltidiidae and Porcellidiidae but occurs also within the Laophontidae. Up to now, some laophontid genera and species (e.g. *Asellopsis*, *Platylaophonte*) approached this body shape, but were not as depressed as in the newly established genus. The new species from Kenya was only found in close association with a large branched coral fragment.

Another six new species, collected in the Indian Ocean (Comores, Red Sea) and the western Pacific Ocean (Papua New Guinea, Solomon Islands), are being placed in the new genus as well. These six species were mainly found in coarse coral sand.

Reefs and sandy bottoms in the littoral zone, where the new species were found, are influenced by regular tidal currents. The flattened body shape seems to be an adaptation to live in highly energetic systems. Variability along the Kenyan coast and occurrence in other tropical coastal systems (e.g. seagrass beds) are investigated in order to understand the relationship with specific habitats.

(*: proposed name will be *Peltdiphonte* gen. nov.)