

***Miktoniscus patiencei* (VANDEL, 1946) :
reported for the first time in Belgium (Isopoda Trichoniscidae)**

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Abstract

Miktoniscus patiencei was found for the first time in Belgium on the 19th of March 1999 in Nieuwpoort. The species was found under a drifted woodblock in the supralittoral of the river Ijzer in the nature reserve 'De Ijzermonding'. In this paper the species is shortly described and some notes on the distribution and the habitat are given. With this species the number of terrestrial isopods in Belgium has risen to 32.

Key words: *Miktoniscus patiencei*, Isopoda, Belgium.

Samenvatting

Miktoniscus patiencei werd voor het eerst waargenomen in België op 19 maart 1999 te Nieuwpoort. De soort werd aangetroffen onder aangespoeld hout in het vloedmerk van de Ijzer in het natuurreservaat 'De Ijzermonding'. In deze bijdrage wordt de soort kort beschreven en de verspreiding en het habitat worden besproken. Met deze soort stijgt het aantal soorten landpissebedden in België tot 32.

Résumé

Miktoniscus patiencei est rapporté pour la première fois de Belgique, le 19 mars 1999, à Nieuwpoort. L'espèce a été trouvée sous une pièce de bois, échouée sur la zone supralittorale de l'Ijzer, dans la réserve naturelle 'De Ijzermonding'. Une brève description et quelques notes sur la distribution et l'habitat sont données. Avec cette espèce, le nombre d'isopodes terrestres pour la Belgique s'élève à 32.

Introduction

During an excursion on the 19th of March 1999 *Miktoniscus patiencei* was recorded for the first time in Belgium. The species was found in the nature reserve 'De Ijzermonding' in Nieuwpoort, in the province of West-Vlaanderen (Fig. 1). More than 20 animals were found under a wooden block in the supralittoral zone of the river Ijzer about two meters from the highwater line. The area was heightened with dredging material; no wonder the surrounding vegetation consisted mainly of *Urtica dioica* and *Sambucus nigra*, two indicators of a nutrient-rich soils.

TAVERNIER & WOUTERS (1989) reported 30 species in their checklist of the terrestrial isopods

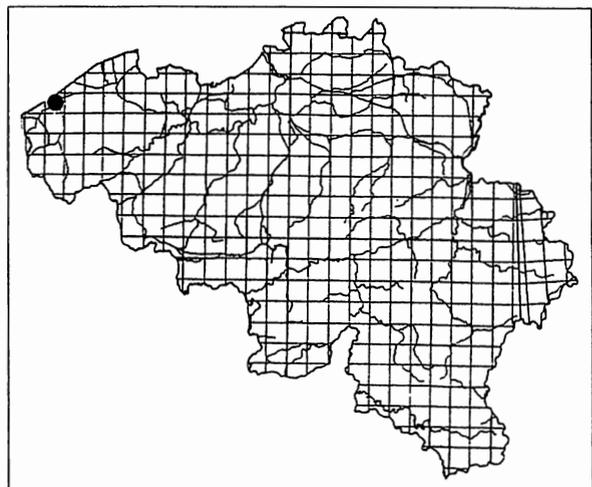


Fig. 1. Distribution of *Miktoniscus patiencei* (VANDEL, 1956) in Belgium.

in Belgium. Since then only *Hyloniscus riparius* (KOCH, 1838) was added to the fauna of Belgium (LOCK & VANACKER, 1999). With the discovery of *M. patiencei*, the number of terrestrial isopods of Belgium has risen to 32.

Description

Miktoniscus patiencei belongs to the family of the Trichoniscidae. It is a small species of up to 4 mm which resembles closely to *Trichoniscoides* and *Metatrachoniscoides* (Fig. 2). The vertex and the pereonites contain numerous, small but distinctly elevated conical tubercles each with a sensory peg. On the pereonites, the tubercles are arranged in irregular transverse rows, four to five on the first pereonite, three to four on pereonites 2-7. Pleonites 1-3 with a single row of indistinct tubercles. The head has prominent truncate lateral lobes bearing four spines; the frontal area is slightly produced, roundly triangular. The black eye consisting of one ocellus is remarkably small. The telson is short, with a truncate or slightly concave tip. The endopodite of pleopod one of the males has on the tip transverse ridges giving a serrated appearance. The animals are pure white with a dark median gut stripe showing through.

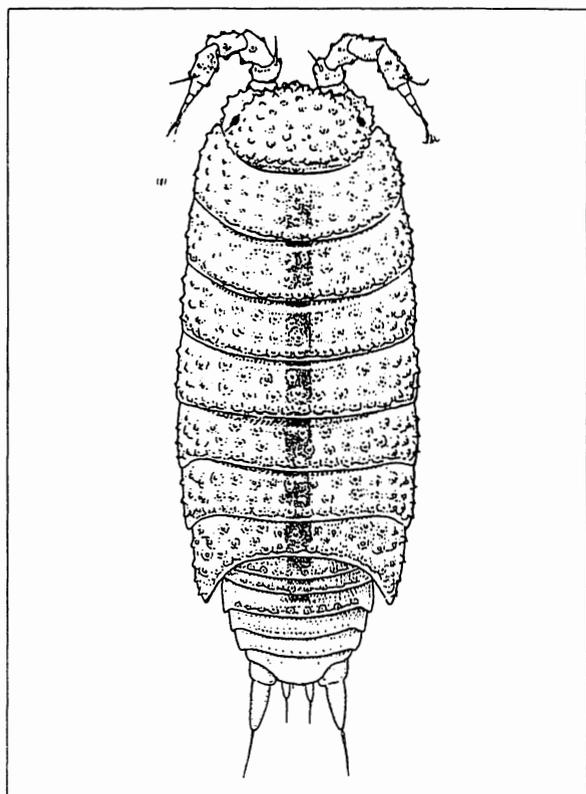


Fig. 2. Habitus of female *Miktoniscus patiencei* (VANDEL, 1956) (after BERG & WIJNHOFEN, 1997).

Distribution

The worldwide distribution of the species is restricted to the Channel coasts of France and around most of the coastline of the British Isles. In addition, the species has been recorded from Madeira at the entrance of a cave (OLIVER & MEECHAN, 1993; VANDEL, 1960). In 1995 the species was also found in the Netherlands in the small harbor of Hoedekenskerke and behind the nuclear power station in Borssele in Zeeland. A lot of animals were found under stones, buried in loamy clay just above the highwater line (BERG, 1997).

Habitat and co-occurring species

Miktoniscus patiencei is a coastal species occurring in the supralittoral zone from the highwater line to 40 m inland. The organisms live along the coast, in saltmarshes, saltings and swallows; in the neighborhood of the highwater line under stones and in the tidal marks with wood and seaweed, at the base of dikes under stones and deeper in the ground (BERG & WIJNHOFEN, 1997).

Co-occurring species were *Porcellio scaber* (LATREILLE, 1802), *Trichoniscus pusillus* (BRANDT, 1833), *Philoscia muscorum* (SCOPOLI, 1763) and *Armadillidium vulgare* (LATREILLE, 1802). All these species are very common in Belgium and they do not have any specific requirements concerning their habitat.

Discussion

Apart from *Miktoniscus impatiencie* also *Armadillidium album* (DOLLFUS, 1887) and *Ligia oceanica* (LINNAEUS, 1767) are coastal species that have been reported for the Belgian fauna. Several other species can however be expected in the Belgian coastal area: *Eluma purpurascens* (BUDDE-LUND, 1885), *Trichoniscoides sarsi* (PATIENCE, 1908), *Buddelundiella cataractae* (VERHOEFF, 1930) and *T. saeroeensis* (LOHMANN, 1923). *E. purpurascens* has recently been found on several locations in the Netherlands, very close to the Belgian border (TEMPELMAN & BERG, 1997). The discovery of this species in Belgium seems only a matter of time. *B. cataractae* has not been recorded in the Netherlands but the species is known from some locations along the British and the French coasts (BERG &

WIJNHOFEN, 1997). Also *T. saeroeensis* has not been recorded in the Netherlands but recently the species has been found on numerous locations along the British coast and the species is also known from Denmark and France (HARDING & SUTTON, 1985). In 1993 *T. sarsi* was reported for the first time from the Netherlands, since then the species was frequently found in marine clay (BERG, 1997). This small, soil-inhabiting species was overlooked in the past and also in Belgium this species has probably been overlooked.

The three littoral species found in Belgium as well as the eventually undiscovered species which are restricted to coastal habitats are automatically endangered in Belgium because of the enormous touristic exploitation of already short Belgian coast. Therefore remainder nature reserves like 'De IJzermonding' and 'Het Zwin' need special protection measures.

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References

BERG M.P., 1997. - Naamlijst van de Nederlandse

landpissebedden (Crustacea: Isopoda: Oniscoidea). *Nederlandse Faunistische Mededelingen*, 7 : 31-34.

BERG M.P. & WIJNHOFEN H., 1997. - *Landpissebedden*. Wetenschappelijke Mededeling KNNV 221, Utrecht.

HARDING P.F. & SUTTON S.L., 1985. - *Woodlice in Britain and Ireland: Distribution land habitat*. Institute of Terrestrial Ecology, Huntingdon.

LOCK K. & VANACKER S., 1999. - Isopods on the gravelbanks of the Meuse (Isopoda). *Bulletin de la Société royale belge d'Entomologie*, 135 : 193-196.

OLIVER P.G. & MEECHAN C.J., 1993. - *Woodlice*. Synopses of the British Fauna (New Series) 49. Field Studies Council, Shrewsbury.

TAVERNIER J.M. & WOUTERS K., 1989. - *Check-list of the terrestrial Isopoda (Crustacea) of Belgium*. In: WOUTERS K. & L. BAERT (Ed.), *Verhandelingen van het symposium "Invertebraten van België"*, KBIN, Brussel, 169-172.

TEMPELMAN D. & BERG M.P., 1997. - *Eluma purpurascens*, nieuw voor de Nederlandse fauna (Crustacea: Isopoda: Oniscoidea). *Nederlandse Faunistische Mededelingen*, 7 : 35-38.

VANDEL A., 1960. - *Isopodes terrestres (Première partie)*. Faune de France 64. Lechevalier, Paris.