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Rotifera from Sri Lanka (Ceylon) 3. New Species and Records with a List of Rotifera Recorded and their Distribution in Different Habitats from Sri Lanka

By

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INTRODUCTION

In two previous papers (Chengalath and Fernando, 1973a and Chengalath, Fernando and Koste, 1973b) the Eurotatorian fauna of Sri Lanka has been systematically dealt with. Description of 104 species are given in the above papers. In the present study an additional twenty-two species are described. Of these two are new.

The composition of the Sri Lanka Rotifera is discussed in relation to the fauna of other parts of the world. The distribution of the species in different types of habitats is studied on the basis of samples. A complete list of all Rotifera recorded from Sri Lanka so far is given for easy reference. Examples of localities where species were collected are also given.

Description of species

1. **Brachionus bidentata** Anderson, 1889 (Fig. 1)

The dorsal and ventral plates are closely apposed to about three-fifth of the length of the lorica, where they diverge and are united to a basal plate. Anterior dorsal margin with six spines; lateral and median spines of the same size. The lateral spines sometimes rave a sub-spine projecting inward at about the middle. Posterior spines variable. However, most of the specimens examined had a short pair of spines as short protuberances.

This is a common rotifer in Sri Lanka with a firm lorica and is highly variable. The variants are illustrated by Ahlstrom (1940). It has been recorded from India twice, once by Anderson (1889) and then by Wulfert (1966) who described a new variety of this species called *B. bidentata* f. *adorna*. *B. bidentata* is also reported from Malaya (Russell, 1958) but he gives no drawing.

Measurements

Total length of lorica 192; width of lorica 156; width at anterior points 120; anterior lateral spine 40; anterior intermediate spine 20; anterior median spine 40.

Locality: Sigriya tank. 3.3.1972.

2. **Brachionus plicatilis** Muller, 1786 (Fig. 2)

Lorica oval. Anterior margin with six, broadly based, acutely pointed spines more or less equal in length. No posterior spines. Foot opening is a sub-square aperture dorsally and a longer ' V ' shaped aperture ventrally. This species has been recorded from India (Ahlstrom 1940).

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Measurements

Total length of lorica 192; width of lorica 150; width at anterior points 120; anterior lateral spines 15; anterior intermediate spines 12; anterior median spine 15.

Locality: Jaffna jetty, pond, Karainagar. 15.12.1971.

3. **Euchlanis meneta** Myers, 1930 (Figs. 3 and 4)

The body is oval shaped and the dorsal plate is highly arched. Posterior notch very deep. Ventral plate much narrower than the dorsal plate. Toes moderately long and slender. *E. meneta* is not common in Sri Lanka. Russell (1953) records this species from Chatham Islands near New Zealand. New for Sri Lanka.

Measurements

Length of body 61; width 43; width at anterior end 29; foot 19; toe 24.

Locality: Paddy field close to Ratnapura. 19.8.1972

4. **Eudactylota eudactylota** Gosse. 1886 (Fig. 5)

The body is spear shaped with a small head. First foot segment thick, second foot segment thin and long. Toes very long. Right toe slightly longer than the left. Eye spots visible.

Measurements

Total length 712; length of body 270; foot 100; toes 342.

Locality: Paddy field close to Ratnapura. 19.8.1972

5. **Lecane bifastigata** Hauer, 1938 (Figs. 6 and 7)

This species has been recorded from Indonesia by Hauer (1938) and by Tarnogradsky (1961) from the Russian Caucasus and has not been reported since. Specimens from the previous localities are similar. The specimens found in Sri Lanka differ slightly in that the posterior segment is not very prominent. The ornamentation on the lorica is characteristic. From the distribution of this species it seems possible that *L. bifastigata* could be a tropicopolitan form. Rare; new record for Sri Lanka.

Measurements

Length of dorsal plate 81; length of ventral plate 87; width of dorsal plate 56; width of ventral plate 62; width at anterior end 58; toe 25; claw 8.

Locality: Paddy field close to Ratnapura. 19.8.1972.

6. **Lecane elsa** Hauer, 1931 (Fig. 8)

The specimens found in Sri Lanka agree closely with the specimens described by Koste (1972) obtained from the Amazon region in South America. New record for Sri Lanka.

Measurements

Length of dorsal plate 123; length of ventral plate 131; width of dorsal plate 104; width of ventral plate 116; toe 71; claw 8.

Locality: Paddy field close to Ratnapura. 19.8.1972.

7. **Lecane (Monostyla) furcata** (Murray 1913) (Figs. 9 and 10)

Agrees in general with the description of Hauer (1938) of material from Indonesia. However, the Sri Lanka specimens are not as broad as the other forms so far described, which are more or less as wide as long (Harring and Myers 1926, Hauer, 1929; Koste, 1962). New record for Sri Lanka.

Measurements

Length of dorsal plate 63; length of ventral plate 63; width of dorsal plate 52; width of ventral plate 44; toe 18; claw 5.

Locality: Paddy field close to Ratnapura. 19.8.1972.

8. **Lecane hastata** (Murray 1913) (Figs 11 and 12)

L. hastata has been recorded and described from India by Wulfert (1966). The Sri Lanka specimens are slightly larger than the Indian forms but are of the same size as that of the United States material (Harring and Myers, 1926). Not common. New record for Sri Lanka.

Measurements

Length of dorsal plate 96; length of ventral plate 110; width of dorsal plate 69; width of ventral plate 91; width at anterior end 80; toe 22; claw 18.

Locality: Madurankuliya pond. 2.7.1972.

9. **Lecane kahouteki** sp. nov. (Figs. 13 and 14)

The outline of lorica is broadly ovate; the width is about three-fourths the length. Anterior dorsal margin is convex and narrower than the anterior ventral margin. The dorsal plate is broadly ovate and slightly truncate posteriorly with two prominent spine-like projections jutting out near the posterior end which is characteristic of this species. No clear pattern was visible on the dorsal plate. The ventral plate is somewhat elongate oval; no surface markings discernible. At the external angles of the anterior end of ventral plate are two small acute spines. Coxal plates are small. Posterior segment fairly large and semi-circular. First foot joint small, parallel sided; the second foot joint is robust and more or less square and projects about one-third of its length beyond the ventral plate. Toes short, less than one-fifth the length of the lorica and are parallel sided. Claws long and pointed.

Measurements

Length of dorsal plate 102; length of ventral plate 106; width of dorsal plate 75; width of ventral plate 83; width at anterior end 70; toe 20; claw 15. This species is named after the comet Kahoutek.

L. kahouteki sp. nov. was collected from Tabbowa tank, Puttalam on May 5, 1973. Six specimens were obtained from the sample.

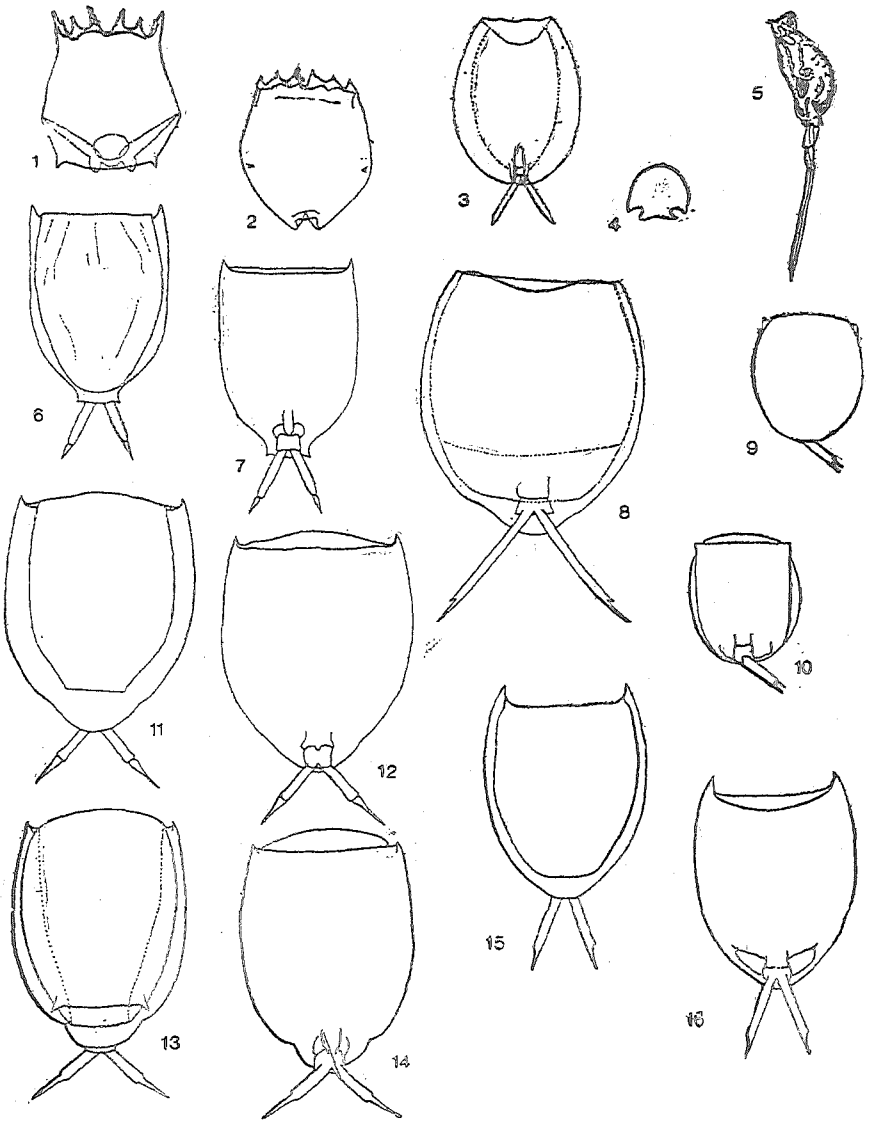
10. **Lecane lankae** sp. nov. (Figs 15 and 16)

The outline of lorica is broadly ovate; its width is more than three-fourths the length. Anterior dorsal margin more or less straight; the ventral margin has a shallow sinsus. At the external angles are two stout spine-like projections. The dorsal plate is broadly ovate and broadly truncate posteriorly; it is not as wide as the ventral plate. The ventral plate is broadly ovate and larger than the dorsal and both plates are without surface markings. Posterior segment rounded and projects belong the dorsal plate. Coxal plates are also rounded and fairly large. First foot joint of medium size; second foot joint large and does not protrude beyond the lorica. Toes long nearly two-thirds the length of lorica and are parallel sided. Claws short, prominent and ending in acute points.

Measurements

Length of dorsal plate 76; length of ventral plate 87; width of dorsal plate 65; width of ventral plate 72; width at anterior end 55; toe 30; claw 7.

This species is named after 'Sri Lanka'.



Figs. 1. *Brachionus bidentata* 2. *Brachionus plicatilis* 3. *Euchlanis meneta*

4. *Euchlanis meneta* cross-section 5. *Eudactylota eudactylota*

6 and 7. *Lecane bifastigata*, dorsal and ventral views

8. *Lecane elsa*, ventral view 9 and 10. *Lecane* (*Monostyla*) *furcata*, dorsal and ventral views

11 and 12. *Lecane hastata*, dorsal and ventral views

13 and 14. *Lecane kahouteki*, dorsal and ventral views

15 and 16. *Lecane lankae*, dorsal and ventral views.

L. lankae is related to *L. tudicola* Harring and Myers. The dorsal plate of *L. lankae* is not as wide as the vental plate at its widest point and is completely hidden in a ventral view except for the anterior end. The ventral plate of *L. lankae* has no marginal indentations at the level of coxal plates and has a long toe with a distinct claw. In *L. tudicola* the dorsal plate is as wide as the ventral plate at its widest point and the ventral plate has marginal indentations at the level of the coxal plate and the claws are wanting. Also *L. lankae* is much smaller than *L. tudicola*. In view of all these differences we propose that this species be designated as new.

Lecane lankae was collected from a paddy field close to Ratnapura, Sri Lanka, on August 19, 1972.

11. **Lecane lauterborni Hauer**, 1924 (Figs. 17 and 18)

The specimens found in Sri Lanka agree generally with the description of Hauer (1924) and Harring and Myers (1926) of material from Germany and the United States respectively. However, some differences were noted in the Sri Lanka specimens. The surface marking on the dorsal plate of Sri Lanka forms are a little different from that of the German and the United States material. The main differences are in the shape of the toes and in size. The toes of the forms found in Sri Lanka are gradually tapering to a point while in the forms described by Harring and Myers (*loc. cit.*) the toes are parallel sided for about one-third their length and then taper to an acute point. The specimens found in Sri Lanka are much smaller than the forms found in Germany (Hauer, 1924) the United States (Harring and Myers, 1926) and in Chatham Island near New Zealand (Russell, 1953). New record for Sri Lanka.

Measurements

Length of dorsal plate 75; length of ventral plate 81; width of dorsal plate 66; width of ventral plate 57; width at anterior end 52; toe 31.

Locality: Marawila water hold. 22.8.1972.

12. **Lecane (Monostyla) pyriformis** Daday, 1905 (Figs. 19 and 20)

L. pyriformis is cosmopolitan. Hauer (1938) found this species in Indonesia and Green (1967) reports it from Lake Victoria in Africa. The forms found in Sri Lanka are fairly small. New record for Sri Lanka.

Measurements

Length of dorsal plate 60; length of ventral plate 64; width of dorsal plate 57; width of ventral plate 52; width at anterior end 38; toe 23.

Locality: Saravanai Nr. Kayts, Jaffna. 17.12.1971.

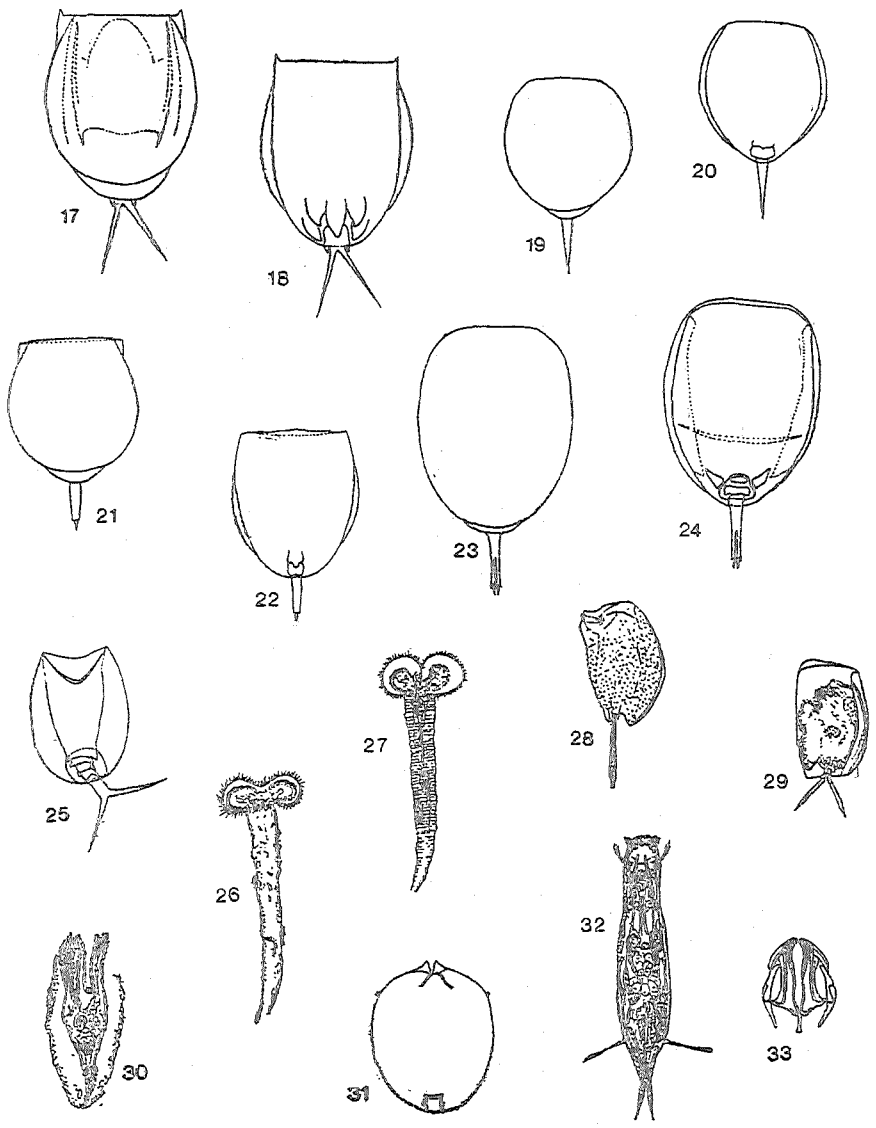
13. **Lecane (Monostyla) scutata** Harring and Myers, 1926 (Figs. 21 and 22)

The outline of lorica is sub-circular. Posterior segment broad. The toe is long, stout and ends in a pointed claw. The specimens found in Sri Lanka resemble the form from Brazil (Koste, 1972). Rare, found only in one locality—gem-pit, Ratnapura. New record for Sri Lanka.

Measurements

Length of dorsal plate 90; length of ventral plate 90; width of dorsal plate 70; width of ventral plate 62; toe 28; claw 5.

Locality: Gem-pit, Ratnapura, 18.8.1972.



Figs. 17 and 18. *Lecane lauterborni*, dorsal and ventral views

19 and 20. *Lecane (Monostyla) pyriformis*, dorsal and ventral views

21 and 22. *Lecane (Monostyla) scutata*, dorsal and ventral views

23 and 24. *Lecane (Hemimonostyla) syngenes*, dorsal and ventral views

25. *Lepadella triba* 26. *Limnias ceratophylli* 27. *Limnias melicerta*

28. *Mytilina acanthophora* 29. *Mytilina bisulcata*

30. *Stephanoceros fimbriatue*

31. *Testudinella incisa* 32. *Tetrasiphon hydrocora* 33. *Tetrasiphon hydrocora—trophi.*

14. **Lecane (Hemimonostyla) syngenes** Hauer, 1938 (Figs. 23 and 24)

This species was first recorded by Hauer (1938) from Indonesia and then by Koste (1972) from Brazil. The Sri Lanka material agrees with the Indonesia material described by Hauer (*loc. cit.*) but are smaller than both Indonesian and Brazilian specimens. New record for Sri Lanka.

Measurements

Length of dorsal plate 87; length of ventral plate 87; width of dorsal plate 69; width of ventral plate 63; toe 30; claw 5.

Locality: Tirunavakaya, Ratnapura. 18.8.1972.

15. **Lepadella triba** Myers, 1934 (Fig 25)

This small rotifer was first reported from the United States by Myers (1934) and was subsequently found in Sweden (Carlin, 1939). It does not seem to have been reported from anywhere else. The body is ovate; deep and evenly arched dorsally. Anterior margin more or less straight. Ventral sinus deep. Foot is four segmented. Toes short and pointed. This species is so very small that many rotifer workers could have missed it in their samples and is probably far more common than the published records indicate. The Sri Lanka specimens are not as large as the Swedish specimens (Carlin, 1939) but are larger than the United States specimens (Myers, 1934). Rare. New record for Sri Lanka.

Measurements

Length of body 61; width 43; width at anterior end 29; foot 19, toe 24.

Locality: Dothalla Mahawewa, Hettipoli. 18.12.1972.

16. **Limnias ceratophylli** Schrank, 1803 (Fig. 26)

The tube covering the body is long, cone shaped and non-transparent with a dark brown colour and attached with debris and foreign particles. The tube is transparent at the foot end.

Measurements

Contracted specimen—590.

Locality: Gem pit, Ratnapura. 18.8.1972.

17. **Limnias melicerta** Weisse, 1848 (Fig. 27)

The tube enclosing the animal is long with definite striations and tapering towards the posterior end. Some debris attached to the tube. Unci with three strong teeth.

Measurements

Contracted specimen—660.

Locality: Gem pit, Ratnapura. 18.8.1972.

18. **Mytillina acanthophora** Hauer, 1938 (Fig. 28)

The lorica is hispid and the anterior end has two triangular projections. In the posterior end there is a deep sinus. Width of lorica more than half the length. Toes long, slender and ending in points. Thin species has been reported from Indonesia by Hauer (1938). New record for Sri Lanka.

Measurements

Length of body 135; width 84; toes 78.

Locality: Na-Eliya tank. 25.8.1972.

19. **Mytillina bisulcata** (Lucks 1912) (Fig. 29)

Lorica transparent with three keels on the back. Frontal edge smooth and curved. Width of lorica more than half the length. Toes thin and straight ending in an acute point. New record for Sri Lanka.

Measurements

Length of lorica 129; width 75; toe 45.

Locality: Gem pit, Ratnapura. 18.8.1972.

20. **Stephanoceros fimbriatus** (Goldfusz, 1820) (Fig. 30)

The anterior end bears five long tentacles with short alia on them. The foot in contracted specimens is highly folded, ringed and short with which they attach to the substratum. The animal is covered with a gelatinous mass.

Locality: Madulla weya, Madulla. 17.12.1972.

21. **Testudinella incisa** (Ternetz, 1892) (Fig. 31)

Lorica oval with the foot opening in the posterior extremity of ventral plate and is more or less square in shape. The anterior protuberance is divided into two by a deep cleft which is characteristic. Lateral antennae situated about one-third the length from the anterior end. This species is rare. New record for Sri Lanka.

Measurements

Length of body 98.

Locality: Gem pit, Ratnapura. 18.8.1972.

22. **Tetrasiphon hydrocora** Ehrenberg, 1840 (Figs. 32 and 33)

The body is elongate and fusiform. The integument is strong and hence it more or less keeps its shape, and is transparent. Two dorsal antennae present ending in a tuft of cilia. Lateral antennae is situated far back on the body and is long, tubular and carry long setae. Trophi characteristic. Ovary is very long and contains more than twenty nuclei arranged in a line. Eye spot large. The animal found from Sri Lanka appeared to have a feeble jelly covering.

T. hydrocora is a rare species. It has been reported from Europe (Koste, 1968) and the United States (Harring and Myers, 1922). Koste found it in swamp in Germany very rarely. Harring and Myers report if from soft and acid waters in the United States and noted that it was rare. In Sri Lanka the species was also rare. It was found only in a gem pit at Ratnapura. The specimen examined had its stomach full of desmids which suggests that it could be an acid water form. Only two specimens were found.

Locality: Gem pit, Ratnapura, 18.8.1972.

TABLE I

Distribution of Rotifer Species from Different Habitats

Total No. of Samples/Species	Habitat					
	Rivers	Ponds	Villus	Lakes	Rice fields	Misc.
	3	60	9	101	23	32
1. Anuraeopsis coelata	1	4	—	13	—	1
2. A. fissa	—	10	1	18	1	4
3. Asplanchna brightwelli ..	—	6	—	37	1	2
4. A. priodonta	—	1	—	4	—	—
5. A. seiboldi	—	1	—	4	1	1
6. Asplanchnopus multiceps ..	—	4	1	6	3	3
7. Brachionus angularis ..	1	8	—	44	2	2
8. B. bidentata	—	2	—	1	—	2
9. B. budapestensis	—	—	—	1	—	—
10. B. calyciflorus	—	9	—	50	2	5
11. B. caudatus	2	5	—	32	1	—
12. B. caudatus var. aculeatus ..	—	—	—	3	—	—
13. B. donneri	—	—	—	3	—	—
14. B falcatus	2	8	2	71	1	—
15. B. forficula	—	4	1	65	2	1
16. B. leydigi	—	—	—	—	—	1
17. B. nilsoni	—	—	1	8	—	—
18. B. patulus	1	17	2	21	10	11
19. B. plicatilis	—	1	—	—	—	1
20. B. quadridentatus	1	10	1	34	8	8
21. B. rubens	—	5	1	12	—	—
22. B. sessilis	—	—	—	2	—	—
23. B. urceus	2	3	—	12	1	2
24. B. urceolaris	—	2	1	6	—	—
25. Cephalodella forficula ..	—	—	—	2	—	—
26. C. gibba	—	2	—	2	—	—
27. Collotheoca ornata natans ..	—	—	—	7	1	—
28. Conochilus unicornis	—	3	—	4	—	2
29. Conochiloides dossuarius ..	—	—	—	5	1	1
30. C. natans	—	—	—	1	—	—
31. Dicranophorous rubustus ..	—	7	—	12	2	1
32. Dipleuchlanis macrodactyla ..	—	4	1	4	1	1
33. D. propatula	1	8	1	5	4	2
34. Euchlanis dilatata	3	25	3	43	15	17
35. E. incisa	—	—	—	1	—	1
36. E. meneta	—	—	—	—	1	—
37. E. oropha	—	4	1	1	—	—
38. Eudactylota eudactylota ..	1	1	—	3	5	1
39. Filinia camascela	—	—	—	4	—	—
40. F. longiseta	2	1	—	18	1	—

TABLE 1 (*continued.*)

Distribution of Rotifer Species from Different Habitats

Total No. Samples/Species	Habitat					
	Rivers	Ponds	Villus	Lakes	Rice Fields	Misc.
41. F. opoliensis	—	2	—	33	—	—
42. F. pejleri	1	4	—	24	—	—
43. F. terminalis	1	—	—	15	1	2
44. Floscularia ringens ..	—	—	—	1	—	—
45. Hexarthra intermedia ..	2	2	—	42	—	—
46. H. mira	—	2	—	9	—	—
47. Horaella brehmi	—	2	—	7	—	—
48. Kellicottia longispina ..	—	—	—	3	—	—
49. Keratella cochlearis	—	—	—	11	2	—
50. K. earlinae	1	1	—	2	—	—
51. K. lenzi	—	—	1	4	—	—
52. K. taurocephala	—	—	—	1	—	—
53. K. tropica	2	5	3	90	6	1
54. Lecane (Lecane) bifastigata ..	—	1	—	1	—	—
55. L. (L.) ceylonensis	—	1	—	1	1	2
56. L. (L.) crepida	—	3	—	5	2	1
57. L. (L.) curvicornis	1	9	—	10	1	5
58. L. (L.) curvicornis var. miamiensis ..	—	1	—	1	—	—
59. L. (L.) elsa	1	—	—	—	1	1
60. L. (L.) hastata	—	—	1	1	—	1
61. L. (L.) hornemanni	1	7	2	4	4	2
62. L. (L.) kahouteki	—	—	—	—	—	1
63. L. (L.) lankae	1	7	2	4	4	2
64. L. (L.) lauterborni	—	—	—	—	—	1
65. L. (L.) leontina	—	9	1	31	5	8
66. L. (L.) ludwigi	—	3	—	4	—	—
67. L. (L.) luna	1	22	5	36	10	13
68. L. (L.) ohioensis	—	4	—	3	2	1
69. L. (L.) papuana	2	11	1	19	3	8
70. L. (L.) plesiaides	—	2	—	—	—	—
71. L. (L.) ploenensis	1	5	1	6	2	6
72. L. (L.) pusilla	—	—	—	—	—	1
73. L. (L.) ungulata	1	12	—	26	7	8
74. L. (L.) verecunda	—	1	—	—	1	—
75. L. (Hemimonostyla) sympoda ..	1	4	—	1	2	3
76. L. (H.) syngenes	—	1	—	—	—	—
77. L. (Monostyla) bulla ..	3	27	4	75	17	20
78. L. (M.) closterocerca ..	—	5	1	5	—	4
79. L. (M.) decipiens	—	6	2	7	—	2
80. L. (M.) elachis	—	5	—	3	3	3

TABLE I (*continued*)

Distribution of Rotifer Species from Different Habitats

Total No. Samples/Species	Habitat					
	Rivers	Ponds	Villus	Lakes	Rice fields	Misc.
	3	60	9	101	23	32
81. L. (M.) furcata	—	—	—	—	1	—
82. L. (M.) lunaris	—	10	2	19	3	5
83. L. (M.) obtusa	—	1	—	2	2	—
84. L. (M.) pyriformis	—	3	—	4	—	3
85. L. (M.) quadridentata	1	7	1	10	4	4
86. L. (M.) scutata	—	—	—	—	—	1
87. L. (M.) stenroosi	—	—	—	6	2	1
88. L. (M.) unquitata	1	9	4	18	6	9
89. Lepadella costata	—	1	—	—	—	1
90. L. ovalis	1	5	—	4	1	3
91. L. patella	—	3	—	7	1	3
92. L. rhomboides	—	4	—	2	—	1
93. L. triba	—	—	—	—	1	—
94. Limnias ceratophylli	—	—	—	1	—	—
95. L. melicerta	—	—	—	1	—	—
96. Macrochaetus collinsi	—	2	—	1	2	—
97. M. sericus	—	1	—	4	2	1
98. Mytilina acanthophora	—	—	—	1	—	—
99. M. bisulcata	—	2	—	2	—	1
100. M. mucronata	—	—	—	5	—	—
101. M. ventralis	2	12	2	12	4	5
102. Notommata sp.	—	1	—	4	1	3
103. Platyias quadricornis	3	19	1	23	6	4
104. Polyarthra dolichoptera	—	6	—	16	2	3
105. P. vulgaris	1	6	1	27	—	—
106. Pompholyx complanata	—	—	—	24	—	1
107. Scaridium longicaudum	—	1	—	1	—	1
108. Sinantherina semibullata	—	3	—	1	4	—
109. S. spinosa	—	2	—	3	5	1
110. Stephanoceros fimbriatus	—	—	—	1	—	—
111. Testudinella incisa	—	—	—	—	—	1
112. T. parva	—	2	—	—	1	2
113. T. patina	3	17	4	31	7	8
114. Tetrasiphon hydrocora	—	—	—	—	—	1
115. Trichocerca bicristata	—	1	—	—	—	—
116. T. braziliensis	—	1	—	—	—	—
117. T. chattoni	—	2	—	8	—	—
118. T. cylindrica	—	2	—	6	—	—
119. T. dixon-nuttali	—	—	1	—	1	—
120. T. rattus	2	2	1	16	2	4

TABLE I (*continued*)

Distribution of Rotifeg from Different Habitats

Total No. of Samples/Species	Habitat					
	Rivers	Ponds	Villus	Lakes	Rice fields	Misc.
	3	60	9	101	23	32
121. T. similis	—	2	—	21	—	1
122. T. sylata	—	—	—	7	1	—
123. Trichotria pocillum ..	—	—	—	—	1	1
124. T. tetractis	—	3	—	12	1	8
125. Tripleuchlanis plicata ..	—	5	1	11	2	—
125. Trochosphaera equatorialis ..	—	—	—	1	1	—

Summary and Discussion

In this third paper on Rotifera from Sri Lanka twenty-two species of rotifers are recorded. This includes two new species and 14 new records for Sri Lanka. In the two previous papers a total of one hundred and four species, including new species and new generic and species records, has been described. Twelve species not described by us have been recorded by previous workers. They are: *Brachionus diversicornis* (Daday), *Epiphanes macrourus* Ehrenberg, *Lepadella triptera* Ehrenberg, *Conochilus hippocrepis* (Schrank), *Lacinularia flosculosa* (Muller), *Rotaria neptunia* Ehrenberg, *Rotaria rotaria* Pallas, *Synchaeta pectinata* Ehrenberg, *Trichocerca tenuoir* Gosse, *Trichocerea elongata* (Gosse), *Trichocerca scipio* (Gosse), and *Trichocerca tigris* (Muller). This brings the total number of species of rotifers from Sri Lanka to one hundred and thirty-eight. Some species which are contracted beyond recognition and some that need to be studied when alive are omitted.

The rotifer fauna of Sri Lanka are typically cosmotropical when compared to the lists of Hauer (1938) and Green (1972). Cosmopolitan forms (Green 1972) are also well represented. A comparison of the number of species and their composition from Sri Lanka to that of the Indian sub-continent and the Indonesian region, where the rotifer fauna has been studied at least superficially, is given in our previous paper dealing with Rotifera of Sri Lanka (Chengalath, Fernando and Koste. 1973 b). Apart from the rare and interesting species recorded earlier (loc. cit.) a few more were discovered. This includes *Lecane hastata*, *Lecane elsa*, *Lecane lauterborni*, *Lepadella triba* and *Tetrasiphon hydrocora*. All these species were recorded from only one to three samples of the over four hundred samples examined. *Lepadella triba* is so far recorded only from Sweden (Carlin, 1939) and the United States (Harring and Myers, 1922) while *Tetrasiphon hydrocora* is reported only from Europe (Koste, 1968) and the United States (Harring and Myers, 1922) and that too was very rare and found in small numbers.

Of the 228 localities sampled, 101 are lakes, 60 ponds, 32 miscellaneous habitats which include wells, gem-pits, rainpools, rockpools, waterholds, etc., 23 rice fields, 9 villus, and 3 rivers. A total of 402 samples were examined. Table I shows the distribution of each species in different habitats. Of the one hundred and twenty-six species and distinct varieties recorded, 55 are common occurring in more than twenty percent of the samples. Generally, the species which are present commonly in lakes are also present in ponds, rice fiels and miscellaneous habitats.

Asplanchna brightwelli, Branchionus angularis, B. caudatus, B. falcata, B. forficula, B. quadridentatus, B. patulus, Euchlanis dilatata, Filinia opoliensis, Hexarthra intermedia, Keratella tripoca, Lecane leontina, L. luna, L. papuana, L. ungulata, L. bulla, L. lunaris, Platyias quadricornis Polyarthra vulgaris, Pompholyx complanata, Testudinella patina, Tricocerea rattus and *Trichocerca similis* are the commonest species and these species have been located, if not in all at least in more than four types of habitats mentioned above and then in large numbers. Apart from some species like *Brachionus forficula*, B. *falcatus, B. caudatus, Filinia opoliensis, Keratella tropica* and *Lecane papuana*, which are cosmotropical forms, all the above mentioned species are cosmopolitan and are found abundantly.

A total of 40 genera are represented in Sri Lanka. The genus *Lecane* has the maximum number of representatives with a total of 35 species of which four, *Lecane ceylonensis. L. kahoutcki. L. lankae* and *L. plesiaides* are new species. The species of the genus *Lecane* are met with in all habitats and this probably is the reason for their predominance relative to other species. *L bulla* is the commonest species and is found in 75 lakes, 27 ponds, 20 miscellaneous habitats, 17 rice fields. 4 villus and 3 rivers. This shows again the well-known varsatility of *L. bulla. The* genus *Brachionus* has 18 species including the rare species *B. donneri* and *B. sessilis*. An interesing feature noted was that almost invariably *B. falcatus and B. forficula* are found together in the same sample. The genus *Keratella* is represented by five species and *K. tropica* is the second commonest species found in Sri Lanka and was found in 90 lakes, 6 rice fields, 5 ponds, 3 villus, 2 rivers, and one miscellaneous habitat. This distribution clearly shows that *K. tropica* is mainly a lake species, *K. cochlearis, K earlinae, K. lenzi* and *K. taurocephala* are very rare and all of them are found mainly in lakes which again indicate that these, like *K. tropica*, are also an open water, lake form or capable of thriving under these conditions. In Sri Lanka where no natural lakes exist (Fernando 1970) these species must have colonized man-made lakes from ponds and river oxbows. *Euchlanis dilatata* like *Lecane bulla* is widely distributed in all habitats and in fairly large numbers. *Branchionus patulus* and *Platyias quadricornis* also show a wide distribution. *Sinantherina spinosa* and *S. semibullata* although seen rarely in other habitats seem to prefer rice fields where *L. luna, L. bulla* and *E. dilatata* are also common.

The rotifer fauna of Sri Lanka is rich and varied and is typically tropical in composition, abounding in all kinds of habitats. This study also shows that while certain species are successful in all kinds of habitats some show a clear preference to a particular type of habitat. More extensive observation and experimental work in relation to each habitat is needed to know more about the factors affecting rotifer distribution.

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