

ON THE STATUS AND DISTRIBUTION OF SOME NEW RECORDS OF FRESHWATER ROTIFERS (ROTIFERA : EUROTATORIA) FROM INDIA.

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INTRODUCTION

Sarma (1988) examined twenty seven species of freshwater rotifers, including twenty five new to India, in his samples from Dal Lake (Kashmir), in and around Calcutta (West Bengal) and Delhi (Union territory). The status and distribution of a number of these records are commented in this paper particularly with reference to the present author's observations based on the collections from various states in Eastern and North-Eastern India.

REMARKS ON STATUS AND BIOGEOGRAPHY

Family LECANIDAE

Lecane (Lecane) doryssa is not new to India ; it had previously been documented by this author (Sharma, 1987a) as a rare and an acidophilic species from Meghalaya State (Fig. 1). The report from Calcutta (Sarma, 1988), therefore, extended its distributional range ; this lecanid was, however, not observed in my earlier extensive collections (Sharma, 1978, 79) from West Bengal.

Lecane (Lecane) althausi is apparently incorrectly identified ; Delhi specimens (Fig. 2) are presently assigned to *L. (L.) inermis* because of their close similarity with the same. The later is a cosmopolitan and variable species (Koste, 1978) that had been reported in India (Fig. 3) only from Meghalaya State (Sharma, 1987a).

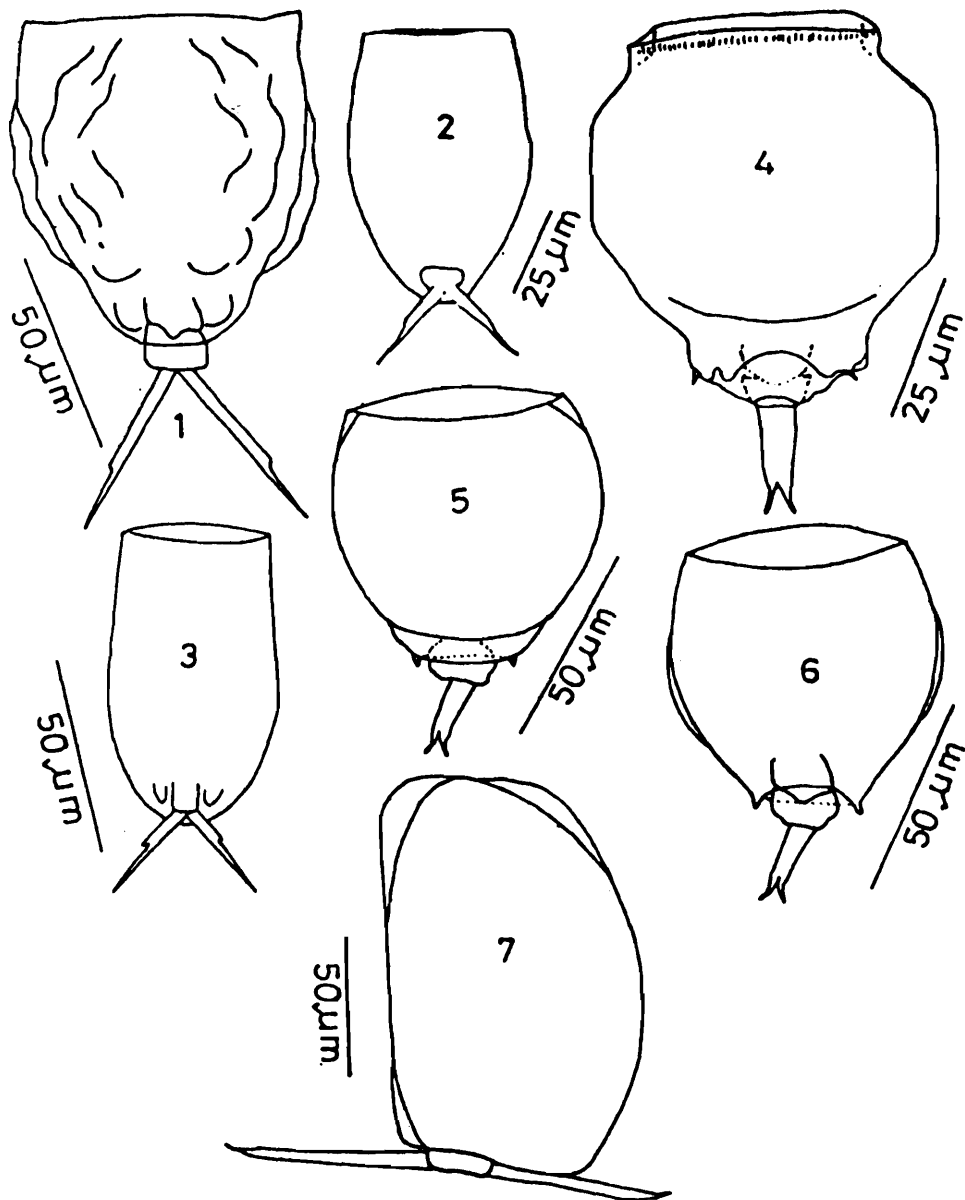
Lecane (Lecane) elongata is a biogeographically important element which occurred in Northern, Eastern and Southern Europe. The material from Delhi (Sarma, 1988), however, differed from that described by Haring & Myers (1926) in the absence of well defined claws. One specimen of *L. elongata* is also observed in my recent collections from Assam State in North-Eastern India.

Lecane (Hemimonostyla) blachei was described from Cambodia (Berzins, 1973) and represented an exclusive South-East Asian element ; it was not so far documented from the Indian subcontinent. Its report from Calcutta (Sarma, *loc. cit.*) is, hence, of regional distributional interest.

Lecane (Monostyla) bifurca is a little known species in this subcontinent ; this cosmopolitan lecanid had been so far reported from Nepal (Turner, 1987) and Delhi (Sarma, *loc. cit.*). Hexagonal shape of lorica of Delhi material (Fig. 4) was probably due to contraction. *L. (M.) bifurca* is also examined recently by me from

a paddy-field in Puri, Orissa State (Figs. 5 & 6) ; these specimens are broadly identical with that of Pax & Voigt (1941/42).

Lecane (Monostyla) thalera is not new to India and had previously been reported from Madras (Hauer, 1936 as *Monostyla conspicua* n.sp.) and West Bengal (Sharma, 1978). In addition, Nayar (1968) described *Monostyla paradeciapiens* n.sp. from Pilani in Rajasthan which is presently treated as a junior synonym of *L. (M.) thalera*. This lecanid has been identified as a subspecies of *L. (M.) lamellata* by Sarma (1988) but is retained as a distinct species in this account.



Lecane (Lacane) doryssa Harring : Fig. 1, Ventral view (after Sharma, 1987a) ; *Lecane (Lecane) inermis* (Buyce) : Fig. 2, Ventral view (after Sarma, 1988), identified as *L. (L.) althausi*, Fig. 3, Ventral view (after Sharma 1987a). *Lecane (Monostyla) bifurca* (Bryce) : Fig. 4, dorsal view (after) Sarma, 1988), Fig 5. & 6, dorsal and ventral view from Orissa State. *Mytilina lisulcata* (Luckes). Fig. 7, Lateral view from Orissa State.

Family BRACHIONIDAE

Brachionus dimidiatus is a little known member of Indian brachionids. Its earlier report from Rajasthan (Nayar, 1968) could not be confirmed (cf. Sharma, 1983). However, the specimens from Delhi (Sarma, 1988) certainly belong to this species.

Platytias leloupi was believed to be an exclusive 'Ethiopian element' (Pejler, 1977) but is now stated to exhibit pantropical distribution (de Ridder, 1981 ; Sharma, 1987b). Arora (1966) described *Platytias longispinosus* n.sp. from Nagpur which was designated (Sharma, *loc. cit.*) as a synonym of *P. leloupi*. The report from Delhi (Sarma, 1988), therefore, extended its distributional range northwards in India.

Keratella ticinensis is a biogeographically significant addition not only to Indian Rotifera but also to Asian fauna because it was so far restricted to North America, Europe and Africa. The material from Dal Lake (Sarma, *loc. cit.*), however, differed from typical *ticinensis* particularly in the shape of the posterior end of lorica. The present author did not notice this interesting species in the examined extensive samples (collected by Dr. Balkhi) from Kashmir valley.

Notholca labis is yet another important member of the Brachionidae examined from Yamuna River at Wazirabad near Delhi (Sarma, 1988) ; this occurrence may be attributed to the drift of this species from higher latitudes of Kumaon Hills in the Western Himalayas.

Family EUCHLANIDAE

Euchlanis incisa is a rare and interesting euchlanid documented from this country. Besides its report from Delhi (Sarma, *loc. cit.*) it is also observed in one of my collections from Mizoram State in North-Eastern India.

Family MYTILINIDAE

Mytilina bisulcata, primarily an inhabitant of peat-bogs (Koste, 1978), was also reported from a gem-pit from Sri Lanka (Chengalath *et.al.*, 1974). This interesting species of *Mytilina* (Fig. 7) is observed in my collection from a domestic well in West Bengal, a paddy-field in Puri (Orissa) and in a number of samples from a variety of habitats in Brahmaputra valley of Assam State. Further, my observations ascertain acidophilic nature of this species.

Family EIPHANIDAE

Epiphanes macrourus is not new to this country and had been reported previously from Meghalaya (Patil, 1978). In addition, it is observed in my recent collections from Darbhanga city in Bihar State.

Other reported species of this family (Sarma, 1988) i.e., *Cyrtonia tuba*, *Liliferotrocha subtilis* and *Microcodiles chelana* are rare and biogeographically interesting additions to the rotifer fauna of India.

Family TRICHOCERCIDAE

The cosmopolitan *Trichocerca pusilla* reported from Delhi (Sarma, 1988) was believed to be a rare species as also noticed in my recent collections from Darbhanga (Bihar State). On the contrary, the present author noticed it to be fairly widely

distributed amongst planktonic and periphytic rotifer communities in North-Eastern region and also in some samples from Orissa.

Family TRICHOTRIDAE

Wolga spinifera is a little known and interesting element documented (Sarma, *loc. cit.*) from India. Till now it was known to be distributed only in Eurasia between 37°N - 52°N. The report from river Yamuna (Sarma, 1988) near Delhi considerably extended its latitudinal distributional range. *W. spinifera*, like *N. labis* is also presently believed to have drifted from higher altitudes in Western Himalayas.

Family NOTOMMATIDAE

Genus *Monommata* is not new in India ; it had been reported earlier from Meghalaya State (Sharma & Sharma, 1986) and was represented by only one species i.e., *M. longiseta* (Muller). *M. arndti* from Delhi (Sarma, *loc. cit.*) is the second species known to occur in Indian waters.

Family TESTUDINELLIDAE

Testudinella species had been poorly documented in this country till the recent contribution by this author (Sharma, in press). Of these, *T. emarginula* was so far reported only from Delhi (Sarma, 1988) apparently indicating restricted occurrence. My collections from Orissa State in Eastern India and that from various states in North-Eastern region reflected wider distribution of this species which occurred primarily in slightly alkaline to slightly acidic waters (pH 6.5-7.2).

SUMMARY

This communication comments on the status and distribution of various rotifer taxa, belonging to nine eurotatorian families, recently reported (Sarma, 1988) from India. *Lecane (Lecane) doryssa*, *Lecane (Monostyla) thalera*, *Epiphanes macrourus* and genus *Monommata* are known from this country. The specimens of *Lecane (Lecane) althausi* are assigned to *Lecane (Lecane) inermis*. *Monostyla pardecipiens* Nayar, 1968 is proposed to be a junior synonym of *Lecane (Monostyla) thalera*. The latitudinal distributional range of *Wolga spinifera* is considerably extended. Various other species are stated to be of regional distributional interest. *Lecane (Lecane) doryssa* and *Mytilina bisulcata* represent acidophilic elements.

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