

## SPECIES INFORMATION SHEET

*Nitellopsis obtusa*

English name: <b>Starry stonewort</b>	Scientific name: <i>Nitellopsis obtusa</i>	
Taxonomical group: Class: Charophyceae Order: Characeae Family: Charales	Species authority: (Desv. In Loisel.) J. Groves 1919	
Subspecies, Variations, Synonyms: <i>Chara stelligera</i> A. Bauer 1829 <i>Tolypellopsis stelligera</i> (Bauer) Migula	Generation length: –	
Past and current threats (Habitats Directive article 17 codes): Eutrophication (H01.05), Water traffic (G01.01.01), Construction (D03, J02.02.02, J02.11)	Future threats (Habitats Directive article 17 codes): Eutrophication (H01.05), Water traffic (G01.01.01), Construction (D03, J02.02.02, J02.11)	
IUCN Criteria: <b>B2a</b>	<b>HELCOM Red List Category:</b>	<b>NT Near Threatened</b>
Global / European IUCN Red List Category NE / NE	Habitats Directive: –	
Protection and Red List status in HELCOM countries: Denmark –/–, Estonia –/–, Finland Threatened status in the Nature Conservation Decree Annex 4/VU, Germany –/–(in freshwaters 3, Vulnerable), Latvia –/–, Lithuania –/–, Poland –/–, Russia –/–, Sweden –/VU (only found in freshwaters).		

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

*Nitellopsis obtusa* is primarily a freshwater charophyte that can also live in brackish water. It is a borderline case in regard to whether it should or should not be included in the HELCOM Red List assessment. It was included due to its northern distribution which is mainly in the Baltic Sea in Finland. In addition to Finland, it has been found in the Baltic Sea at least in Lithuania and Russia. In Sweden and Germany the species is only known to occur in fresh water.

In Finland *N. obtusa* has been found in slightly brackish water locations along the south coast and Åland Islands, where the species also occurs in several freshwater lakes. In most of the former locations on the eastern part of the south coast of Finland, the species has either disappeared or decreased. This is probably due to dredging or colonization by Phragmites. There are recent observations of the species in



*Nitellopsis obtusa*. Photo by <http://redbook-ua.org>.

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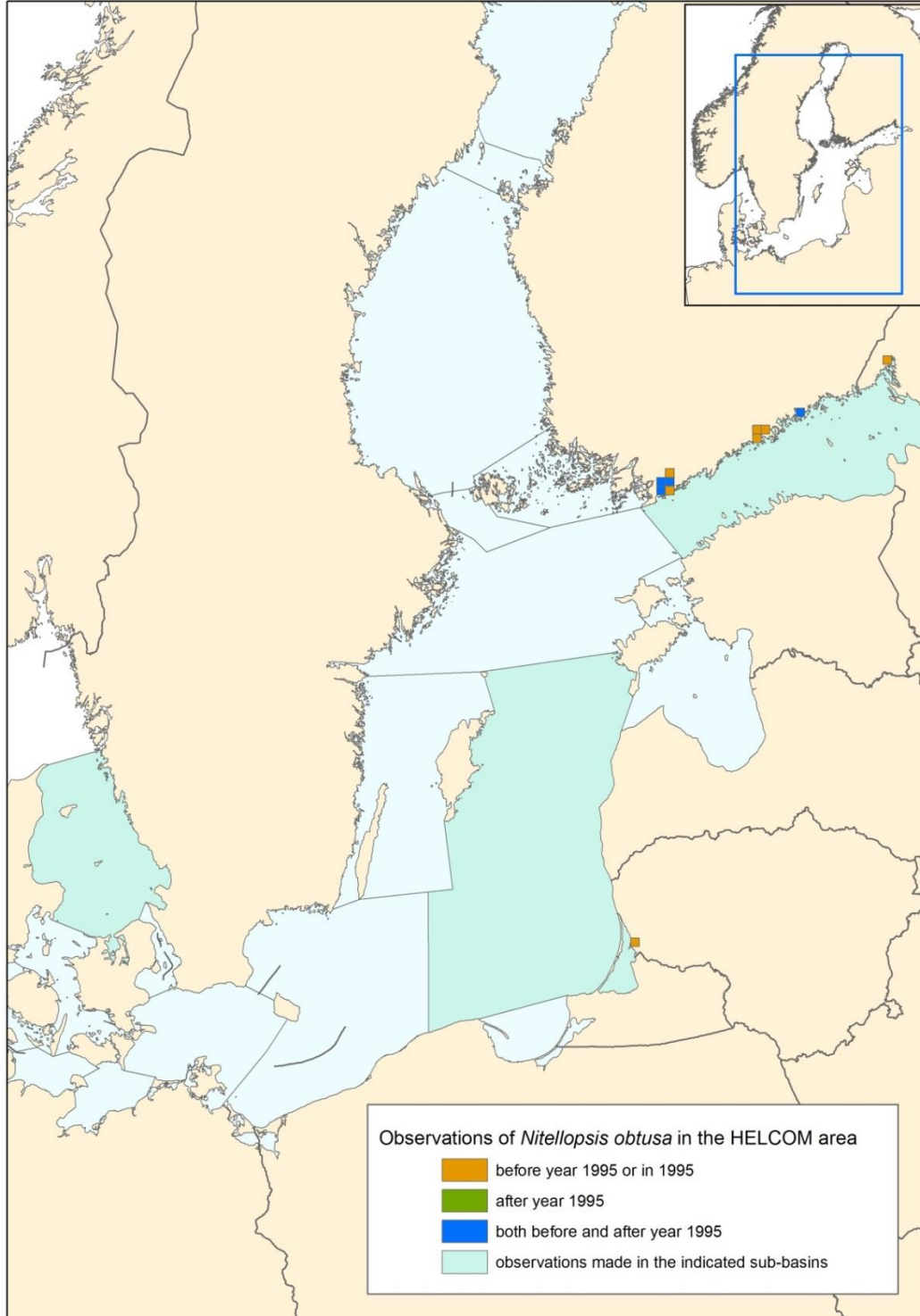
brackish water in the Pojo bay (Pohjanpitäjänlahti) and Tammissaari area.

In Lithuania, *N. obtusa* was found in 1950 and 1957 in sheltered locations of Knaupas Bay (Curonian Lagoon) and at the mouth of the Nemunas River. In later investigations the species was mentioned as abundant in Knaupas Bay, but recently (1997–2002) it has not been recorded (Sinkeviciene, 2004). In Russia the species has disappeared from the river Neva but it still occurs in a lake in the southern part of the Leningrad Region and has also been found in the Vyborg Bay in 1988. From Denmark there is a finding from 1917 from the Grund Fjord, Kattegat region (Urbaniak 2003), but it has not been documented by herbarium material and no later findings have been made. In the Finnish Red List the species has been classified as VU. (Henricson & Oulasvirta 2007, Langangen et al. 2002, Urbaniak 2003, Tore Lindholm, ÅA, pers. comm.).

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*Nitellopsis obtusa***Distribution Map**

The records of the species compiled from the Finnish Museum of Natural History (Botanical Museum), Urbaniak (2003), (Sinkeviciene 2004), and Henriksson & Oulasvirta (2007). The old (1917) Danish occurrence is reported from Grund Fjord, which is connected to Kattegat.



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### Habitat and ecology

*Nitellopsis obtusa* tolerates salinities up to approx. 5 ‰ (Winter et al. 1990) and it has been found growing in 0.5–2.0 psu in Denmark, 0.3–2.5 psu in Finland and in 0–8 psu in Lithuania (Urbaniak 2003). It is found in sheltered areas along with Phragmites belts and other abundant macrophyte vegetation. It grows on bottom sediments consisting of mud, clay, sand and stones (in Finland) and on sandy and silty sediments (in Lithuania). It's depth range is between 0.8 and 3m (in Finland) (Langangen et al. 2002, Urbaniak 2003). According to Koistinen & Munsterhjelm (2001) the species seems to be favoured by eutrophication as it exhibits large occurrences in Pojo Bay and areas surrounding Tammisaari.

### Description of major threats

Anthropogenic impacts threatening the species are construction of shipping lanes and ports, estuarine and coastal dredging and boat traffic. These activities directly destroy the habitat suitable for the species.

### Assessment justification

The population is geographically restricted in the Baltic Sea and it has only a few recent locations. However, there is no evidence of continuing decline even though both the extent of occurrences (EOO) and the area of occupancy (AOO) have decreased since the 1950s. Furthermore, it has been suggested (Koistinen & Munsterhjelm 2001) that unlike most other charophytes, this species may actually benefit from eutrophication. However, other anthropogenic threats still affect the species negatively. The species is categorized as Near Threatened due to the restricted AOO and the low number of locations (B2a).

### Recommendations for actions to conserve the species

Conservation of habitat and avoidance of anthropogenic impacts such as dredging and boat traffic.

### Common names

Denmark: Stjernetråd, Estonia: –, Finland: tähtimukulaparta, Germany: –, Latvia: –, Lithuania: žvaigždėtasis maurašakis, Poland: krynicznicza tępa, Russia: Нтеллописис Притуплённый, Sweden: stjärnslinke

### References

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