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# Annotated checklist of the marine and brackish-water Isopoda (Crustacea, Malacostraca) of Belgium*

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## Summary

This updated checklist of Belgian marine and brackish-water Isopods comprises 31 species. Compared to an earlier study (HOLTHUIS, 1950) 12 species had to be removed because they were found outside the area considered or because it is not proved with certainty the material originated from Belgian waters. In recent years six additions to the fauna could be made.
**Key-words** : Isopoda, marine species, brackish-water, checklist, Belgium.

## Samenvatting

Deze nieuwe soortenlijst van de Belgische mariene en brakwaterisopoden bevat 31 soorten. In vergelijking met de studie van HOLTHUIS (1950) betekent dit een verlies van 12 soorten waarvan niet vast staat dat het materiaal van de Belgische wateren afkomstig is of waarvan vaststaat dat het materiaal buiten de Belgische wateren verzameld werd, en een winst van zes soorten die voor het eerst in ons land werden aangetroffen in recente jaren.
**Trefwoorden** : Isopoda, marien, brakwater, soortenlijst, België.

## Introduction

Isopods are among the very few groups of marine organisms occurring in Belgian waters that formed the subject of a separate study. In 1950 HOLTHUIS published a paper on marine Isopods and Tanaids of Belgium, together with remarks on some species from the southern North Sea (Holthuis, 1950). He listed 37 species of Isopods and 2 species of Tanaids of the southern North Sea, including the Belgian waters. His work was largely based on the specimen kept in the collections of the "Koninklijk Belgisch Instituut voor Natuurwetenschappen" (K.B.I.N., Brussels, Belgium). This material was collected on the numerous trips in the southern North Sea conducted by the Institute during the campaign "Exploration de la Mer" under the stimulating leadership of G. GILSON. This campaign started at the turning of the century and lasted for some decades. At least since World War II no such initiatives have been repeated.
As HOLTHUIS (1950) did not confine himself to 'Belgian' waters and his study is nearly forty years old, I decided to try to put together an updated list of Belgian marine and brackish-water species. Various sources were used to complete the job. The most important were : (1) the collection mentioned above, (2) scientific literature, primarily publications since the study of HOLTHUIS (1950), and (3) the natural history files kept by "de Strandwerkgroep", a Flemish marine biological society.
The material in the Brussels collection has been revised. Very few acquisitions were made during the past fifty years.
12 species had to be removed from the list of HOLTHUIS. These were species of which it was clear they originated from French or British waters. Some species were synonymized or reidentified. On the other hand six species were recorded for the first time in recent years. The new list contains 31 species. In the following systematic account the status of most species is briefly discussed. If no recent changes in our knowledge of a particular species have occurred, the reader will be referred to HOLTHUIS (1950). Though being a Dutchman, he remains the first Belgian 'isopodologist'.
The nomenclature follows NAYLOR (1972), except when otherwise stated.

## Systematic account

ORDER ISOPODA

Suborder Gnathiidea

*Paragnathia formica* (HESSE, 1864), see HOLTHUIS (1950).

*Gnathia oxyuraea* (LILLJEBORG, 1855), see HOLTHUIS (1950).

Suborder Flabellifera

*Anthura gracilis* (MONTAGU, 1808), see HOLTHUIS (1950).

*Limnoria lignorum* RATHKE, 1799, see HOLTHUIS (1950).

*Eurydice pulchra* LEACH, 1815, see HOLTHUIS (1950), very common.

*Eurydice affinis* HANSEN, 1905

This species was recorded as new to the Belgian fauna by KERCKHOF & RAPPÉ (1982). Since its original

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recognition on a beach near Ostend, it has been found at other localities. The discovery in Belgium comes some fifteen years after its discovery in the Netherlands (WOLFF, 1966) and Britain (JONES & NAYLOR, 1967). The question is if the presence of this southerly species in Belgium is due to a rather recent colonisation or has it simply been overlooked in the past ? WOLFF (1966) stated he had looked for it along the Belgian coast too but was unable to find it.

*Eurydice spinigera* HANSEN, 1890, see HOLTHUIS (1950).

In recent years the species had been found repeatedly in bottom samples, taken with the van Veen grab, for benthos analyses.

*Nerocila maculata* H. MILNE EDWARDS, 1840

In October 1984 one specimen of this species was found between cooked commercial shrimps *Crangon crangon* (L., 1758) presented for sale at Ostend. The exact position of the catch remains unknown, but it is certainly situated in Belgian territory. *Nerocila maculata* lives ectoparasitic on fish.

*Ceratothoa oestroides* (Risso, 1826)

In November 1984 two specimens, a male and a female, of this fish parasitic species were collected from the buccal cavity of a bogue *Boops boops* (L., 1758) caught in Belgian waters (RAPPÉ, 1987). These were the first ever recorded for the North Sea. RADUJKOVIC, ROMESTAND & TRILLES (1984) summarise its known distribution.

*Lekanesphaera hookeri* (LEACH, 1814)

This and the following two species used to be placed in the genus *Sphaeroma.* Here JACOBS (1987) and JACOBS & HOLTHUIS (1988) are followed. See HOLTHUIS (1950).

Recently the species had also been found in creeks with only slightly brackish water near the Dutch border (S. DE GRAVE, pers. com.).

*Lekanesphaera levii* (ARGANO & PONTICELLI, 1981) syn. *Sphaeroma monodi* BOCQUET, HOESTLANDT & LEVI, 1954

This is the true identity of the material HOLTHUIS (1950) called *Sphaeroma serratum* (FABRICIUS, 1787). For further detail see HOLTHUIS (1950). Recently it has been found washed ashore on the beach.

*Lekanesphaera rugicauda* (LEACH, 1814), see HOLTHUIS (1950) ; also collected recently.

Suborder Valvifera

*Idotea baltica* (PALLAS, 1772), see HOLTHUIS (1950), common.

*Idotea chelipes* (PALLAS, 1766)

This brackish water species is mentioned here for the first time as belonging to the Belgian fauna. Some specimens in the K.B.I.N. collection, labelled under its synonymous name *Idotea viridis*, proved to belong to other truely marine species of the same genus. *Idotea chelipes* does, however, live in at least one creek along the Belgian coast. It would indeed be very surprising not to have it there, since it can be very common in similar creeks in the nearby Delta region (SW-Netherlands).

*Idotea emarginata* (FABRICIUS, 1793), see HOLTHUIS (1950).

*Idotea granulosa* RATHKE, 1843, see HOLTHUIS (1950).

*Idotea linearis* (L., 1763), see HOLTHUIS (1950), common.

*Idotea neglecta* SARS, 1899, see HOLTHUIS (1950), also recently collected.

*Idotea pelagica* LEACH, 1815, see HOLTHUIS (1950).

Suborder Asellota

*Jaera albifrons* LEACH, 1815, see HOLTHUIS (1950), also recently found.

*Janira maculosa* LEACH, 1814, see HOLTHUIS (1950).

*Munna minuta* HANSEN, 1916.

HOLTHUIS (1950) designated the few specimens found in the southern North Sea to *Munna fabricii* KROEYER, 1847. The material of this genus was reidentified by S. DE GRAVE. No recent records.

*Asellus aquaticus* (L., 1758)

This freshwater species penetrates in a number of creeks with low salinity (DUMONT & GYSELS, 1971 ; S. DE GRAVE, pers. com.). In the nearby Delta region (SW Netherlands) a second freshwater species proved to be able to endure slightly brackish circumstances (WOLFF, 1973). It might turn up in Belgium too.

Suborder Oniscoidea

*Ligia oceanica* (L., 1758)

TAVERNIER & WOUTERS (1986) summarized the records of this common terrestrial species living immediately above the high water mark. It does not only occupy suitable habitats along the coast but also as far upstream the river Scheldt as Antwerp.

*Armadillidium album* DOLLFUS, 1887

This terrestrial species of the high water mark, and higher, on sandy beaches was only very recently discovered by KERSMAEKERS (1988). Its distribution on the Belgian coast is still restricted to a single locality.

Suborder Epicaridea

*Athelges paguri* (RATHKE, 1843), see HOLTHUIS (1950), also recently recorded (DESENDER, 1981).

*Ione thoracica* MONTAGU, 1808, see HOLTHUIS (1950).

*Pseudione hyndmanni* (BATE & WESTWOOD, 1868).

HUWAE (1979) mentioned this species as being found in Belgium, though HOLTHUIS (1950) considered it to be *Pseudione proxima* BONNIER 1900.

BOURDON (1968) did not regard them as being distinct species. This opinion is followed here. NAYLOR (1972), however, does not seem to be convinced. Also recently found (DESENDER, 1981).

*Portunion kossmanni* GIARD & BONNIER, 1887

The preserved material of the single specimen of this species is in a poor condition, so that reidentification proved to be impossible. For convenience the original

identification in 1928 by NIERSTRASZ is followed. The species lives parasitically on the crab *Portumnus latipes* (PENNANT, 1777), which is very common along the Belgian coast.

*Prodajus ostendensis* GILSON, 1909

This species, living parasitically on the female of the mysid *Gastrosaccus spinifer* (GOES, 1864), was found abundantly by GILSON (1909). Most of his material, if not all, is deposited in the Brussels collection. The most recent date is 1914. It is unlikely that we had to wait for new records of this once common species till 1977 (RAPPÉ, 1979). I therefore think this 'Belgian' species has largely been overlooked by Belgian marine biologists.

*Hemiarthrus abdominalis* (KROEYER, 1840), see HOLTHUIS (1950).

## Conclusions

Is the Belgian Isopoda fauna well known ? The many references made to the study of HOLTHUIS (1950) make it perfectly clear that very little systematic work has been done during the last few decades. To have a better idea of the measure in which the checklist is complete, it can be compared with the species lists of adjacent countries. In the Netherlands 43 species are recorded (HUWAE, 1977 ; ADEMA & HUWAE, 1982). Of these, 18 are not on the Belgian list. In the north of France (dép. Nord and dép. Pas-de-Calais) GLAÇON (1977) enumerates 39 species, of which 17 are lacking in Belgium. The 18 'Dutch' species and the 17 'French' species show some overlap. It would only be logical that some of these species would turn up sooner or later in the small area that separates them. A special search in suitable habitats for particular species may be rewarding too.

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