

## SPECIES INFORMATION SHEET

*Ekmania barthii*

English name: –	Scientific name: <i>Ekmania barthii</i>	
Taxonomical group: Class: Holothuroidea Order: Dendrochirotida Family: Phyllophoridae	Species authority: Troschel, 1846	
Subspecies, Variations, Synonyms: –	Generation length:	
Past and current threats (Habitats Directive article 17 codes): <i>Orcula barthii</i> Troschel, 1846 <i>Thyonidium pellucidum</i> Düben & Koren, 1846, non Vahl, 1808	Future threats (Habitats Directive article 17 codes): –	
IUCN Criteria: –	<b>HELCOM Red List Category:</b>	<b>DD Data Deficient</b>
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), Latvia –/–, Lithuania –/–, Poland –/–, Russia –/–, Sweden –/DD		

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

*Ekmania barthii* is a sea cucumber that has been found within the HELCOM area only in the western Baltic Sea. It is a rare species and there is not enough data to assess the status of the species in the Baltic Sea region. Elsewhere it is reported from Labrador and from eastern and western Greenland, Iceland, Svalbard, the Faroe Island, the Shetland Islands, and northern Norway (Hansson 2002).



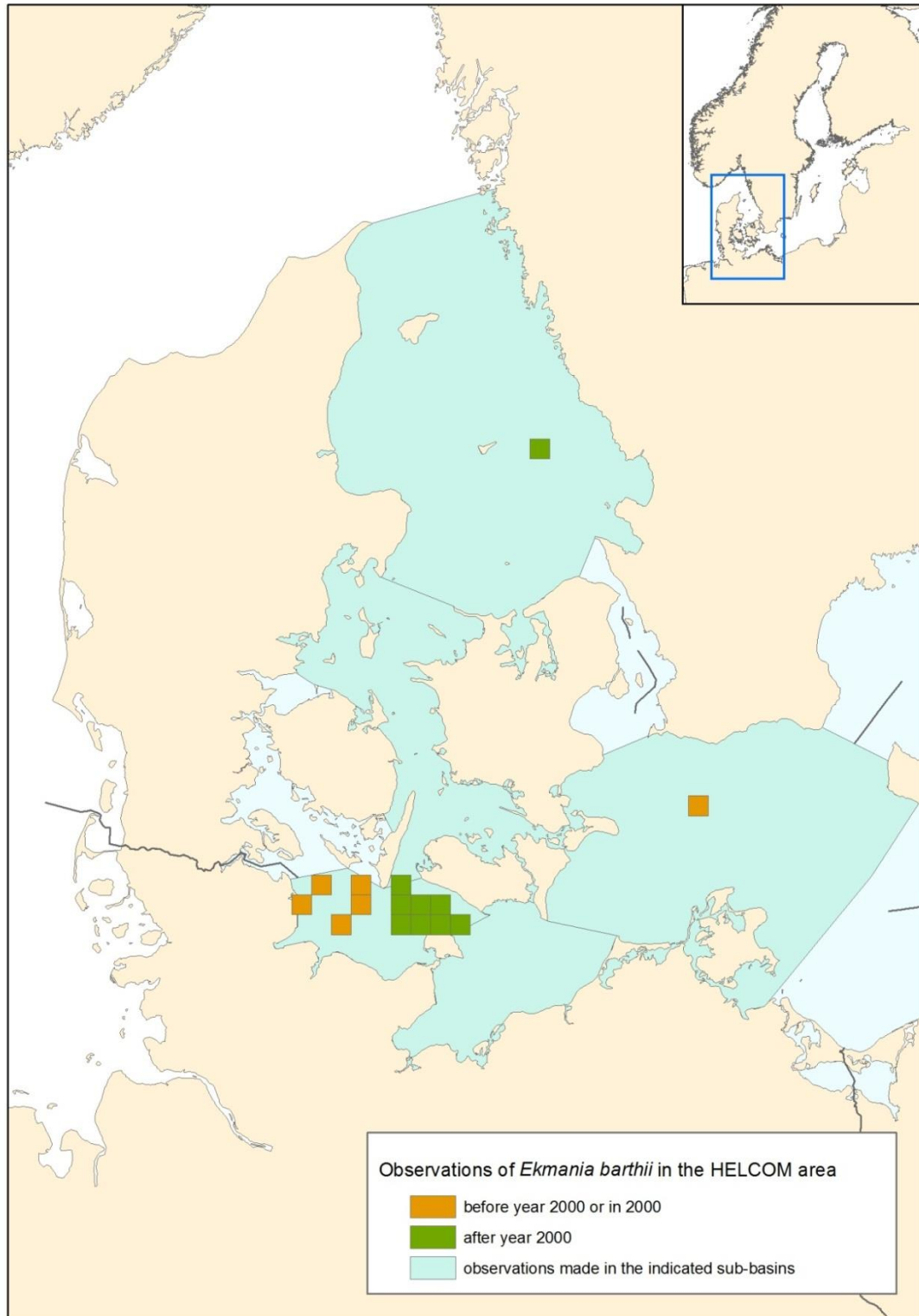
*Ekmania barthii*. Photo by Claude Nozères.

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### Distribution map

The georeferenced records of species compiled from the species databases of the Swedish Species Information Centre (Artportalen) and the Finnish Environment Institute, and the database of the Leibniz Institute for Baltic Sea Research (IOW).



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### Habitat and Ecology

The distribution in Swedish waters would indicate the normally arctic distribution since the temperatures in the areas where the species is found are lower than e.g. in the close by Skagerrak area. *E. barthii* is an epifaunal organism on gravel and stone bottoms although it has also been found on rocks and shells on soft bottoms. Otherwise its biology is largely unknown. However, it is known to have large eggs and it is likely that it exhibits direct development and lacks a pelagic larval phase, and thus its ability to recolonize and disperse is probably limited (Hansson 2002, WoRMS).

### Description of major threats

This species probably suffers from bottom trawling and as it seems to require colder climates, it is likely that also climate change would impact the distribution of this species negatively.

### Assessment justification

This marine cold water species is probably genuinely very rare in the Baltic Sea area. Its habitat is probably under pressure due to e.g. trawling. The low amount of data may partly be a result of a sampling bias towards the coastal, shallower areas in Swedish waters. There are a few findings from the 1950–60s, a couple of records from the 1980s, and some recent from the 2000s. It is not known why the species has not been found in other decades. All German findings are restricted to a rather small area in the Kiel Bight, where the species occurs on mixed sediment bottoms. As the data are scarce and there is no knowledge on potential trends, the species is categorized as Data Deficient (DD).

### Recommendations for actions to conserve the species

The knowledge of the distribution, abundance, habitat preferences and ecology should be improved. Restrictions to bottom trawling and working against climate change on an international level would most likely benefit the species in the long run.

### Common names

Denmark: –, Estonia: –, Finland: –, Germany: –, Latvia: –, Lithuania: –, Poland: –, Russia: –, Sweden: kallvattens sjögurka

### References

- Database of the Marine Research Centre, Finnish Environment Institute, all observations 1964–2007. Received in March 2011.
- Hansson, H. G. 2005. *Ekmania barthii* kallvattensjögurka. Artfaktablad. Artdatabanken, SLU. 2010-01-19. Available at [http://www.artfakta.se/Artfaktablad/Ekmania\\_Barthii\\_102870.pdf](http://www.artfakta.se/Artfaktablad/Ekmania_Barthii_102870.pdf)
- IOW database. Observational data from the database of the Leibniz Institute for Baltic Sea Research.
- Karlsson, A., Agrenius, S., Berggren, M., Cedhagen, T., Hansson, H. G., Kautsky, H., Lundin, K., Lundälv, T., Schander, C. & Smith, S. 2010. Tagghudingar – Echinoderms. Echinodermata. In Gärdenfors, U. (ed.) Rödlistade arter i Sverige 2010 – The 2010 Red List of Swedish Species. ArtDatabanken, SLU, Uppsala. P. 339–344. Red List categories available also at <http://www.artfakta.se/GetSpecies.aspx?SearchType=Advanced>
- Rachor, E., Bönsch, R., Boos, K., Gosselck, F., Grotjahn, M., Günther, C.-P., Gusky, M., Gutow, L., Heiber, W., Jantschik, P., Krieg, H.-J., Krone, R., Nehmer, P., Reichert, K., Reiss, H., Schröder, A., Witt, J. & Zettler, M. L. 2012. Rote Liste und Artenliste der bodenlebenden wirbellosen Meerestiere. Vierte Fassung, Stand Dezember 2007, einzelne Aktualisierungen bis 2012. Naturschutz und Biologische Vielfalt 70(2). Bundesamt für Naturschutz.
- Swedish Species Gateway. Swedish Species Information Centre and Swedish Environmental Protection Agency. Available at [www.artportal.se](http://www.artportal.se).
- World Register of Marine Species WoRMS. Available at <http://www.marinespecies.org/aphia.php?p=taxdetails&id=124681>