

SPECIES INFORMATION SHEET

Limnoria lignorum

English name: Gribble	Scientific name: <i>Limnoria lignorum</i>	
Taxonomical group: Class: Malacostraca Order: Isopoda Family: Limnoriidae	Species authority: Rathke, 1799	
Subspecies, Variations, Synonyms: <i>Cymothoa lignora</i> Rathke, 1799 <i>Cymothoa lignorum</i> Rathke, 1799	Generation length: –	
Past and current threats (Habitats Directive article 17 codes): Construction (J02.12.01, J03.01)	Future threats (Habitats Directive article 17 codes): Construction (J02.12.01, J03.01)	
IUCN Criteria: –	HELCOM Red List Category:	DD Data Deficient
Global / European IUCN Red List Category: NE/NE	Habitats Directive: –	
Protection and Red List status in HELCOM countries: Denmark –/–, Estonia –/–, Finland –/–, Germany –/D (Data deficient, incl. North Sea), Latvia –/–, Lithuania –/–, Poland –/–, Russia –/–, Sweden –/–		

Distribution and status in the Baltic Sea region

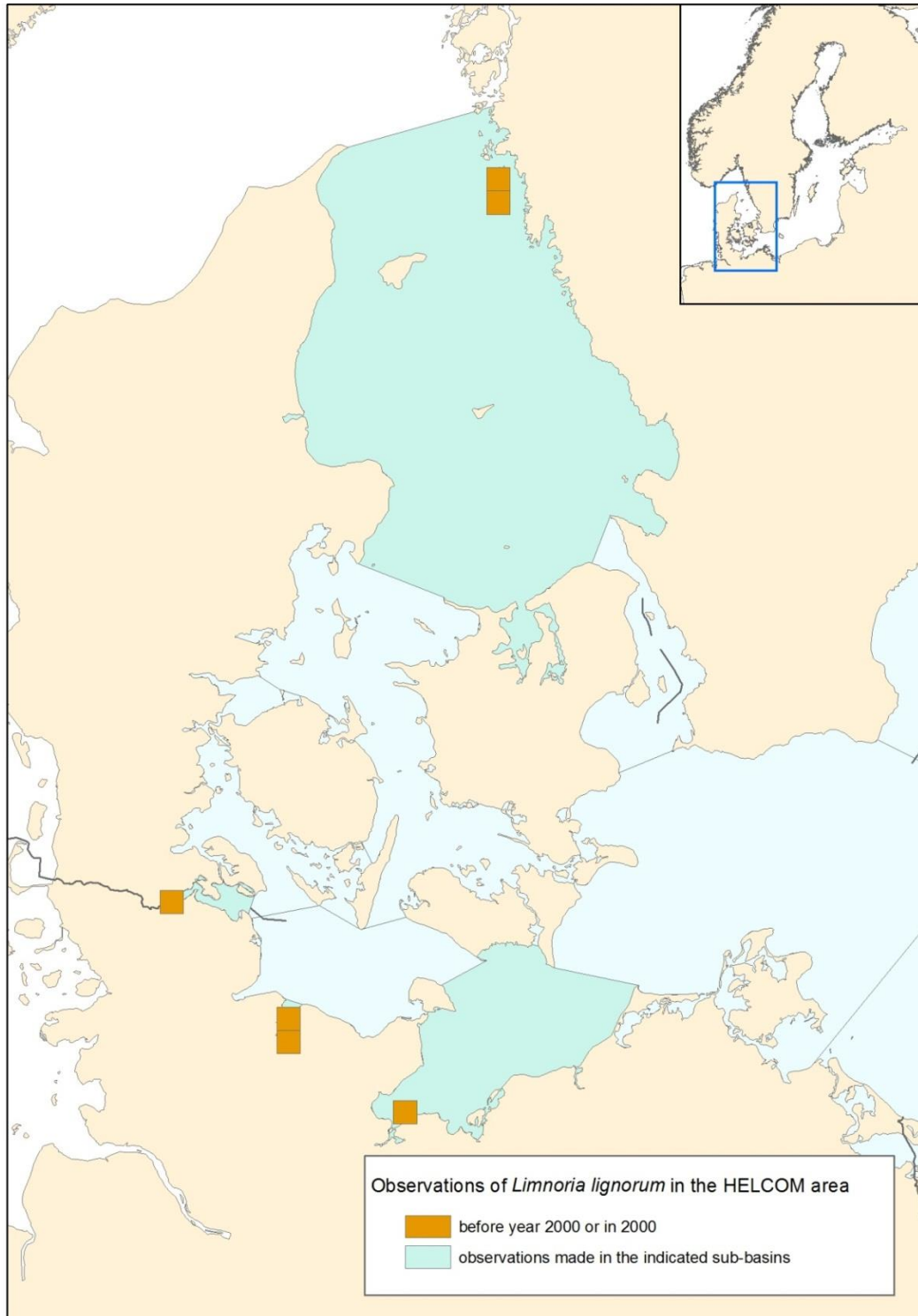
Limnoria lignorum is a marine wood-boring species that can be found in the Kiel and Flensburg Fjords, Travemünde harbour, and in the Kattegat. It is likely that its population has declined together with its habitat (wood material in water). Outside the HELCOM area the species has been recorded on the east and west coasts of North America and in Europe from Norway southwards to a latitude probably little beyond southern Britain.

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Distribution map

The georeferenced records of species compiled from the Danish national database for marine data (MADS), and the databases of the Swedish Species Information Centre (Artportalen), Swedish Meteorological and Hydrological Institute, and the Leibniz Institute for Baltic Sea Research (IOW).



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Habitat and Ecology

L. lignorum is a boreal wood-boring isopod species. It is marine but its salinity tolerance is not known in detail. The species within the family Limnoriidae are also called gribbles. Gribbles bore into wood and plant material for ingestion as food. The cellulose of wood is digested, most likely with the aid of cellulases produced by the gribbles themselves. Gribbles bore the surface layers of wood. Their burrows are 1–2 mm in diameter, and may be several centimeters long. The burrow's roof is punctured with a series of smaller ventilation holes. Attacked wood can become spongy and friable.

For defense, gribbles can jam themselves within their burrows, and block the tunnel with their rear disc-shaped segment.

Description of major threats

The species is dependent on wooden debris or wooden constructions in water, which both have declined considerably. For example, coastline protection from erosion decreases the amount of suitable habitat (trees fallen into the sea) for the species.

Assessment justification

The species is a habitat specialist that is dependent on wood material in shallow waters. In the HELCOM area, records exist only from the western part, from the Kattegat, some fjords adjacent to the Kiel Bight and Travemünde harbour in the Mecklenburg Bight. It is likely that its population has declined together with the amount of suitable habitat. Wooden constructions as well as wooden debris are much less common in coastal waters than in earlier times. The habitat of *Limnoria lignorum* is not covered by monitoring and the distribution and population trend of the species is poorly known. The species is thus categorized as Data Deficient (DD) in the HELCOM area.

Recommendations for actions to conserve the species

The knowledge of the distribution and biology of the species should be improved before any other recommendations can be given.

Common names

Denmark: pælekrebs, Estonia: –, Finland: –, Germany: Bohressel, Latvia: –, Lithuania: –, Poland: –, Russia: –, Sweden: –

References

- IOW database. Observational data from the database of the Leibniz Institute for Baltic Sea Research.
- MADS, The Danish national database for marine data. NERI: University of Aarhus; National Environmental Research Institute. Downloaded in June 2011.
- Marine Species Identification Portal. Available at http://species-identification.org/species.php?species_group=crustacea&id=553
- Menzies, R.J. 1957. The marine borer family Limnoriidae (Crustacea, Isopoda). Bulletin of Marine Science of the Gulf and Caribbean. 1957 7: 101–200.
- SMHI database. Observational data for zoobenthos from the database of the Swedish Meteorological and Hydrological Institute, all observations 1971–2010. Downloaded in 9 April 2011.
- Swedish Species Gateway. Swedish Species Information Centre and Swedish Environmental Protection Agency. Available at www.artportalen.se.
- World Register of Marine Species WoRMS. Available at <http://www.marinespecies.org/aphia.php?p=taxdetails&id=118917>.