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Micronecta scholtzi (Fieber, 1860) new to Luxembourg. With new records of three other rare aquatic heteropteran species (Insecta, Heteroptera)

by

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Abstract: *Micronecta scholtzi* (Fieber, 1860) is reported as new to Luxembourg. *Mesovelia furcata* and *Aquarius paludum*, for which there had been no records in the last few decades, were rediscovered. New records of the rare paludicolous *Hydrometra gracilenta* are given.

Résumé: *Micronecta scholtzi* est signalé pour la première fois du Grand-Duché de Luxembourg. *Mesovelia furcata* et *Aquarius paludum* ont été retrouvés après plusieurs décennies. De nouvelles captures de la rare paludicole *Hydrometra gracilenta* sont signalées.

1. Introduction

The water bug fauna of Luxembourg had been thouroughly investigated by Hoffmann (1959), who recorded a total of 27 species. A more recent contribution by Gerend (1993) added another 8 species to that list, although 4 of the species reported by Hoffmann (op. cit.) were not recorded again.

In the summer of 2004 a species previously unknown in the Grand-Duchy was found near the city of Luxembourg. Additionally, two of the species recorded by Hoffmann (op. cit.), but not found in recent years, were rediscovered at the same locality. Furthermore, several new localities are reported here for one other rare species.

The nomenclature follows the German checklist by Hoffmann & Melber (2003). Specimens were identified with the help of the keys by Poisson (1957) and Savage (1989). Geographical coordinates are given in the Gauss-Luxembourg system.

2. Results

Family Corixidae

Subfamily Micronectinae

Micronecta scholtzi (Fieber, 1860)

1 ♂, 1♀, NE of Itzig, "Stekend Muer", 81390/74163, 330 m a.s.l., permanent pond, leg. & det. R. Gerend.

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This species, which is new to Luxembourg, is easily recognized by the twisted left paramere of the male genitalia, the short pronotum and the characteristic dark colour pattern of the head (Savage 1989). Unlike *M. poweri* (Douglas & Scott 1869), the only other representative of the genus in Luxembourg, *M. scholtzi* inhabits stagnant rather than flowing waters

Altough not much is known about its ecology, this species is generally considered to occur in shallow waters of ponds or at lake shores at lower altitudes (Poisson 1957, Savage 1989).

The site at Itzig is a eutrophic pond with abundant aquatic vegetation (mainly *Elodea canadensis* and *Myriophyllum* sp., *Potamogeton natans, Nymphaea alba* (introduced), a large belt of hydrophitic vegetation at the western edge (*Mentha aquatica*, *Carex pseudocyperus* and other *Carex* sp., *Juncus effusus*, *Rorippa* sp., *Alisma plantago-aquatica*, *Sparganium erectum*), and a similar smaller fringe at the remaining edges.

The bugs were caught at the well-vegetated western shore, which at that time of the year was covered with soft mud, plant debris and mats of *Elodea* sp.

M. scholtzi coexists at this site with a rather rich heteropteran fauna including *Mesovelia furcata* (see below), *Microvelia reticulata*, *Ranatra linearis* and *Aquarius paludum*. Hoffmann (1959) already mentioned this pond as harbouring one of the most diverse heteropteran faunas in Luxembourg.

Family Mesoveliidae

Mesovelia furcata Mulsant & Rey, 1852

2 adults, 1 larva, permanent pond NE of Itzig, "Stekend Muer", 81390/74163, 330 m a.s.l., leg. & det. R. Gerend.

Though already recorded by Hoffmann (1959), this species had not been encountered in recent years. This might be due to the fact that the recent sampling activity has mainly taken place early in spring when this species is still inactive.

Hoffmann (op. cit.) mentions this species from the locality at Itzig ("mares du Scheidhof"), the faunistically well-known "Gipsweier" between Bridel and Steinsel, and the Kockelscheuer fishponds. According to most authors (Poisson 1957, Zimmermann 1984, Bernhardt 1985, Wachmann 1989) *M. furcata* occurs in vegetation-rich waters with a strong preference for aquatic plants bearing floating leaves, such as the water lilies *Nymphaea* sp. and *Nuphar* sp., *Hydrocharis morsus-ranae,* and pondweeds, *Potamogeton natans* in particular. *M. furcata* seems to be very rare in Belgium (Dethier & Bosmans 1979).

Family Gerridae

Aquarius paludum (Fabricius, 1794)

1♂, permanent pond NE of Itzig, "Stekend Muer", 81390/74163, 330 m a.s.l, leg. & det. R. Gerend

Hoffmann (1959) mentions two localities for this species, which he considers rare in Luxembourg. Gerend (1993) doesn't mention any more recent records. Future field work should clarify whether *A. paludum* is rare indeed or if it has simply been overlooked in Luxembourg. This could be due to the fact that recent sampling activity has focused on small and temporary water bodies. According to Dethier & Bosmans

(1979) *G. paludum* occurs in large ponds, lakes and canals. Its presence or absence needs to be checked in those habitats in Luxembourg.

Family Hydrometridae

Hydrometra gracilenta Horvath, 1899

Koerich "Lauterbur", 63579/83210, ca. 260 m a.s.l., Eisch alluvial plain, artificial pond with reedbeds and large sedges, leg. & det. R.Gerend.

Dahlem "Bolsemuer", 63344/73580, ca. 365 m a.s.l., large shallow pool with sedge-beds and *Equisetum fluviatile,* leg. & det. R.Gerend.

For a description of the habitat requirements in Luxembourg and northeastern France, see Gerend (1993). *H. gracilenta* is essentially a paludicolous species and is therefore easily overlooked amongst coarse detritus in *Carex*-beds, the more so as it is quite small and cryptically coloured. This could explain the missing records in Belgium (Dethier & Bosmans 1979), where most probably it also occurs.

3. References

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