

Some remarkable captures of *Notonecta lutea* (MÜLLER, 1776) and *Micronecta minutissima* (LINNAEUS, 1758) (Heteroptera : Notonectidae, Corixidae)

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Samenvatting. Enkele merkwaardige vangsten van *Notonecta lutea* (MÜLLER, 1776) en *Micronecta minutissima* (LINNAEUS, 1758) (Heteroptera : Notonectidae, Corixidae) *Notonecta lutea* en *Micronecta minutissima* zijn twee zeldzame waterwantsen die op een aantal nieuwe vindplaatsen zijn gevonden. Een overzicht van de vindplaatsen wordt gegeven. Voor elke soort wordt een korte beschrijving van het geprefereerde habitat opgesteld.

Résumé. Quelques captures remarquables de *Notonecta lutea* (MÜLLER, 1776) et *Micronecta minutissima* (LINNAEUS, 1758) (Heteroptera : Notonectidae, Corixidae) *Notonecta lutea* et *Micronecta minutissima* sont des hétéroptères rares. Ils ont été découverts dans plusieurs endroits nouveaux. L'auteur donne un aperçu des exigences biologiques de chaque espèce, ainsi qu'une liste de localités connues.

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During an intensive survey of water insects in Belgium, some specimens of *Notonecta lutea* (MÜLLER, 1776) and *Micronecta minutissima* (LINNAEUS, 1758) were captured in several new localities. *Notonecta lutea* is a rather large waterbug (14 - 15 mm). Together with *N. reuteri* it can be distinguished from the other species of this genus by its bright scutellum and a dark continuous dash on the forewings. *N. lutea* and *N. reuteri* can only be separated by a careful examination of the genital apparatus (HEISS 1970). The last report of *N. lutea* in Belgium was in 1950 (Genk). There was only one other capture location known, at Mol-Postel in 1932 (DETHIER & BOSMANS 1979). In 1986 and 1987 we were able to add 6 new localities, one of which is situated in the Netherlands not far from the border with Belgium.

8.VII.1986	Reusel (The Netherlands)	FS 48	1/1
8.VII.1986	Arendonk (Goorke)	FS 48	-/1
10.VII.1986	Neerpelt (Hageven)	FS 68	1/-
10.VII.1986	Mol (De Maat)	FS 57	-/1
14.VII.1987	Brasschaat (Kl. Antw. Heide)	FS 08	-/1
5.IX.1987	Geel (De Zegge)	FS 37	1/-

All the new localities are oligotrophic shallow ponds and fens. With the exception of Arendonk, the pH varied from 3.6 to 5.8, and conductivity was between 64 and 91 Siemens. In Arendonk ('t Goorke) we measured pH values of 7.6 - 8 and conductivity values of 300-400 Siemens. The surrounding area was mostly heathland (*Erica vulgaris*, *Molinia caerulea*, *Juncus affresus*, *Iris pseudacorus*, *Carex* sp.).

Despite intensive searching, we were not able to catch more specimens per locality. The individuals caught were perhaps migrants from the north-east (The Netherlands, Germany). According to several authors (HEISS 1970;

DOLMEN 1973; LETH 1943; JASTREY 1981) it is a circumpolar species, found in all of Scandinavia, Central Europe, Central Asia and Japan. It is recorded from 84 localities throughout the Netherlands (SCHOBER & WASSENAAR 1980). NIESER (1982) comments that this species is common in Holland, but most captures have been made in the north of the country. According to SCHOBER & WASSENAAR (1979) it occurs especially in fens but also in other biotopes (ponds, dune-puddles, streams), with the surrounding country being mostly pastures. This is quite different from the localities in Belgium. The other articles do not give any valuable information about the biotopes.

Micronecta minutissima is a very small corixid (less than 2,5 mm). It can be confused with the more common *Micronecta meridionalis*. They may be distinguished with certainty by examining the paramers. Both species are rather easily overlooked during sampling, which is probably a reason for their apparent rarity. In Belgium there was only one dated report of *M. minutissima* by SCHOUTEDEN (1917) (in DETHIER & BOSMANS 1979). SCHOUTEDEN captured his specimen in the «Canal of Charleroi» near Anderlecht. The possibility exists that the specimen does not belong to *M. minutissima* but to a sibling species *M. griseola* which prefers running water. Another report without any date is from the «Bois d'Angre» (Hainaut) (DETHIER & BOSMANS 1979). During the recent surveys we have found 2 new localities :

13.VI.1984	Lommel (watering)	FS 68	-/1
13.VI.1984	Lommel (watering)	FS 68	3/5

The two localities at Lommel are deep fish-ponds. The species occurred near the border in shallow places with sandy graduals slope. The water was clear and well lit, and the vegetation scanty (*Carex* sp., *Rumex* sp., *Urtica dioica*, *Molinia caerulea*). JANSSON (1976, 1977) and WROBLEWSKI (1958) say that this species can be found in large deep lakes with rocky bottoms. Considering the composition of their samples we believe that they meant that the first nymphal stages can only be found in the deep places, but the last nymphal stages and the adults occur in shallow places. According to these authors and NIESER (1982) it is the most common species of the genus in Scandinavia, Central Europe and also the Netherlands; this is in contrast to our findings. Nevertheless the distribution pattern in these countries is little known and there is no complete description of the habitats in which the species occurs (except JANSSON 1976); our conclusion is that it is generally rare.

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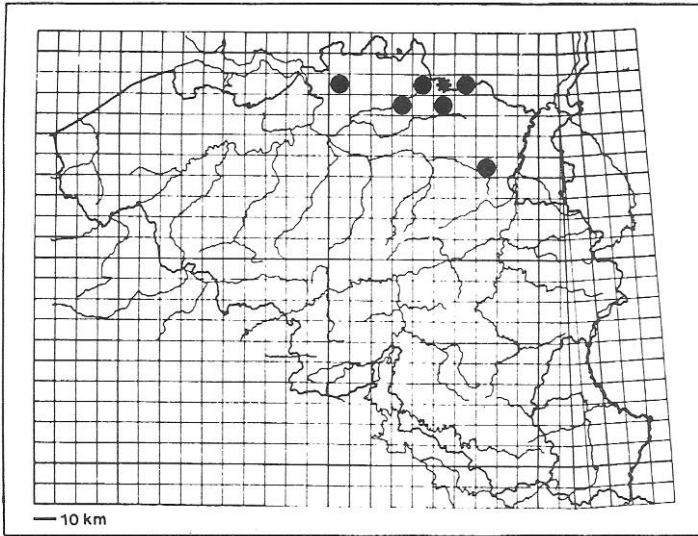


Fig. 1 : Distribution of *Notonecta lutea* (MÜLLER, 1776) in Belgium. Closed circle: data after 1950 only; open circle: data before 1950 only; asterisk: data probable correct, before 1940.

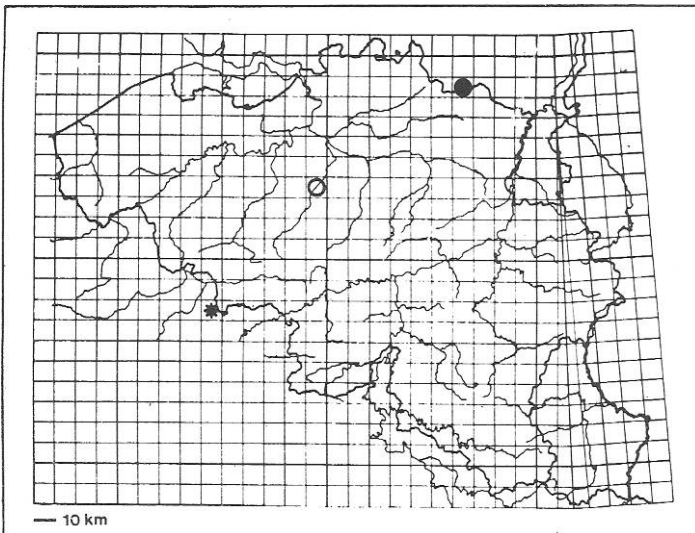


Fig. 2 : Distribution of *Micronecta minutissima* (LINNAEUS, 1758) in Belgium. Closed circle: data after 1950 only; open circle: data before 1950 only; asterisk: data probable correct, before 1940.

References

- Dethier, D. & Bosmans, R., 1979. Les Héteroïptères aquatiques de Belgique. - *Bull. Annl. Soc. r. belge Ent.* **115** : 272-303.
- Dolmen, D., 1973. Ryggsvommeren, *Notonecta lutea* Müller, i Tronderlagsområdet. - *Fauna* **26** : 265-268.
- Heiss, E., 1970 : *Notonecta reuteri* Hungerford 1928, neu für den Alpenraum (Heteroptera, Notonectidae). - *NachrBl. bayer. Ent.* **18** : 68-77.
- Jansson, A., 1976. Records on the distribution of *Micronecta* species (Het., Corixidae) in Finland. - *Ann. Ent. Fenn.* **42** : 162-166.
- Jansson, A., 1977. Distribution of Micronectae (Heteroptera, Corixidae) in Lake Päijänne, central Finland: Correlation with eutrophication on pollution. - *Act. Ent. Fenn.* **42** : 105-117.
- Jastrey, J., 1981. Distribution and Ecology of Norwegian Water-bugs (Hem., Heteroptera). - *Fauna norv. Ser. B* **28** : 1-24.
- Leth, K., 1943. Die Verbreitung der dänischen Wasserwanzen. - *Ent. Meddr* **23** : 399-419.
- Nieser, N., 1982. *Water- en Oppervlaktewantsentabel*. Jeugdbondsuitgeverij, K.N.N.V., p. 1-103.
- Schober, G. & Wassenaar, D., 1980. Inventarisatie van de ruggezwemmers (Notonectidae en Pleidae) van Nederland. *Nieuwsbrief E.I.S.-Nederland* **9** : 3-11.
- Wroblewski, A., 1958. The Polish species of the genus *Micronecta* Kirk. (Heteroptera, Corixidae) *Annl. zool. Warsz.* **17** : 247-381.

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