

Plectrocnemia brevis, a caddisfly species (Trichoptera) new for the fauna of The Netherlands

In the entomological collections of the Zoological Museum of Amsterdam several specimens of the caddisfly *Plectrocnemia brevis* were found, originating from two localities in the southern part of the province Limburg. The species, which is not recorded from Belgium and known only from three localities in Nordrhein-Westfalen, is new for the Dutch fauna. It is easily distinguished from the more common *P. conspersa*, the only other representative of the genus in this country. Both species are inhabitants of springs, spring brooks and pristine streams, mostly in mountainous or hilly country.

Entomologische Berichten 64(3): 97-98

Key words: caddisflies, province Limburg, crenal/rhithral

Introduction

Several entomologists (H. Albarda, D.C. Geijskes, F.C.J. Fischer and L.W.G. Higler, to name the most productive ones) have intensively sampled and identified the caddisflies of the Dutch fauna. It is therefore not surprising that only very few species have been added to the list of Geijskes & Fischer (1971) since its publication.

Material

During recent work in the collections of pinned Trichoptera in the Zoological Museum of Amsterdam (ZMA), I have discovered several fine specimens of *Plectrocnemia brevis* McLachlan, a species new for the fauna of The Netherlands (figure 1). All specimens are from the southern part of the province Limburg and have been collected by G.R. Langohr. Two males and one female are from Vijlen, sampled on 17.vi.1979 and 11.vii.1981 respectively. The male collected on 11.vii.1981, and possibly also the remaining specimens, were caught at artificial light in the Vijlenerbos (G.R. Langohr, pers. comm.). In my opinion all probably originate from the Mechelderbeek or from the Lombergbeek, both tributaries of the small river Geul. Five males are from Cottessen: 10 and 14.vi.1983. The one caught on 14.vi, and possibly also the remaining ones, were sampled with a net along the spring brook Cottessen, also a tributary of the Geul (G.R. Langohr, pers. comm.).

Lazare Botosaneanu

Zoologisch Museum Amsterdam
Plantage Middenlaan 64
1018 DH Amsterdam

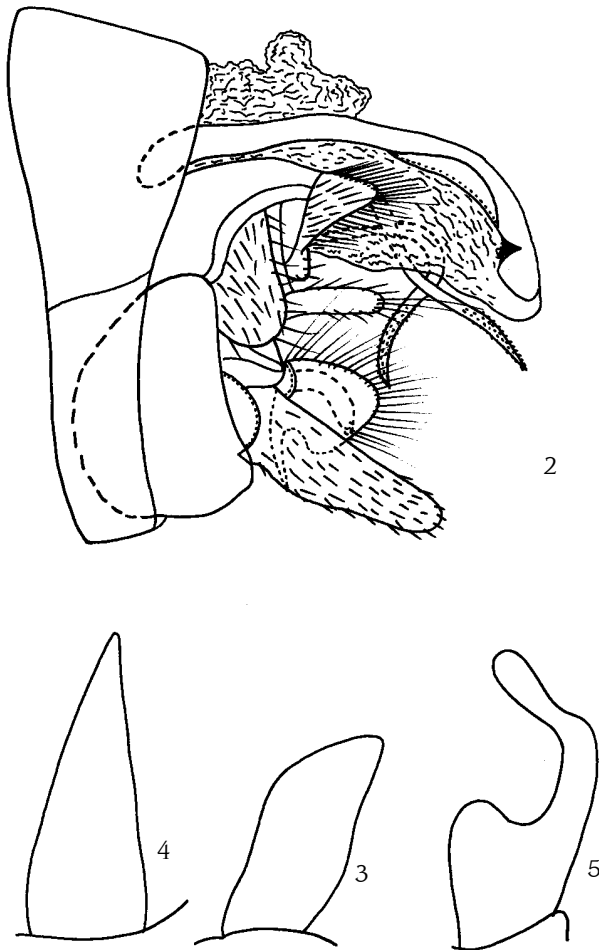
Plectrocnemia brevis was collected from localities inhabited by an association of crenobiont or strongly crenophilic caddisfly species: *Agapetus fuscipes* Curtis, *Wormaldia occipitalis occipitalis* (Pictet), *Tinodes assimilis* McLachlan, *Crunoecia irrorata* (Curtis), *Adicella reducta* (McLachlan), *Beraea maura* (Curtis), *Ernodes articularis* (Pictet) *Chaetopteryx major* McLachlan and *Sericostoma schneideri* Kolenati. In The Netherlands this association in its most complex form occurs only in the southern part of Limburg.

Distribution

Plectrocnemia brevis is known to live exclusively in springs, spring brooks and small pristine streams (crenal, epi- and metarhithral), and never inhabits rivers, canals or standing water. It is known from numerous, mostly mountainous or hilly zones of western, Central or southern Europe (Botosa-



Figuur 1. *Plectrocnemia brevis*, ♂. Cottessen, Limburg, 10 June 1983. Forewing length is 10 mm. Photo: G. Helmers.
Plectrocnemia brevis, ♂. Cottessen, Limburg, 10 juni 1983. Voorvleugellengte is 10 mm.



Figures 2-5. 2 Genitalia of male *Plectrocnemia brevis* from Vijlen, Limburg, lateral - 3-5 sketches of inferior appendage of male genitalia, ventral: 3 *P. brevis* - 4 *P. conspersa* - 5 *P. geniculata*. Illustration: L. Botosaneanu

2 Genitaliën van mannetje *Plectrocnemia brevis* uit Vijlen, Limburg, lateraal - 3-5 schetsen van gonopod, ventraal: 3 *P. brevis* - 4 *P. conspersa* - 5 *P. geniculata*.

neanu & Malicky 1978). The nearest localities are in Nordrhein-Westfalen (NRW), Germany, and it should be emphasized that in this area, where intensive faunistic research has been carried out, the species has been encountered at only three localities (Robert & Wichard 1994; Robert 1998). According to Robert & Wichard (1994) the species occurs in NRW at the northernmost limit of its distribution area. It has never been recorded from Belgium (Marlier 1949, Stroot 1987).

Dutch *Plectrocnemia*

The only other species of *Plectrocnemia* known from The Netherlands is *P. conspersa* Curtis, which is not uncommon in springs, spring brooks and streams. It has a somewhat wider ecological range and is widely distributed within the western Palearctic. A third species, *P. geniculata* McLachlan, has been recorded for The Netherlands by De Vos (1930) at Swalm, Limburg. As the doubtful identification is based on a sample of larvae, the species has been deleted from the list of Dutch Trichoptera (Geijskes & Fischer 1971, Higler 1995).

Plectrocnemia brevis is easily distinguished from *P. conspersa* in numerous details of the complex male genitalia (figures 2-5), for instance by the shape of the inferior appendages (gonopods), especially in ventral view, and even if the genitalia are not prepared by maceration in KOH (compare figures 3 and 4).

Acknowledgements

Thanks are due to Mr. G.R. Langohr (Simpelveld) for information about the sampling localities. Dipl. Ing. B. Robert (Dorsten) has kindly provided us with information about *P. brevis* in Nordrhein-Westfalen. Mr. W. Hogenes (ZMA) has been co-operative during work on the caddisfly collections of the Museum.

References

- Botosaneanu L & Malicky H 1978. Trichoptera. In: Limnofauna Europaea ed. II. (Illies J ed): 333-359. G. Fischer / Sweets & Zeitlinger.
- Higler LWG 1995. Lijst van kokerjuffers (Trichoptera) in Nederland met opmerkingen over uitgestorven en bedreigde soorten. Entomologische Berichten 55: 149-156.
- Geijskes DC & Fischer FCJ 1971. Een nieuwe naamlijst van de Nederlandse Trichoptera met een faunistische literatuurlijst vanaf 1934. Entomologische Berichten 31: 235-244.
- Marlier G 1949. Essai d'un catalogue des trichoptères de Belgique. Bulletin et Annales de la Société Entomologique de Belgique 85: 108-134.
- Robert B 1998. Quelltypische Köcherfliegen (Insecta: Trichoptera) in Nordrhein-Westfalen (Deutschland) - Ein Überblick. In: Studies in crenobiology - The biology of springs and springbrooks (Botosaneanu L ed.): 109-123. Backhuys Publishers.
- Robert B & Wichard W 1994. Kartierung der Köcherfliegen (Trichoptera) in Nordrhein-Westfalen. Entomologische Mitteilungen Löbbecke-Museum und Aquazoo, Beiheft 2: 1-227.
- Stroot P 1987. Faunistic and zoogeographical notes on Trichoptera from Belgium. Archiv für Hydrobiologie 110: 195-216.
- Vos APC de 1930. Über die Verbreitung der aquatischen Insektenlarven in den Niederlanden. Internationale Revue der Gesamten Hydrobiologie und Hydrographie 24: 485-506.

Accepted 23 March 2004.

Samenvatting

Plectrocnemia brevis, een schietmottensoort (Trichoptera) nieuw voor de Nederlandse fauna

Onlangs is een aantal exemplaren van de schietmot *Plectrocnemia brevis*, afkomstig van twee localiteiten in Zuid Limburg, aangekomen in de collectie van het Zoölogisch Museum Amsterdam. Deze soort - met slechts drie bekende vindplaatsen in Nordrhein-Westfalen en nooit gevonden in België - is nieuw voor de Nederlandse fauna. De soort kan op grond van de genitaliën makkelijk onderscheiden worden van de veel minder zeldzame *P. conspersa*, tot voor kort de enige vertegenwoordiger van het genus in Nederland. Beide zijn kenmerkende bewoners van bronnen, bronbeken en andere maagdelijke beken, vooral in heuvelachtig of bergachtig gebied.