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Rotifera from Sri Lanka (Ceylon) I.
The Genus *Lecane* with Descriptions of Two New Species

by

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INTRODUCTION

The Rotifera of Ceylon have received little attention in recent years. The major papers dealing with Ceylonese species are those of Daday (1898) who recorded 42 species and listed 46 species as occurring in Ceylon and Apstein (1907,1811) who recorded a number of species in the plankton of two lakes. Mendis and Fernando (1962) gave a list of Ceylonese species. The list was revised and a few additions made by Fernando (1969). Mendis (1965) added a new generic record *Trochosphaera* to the list. Mendis (1964, 1965) and Costa and De Silva (1969) identified a number of Rotifera genera in their studies on the zooplankton of Colombo Lake and Fernando and Ellepola (1969) recorded four species in their study of two small tanks. The present study is based on collections made from a large number of lakes, ponds and paddy fields during the period 1968–1972. A large number of new records and some new species have been identified in this material. The largest number of species have been recorded in the genus *Lecane* i.e. *Lecane* (*Lecane*), *Lecane* (*Hemimonostyla*) and *Lecane* (*Monostyla*) and the present paper is restricted to this genus. In all 25 species including two new species are recorded and described. Previous records number only 8 species.

Apart from the early paper by Anderson (1889) on the Rotifera around Calcutta, India ; Murray (1906) on the Rotifera of Sikkim and Stewart (1908) on the Rotifera of Tibet, there are a number of more recent papers dealing with Rotifera of adjacent areas i.e. India and the Malay Archipelago (Edmondson and Hutchinson (1934), Hauer (1936, 1937*a* 1937*b*, 1938,) Donner (1949), Brehm (1950), George (1961), Pasha (1961), Arora (1963*a*, 1963*b*, 1965, 1966), Nayar (1964, 1965*a*, 1965*b*, 1968, 1969), Wulfert (1966). Also many Rotifera have been identified in studies of zooplankton. Also recent revisions of a number of genera are available (Harring. and Myers (1926) ; Hauer (1929), and the comprehensive faunal works of Viogt (1957), Bartos (1959), Rudescu (1960) and Ktuikova (1970) enabling accurate diagnosis of species.

Since detailed descriptions of all previously recorded species are available only short descriptions with illustrations to enable easy diagnosis are given in the present paper. Where our material differs from that previously described this is mentioned. The two new species are described in detail. The rest of the Ceylonese species will be dealt with in a subsequent paper.

Materials and Methods

Over 200 samples of " zooplankton " from open water and the littoral of lakes and from ponds collected during the period 1968–1972 were studied. Individual specimens of Rotifera were mounted in CMCS (Turtoxstain mountant) or Polyvinyl Lactophenol coloured dark with Lignin Pink for

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detailed study. Drawings were made with a camera lucida and all measurements are given in μ. The material was collected with a No. 25 net ; fixed in formalin and individual specimens were washed in 70% ethyl alcohol before transfer to the mountant.

List of species

The following is a list of species of *Lecanes* recorded in the present paper.

**Lecane* (*Lecane*) *ceylonensis* sp. nov.

**Lecane* (*Lecane*) *crepida* Harring, 1914

**Lecane* (*Lecane*) *curvicornis* Murray, 1913

**Lecane* (*Lecane*) *curvicornis* var. *miamiensis* Myers, 1941

**Lecane* (*Lecane*) *hornemanni* (Ehrenberg, 1833)

Lecane (*Lecane*) *leontina* (Turner, 1892)

Lecane (*Lecane*) *ludwigi* (Eckstein, 1883)

Lecane (*Lecane*) *luna* (Muller, 1776)

**Lecane* (*Lecane*) *ohioensis* (Herrick, 1885)

Lecane (*Lecane*) *papuana* (Murray, 1913)

**Lecane* (*Lecane*) *plesiaides* sp. nov.

**Lecane* (*Lecane*) *ploenensis* (Vigot, 1902)

**Lecane* (*Lecane*) *pusilla* Harring, 1914

Lecane (*Lecane*) *ungulata* (Gosse, 1887)

**Lecane* (*Lecane*) *verecunda* Harring and Myers, 1926

**Lecane* (*Hemimonostyla*) *sympoda* Hauer, 1929

Lecane (*Monostyla*) *bulla* Gosse, 1851

**Lecane* (*Monostyla*) *closterocerca* Schmarda, 1859

**Lecane* (*Monostyla*) *decipiens* Murray, 1913

**Lecane* (*Monostyla*) *elachis* Harring and Myers, 1926

Lecane (*Monostyla*) *lunaris* (Ehrenberg, 1832)

**Lecane* (*Monostyla*) *obtusa* Murray, 1913

Lecane (*Monostyla*) *quadridentata* (Ehrenberg, 1832)

**Lecane* (*Monostyla*) *strenroosi* (Meissner, 1908)

**Lecane* (*Monostyla*) *unquitata* (Fadeew, 1925)

* New record for Ceylon.

Description of species

Lecane (*Lecane*) *ceylonensis* sp. nov. (Figs. 1 and 2)

Anterior end of lorica widest and gradually tapering towards posterior end. Anterior dorsal margins coincident and convex. Dorsal plate with elevated ridges on the sides. Ventral plate slightly larger than dorsal plate. Width of dorsal and ventral plates equal. Lateral sulci not distinct. Posterior segment short and extends only little beyond the dorsal plate. The first joint of the foot fairly large. The second joint very large, rounded posteriorly. Toes long, fairly stout and tapering into an acute point, without any claw.

MEASUREMENTS :

Length of dorsal plate	76	Width of anterior end	58
Length of ventral plate	80	Foot	16
Width of dorsal plate	48	Toe	30
Width of ventral plate	48		

Lecane ceylonensis is closely related to *Lecane nodosa* (Hauer), and *Lecane hornemanni* (Ehrenberg). In *Lecane ceylonensis* the anterior end is much broader than the middle of lorica unlike in *Lecane nodosa* or *Lecane hornemanni* where the greatest width is in the middle of the lorica. Also in both *Lecane nodosa* and *Lecane hornemanni* the width of the lorica is greater than its length. The width of the lorica of *Lecane ceylonensis* is approximately two-thirds the length. The posterior segment of *Lecane ceylonensis* is small compared to that in *Lecane nodosa* or *Lecane hornemanni.* In view of all these differences we propose that this species be designated *Lecane ceylonensis* sp. nov.

DISTRIBUTION : Palavi, pond ; Chandrika wewa.

Lecane crepida Harring, 1914 (Figs. 3 and 4)

The specimens of *Lecane crepida* found in Ceylon agree generally with the descriptions of Harring and Myers (1926) and Hauer (1938) except that they are slightly larger. The drawings of this species by the above mentioned authors and Wulfert (1966) from Indian material shows that the ventral and dorsal plates are not coincident at the anterior end. However, most of the specimens examined from the Ceylon samples show that the anterior margin is coincident or nearly so. *Lecane crepida* has not been recorded from Ceylon previously.

MEASUREMENTS :

Length of dorsal plate	73	Width of anterior end	58
Length of ventral plate	86	Foot	12
Width of dorsal plate	49	Toe	29
Width of ventral plate	56	Claw	9

DISTRIBUTION : Tabbowa, pond ; Medawachchiya, tank.

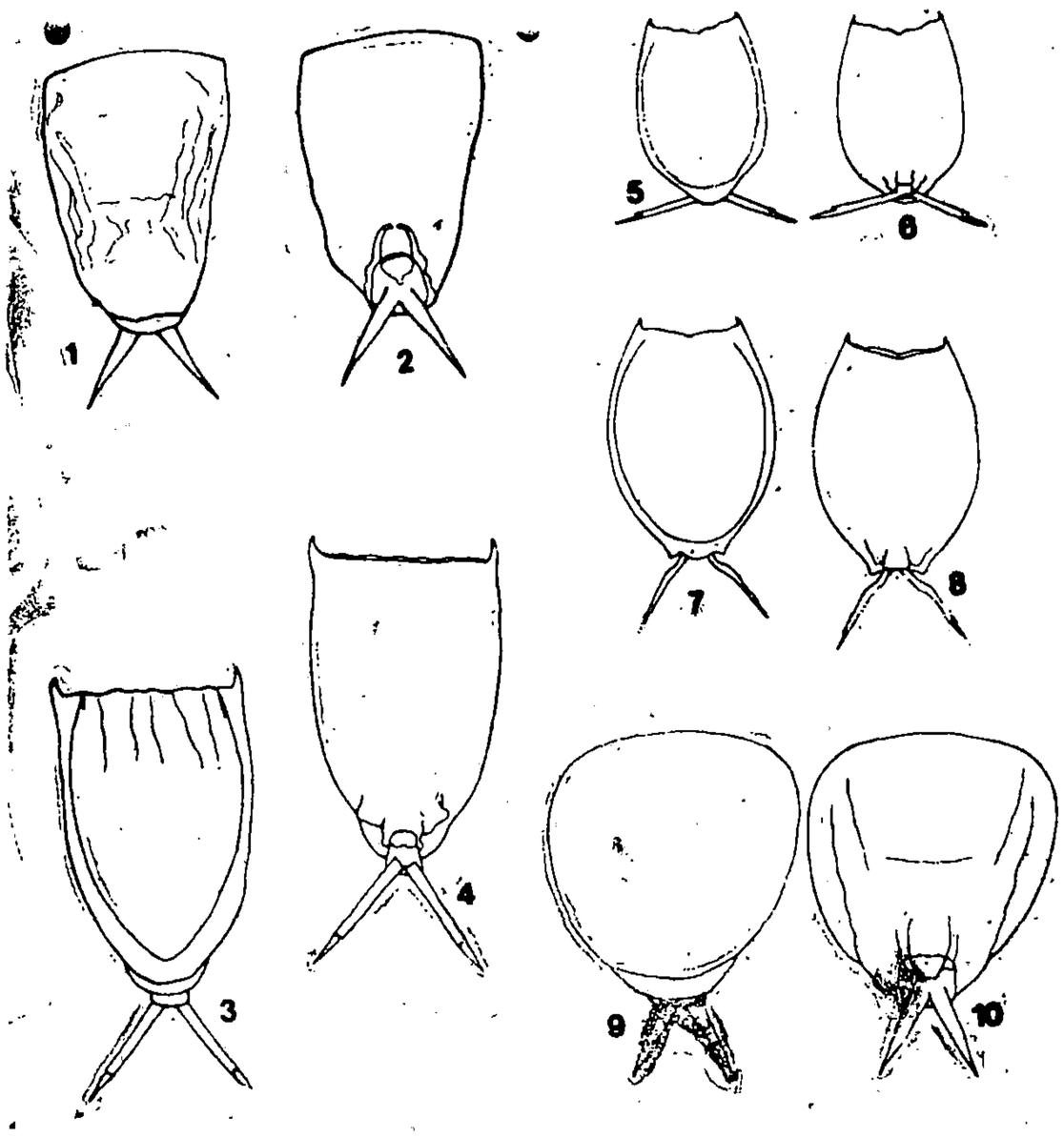
Lecane curvicornis Murray, 1913 (Figs. 5 and 6)

The forms found in Ceylon are typical and show no difference from the ones described by Harring and Myers (1926) in his monograph except that the Ceylonese forms are smaller. *Lecane curvicornis* is fairly common in small ponds and was abundant in some samples.

MEASUREMENTS :

Length of dorsal plate	111	Width of anterior end	66
Length of ventral plate	117	Foot	15
Width of dorsal plate	89	Toe	54
Width of ventral plate	96	Claw	9

DISTRIBUTION : Kudawewa, Madampe ; Marawila, ditch ; Tabbowa, pond ; Marawila, pond ; Ambiliwewa nr. Kurunegala.



Figs. 1 and 2—*Lecane ceylonensis* dorsal and ventral views

Figs. 3 and 4.—*Lecane crepida* dorsal and ventral views

Figs. 5 and 6.—*Lecane curvicornis* dorsal and ventral views

Figs. 7 and 8.—*Lecane curvicornis* var. *miamiensis* dorsal and ventral views

Figs. 9 and 10.—*Lecane hornemanni* dorsal and ventral views

Lecane curvicornis var. *miamiensis* Myers, 1941 (Figs. 7 and 8)

Lecane curvicornis var. *miamiensis* was first described by Myers (1941) from Miami, Florida. It has not been reported from anywhere since. The form found in Ceylon is broader than the one described by Myers (loc. cit.). Also there are other minor differences namely that the anterior margin of Ceylonese specimens are not exactly coincident and the antero-lateral spines are a little more prominent. The shape of the posterior segment and the anterior portion of the toe, which are characteristic of this variety agrees in both the specimens from Florida, United States and from Ceylon.

MEASUREMENTS :

Length of dorsal plate	138	Width of anterior end	84
Length of ventral plate	153	Foot	15
Width of dorsal plate	121	Toe	60
Width of ventral plate	130	Claw	12

DISTRIBUTION : Recorded only from Ambiliwewa nr. Kurunegala.

Lecane hornemanni (Ehrenberg, 1833) (Figs. 9 and 10)

The posterior segment of Ceylonese specimens is slightly smaller compared to the specimens from the United States (Harring and Myers, 1926) and India (Wulfert, 1966) but more or less of the same size as Indonesian specimens (Hauer, 1938). *Lecane hornemanni* has not been previously recorded from Ceylon.

MEASUREMENTS :

Length of dorsal plate	72	Width of anterior end	69
Length of ventral plate	82	Foot	15
Width of dorsal plate	85	Toe	29
Width of ventral plate	72		

DISTRIBUTION : Tabbowa, pond ; Kudawewa, Madampe.

Lecane (*Lecane*) *leontina* Turner, 1892 (Figs. 11 and 12)

The shape of the lorica is a little different from the description of Harring and Myers (1926) which shows a wider lorica, more or less roundish. Whereas the Ceylonese forms are oval, the width of the lorica being less. Ceylonese forms of *Lecane leontina* are smaller compared to forms from other parts of the world (Harring and Myers, 1926) ; Hauer (1938) ; Voigt (1957).

MEASUREMENTS :

Length of dorsal plate	135	Width of anterior end	72
Length of ventral plate	156	Foot	15
Width of dorsal plate	97	Toe	72
Width of ventral plate	108	Claw	9

DISTRIBUTION : Nugegoda, paddy field ; Topawewa, Polonnaruwa ; Pond nr. Nikaweratiya ; Marawila, ditch ; Marawila, pond ; Morawewa ; Handapangala, tank ; Bathalagoda, tank ; Nachchaduwa, tank.

Lecane (*Lecane*) *ludwigi* Eckstein, 1883 (Figs. 13 and 14)

The anterior margins have a deep sinus and are not coincident. The posterior segment of *Lecane ludwigi* shows wide variation. In the specimens studied from Ceylon the posterior segment was rounded with the projection blunt and truncate.

MEASUREMENTS :

Length of dorsal plate	97	Width of anterior end	49
Length of ventral plate	138	Foot	15
Width of dorsal plate	75	Toe	44
Width of ventral plate	71		

DISTRIBUTION : Recorded only from Tabbowa, pond.

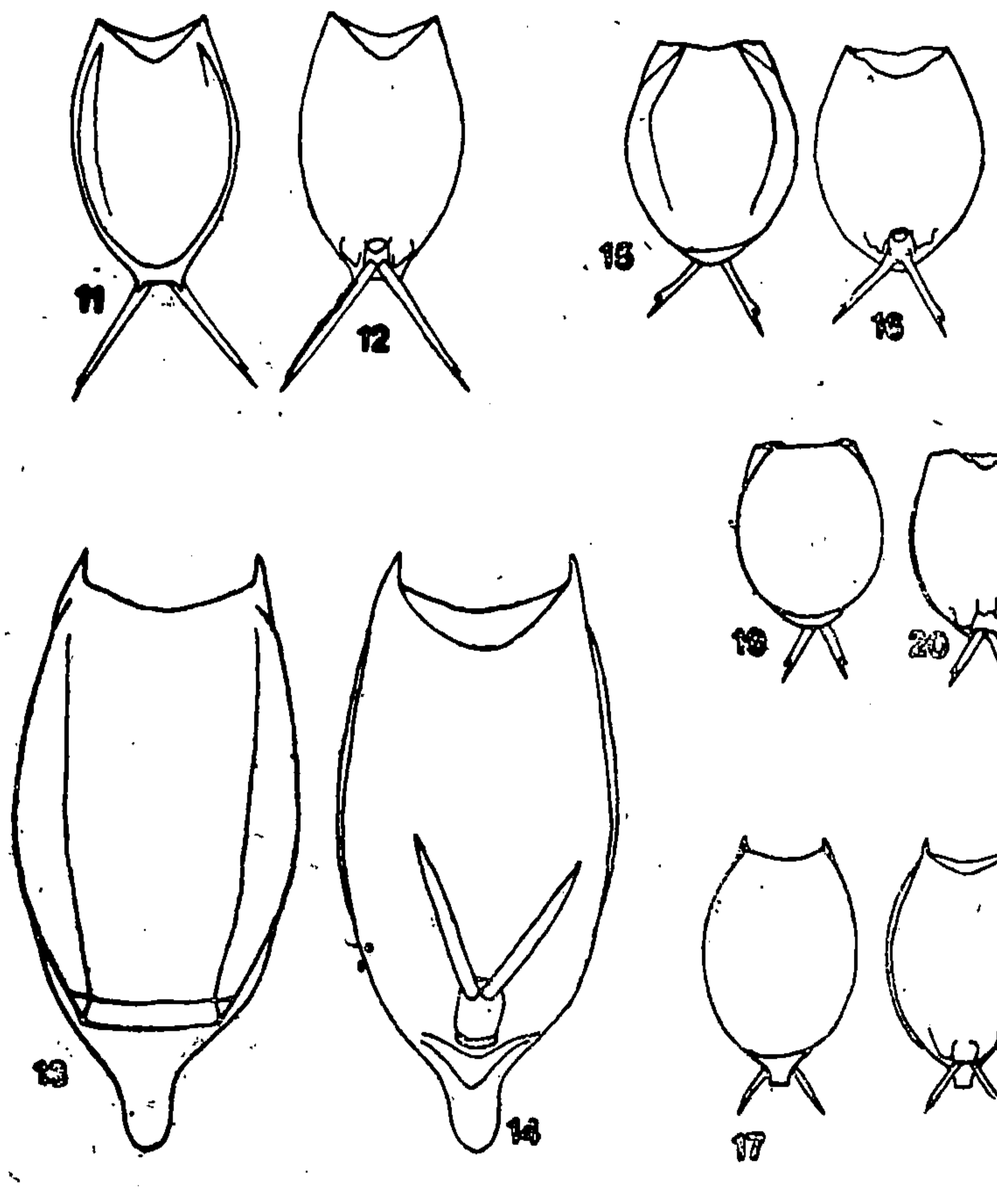
Lecane (*Lecane*) *luna* Müller, 1776 (Figs. 15 and 16)

The anterior margin does not have a deep, lunate sinus. The dorsal and ventral plates of the same width. The end of toes have a slight swelling and resemble those given in the drawings of Donner (1954).

MEASUREMENTS :

Length of dorsal plate	128	Width of anterior end	96
Length of ventral plate	135	Foot	18
Width of dorsal plate	111	Toe	42
Width of ventral plate	111	Claw	12

DISTRIBUTION : A common species both in tanks and ponds. Marawila, ditch ; Topawewa Polonnaruwa ; Mandathivu, Jaffna, paddy field ; Vaddukodai, Jaffna, paddy-field ; Anabulundawa wewa ; Sigiriya tank ; Thovaramuddai, Jaffna ; Giants tank ; Nachchaduwa tank ; Kalawewa ; Pavatkulam ; Kandalama tank ; Megallawewa ; Nalanda reservoir ; Moonplains reservoir ; Ambiliwewa, Nr. Kurunegala.



Figs. 11 and 12.—*Lecane leotina* dorsal and ventral views

Figs. 13 and 14.—*Lecane ludwigi* dorsal and ventral views

Figs. 15 and 16.—*Lecane luna* dorsal and ventral views

Figs. 17 and 18.—*Lecane ohioensis* dorsal and ventral views

Figs. 19 and 20.—*Lecane papuana* dorsal and ventral views

Lecane (*Lecane*) *ohioensis* Herrick, 1885 (Figs. 17 and 18)

The anterior margin is not coincident and the spines at the external angles are not very prominent. The posterior segment rounded and the mediam projection is samll and truncate. Ceylonese forms are larger than the ones described by Harring and Myers (1926) from the United States. *Lecane ohioensis* has not been recorded from Ceylon previously.

MEASUREMENTS :

Length of dorsal plate	120	Width of anterior end	54
Length of ventral plate	135	Foot	15
Width of dorsal plate	99	Toe	39
Width of ventral plate	93		

DISTRIBUTION : Karainagar, Jaffna, pond ; Pond nr. Nikeweratiya ; Ambiliwewa nr. Kurunga'a.

Lecane (*Lecane*) *papuana* Murray, 1913 (Figs. 19 and 20)

Wulfert (1966) and Pasha (1961) recorded and described *Lecane papuana* from India. They show the ventral plate as slightly broader than the dorsal plate. In contrast, in the Ceylonese specimens the dorsal plate is slightly broader than the ventral plate. In other respects the Indian and Ceylonese specimens agree. Very common in paddy fields, small ponds and lakes in Ceylon.

MEASUREMENTS :

Length of dorsal plate	99	Width of anterior end	66
Length of ventral plate	108	Foot	15
Width of dorsal plate	87	Toe	21
Width of ventral plate	83	Claw	9

DISTRIBUTION : Nugegoda paddy fields ; Thovaramuddai, Jaffna, pond ; Nedunkani, pond ; Kudawewa, Madampe ; Marawila, ditch ; Handapangala, pond ; Thinipitiwewa, Madampe ; Kantalai tank ; Kandalama tank ; Giants tank ; Ambiliwewa, nr. Kurunegala.

Lecane (*Lecane*) *plesiaides* sp. nov. (Figs. 21 and 22)

The lorica is sturdy and tapers gradually to the foot. Anterior dorsal and ventral margins slightly convex. External angles bear two strong traingular, more or less erect anterior spines. Dorsal plate convex, smaller than ventral plate. Surface markings limited to two pairs of convergent, wavy ridges, beginning near the anterior margin. Ventral plate moderately convex. Width of dorsal and ventral plates equal. Width of lorica nearly two-thirds the length of body. Anterior end widest tapering posteriorly with the sides of lorica slightly undulate. A well marked transverse fold present immediately in front of foot. Lateral sulci absent. Posterior segment distinct from main body. First foot joint large, second sub-square and does not project beyond the lorica. Toes long about one-third the length of lorica and tapers into a fine point, without claws.

MEASUREMENTS :

Length of dorsal plate	75	Width of anterior end	57
Length of ventral plate	85	Foot	8
Width of dorsal plate	50	Toe	31
Width of ventral plate	50		

Lecane plesiaides resembles *Lecane crepida* Harring, and *Lecane plesia* Myers, and has the general outline of these species. The lorica of *Lecane crepida* is however parallel sided in the anterior half of its length and tapers rapidly to the foot. It is also strongly gibbous posteriorly. The foot does not project beyond the lorica in *Lecane crepida* and the claws are absent. Although *Lecane crepida* and *Lecane plesiaides* are of approximately the same size, these morphological differences stand out clearly. *Lecane plesia* is also approximately the same size but differs from *Lecane plesiaides* in the following characters. The anterior spines at the external angles in *Lecane plesiaides* are more prominent and distinctly triangular whereas in *Lecane plesia* the spines are rudimentary. The lorica in *Lecane plesiaides* tapers gradually to the foot whereas in *Lecane plesia* it is more or less parallel sided for most of the length. The toes are also different in that the claws are absent in *Lecane plesiaides*. In view of all these differences and other structural characteristics different from other *Lecane* species we propose that this species be designated *Lecane plesiaides* sp. nov.

DISTRIBUTION : **Recorded only from Tabbowa, pond.**

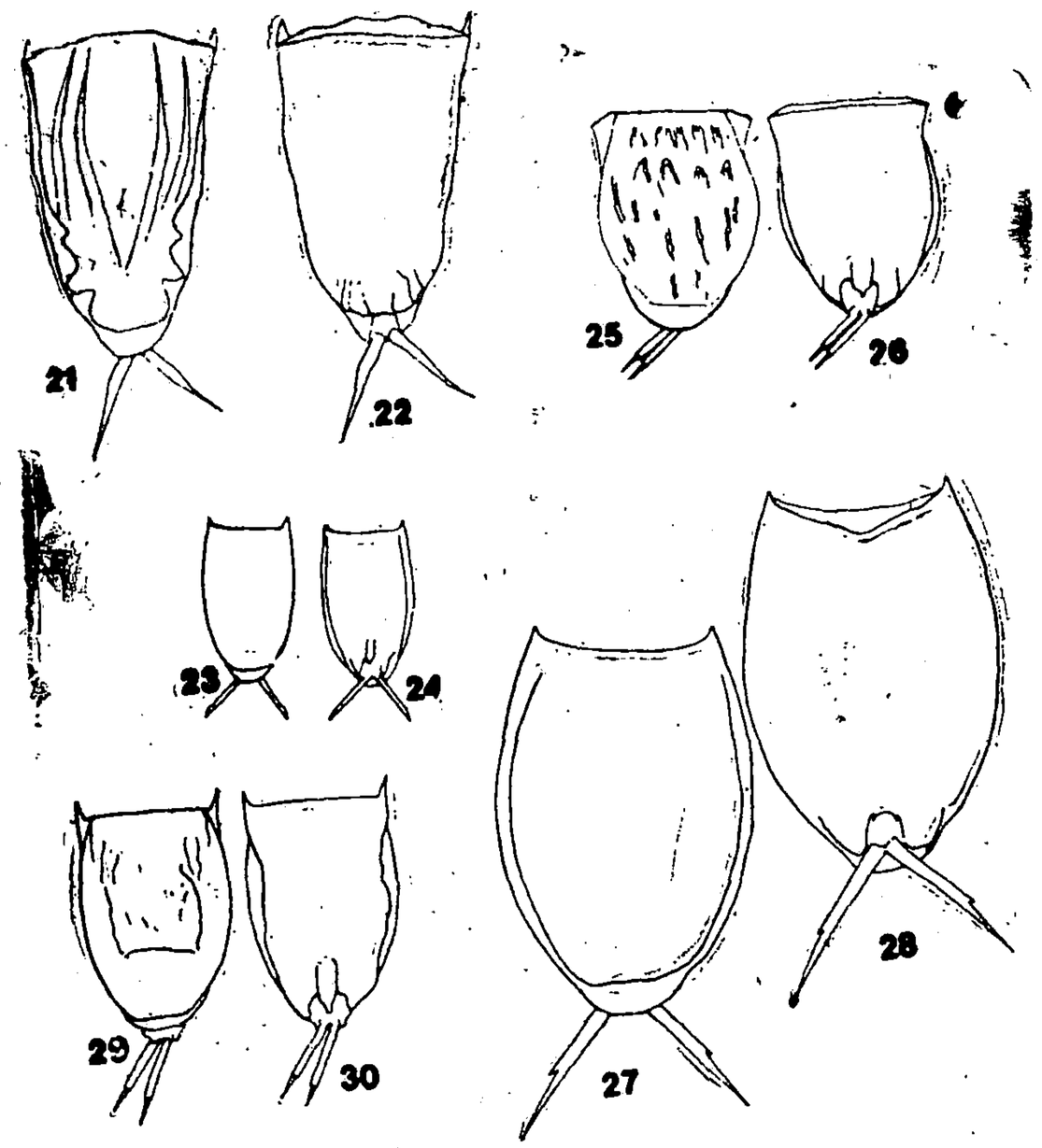
Lecane (*Lecane*) *ploenensis* Voigt, 1902 (Figs. 23 and 24)

The anterior margins are coincident with small triangular spines at the edges. The foot is well inside the lorica. In Wulfert's (1966) drawings of *Lecane ploenensis* from India the foot is shown as projecting outside the lorica. This may be because of the varying degree of contraction. The design on the dorsal and ventral plates were not discernible. The Ceylonese forms also are generally smaller. *Lecane ploenensis* has not been recorded from Ceylon previously.

MEASUREMENTS :

Length of dorsal plate	90	Width of anterior end	54
Length of ventral plate	99	Foot	12
Width of dorsal plate	60	Toe	36
Width of ventral plate	51		

DISTRIBUTION : Mahakandarawa wewa ; Kudawewa ; Marawila, ditch ; Waga, pond ; Boralesgamuwa tank.



Figs. 21 and 22.—*Lecane plesiades* dorsal and ventral views

Figs. 23 and 24.—*Lecane ploenensis* dorsal and ventral views

Figs. 25 and 26.—*Lecane pusilla* dorsal and ventral views

Figs. 27 and 28.—*Lecane ungulata* dorsal and ventral views

Figs. 29 and 30.—*Lecane verecunda* dorsal and ventral views

Lecane (*Lecane*) *pusilla* Harring, 1914 (Figs. 25 and 26)

Lorica broadly ovate. Anterior margins are not coincident, the dorsal plate projects a little over the ventral plate. The Ceylonese specimens agree in details with the description given by Harring and Myers (1926).

MEASUREMENTS :

Length of dorsal plate	53	Width of anterior end	43
Length of ventral plate	59	Foot	8
Width of dorsal plate	45	Toe	13
Width of ventral plate	40	Claw	5

DISTRIBUTION : Tabbowa, pond ; pond nr. Nikeweratiya.

Lecane (*Lecane*) *ungulata* Gosse, 1887 (Figs. 27 and 28)

Wulfert's (1966) drawings of *Lecane ungulata* based on material from India, shows that the dorsal plate is wider than the ventral plate in the middle portion, whereas in the Ceylonese specimens the dorsal plate is narrower than the ventral plate. The anterior end of the dorsal plate of Indian specimens have a small medium sinus unlike the Ceylonese specimens which have a more or less straight anterior end. The Ceylon specimens agree with the specimens from the United States described by Harring and Myers (1926). *Lecane ungulata* is very common in the samples from Ceylon.

MEASUREMENTS :

Length of dorsal p'ate	207	Width of anterior end	126
Length of ventral plate	231	Toe	27
Width of dorsal plate	162	Foot	66
Width of ventral plate	171	Claw	33

DISTRIBUTION : Tabbowa, pond ; Karainagar, Jaffna, pond ; Kayts, Jaffna, paddy fieid ; Punkadativu, Jaffna, pond ; Ilavalai, Jaffna, pond ; Karapola vil u nr. Polonnaruwa ; Kudawewa, Madampe ; Marawila, pond ; Nikeweratiya, pond ; Marawila, ditch.

Lecane (*Lecane*) *verecunda* Harring and Myers, 1926 (Figs. 29 and 30)

The anterior end coincident with two triangular spines at the external angles. Ceylonese forms closely resemble the specimens from the United States except that the Ceylonese forms are smaller in size. *Lecane verecunda* has not been recorded from Ceylon previously.

MEASUREMENTS :

Length of dorsal plate	55	Width of anterior end	41
Length of ventral plate	59	Foot	11
Width of dorsal plate	45	Toe	17
Width of ventral plate	34	Claw	6

DISTRIBUTION : Recorded only from Tabbowa, pond.

Lecane (*Hemimonstyla*) *sympoda Hauer*, 1929 (Figs. 31 and 32)

The specimens from Ceylon agree morphologically with the species described by Hauer (1938) from Indonesian material. However the differences between *Lecane sympoda*, *Lecane undulata*, and *Lecane inopinata*, are negligible any may be regarded as slight variations of size and due to contraction. We agree with Wulfert (1966) that all these species mentioned above can be considered as *Lecane sympoda*. *Lecane sympoda* has not been recorded from Ceylon previously. It was present in small numbers in two small ponds in Ceylon.

MEASUREMENTS :

Length of dorsal plate	60	Width of anterior end	44
Length of ventral plate	63	Foot	8
Width of dorsal plate	47	Toe	18
Width of ventral plate	42	Claw	6

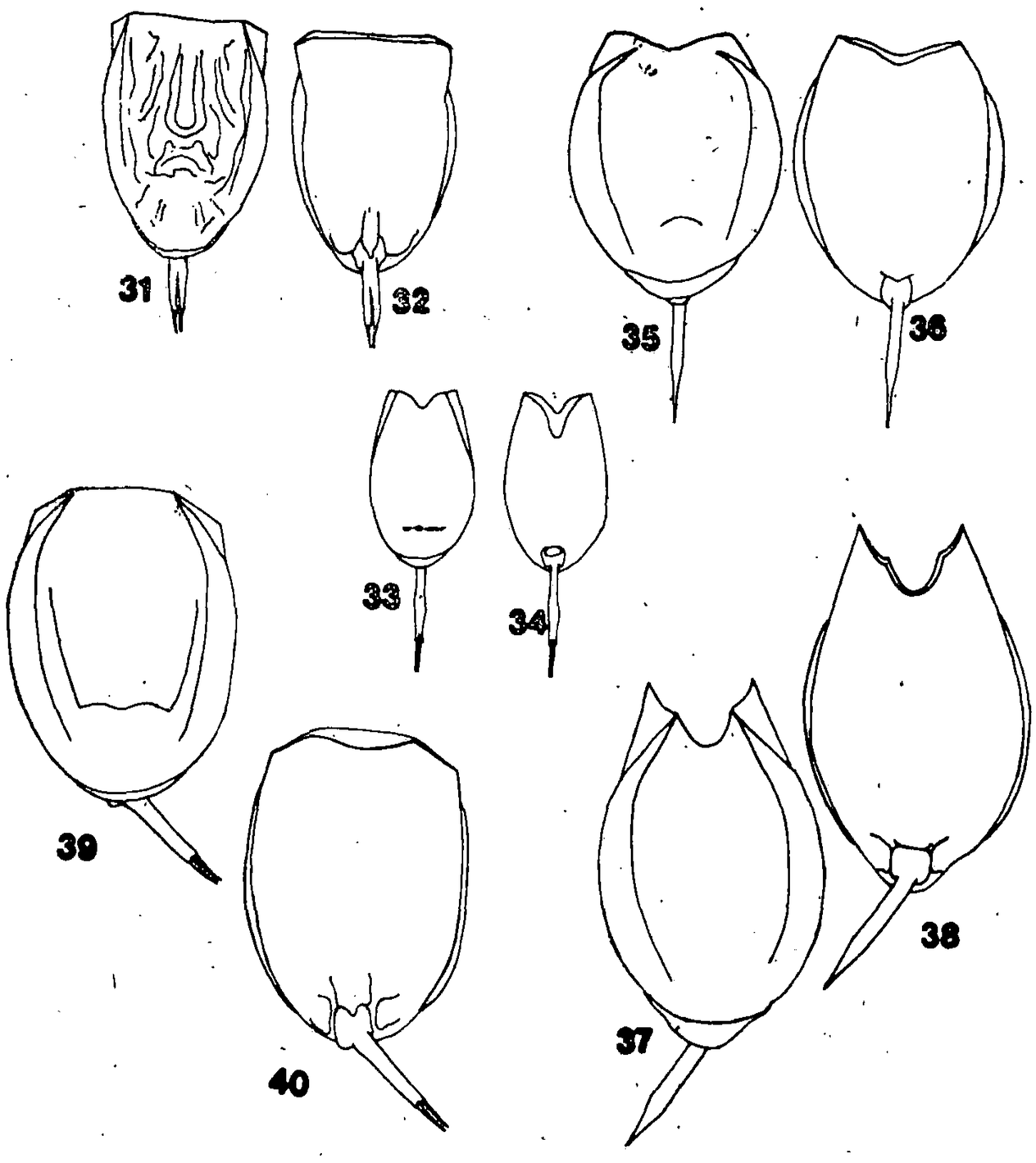
DISTRIBUTION : Marawilla, pond ; Marawila, ditch.

Lecane (*Monostyla*) *bulla* Gosse, 1851. (Figs. 33 and 34)

The anterior end of the lorica of Ceylonese specimens is wider than in the forms reported from India (Wulfert, 1966), Indonesia (Hauer, 1938) and from the United States (Harring and Myers, 1926). The dorsal and ventral plates are of the same width.

MEASUREMENTS :

Length of dorsal plate	92	Width of anterior end	51
Length of ventral plate	97	Foot	12
Width of dorsal plate	60	Toe	42
Width of ventral plate	60	Claw	18



Figs. 31 and 32.—*Lecane sympoda* dorsal and ventral views.

Figs. 33 and 34.—*Lecane bulla* dorsal and ventral views.

Figs. 35 and 36.—*Lecane closterocerca* dorsal and ventral views.

Figs. 37 and 38.—*Lecane decipiens* dorsal and ventral views.

Figs. 39 and 40.—*Lecane elachis* dorsal and ventral views.

DISTRIBUTION : The commonest species in Ceylon. Recorded from Nugegoda, paddy field ; Karainagar, pond ; Topawewa, Polonnaruwa ; Mankumban, Jaffna; Vaddukodai, Jaffna, paddy field ; Saravanai, Nr. Kayts, Jaffna ; Anabulundawa, wewa ; Aranaganwila tank ; Sigiriya tank ; Thovaramuddai, Jaffna, Nedunkani, pond ; Karapola villu, Nr. Polonnaruwa ; Kudawewa, Madampe ; Marawila, ditch ; Marawila pond ; Estate pond Nr. Battuluoya ; Naeliya tank ; Pitchewarnala Marawila, pond; Unichchi pond ; Amiparai tank ; Gaints tank ; Morawewa ; Kantalai tank; Topawewa, Polonnaruwa ; Nalanda, reservoir ; Mahakandarava wewa ; Vakeneri tank ; Unichchi tank ; Pavatkulam, Udawalawe reservoir ; Beira lake ; Moonplains reservoir ; Ambiliwewa Nr. Kurunegala.

Lecane (*Monostyla*) *closterocerca* Schmarda, 1859 (Figs. 35 and 36)

The lorica of most of the specimens of *Lecane closterocerca* found in Ceylon were broadly oval rather than rounded ; the width being lesser than in the specimens found in the United States (Harring and Myers, 1926). *Lecane closterocerca* has not been reported from Ceylon previously.

MEASUREMENTS :

Length of dorsal plate	86	Width of anterior end	36
Length of ventral plate	95	Foot	7
Width of dorsal plate	69	Toe	18
Width of ventral plate	60	Claw	10

DISTRIBUTION : Tabbowa, pond ; Moonplains reservoir.

Lecane (*Monostyla*) *decipiens* Murray, 1913 (Figs. 37 and 38)

Lecane decipiens from Ceylon is similar to the ones described from the United States by Harring and Myers (1926) except that the Ceylonese specimens are a little smaller. The dorsal and ventral plates are not coincident at the anterior end. *Lecane decipiens* has not been recorded from Ceylon previously.

MEASUREMENTS :

Length of dorsal plate	88	Width of anterior end	31
Length of ventral plate	95	Foot	10
Width of dorsal plate	64	Toe	21
Width of ventral plate	60	Claw	12

DISTRIBUTION : Tabbowa, pond ; Aranaganwila tank ; Battuluoya, estate pond.

Lecane (*Monostyla*) *elachis* Harring and Myers, 1926 (Figs. 39 and 40)

Ceylonese specimens are larger than the specimens from the United States described by Harring and Myers (1926) but are more or less of the same size as Indonesian forms described by Hauer (1938) and Indian forms described by Wulfert (1966). *Lecane elachis* has not been recorded from Ceylon previously.

MEASUREMENTS :

Length of dorsal plate	76	Width of anterior end	55
Length of ventral plate	81	Foot	11
Width of dorsal plate	60	Toe	25
Width of ventral plate	57	Claw	7

DISTRIBUTION : Recorded only from Tabbowa, pond.

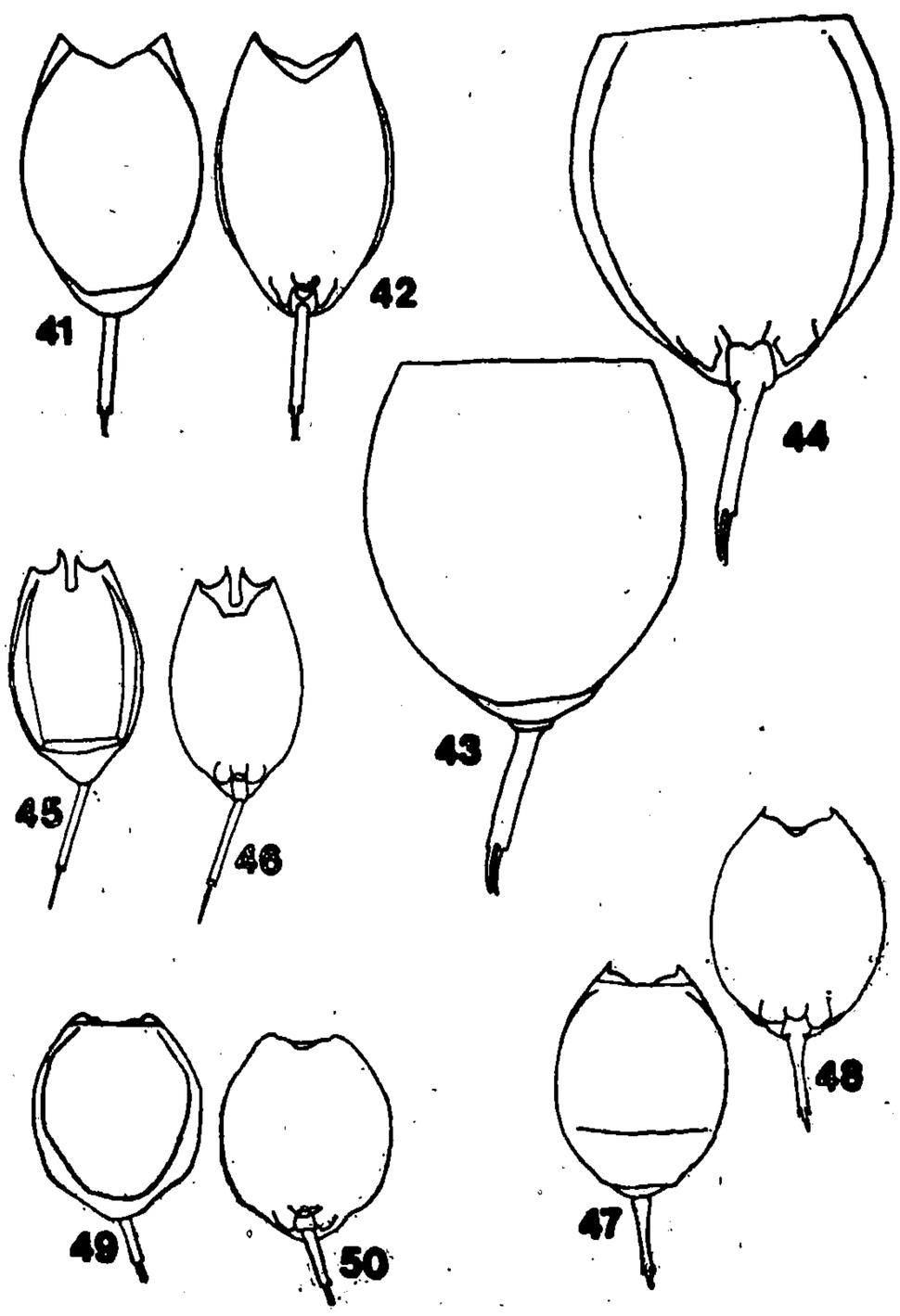
Lecane (*Monostyla*) *lunaris* Ehrenberg, 1932 (Figs. 41 and 42)

Ceylonese forms are larger than the Indian forms (Wulfert, 1966). Toe is long and has a single claw at the end of which are two pointed spicules. *Lecane lunaris* is very common in ponds.

MEASUREMENTS :

Length of dorsal plate	129	Width of anterior end	60
Length of ventral plate	144	Foot	15
Width of dorsal plate	99	Toe	54
Width of ventral plate	93	Claw	15

DISTRIBUTION : Recorded from Tabbowa pond ; Kudawewa, Madampe ; Naeliya tank Pitchewaranala Marawila, pond ; Waga, pond ; Topawewa, Polonnaruwa ; Castlereagh reservoir Udawalawe reservoir.



Figs. 41 and 42.—*Lecane lunaris* dorsal and ventral views.

Figs. 43 and 44.—*Lecane obtusa* dorsal and ventral views.

Figs. 45 and 46.—*Lecane quadrientata* dorsal and ventral views.

Figs. 47 and 48.—*Lecane stenroosi* dorsal and ventral views.

Figs. 49 and 50.—*Lecane unquitata* dorsal and ventral views.

Lecane (*Monostyla*) *Obtusa* Marray, 1913 (Figs. 43 and 44)

The drawings of Harring and Myers (1926) and Hauer (1938) show that the lorica had minute, spine-like projections at the edges of the anterior end. The Ceylonese specimens lack these spines. *Lecane Obtusa* has not been recorded from Ceylon previously.

MEASUREMENTS :

Length of dorsal plate	76	Width of anterior end	60
Length of ventral plate	82	Foot	11
Width of dorsal plate	76	Toe	26
Width of ventral plate	64	Claw	11

DISTRIBUTION : Recorded from Tabbowa, pond ; Topawewa, Polonnaruwa ; Karainagar, Jaffna.

Lecane (*Monostyla*) *quadridentata* Ehrenberg, 1832 (Figs. 45 and 46)

The anterior margin shows differences from hitherto known specimens. The dorsal plate has a deep sinus at the anterior end and is flanked by two stout slightly out curved spines which are not of the same length. Ventral plate has a more or less ' V ' shaped sinus. Posterior segment rounded and not covered by dorsal plate. Toe and claw long, claw ending in an acute point.

MEASUREMENTS :

Length of dorsal plate	99	Width of anterior end	45
Length of ventral plate	123	Foot	18
Width of dorsal plate	71	Toe	45
Width of ventral plate	75	Claw	21

DISTRIBUTION : Tabbowa pond ; Sigiriya tank ; Kudawewa, Madampe.

Lecane (*Monostyla*) *stenroosi* Meissner, 1908 (Figs. 47 and 48)

The anterior dorsal margin is straight. Ventral margin has a shallow, rounded sinus and externally two stout, incurved frontal spines. Posterior segment small and rounded. Ceylonese form are slightly larger than Indian forms described by Wulfert (1966).

MEASUREMENTS :

Length of dorsal plate	120	Width of anterior end	45
Length of ventral plate	126	Foot	12
Width of dorsal plate	100	Toe	36
Width of ventral plate	102	Claw	9

DISTRIBUTION : Recorded only from Handapangala tank.

Lecane (*Monostyla*) *unquitata* Fadeew, 1925 (Figs. 49 and 50)

Specimens from Ceylon are similar to those previously recorded from Asia and Africa. However, the toes are shorter when compared to the Indonesian (Hauer, 1938) African (Green, 1960) and Indian, Wulfert (1966) forms. Posterior segment prominent. The claws resemble most closely the drawing of Hauer (1938) of material from Java with two basal spicules. Ceylonese specimens are larger when compared to the Indian, Indonesian and African material

MEASUREMENTS :

Length of dorsal plate	96	Width of anterior end	45
Length of venral plate	108	Foot	15
Width of dorsal plate	89	Toe	27
Width of ventral plate	99	Claw	12

DISTRIBUTION : Recorded from Tabbowa, pond ; Kudawewa, Madampe ; Marawila, ditch ; Waga, pond ; Kantalai tank ; Ambiliwewa Nr., Kurunegala.

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