

# MONSTRILLA LATA, A NEW SPECIES OF MONSTRILLOID COPEPOD FROM BOMBAY PLANKTON

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Received May 22, 1962

MANY species of the genus *Monstrilla* have been found to be present in the Indian Ocean by Dana, A. Scott, 1909; Gurney, 1927; Sewell, 1949, etc., but there is practically no account of any Monstrilloid from the Indian coastal waters except that of *Cymbasoma bali*, Desai and Krishnaswamy, 1962. The present form found in the Plankton of Bombay harbour is of special interest because it shows some differences from the characters of the genus *Monstrilla*, though it has a greater similarity with the genus. The present communication deals with a brief description of this form.

*Occurrence.*—Males and females described here were caught in big numbers in the surface tow made in the Bombay harbour on the night of 23rd February 1961. Though there is no regularity in their occurrence, they appear in the plankton of Bombay harbour during January, February and March usually along with other Monstrilloids such as *Monstrilla longiremis*, Giesbr. and *C. bali*.

*Monstrilla lata* n.sp.

*Female.*—Total length = 1.6 mm. (Fig. 1: 1—2).

Body is considerably short and stout as compared with the other members of the genus. It resembles in shape with *M. cymbula*, Scott, 1909. The cephalothorax is slightly longer than the rest of the body, the proportional lengths being 54:46 = 100. It is dilated in the middle. Eyes are almost indistinguishable. Oral tubule is distinctly produced and is situated far in front of the middle of the cephalothorax.

The proportional lengths of the various segments of the body are:

Cephalo- thorax	Thorax				Abdomen				Furca
	1	2	3	4	1	2	3	4	
537	87	87	81	54	34	34	20	20	46=1000

Abdomen (Fig. 1: 3) is composed of 4 segments and a furca, as in other members of the genus. Genital segment carries double egg bearing setæ slightly extending beyond the furcal rami. There are 6 furcal setæ, the third one being somewhat dorsally placed.

Antennule (Fig. 1: 4) consists of 5 segments but the distal 3 segments cannot be clearly distinguished.

Swimming legs (Fig. 1: 6) are of usual type. Fifth leg is distinctly bilobed with a squarish outer lobe having 3 equal setæ and a knob-like inner lobe with a single seta (Fig. 1: 5).

*Male*.—Total length = 1.1 mm. (Fig. 2: 1).

Male is smaller than the female but more robust in appearance. Cephalothorax is shorter than the rest of the body, the proportional lengths being  $44:56=100$ . It is dilated in the middle. This part of the cephalothorax shows uneven wrinkles which make the animal robust and irregular in appearance, more so in the lateral view (Fig. 2: 2). Oral tubule is situated far in front of the middle of the cephalothorax as in the female. Eyes are poorly developed.

The proportional lengths of the various segments of the body are:

Cephalo- thorax	Thorax				Abdomen				Furca
	1	2	3	4	1	2	3	4	
442	117	117	81	54	45	36	27	27	54=1000

Abdomen (Fig. 2: 4, 5) has 4 segments and a furca. Furcal rami are twice as long as broad and are spread out. There are 6 furcal setæ, the third one being the smallest and situated somewhat dorsally. Genital appendage (Fig. 2: 4, 5) is produced into two arms distally. These arms form a crescent below the second abdominal segment. This is clearly seen when viewed from the ventral side. Inner margin of this crescent is uneven.

Antennules (Fig. 2: 3) are geniculate and each has 5 distinct segments. The proportional lengths of the various segments are:

1	2	2	4	5	
15	21	12	31	21	=100

Swimming legs (Fig. 2: 6, 7) are of usual type. Fifth pair of legs is entirely absent.

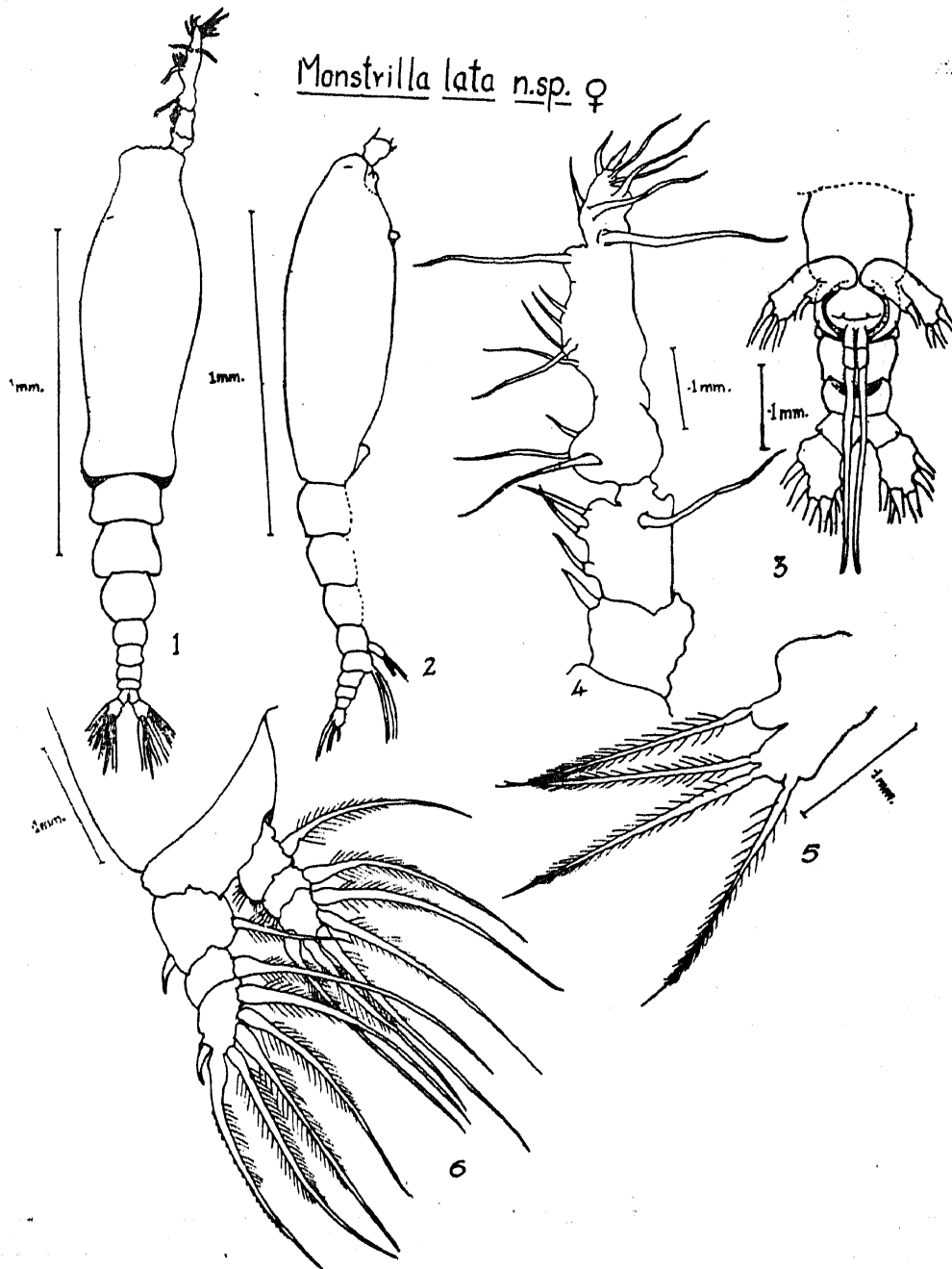


FIG. 1. *Monstrilla lata* n.sp., Female.—1. Dorsal. 2. Lateral. 3. 5th pair of legs and abdomen—ventral side. 4. Antennule. 5. 5th leg. 6. 4th leg.

#### REMARKS

Comparison of the present species with the known species of *Monstrilla* shows that this is a new species. The position of the oral tubule

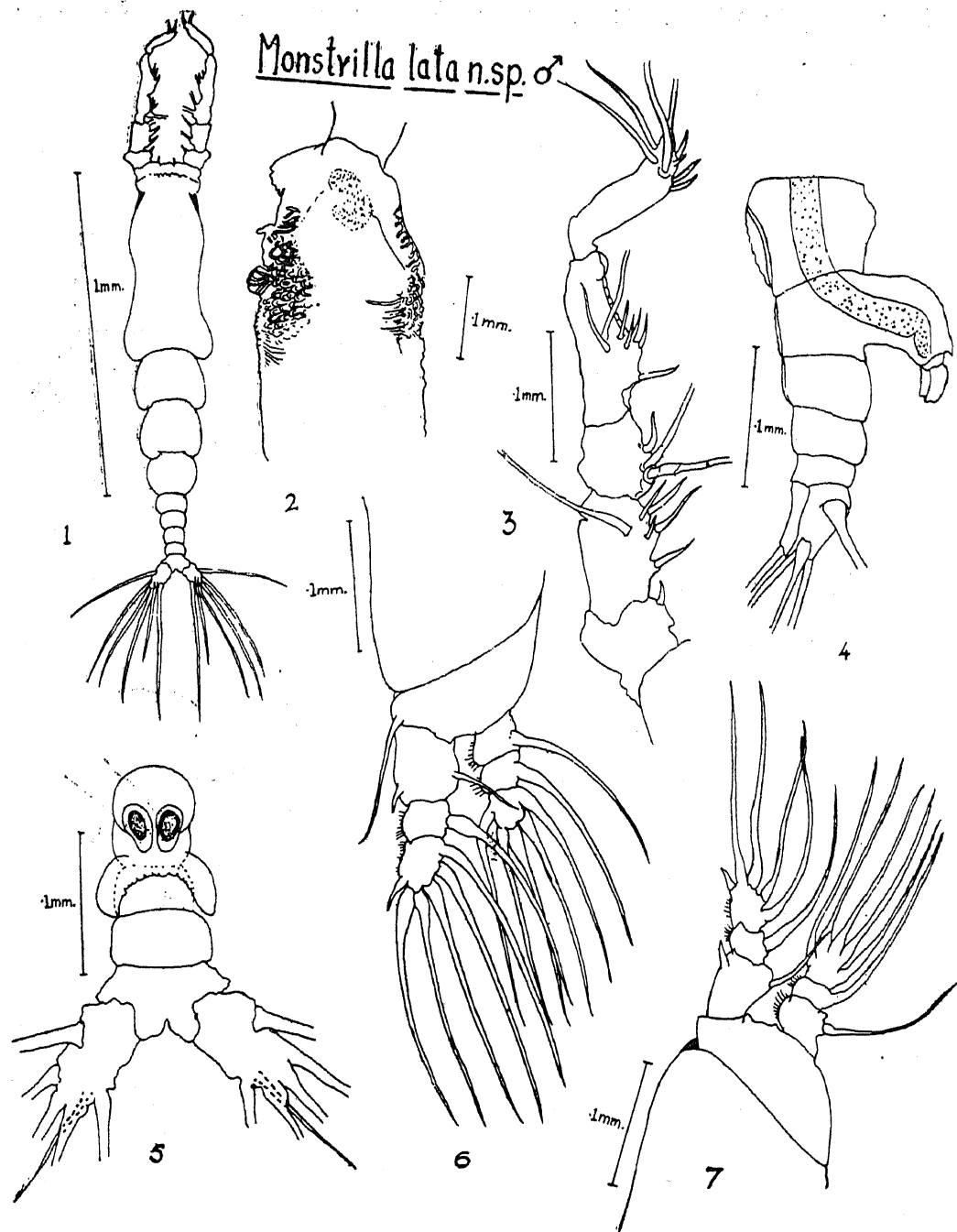


FIG. 2. *Monstrilla lata* n.sp., Male.—1. Dorsal. 2. Cephalothorax—anterior part—lateral. 3. Antennule. 4. Last thoracic segment and abdomen—lateral. 5. Last thoracic segment and abdomen—ventral. 6. 3rd leg. 7. 1st leg.

presents the most interesting feature. In other members of this genus the mouth is situated in the middle of the cephalothorax but in the present form it is shifted far in front of this position. Complete absence of the 5th pair of legs in male is another interesting feature not met with in other members

of this genus. The above-mentioned two features are the characters of the genera *Monstrillopsis*, *Hæmocera* and *Cymbasoma* of the family *Monstrillidæ*. If only these two features are taken into account, the present form may not belong to the genus *Monstrilla*. But other features, such as 4 abdominal segments, 6 furcal setæ, segments of the antennule and poorly developed eyes are clearly the characteristics of the genus *Monstrilla*. The present form is, therefore, retained here in the genus *Monstrilla* but described as a new species. Other distinguishing features of this species are wrinkled cephalothorax and genital appendage forming a crescent in male and the structure of the 5th pair of legs in female.

*M. anglica* Lubbock shows some resemblance with this species. Male of *M. longiremis* Thomps. as sketched by Sars, 1921, shows some resemblance with the male of the present species. But from the features given above this species can be easily distinguished from them.

We take this opportunity to thank Dr. S. Krishnaswamy, University of Madras, for his valuable suggestions.

#### REFERENCES

1. Bourne, G.C. .. "Notes on the genus *Monstrilla*, Dana," *Q. J. Micr. Sci.*, 1890, 30 (2).
2. Desai, H. V. and Krishnaswamy, S. .. "*Cymbasoma bali*, a new species of Monstrilloid copepod from Bombay plankton," *Proc. Ind. Acad. Sci.*, 1962, 55 B (4).
3. Giesbrecht, W. .. "Systematik und faunistische paläozoische Copepoden des Golfes von Neapel," *Fauna und Flora des Golfes von Neapel*, 1892, 19.
4. Gurney .. "Cambridge expedition to the Suez Canal 1924, Report on the Crustacea, Copepoda (littoral and semi-parasitic)," *Trans. Zool. Soc. London*, 1927, 22 (4).
5. Sars, G. O. .. *An Account of Crustacea of Norway—V. Monstrilloida and Notodelphyoida*, 1921.
6. Scott, A. .. "The Copepoda of the "Siboga expedition. (Part I), Free swimming, littoral and semi-parasitic Copepoda," *Siboga Exped.*, 1909, 29 A.
7. Sewell, R. B. S. .. "Littoral and semi-parasitic Cyclopoida, Monstrilloida and Notodelphyoida," *Sci. Rep. Murray Exped.*, 1949, 9 (2).
8. Wolfenden, R. N. .. *The Fauna and Geography of Laccadives and Maldives Archipelago*, 1906, 2.