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Rzadkie i nowe w faunie Polski gatunki wrotków (*Rotatoria*)

Rare and new species of rotifers in the fauna of Poland

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A b s t r a c t — 25 planktonic and littoral species of *Rotatoria* which are rare or new for the fauna of Poland were identified. These species were found in the fishponds belonging to the Laboratory of Water Biology of the Polish Academy of Sciences at Gołysz. The following species are new for the fauna of Poland: *Volga spinifera* S k o r i k o v 1903, *Lepadella nympha* D o n n e r 1943, *Lecane bifurca* (B r y c e) 1892, *Trichocerca jenningsi* V o i g t 1957.

In the years 1965/1966, during analysis of communities of the zooplankton in the plant zone and in the open water zone of the ponds of the Gołysz Complex of Experimental Farms of the Laboratory of Water Biology of the Polish Academy of Sciences, a number of the species of rotifers rare in the fauna of Poland were found. The following deserve attention:

Volga spinifera S k o r i k o v 1903 — found in the plankton of the unfertilized pond Chyliński Mały II, on 15th June. Length of lorica 112 μ, width 86 μ, length of the toes 22 μ. To the author's knowledge it has not hitherto been reported from Poland. According to I l l i e s (1967) it occurs in the lakes and in stagnant waters.

Keratella testudo E h r b. 1832 — occurred in the plankton of the „Pod Badurką" pond on 8th September 1965. According to P a w ł o w s k i (1958) it is a heleo- and telmatoplanktonic species associated with eutrophic waters and may be an indicator of the fertility of the water. It was reported from Poland by W i e r z e j s k i (1893) and P a w ł o w s k i (1958).

Squatinella rostrum S c h m a r d a 1846 — found in the water of the Lipowy pond among *Glyceria aquatica* on 11th and 31st August. It is not reported on the list of the fauna of Polish rotifers (W i s z n i e w s k i 1953), and P a w ł o w s k i (1958) did not find it in the section fo the river Grabia. The only stand of this species in Poland was given by R a d w a n (1966) from the littoral zone of the Łęczyńsko-Włodawskie lakes.

Squatinella tridentata var. *mutica* (Ehrb.) 1832 — this species was found in the open water zone and among *Glyceria aquatica* in the Lipowy pond in July, August, and September. The typical form of this species was not found. It occurs commonly in Europe, just as the preceding species. It was reported by Lucks (1912) from the surroundings of Gdańsk and by Wierzejski (1893) from the surroundings of Cracow.

Squatinella bifurca (Bolton) 1884 — occurred in the water of the Wyszni III pond, grown over with *Glyceria aquatica*, on 23rd August and in the Lipowy pond on 13th July. It was reported from Poland by Wierzejski (1893) and Lucks (1912). It occurs in small water bodies among the plants. It is found much more rarely than the two preceding species.

Lepadella nympha Donner (1943) (fig. 1 a) — developed among *Glyceria aquatica* in the Pod Badurką pond on 6th July. Length of lorica 120 μ, the longer toe of foot 22μ. It was described for the first time by Donner and was also reported from the Danube delta by Rudescu (1960). To the author's knowledge it has not hitherto been reported from Poland.

Lecane stichea Harring 1913 — appeared among *Glyceria aquatica* on 21st July in the Wyszni III pond. It was reported from Poland from the surroundings of the Wigry Lakes by Wiszniewski (1953) and by Rudescu (1966) from the region of Suceava on the upper Stir. It was found recently by Radwan (1968) in the littoral of the Łęczyńsko-Włodawskie lakes.

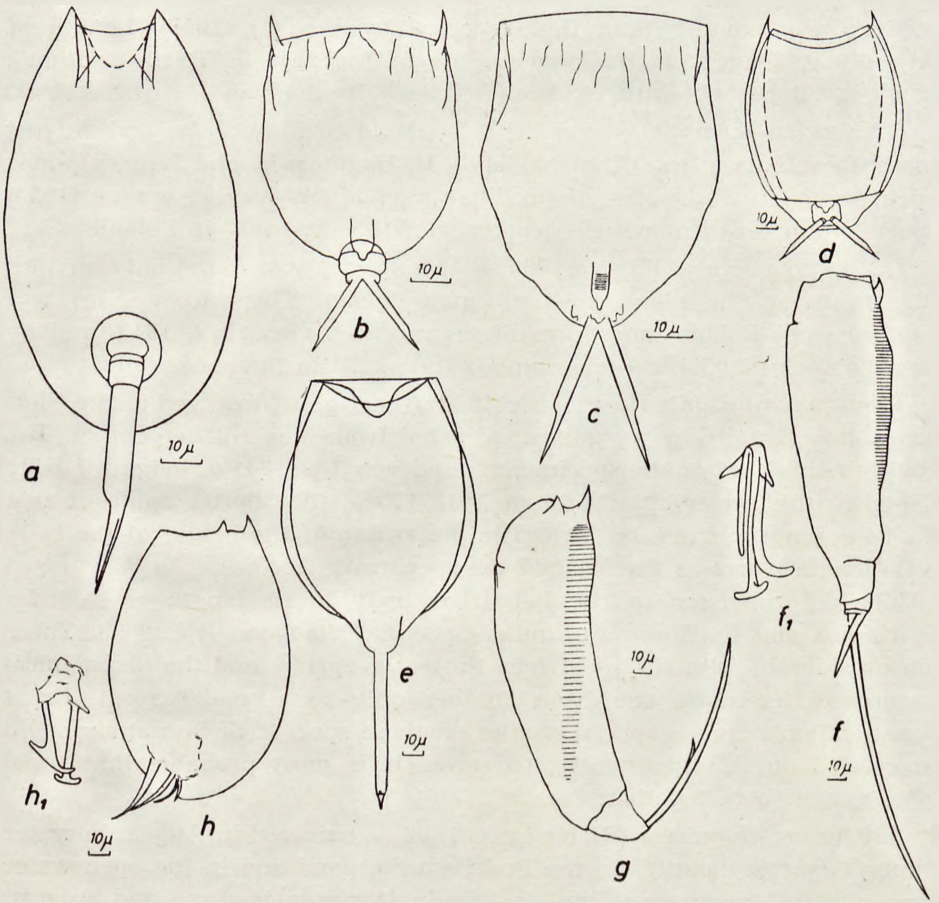
Lecane arcula 1914 (fig. 1 b) — dwelled among the plants in the Chyliński Mały II pond in May and July, and in the Lipowy pond during the whole vegetation period of the pond. Length of lorica 60—65 μ, width of lorica 45 μ, length of teeth 21—26 μ, claw 6 μ. From Poland reported by Pawłowski (1938) who found it in the liverwort *Pelia epiphylia* in the Dziki Nikor Marsh near Białowieża. Wiszniewski (1953) is of the opinion that this species is a variety of *Lecane aculeata* (Jakubski 1912).

Lecane tenuisseta Harring 1914 (fig. 1 c) — occurred on 24th August in the plankton of the Lipowy pond in the plant zone. Length of lorica 68—72 μ, width 54 μ, length of toes 22—29 μ, claw 14 μ. From Poland it was reported by Pawłowski under a synonymic name of *Lecane elongata* (Pawłowski 1938) from the shores of the Toporowy Pond in the Tatras, grown over with *Sphagnum*. Besides this it was reported by Kyselowa (Siemińska A., Siemińska J. 1967) from the ponds of the Gołysz complex. It was also reported by Rudescu from the region of Suceava (1966). According to Illies (1967) it is a cosmopolitic species.

Lecane subtilis Harring et Meyers 1926 — found in the water of the Lipowy, Chyliński Mały II, and Wyszni III ponds in May and August. It was reported from Poland by Pawłowski (1938) and Radwan (1968). According to Voigt (1957) it usually occurs in marshy waters among *Sphagnum*.

Lecane tudicola Harring et Meyers 1926 (fig. 1 d) — found in May and August in the open water zone of the Baginiec II pond and among the plants in the Pod Badurką, Wyszni III, and Chyliński Mały II ponds. Length of lorica 144—148 μ, width of lorica 90—94 μ, length of toes 40—43 μ, It was reported from Poland by Pawłowski (1938, 1958) and by Bucka and Kyselowa (1967) from the plankton of the Wyszni II pond of the Gołysz complex. According to Voigt (1957) it occurs in small water bodies among *Sphagnum*.

Lecane crenata Harring 1913 (fig. 1 e) — found in May, June, and August in water within the range of the emergent plants of the Lipowy,



Ryc. 1 a-h. a — *Lepadella nympha*, b — *Lecane arcula*, c — *L. tenuisseta*, d — *L. tudicola*, e — *L. crenata*, f — *Trichocerca jenningsi*, f_1 — *T. jenningsi* — mastax mastax, g — *T. insignis*, h — *T. musculus*, h_1 — *T. musculus* — mastax

Fig. 1 a-h. a — *Lepadella nympha*, b — *Lecane arcula*, c — *L. tenuisseta*, d — *L. tudicola*, e —*L. crenata*, f — *Trichocerca jenningsi*, f_1 — *T. jenningsi* — mastax g — *T. insignis*, h — *T. musculus*, h_1 — *T. musculus* — mastax

Chyliński Mały II, and Pod Badurką ponds. Length of the dorsal plate 126—132 μ, length of the ventral plate 108 μ, width of lorica 99—108 μ, tooth 70—72 μ, claw 11—13 μ. It was reported from Poland only by Pawłowski (1958) and Kyselowa (Siemińska A., Siemińska J. 1967). According to Voigt (1957)) it occurs among water plants.

Lecane bifurca (Bryce) 1892 — occurred in May in the Lipowy pond among *Glyceria aquatica*. To the author's knowledge it has not hitherto been reported from Poland. According to Voigt 1957) it occurs in ponds among plants.

Trichocerca jenningsi Voigt 1957 (fig. 1 f) — found in the Lipowy pond only on 24th August among *Glyceria aquatica*. The size of this specimen was smaller than that reported by Voigt (1957). Length of body 160 μ, length of the longer spine of foot 145 μ. To the author's knowledge it has not hitherto been reported from Poland.

Trichocerca iernis (Gosse) 1887 — found in May, July, and August among the plants in the Chyliński Mały II, Baginiec II, and Lipowy ponds and in the open water zone of the Lipowy pond. Wiszniewski (1953) reports a number of places of occurrence of this „species" in Poland.

Trichocerca scipio Gosse 1886 — this species was found only on 18th August among the plants in the Lipowy pond. This rare species was reported from Poland only from Pomerania (Lucks 1912, 1913) and by Pawłowski (1958). It occurs among the plants in the ponds only.

Trichocerca insignis Herrick (1885) (fig. 1 g) — observed in the Chyliński Mały II and Lipowy ponds. Occurred from May till September. The length of the body of the specimens found was 190—241 μ, height of body 47—58 μ, the longer spine of foot 108—115 μ, the shorter spine of foot 43—54 μ, length of mastax 54 μ. The proportion of the height of the body to its length was 1 : 4 for most of the specimens. According to Wulfert (1956) the proportion of the heigth of body to its length is 1 : 5 for *T. insignis* and for the very similar species *T. meyersi* it is 1 : 3. There is a considerable similarity between these two species and the taxonomical features differentiate one from another only to a small extent. Exact identification requires special studies on these species. Such a study could be carried out in the investigated area. It is most probable that these species occur here together.

Trichocerca longiseta (Schrank) 1802 — occurred in August in water among *Glyceria aquatica* in the Pod Badurką pond and in the open water zone of the Lipowy and Chyliński Mały II ponds in June and August. According to Wiszniewski (1953) it is common among the plants of the smaller lakes and ponds.

Trichocerca cavia (Gosse) 1886 — found in June and September in the open water zone of the Lipowy pond and among *Glyceria aquatica* in the Baginiec II and Lipowy ponds during the whole period of

investigation. It was reported from Poland by Wierzejski (1893) and Pawłowski (1958). It occurs among the flora of stagnant waters.

Trichocerca musculus (Hauer) 1935 (fig. 1 h) — observed in May in the Baginiec II pond among *Glyceria aquatica*. Length of body 131 μ, width 71 μ, left toe 42 μ, right toe 31 μ, length of mastax 37 μ. It was reported from Poland by Wiszniewski (1936, 1937) and Radwan (1967). It occurs among plants (Voigt 1957).

Testudinella parva Ternetz 1892 — occurred in the open water zone and among the emergent plants in the Lipowy and Chyliński Mały II ponds. *T. parva* var. *bidentata* was the most frequently found variety of this species. It was reported from Poland by Wierzejski (1893), Lucks (1912), and Radwan (1967).

Testudinella incisa Ternetz 1892 — found in August in the open water zone in the Baginiec II pond and from May till August among *Glyceria aquatica* in the Baginiec II and Pod Badurką ponds. It was reported from Poland by Hajduk (1963) and Radwan (1966).

Testudinella elliptica Ehrb. 1834, found in the Wyszni III pond among emergent plants in August. In Poland it occurs only in a few habitats and it was reported by Hillbricht-Ilkowska (1964) from the fishponds. This rotifer is most frequently found as an epibiont of *Asellus aquaticus* and also occurs among water plants (Voigt 1957).

STRESZCZENIE

W czasie opracowywania zbiorowisk zooplanktonu w strefie roślin i w strefie wody otwartej stawów rybnych Zespołu Gospodarstw Doświadczalnych „Gołysz" należących do Zakładu Biologii Wód Polskiej Akademii Nauk w Krakowie oznaczono 25 gatunków wrotków rzadkich i nowych dla fauny Polski. Opisano 2 gatunki i odmianę z rodzaju *Squatinella*, po 8 gatunków z rodzaju *Lecane* i *Trichocerca*, 3 z rodzaju *Testudinella*, pozostałe należą do rodzajów *Volga*, *Keratella* i *Lepadella*.

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