



***Hydrodroma pilosa* BESSELING, 1940 AND *Limnesia undulatoides* DAVIDS, 1997 (ACARI, HYDRACHNIDIA) – NEW RECORDS FROM POLAND**

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SYNOPSIS

Key words:

water mites,
Hydrachnidia,
close related species.

In Europe there are still water mites species described and marked as wrong species. But some of scientists are trying to isolate them and distinguish from already existing species. In this way was possible to find in Poland *Hydrodroma pilosa* and *Limnesia undulatoides*. First of them was found for the second time in Poland. Probably its frequency is as common as *Hydrodroma despiciens* (Müll.) and about 50% of *H. pilosa* is under the wrong name. Its occurs equally often that *H. pilosa*. This is the first record of *Limnesia undulatoides* from Poland, and the species is also confused with sibling species *Limnesia undulata* (Müll).

INTRODUCTION

The knowledge about taxonomy of European water mites is now well developed. But still new species are described often as species split off from previous ones. *Hydrodroma pilosa* and *Limnesia undulatoides* are these kind of species. *H. pilosa* is closely related to *H. despiciens* and *Limnesia undulatoides* is closely related to *L. undulata*. The both species was found in river Krąpiel.

METHODS AND AREA INVESTIGATION

The investigations were carried out in May, June, July and August of the year 2009. Water mites were collected by hand netting, sorted on the spot from the living material. The area covered stretch of river Krąpiel situated along the fish ponds near Dzwonowo village (NW Poland). This is about 10 m wide and 1 m deep, very flow

river, with sandy-muddy bottom covered by many plants, maximum depth is 0,7 m. It looks like a ditch. The composition of the material is given as: males/females.

RESULTS AND DISCUSSION

Hydrodroma pilosa Besseling, 1940

MATERIAL EXAMINED: 0/1 river Krąpiel, stagnant, 0.2 m depth, muddy bottom, *Sparganium erectum* (Roll.), *Glyceria aquatic* (Wahlenb.), *Sagitta sagittifolia* (Guettard.) 12.08.2009; 3/1 river Krąpiel, stagnant, 0.5 m depth, muddy bottom, *Glyceria aquatica* 12.08.2009. The specimens characterized by swimming setae on II-Leg-4-5 and IV-Leg-4-5, and by integument structure (Fig. 1). *H. pilosa* was described by BESSELING (1941) as a subspecies *H. despiciens pilosa* Besseling, 1940. GERECKE (1991) raised it to species range and he supposed about 50 % of all records named *H. despiciens* in reality refer to *H. pilosa* (Di Sabatino et al., 2010). This is the second record of *H. pilosa* from Poland; the first one was from saline waters (Kowalik, 2002). In river Krąpiel *H. pilosa* was found together with *H. despiciens*, therefore probably the two species occur in similar environments. Both of them are eurytopic species occurred in lakes, ponds and ditches, may be *H. despiciens* prefer more acidophilus reservoirs (Wiles, 1985; Cichocka, 1998; Gerecke, 1991; Zawal, 2007).

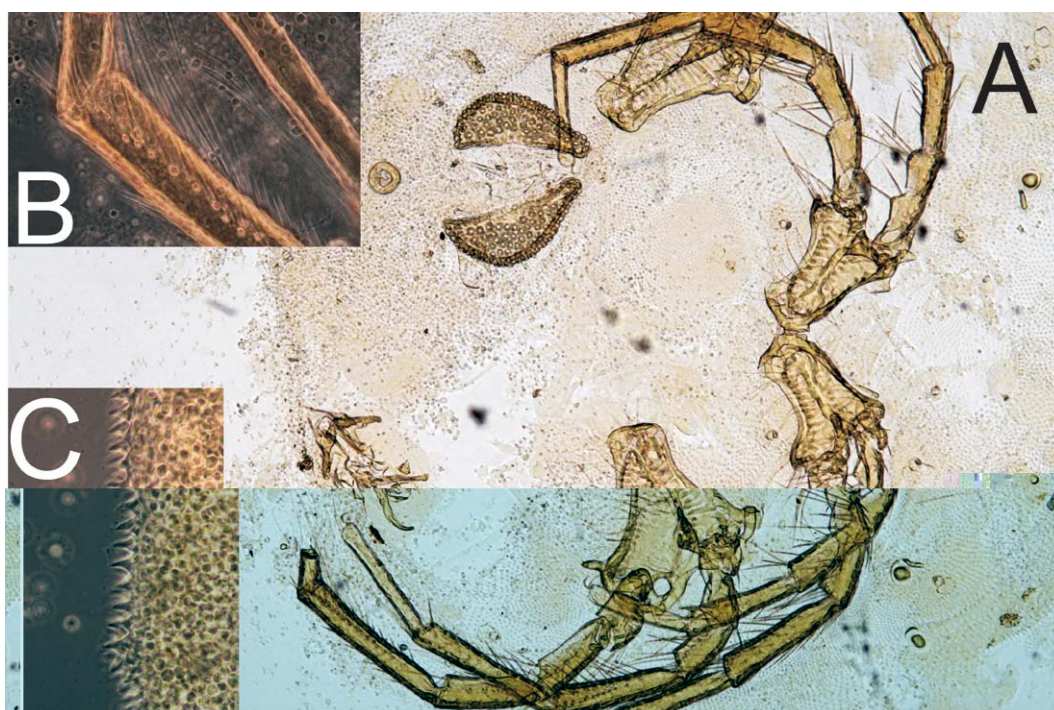


Figure 1: *Hydrodroma pilosa* A – male ventral view, B – 4-Leg-5, C – integument structure.

Table 1: *Limnesia undulatoides* dimensions in μm .

	Male	Female
chelicera, basal segment	357	398
chelicera, claw	103	128
PI	58	70
PII	244	255
PIII	192	176
PIV	406	432
PV	100	117
genital plate, length	234	255
genital plates, width	225	205
II-Leg-5	346	362
II-Leg-6	312	307
III-Leg-5	360	378
III-Leg-6	314	303
IV-Leg-5	424	455
IV-Leg-6	432	443

Limnesia undulatoides Davids, 1997

MATERIAL EXAMINED: 1/0, river Krąpiel, stagnant, 0.2 m depth, muddy bottom, *Sparganium erectum*, 22.05.2009; 1/0, river Krąpiel, drift, 0.5 m depth, sandy-muddy bottom, *Sagitta sagittifolia*, 22.05.2009; 0/1, river Krąpiel, drift, 0,5m depth, sandy-muddy bottom, 12.08.2009; 2/0, river Krąpiel, stagnant, 0.2 m depth, muddy bottom, *Glyceria aquatica*, 22.05.2009, 12.06.2009. The specimens characterized by number of setae on genital plates and size of the body (Fig. 2). It was described by DAVIDS (1997) and after that recorded in Netherlands and Sweden (van Haaren & Tempelman, 2009). This is the first record from Poland, they have slightly different dimensions (Tab. 1). It occurred together with *L. undulata*. *L. undulatoides* is eurytopic species found in stagnant waters and ditches with well developed submerged vegetation (van Haaren & Tempelman, 2009).

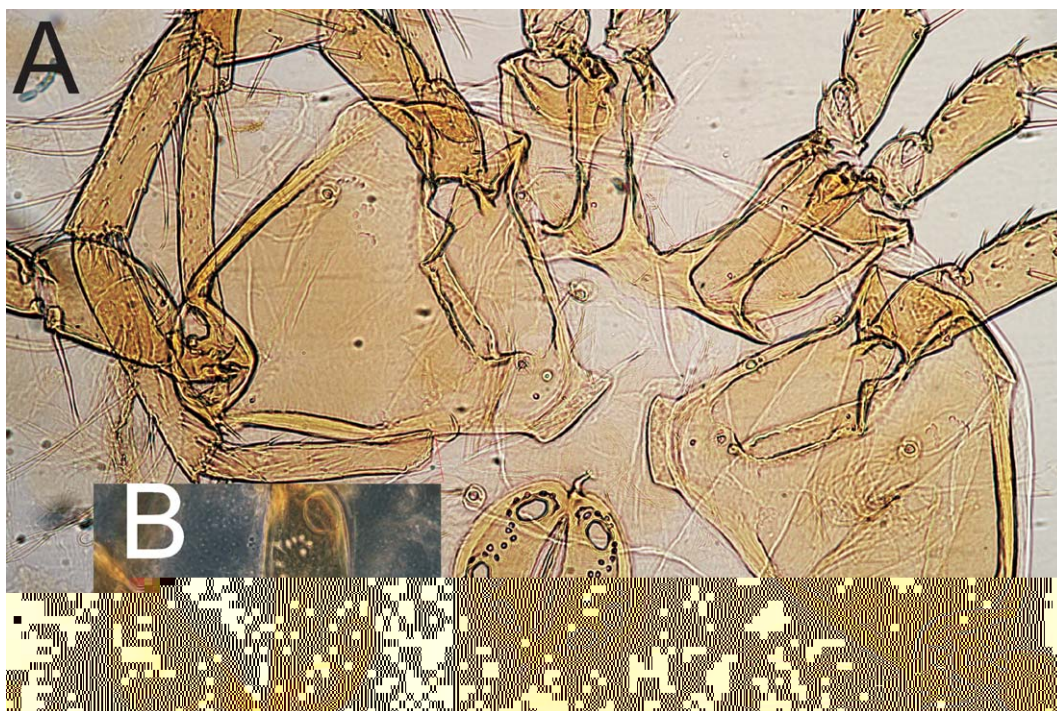


Figure 2: *Limnesia undulatoides* A – male ventral view, B – female genital plate.

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