

Additions to the Rotatoria of New Zealand. Part 4

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Summary

THIS paper contains a list of nineteen species of the Rotatoria not previously recorded in New Zealand. Nearly all the specimens were collected from small, weedy lakes and acid water swamps in the South Island. *Keratella carinata*, described as a new species in a previous paper, in this series is now declared to be a synonym of *K. javana* Hauer

INTRODUCTION

FROM the samples that have been collected from the larger lakes of the South Island it is thought that a large portion of the rotifer fauna from these habitats has now been listed, and out of nine collections made during 1950-1 only two unrecorded species were found. Representative samples from North Island lakes, so far, do not show the wide variety of species found in the Southern lakes, but this may be due to the method of collection. Intensive collections will have to be made from the Northern lakes covering the seasonal changes of temperature and pH before any reliable indication can be gained of their populations. Alkaline pools and lakes generally have the largest populations, but acid swamps contain a larger variety of species. Two collections from North Canterbury swamps contained only two rotifers that had previously been recorded in this country, the remainder being unlisted

The rotifers so far found in New Zealand are contained in the following papers: Russell, "A New Rotifer from New Zealand," *Jour. Royal Micr. Soc.*, 1944, vol. 64, pp. 121-3 Russell, "A Reference List of the Rotatoria of New Zealand with Ecological Notes," *Trans. Royal Soc. N.Z.*, vol. 75, pp. 102-23. Russell, "Additions to the Rotatoria of New Zealand, Part I," *Trans. Royal Soc. N.Z.*, vol. 76, pp. 403-8 Russell, "Additions to the Rotatoria of New Zealand, Part 2," *Trans. Royal Soc. N.Z.*, vol. 77, pp. 351-4. Russell, "Additions to the Rotatoria of New Zealand, Part 3," *Trans. Royal Soc. N.Z.*, vol. 78, pp. 161-6 Russell, "The Rotatoria of the Upper Stillwater Swamp," *Canterbury Museum Records*, vol. 5, no. 5.

At the suggestion of some rotifer workers the species have been listed in this paper in alphabetical order instead of being arranged in their systematic position.

When Part 3 of "Additions to the Rotatoria of New Zealand" was written a number of unidentified slides remained from Professor E. Percival's collections from the Southern Lakes; these are included in this paper and marked (P) under the heading, "locality".

Genus COLURELLA

Colurella hindenburgi Steenecke, 1916

1916. *Schrift. Phys-ökonom Ges Königsberg i P.* Jahrg. 57 90, 97

Locality. Lake Ellesmere, temp. 14°C, brackish water Common. Length body 100 μ , width 40 μ , toes 52 μ . Specimens generally were larger, and more acute posteriorly than those described by Steenecke.

Genus CUPELOPAGIS

Cupelopagis vorax (Leidy)

1857. *Dictyophora vorax* Leidy *Prod Acad Nat Sc. Phila.*, vol. 9, p. 205.

Locality. Victoria Lake, and lily ponds in Wilson's Nursery, Christchurch. Temp. 21–23°C. pH 8. Abundant. Both the free-swimming immature forms and the fully developed sessile females were found. Over-all length of fully grown animal 550 μ , maximum width of body 270 μ .

Genus CEPHALODELLA

Cephalodella physalis Myers, 1924

1924. *Rotifer Fauna Wis.*, pt. 2, *Wis Acad Sc. Art Lett*, vol. 23, pp. 484–5

Locality. Acid water swamp near L. Katrine, North Canterbury. Temp. and pH unknown. Common. Length over all 160 μ , toes 40 μ , trophi 30 μ .

Cephalodella tantilla Myers, 1924

1924. *Rotifer Fauna Wis.*, pt. 2, *Wis Acad Sc. Art. Lett*, vol. 23, p. 486.

Locality. L. McGregor, Canterbury. Not common. Normal specimens. (P.)

Genus EOSPHORA

Eosphora anthadis Harring and Myers, 1920

1920. *Rotifer Fauna Wis.*, pt. 1, *Wis Acad. Sc. Art Lett.*, vol. 20, pp. 641–2

Locality. Acid water swamp near L. Katrine, North Canterbury. Not common. Length 500 μ over all.

Genus EUCHLANIS

Euchlanis meneta Myers, 1930

1930. *Rotifer Fauna Wis.*, pt. 5, *Wis. Acad. Sc. Art Lett.*, vol. 25, p. 378.

Locality. L. McGregor, Canterbury. Common. Length dorsal plate 160 μ , width 140 μ . Length ventral plate 140 μ , width 100 μ . Toes 70 μ . The lateral sulci are very deep in most specimens which are longer and wider than those described by Myers. (P.)

Genus FILINIA

Filinia terminalis (Plate)

Triartha terminalis Plate. 1886. *Jenische Naturw.*, vol. 19, p. 19

Locality. L. Pearson, Canterbury. Temp. 9°C. Common. It has also been found sparingly in other high-altitude lakes. I agree with Edmondson (1935) that *F. terminalis* (Plate) is not a synonym for *L. longiseta* Ehrenberg. In L. Pearson, specimens were found having a body-length of 400 μ , and appendages 500 μ and 480 μ respectively in length. Apart from the much greater size of *F. terminalis* it differs from *F. longiseta* in both the anterior and posterior details and shape of body. (P.)

Genus LECANE

Lecane (Monostyla) pygmaea Daday, 1897

1897. *Lecane (Monostyla) pygmaea* Daday. *Math. Termész. Ertés.*, vol. 15, p. 139.

Locality. Acid water swamp near L. Katrine, North Canterbury. Not common. Length over all 146 μ .

Lecane arcula Harring, 1914

1914. *Proc. U.S. Nat. Mus.*, vol. 47, p. 539.

Locality. Acid swamp near L. Katrine. North Canterbury. Not common. Length over all 146 μ .

Lecane luna var. **presumpta** Ahlstrom 19381938 *Jour. Elisha Mitchell Sci. Soc.*, vol. 54, no 1, p. 97*Locality.* L. McGregor, Canterbury. Fairly common Length over all 163 μ . (P.)

Genus LEPADELLA

Lepadella latusinus var. **americana** Myers, 19341934 *Amer. Mus. Nov.* no 760, p 7*Locality.* L. Ellesmere, Canterbury, a brackish lake, and in L. McGregor, Canterbury, where it occurred in Professor Percival's collections. *L. latusinus* was described by Hilgendorf (1899) from Taieri Beach, and was also found at Mt. Cook by Murray, it has since been found in many habitats. *L. latusinus* is a very variable species, and it is considered that a search would show a complete range of forms from *L. latusinus* to var *americana***Lepadella whitfordi** Ahlstrom, 19381938 *Jour. Elisha Mitchell Sc. Soc.*, vol. 54, no. 1, p. 100*Locality* L. McGregor, Canterbury Not common. Length over all 133 μ
The collar was clear but not pronounced (P)

Genus MYTILINA

Mytilina trigona (Gosse)*Diplax trigona* Gosse. 1851. *Ann. Mag. Nat. Hist.*, ser. 2, vol. 8, p. 201*Locality* L. McGregor, Canterbury. Not common Total length 185 μ , toes 70 μ . (P.)

Genus POMPHOLYX

Pompholyx complanata Gosse, 18511851. *Ann. Mag. Nat. Hist.*, ser. 2, vol. 8, p. 203*Locality.* L. Pearson, Canterbury Common Length 114 μ (P.)**Pompholyx sulcata** Hudson, 18851885 *Jour. Royal Micr. Soc.* p. 613*Locality.* L. Alice Temp 8°C pH 6 Not common Total length 115 μ .

Genus PROALES

Proales longidactyla Edmondson, 19481948 *Amer. Micr. Soc.*, vol. LXVII, pp 150-2*Locality* Acid water swamp near L. Katrine, North Canterbury. Not common. Total length of animal 146 μ , head 41 μ , toes 20 μ . The specimens differ in several particulars from the animal described by Edmondson. the head is longer, there are a number of longitudinal folds round the body, the toes are shorter with their distal points recurved, and in dorsal view the animal is somewhat bdelloidal in appearance. In trophi and other details the animals are identical. It should be noted that Edmondson's specimens came from the psammon.

Genus SCEPANOTROCHA

Scepanotrocha rubra Bryce, 19101910 *Quek. Micr. Club* ser. 2, vol. II p. 78*Locality.* Acid swamp near L. Katrine, North Canterbury Not common Length over all 212 μ ; 7-8 teeth on each ramus. This is the first time any member of this genus has been recorded in New Zealand

Genus SQUATINELLA

Squatinella mutica (Ehrenberg)

Stephanops muticus Ehrenberg. 1831 *Abh Akad. Wiss. Berlin*, p. 138

Locality. Pools near Auckland, where it was collected by Mr. I. W. T. Munro, of Christchurch. Total length 110 μ . Fairly common

Genus TRICHOTRIA

Trichotria truncata (Whitelegge)

Dinocharis truncatum Whitelegge. 1889. *Proc Royal Soc. N.S.W.*, vol. 23, p. 315

Locality. L. McGregor, Canterbury. Not common Length of body 110 μ , width 90 μ , foot 45 μ , toes 90 μ . (P.)

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 RUSSELL, C. R. See introduction

CORRECTION TO

“ADDITIONS TO THE ROTATORIA OF NEW ZEALAND.” PART 3

Trans. Royal Soc. N.Z., vol. 78, pp. 161-6

Keratella carinata n.sp.

Dr. Bruno Berzins, of Lunds University, Sweden, has very kindly forwarded me a description and sketch of *Keratella cochlearis* var. *javana* Hauer, 1937 *Archiv. Hydrobiol.*, suppl. xv, p. 382. This animal was described from a single specimen collected from Java. Ahlstrom, *Bull. Amer. Mus. Nat. Hist.*, vol. LXXX, p. 434, gives a description of Hauer's animal without a drawing, and raises it to specific rank as *K. javana* Hauer. Although *K. carinata* differs in the length and shape of the anterior and posterior spines, the dorsal patterns which are of an unusual type are identical, and from a re-examination of the material I have no hesitation in saying that *K. carinata* must be considered a synonym for *K. javana* Hauer

I am much indebted to Dr. Berzins for sending me the description with a sketch of the type specimen.