

## SPECIES INFORMATION SHEET

*Scrobicularia plana*

English name: <b>Peppery furrow shell</b>	Scientific name: <b><i>Scrobicularia plana</i></b>	
Taxonomical group: Class: Bivalvia Order: Euheterodonta incertae sedis Family: Scrobiculariidae	Species authority: (da Costa, 1778)	
Subspecies, Variations, Synonyms: <i>Maetra piperata</i> Poiret, 1786	Generation length: 5–10 (20) years	
Past and current threats (Habitats Directive article 17 codes): Unknown (U)	Future threats (Habitats Directive article 17 codes): Unknown (U)	
IUCN Criteria: <b>A2c</b>	<b>HELCOM Red List Category:</b>	<b>VU Vulnerable</b>
Global / European IUCN Red List Category NE/NE	Habitats Directive: –	
Protection and Red List status in HELCOM countries: Denmark –/–, Estonia –/–, Finland –/–, Germany –/1 (Critically endangered, incl. North Sea), Latvia –/–, Lithuania –/–, Poland –/–, Russia –/–, Sweden –/LC		

**Distribution and status in the Baltic Sea region**

*Scrobicularia plana* is a large size bivalve that occurs in the western part of the HELCOM area from the Kattegat to the German bays, fjords and estuaries. It appears to have declined both in the Baltic Sea and in the North Sea. Outside the HELCOM area this species is widely distributed and ranges from Norway to the Mediterranean and West Africa.

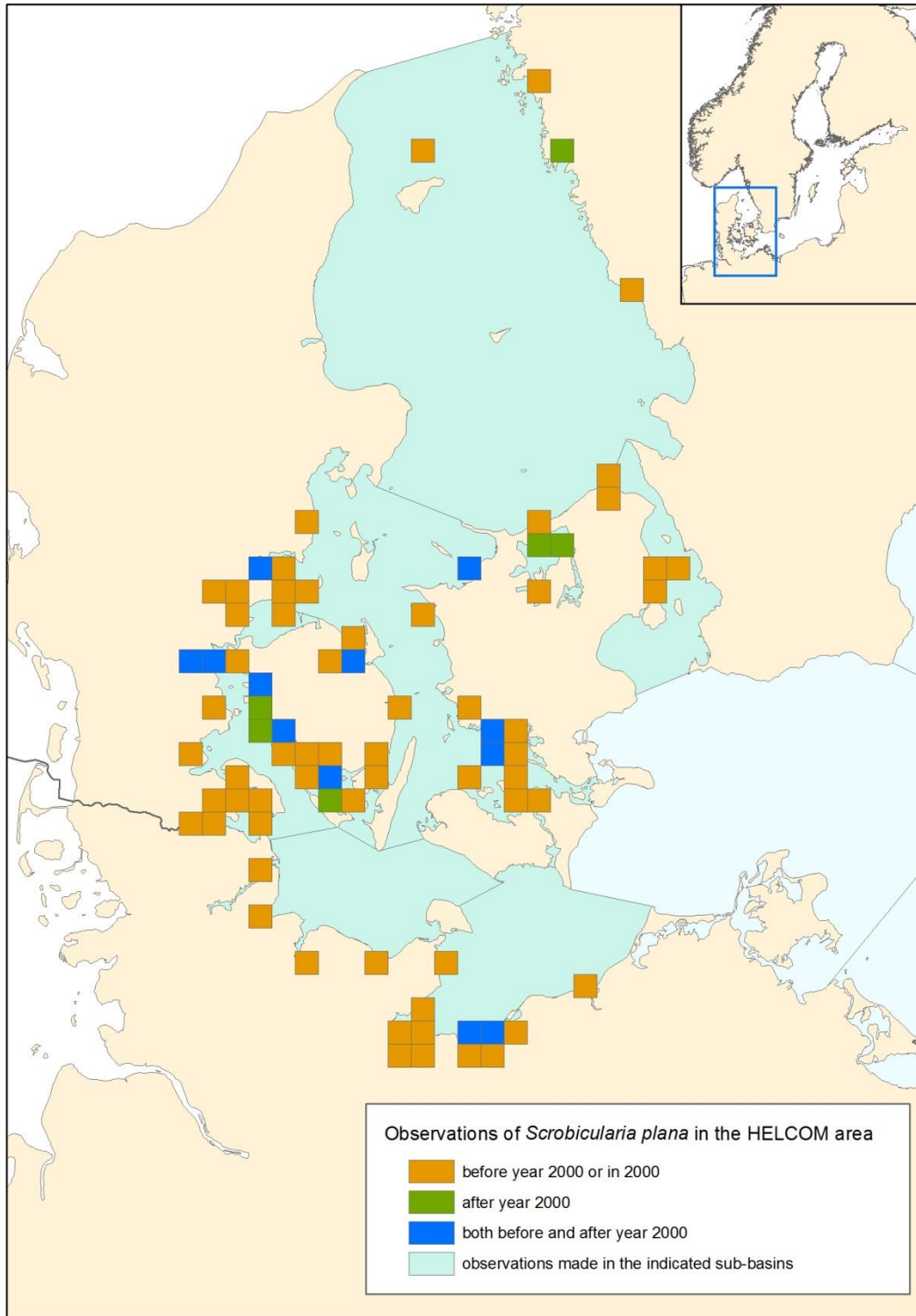


*Scrobicularia plana*. Photo by Michael Zettler. Leibniz Institute for Baltic Sea Research Warnemünde (IOW).

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*Scrobicularia plana***Distribution map**

The georeferenced records of species compiled from the Danish national database for marine data (MADS), the species database 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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## *Scrobicularia plana*

### Habitat and ecology

*S. plana* is a large size bivalve living in shallow water. It is found on muddy, organic enriched bottoms in sheltered areas. The peppery furrow shell is found in estuarine and intertidal conditions and is able to tolerate low salinities in thick mud or muddy sand. This bivalve burrows into the sediment to depths of around 20 cm. It can be identified when buried by the characteristic star-shaped markings made at the surface by its inhalant siphon. A current of water passes down the siphon and into the body of the bivalve, where particles are removed. The water is then expelled via a second tube (the 'exhalant siphon'). This species feeds on matter on the surface of the sediment, and it leaves star-shaped marks where it has been feeding. Crabs and fishes often feed on the inhalant siphon when it is extended, but the damaged tissue is replaced quickly, in around 5 days.

The sexes are separate, and breeding typically occurs in summer. The peppery furrow shell larvae are free-swimming (known as veliger larvae), undergoing metamorphosis into adults and settling after this planktonic stage, which lasts for 2 or 3 weeks.

### Description of major threats

Not known.

### Assessment justification

*Scrobicularia plana* is a large size bivalve that has declined according to German information both in the Baltic Sea and the North Sea. However, there is very little data available e.g. from Sweden and the species is considered LC both in Sweden and Norway. In Germany, there are only two recent findings, although the species has been looked for. Even on the known German localities this species is difficult to find, most probably due to strong population declines. The Danish data may show a decline as inferred simply from the numbers of old and recent records or the difference may reflect reduced sampling effort. The species lives ca. 20 years, and the generation time is assumed to be 7–10 years. Inferred mainly from the German situation, the overall decline over three generations is assumed to be more than 30 % for the whole HELCOM area. The species is categorized as Vulnerable (VU) according to criteria A2c.

### Recommendations for actions to conserve the species

Without better understanding on the pressures it is impossible to give any specific recommendations for the species.

### Common names

Denmark: flad pebermusling, Estonia: –, Finland: –, Germany: Große Pfeffermuschel, Latvia: –, Lithuania: –, Poland: –, Russia: –, Sweden: –

### References

- Fish, J.D. and Fish, S. 1996. *A student's guide to the seashore. Second Edition*. Cambridge University Press, Cambridge.
- 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=mollusca&id=941](http://species-identification.org/species.php?species_group=mollusca&id=941)
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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](http://www.artportalen.se).

World Register of Marine Species WoRMS. Available at <http://www.marinespecies.org/aphia.php?p=taxdetails&id=141424>.