

A note on some Eurotatoria from Panjab State, India

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Abstract

Among 35 eurotatorian species presently reported from Panjab State, India, ten species are new records to this region while eight are new records from N. W. India. A new synonym is proposed and biogeographical remarks are made.

Introduction

The rotifer fauna of Panjab State has been studied by Vasisht & Battish (1971a, 71b, 71c) while the list of rotifers from N. W. India (Sharma, 1976) also included some samples from this region. In the present study we came across 35 species belonging to 13 families. Ten species are new to this State; eight are new to North-Western India. In all, 59 species of Eurotatoria have now been reported from Panjab.

List of localities

Our material was collected from the following localities (Fig. 1):

- | | |
|---|-----|
| 1. Bhatinda district (30°21'N, 75°00') | |
| Bhatinda | BTI |
| Deon village | DN |
| Behman Devana village | BD |
| Buladewala village | BW |
| Balwana village | BA |
| Giddar Baha | GB |
| 2. Patiala (Dist. Patiala) (30°20'N, 76°25'E) | PTI |
| 3. Nabha (Dist. Patiala) (30°25'N, 76°25'E) | NBH |
| 4. Ferozepur (Dist. Ferozepur) | |
| (33°55'N, 74°40'E) | FZR |

Presently reported species

Euchlanis dilatata Ehrenberg, 1832: Loc. BTI, GB, PTI.

Euchlanis triquetra Ehrenberg, 1838: Loc. PTI. New record from N.W. India.

Dipleuchlanis propatula (Gosse, 1886): Loc. BTI, BA. New record from N.W. India.

Mytilina acanthophora Hauer, 1938 (Fig. 2): Loc. BTI. New record from N.W. India.

Mytilina ventralis (Ehrenberg, 1832): Loc. BTI, BA, FZR.

Trichotria tetractis (Ehrenberg, 1832): Loc. NBH, FZR.

Lepadella aspida (Harring, 1916) (Figs. 3 & 4): Loc. PTI.

Lepadella ovalis (Müller, 1786): Loc. BTI, BW, GB, NBH, FZR.

Lepadella patella (Müller, 1786): Loc. DN, PTI, FZR.

Lepadella triptera (Ehrenberg, 1830) (Figs. 5 & 6): Loc. BTI. New record from Panjab.

 syn. *L. crestata* n.sp. Vasisht & Battish, 1971a, p. 191, Figs. 7-9.

L. crestata Vasisht & Battish: Sharma, 1976, p. 257.

Lecane (L.) crepida Harring, 1914: Loc. BTI, FZR. New record from N.W. India.

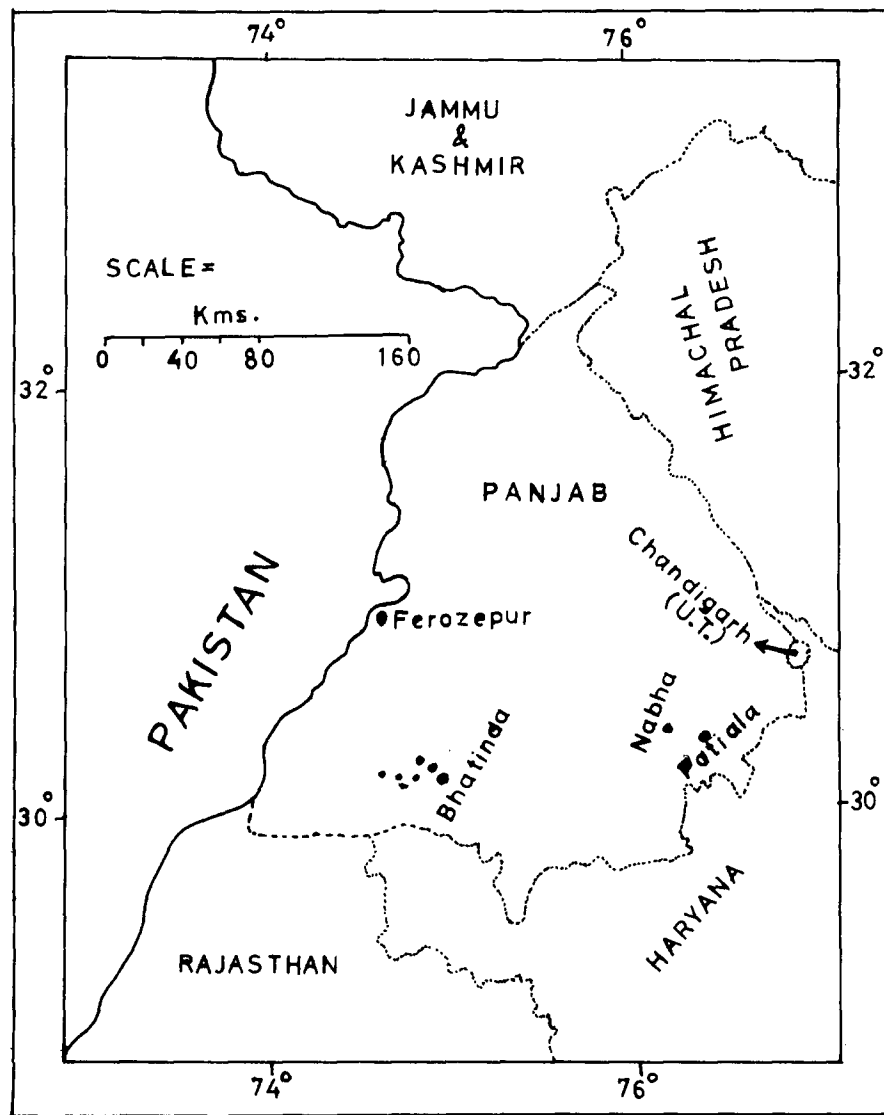


Fig. 1. Map of Panjab State showing sites of collection.

Lecane (L.) leontina (Turner, 1892) (Fig. 7): Loc. BTI, BD. New record from N.W. India.

Lecane (L.) ludwigii (Eckstein, 1883) (Fig. 8): Loc. GB, NBH. New record from N.W. India.

Lecane (L.) luna (Müller, 1776): Loc. BTI, DN, BW, FZR.

Lecane (L.) unguolata (Gosse, 1887): Loc. BTI, FZR.

Lecane (M.) bulla (Gosse, 1851): Loc. BTI, BW, GB, FZR.

Lecane (M.) closterocerca (Schmarda, 1898): Loc. DN, BD, BTI, BA.

Lecane (M.) decipiens (Murray, 1913): Loc. BD.

Lecane (M.) furcata (Murray, 1913): Loc. BTI, DN.

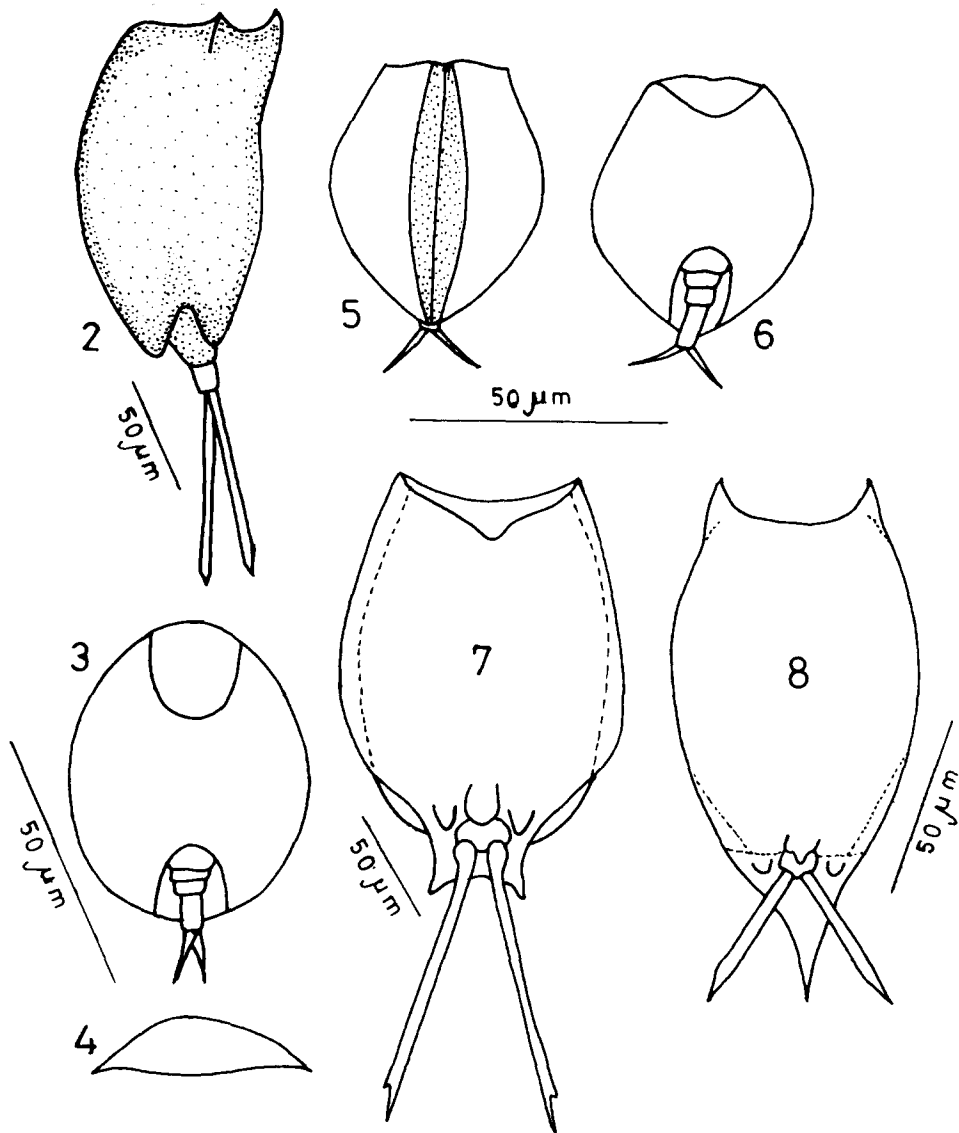
Lecane (M.) hamata (Stokes, 1896): Loc. BA, PTI, NBH.

Lecane (M.) quadridentata (Ehrenberg, 1832): Loc. BTI, DN, BW, PTI.

Lecane (M.) unguitata (Fadeev, 1925): Loc. PTI, FZR.

Cephalodella forficula (Ehrenberg, 1832): Loc. BD, BTI. New record from N.W. India.

Cephalodella gibba (Ehrenberg, 1832): Loc. DN, BA. New record from this State.



Figs. 2-8. Fig. 2. *Mytilina acanthophora* Hauer, Lateral view; Figs. 3 & 4. *Lepadella aspida* (Harring), Ventral view and Cross-section; Figs. 5 & 6. *Lepadella triptera* (Ehrenberg), Dorsal view and Ventral view; Fig. 7. *Lecane (L.) leontina* (Turner), Ventral view; Fig. 8. *Lecane (L.) ludwigii* (Eckstein), Ventral view.

Trichocerca similis (Wierzejski, 1893): Loc. BTI, PTI.

Trichocerca weberi (Jennings, 1903): Loc. NBH, BW.

Asplanchna brightwelli Gosse, 1850: Loc. BTI, GB, PTI, FZR.

Polyarthra vulgaris Carlin, 1943: Loc. DN, BW, BA.

Filinia opoliensis Zacharias, 1898: Loc. BTI, BW, PTI.

Filinia pejleri Hutchinson, 1964: Loc. DN, NBH, BA.

Filinia longiseta (Ehrenberg, 1934): Loc. BD, BTI, PTI.

Hexarthra mira (Hudson, 1871): Loc. BW, PTI.

Testudinella patina (Hermann, 1783): Loc. BTI, BA, NBH.

Pompholyx sulcata Hudson, 1885: Loc. BD, PTI, FZR.

Horaëlla brehmi Donner, 1949: Loc. BTI. New record from N.W. India.

Remarks

The rotifer fauna of Panjab State is distinctly tropical as indicated by the common occurrence of *Brachionus* spp. and absence of *Notholca* spp. Cosmopolitan and cosmotropical forms are also well represented but no example of endemism is present. Rare species are *Brachionus leydigi*, *Keratella lenzi*, *Mytilina acanthophora*, *Lepadella aspida*, *L. triptera* and *Horaëlla brehmi*. Of these, *K. lenzi* and *M. acanthophora* had been reported in India only from West Bengal. *H. brehmi*, described from Bihar, is also known from West Bengal, Orissa and Assam. Thus the geographical distribution of these species is extended towards the North West. *B. leydigi* is reported only from this State; the record by Edmondson & Hutchinson (1934) refers to localities in Pakistan. The rotifers of Panjab show a close similarity to those of N.E. India.

Dominant components are the Brachionids (20 species) and Lecanids (11 species). Abundance of *Brachionus* is indicative of alkaline nature of the water bodies in this region (pH in our localities was 7.2–9.0). Cyclomorphic variants are noted in *B. calyciflorus* and *K. tropica*. Morphological variants of *B. caudatus* and *B. quadridentatus* are also observed. *K. edmondsoni* and *K. cochlearis*, though recorded from the adjacent Rajasthan State, are not found in the present material.

Amongst the species of *Lepadella*, *L. aspida* was previously reported from West Bengal only. *L. triptera* had been identified earlier (Sharma, 1976) as *L.*

crestata Vasisht & Battish (1971a). However, the latter taxon can not be distinguished morphologically from *L. triptera* and is, therefore, proposed as a synonym of *L. triptera* (Ehrenberg).

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