

## SPECIES INFORMATION SHEET

## *Chara tomentosa*

English name: <b>Coral stonewort</b>	Scientific name: <b><i>Chara tomentosa</i></b>	
Taxonomical group: Class: Charophyceae Order: Charales Family: Characeae	Species authority: Linnaeus 1753	
Subspecies, Variations, Synonyms: –	Generation length: 1–5 years	
Past and current threats (Habitats Directive article 17 codes): –	Future threats (Habitats Directive article 17 codes): –	
IUCN Criteria: –	<b>HELCOM Red List Category:</b>	<b>LC Least Concern</b>
Global / European IUCN Red List Category NE/NE	Habitats Directive: –	
Protection and Red List status in HELCOM countries: <u>Denmark</u> –/–, <u>Estonia</u> –/–, <u>Finland</u> –/LC, <u>Germany</u> –/3 (Vulnerable), <u>Latvia</u> –/–, <u>Lithuania</u> –/–, <u>Poland</u> –/–, <u>Russia</u> –/VU, <u>Sweden</u> –/LC		

### Distribution and status in the Baltic Sea region

The current range of the species extends from Danish waters to the northern Baltic Sea (up to northern Quark). The species is less common in the southern Baltic Sea compared to the central and northern areas, where it is rather common in suitable shallow and sheltered bays. According to Torn et al. (2003) the species exhibited a dramatic decline during the second half of the 20th century in the Tvärminne archipelago in Finland. In the early 2000s signs of recolonisation have been observed. The species has also disappeared from some of its former locations along the Estonian coast and the Gulf of Finland (Torn 2008). In Germany *Chara tomentosa* declined strongly in the 1980s. Also more recent declines are suspected in Germany. In Sweden no major changes have been observed, although declines have been reported from flads (coastal lagoons).



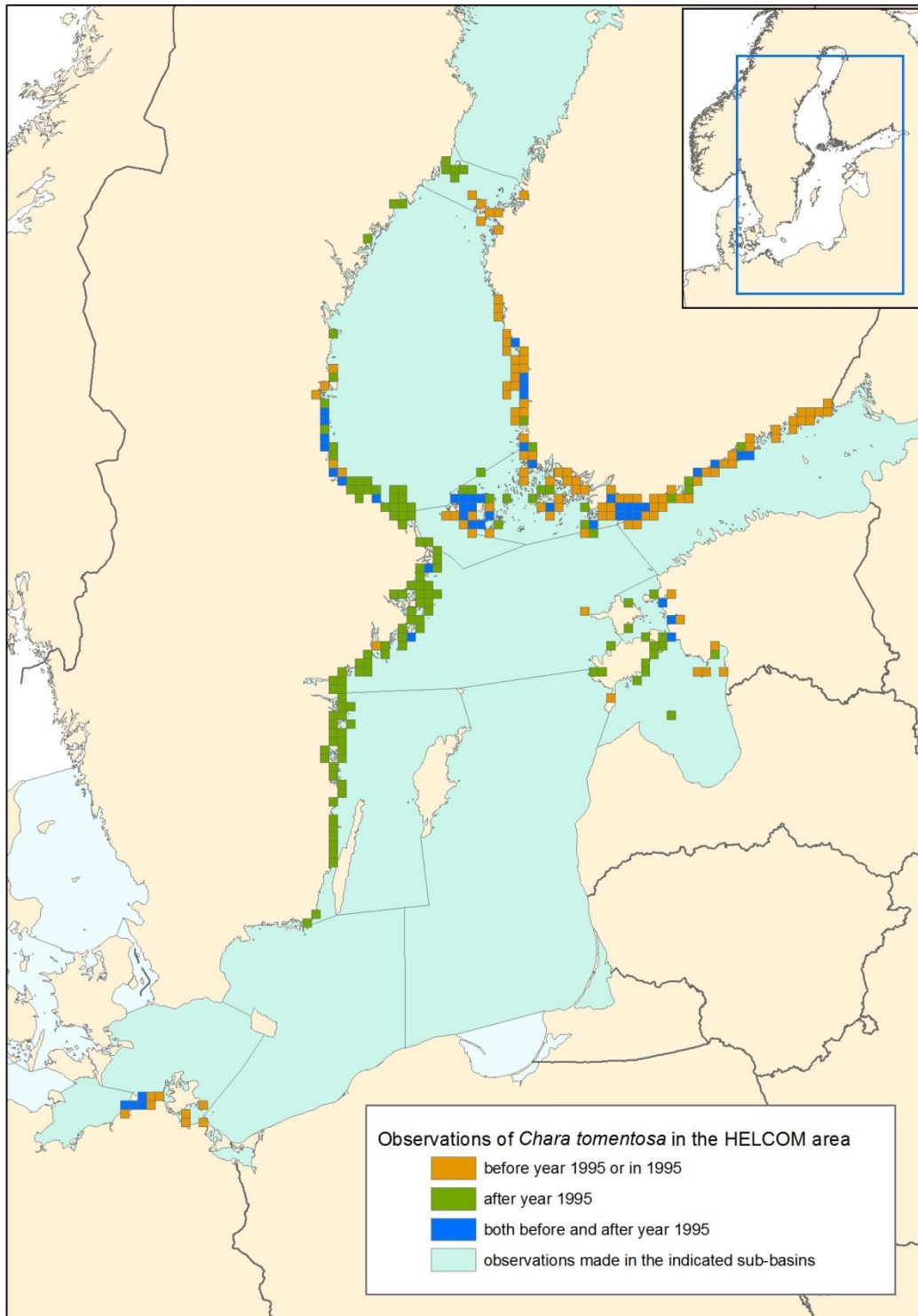
*Chara tomentosa*. Photo by Kaire Kaljurand, Estonian Marine Institute.

## SPECIES INFORMATION SHEET

## *Chara tomentosa*

### Distribution map

The records of the species compiled from the Finnish Museum of Natural History (Botanical Museum), Swedish Species Gateway ([www.artportalen.se](http://www.artportalen.se)), the database of Estonian Marine Institute (EMI), the German database for macrophyte occurrences (MARIDATA), and literature. The species occurs also in inland waters in the Baltic Sea region, e.g. in central and southern Sweden (occurrences not shown on the map).



## SPECIES INFORMATION SHEET

*Chara tomentosa*

### Habitat and ecology

Species tolerates no wave action and occurs only in sheltered or very sheltered areas on soft muddy bottoms. It is found in depths of 0.5 to 4 m. Most records are from shallow waters down to 1.5 m (Torn et al. 2003 and references therein).

### Description of major threats

The species is not considered threatened at present. In general, eutrophication and coastal engineering are regarded as the most important factors for the historical population declines. The species could be negatively affected by eutrophication causing phytoplankton turbidity and increased growth of filamentous algae. Mechanical disturbances and boat traffic have a negative impact as well (Munsterhjelm 2005, Torn et al. 2003).

### Assessment justification

*C. tomentosa* was included in the previous HELCOM list of threatened and/or declining species (HELCOM 2007). Currently, the extent of occurrence (EOO) and also the area of occupancy (AOO) exceed the thresholds given in the criteria. The species is short-lived but the exact generation time is not known. A rather long estimate of c. 5 years was chosen to be sure that the evaluated time-period would be long enough. It appears that most dramatic declines in the populations of *C. tomentosa* have taken place already earlier than three generations ago. Although also recent declines have been suspected in Germany, the overall decline in the Baltic Sea does not meet the thresholds of criterion A. Species is still widespread and at least in northern regions rather common and it is categorized as Least Concern (LC).

### Recommendations for actions to conserve the species

Combatting eutrophication by removing local sources of nutrient run-off. Restrictions on constructions and dredging in shallow coastal lagoons and archipelago areas.

### Common names

Denmark: tyk kransnål, Estonia: ruuge mändvetikas, Finland: punanäkinparta, Germany: Gehörnte Armleuchteralge, Latvia: –, Lithuania: kietasis maurabragis, Poland: ramiencia omszona, Russia: xapa войлочная, Sweden: rödsträfsa

### References

- Algaebase 2012. Available at [http://www.algaebase.org/search/species/detail/?species\\_id=35589](http://www.algaebase.org/search/species/detail/?species_id=35589)  
EMI, the database of the Estonian Marine Institute.
- MARIDATA, the database of MariLim GmbH including all German literature references given in Nielsen (1995), Blümel et al. (2002), Schubert et al. (2003), Kiel herbarium references and all occurrences of the German HELCOM, BSPA and WFD monitoring.
- Munsterhjelm, R. 2005. Natural succession and human-induced changes in the soft-bottom macrovegetation of shallow brackish bays on the southern coast of Finland. PhD thesis, Water & André de Nottbeck Found. Sci. Rep. 26, Helsinki.
- Schmidt, D., van de Weyer, K., Krause, W., Kies, L., Garniel, A., Geissler, U., Gutowski, A., Samietz, R., Schütz, W., Vahle, H.-Ch., Vöge, M., Wolff, P. & Melzer, A. 1996. Rote Liste der Armleuchteralgen (Charophyceae) Deutschlands in: Bundesamt für Naturschutz (Hrsg.): Rote Liste gefährdeter Pflanzen Deutschlands. Schriftenreihe für Vegetationskunde 28: 547–567, Bonn.
- Swedish Species Gateway. Swedish Species Information Centre and Swedish Environmental Protection Agency. Available at [www.artportalen.se](http://www.artportalen.se).
- Torn, K., Martin, G. & Munsterhjelm, R. 2003. *Chara tomentosa* L. 1753. In Schubert, H., Blindow, I. (eds.), Charophytes of the Baltic Sea, Koeltz Scientific, Koenigstein/Taunus. P. 131–141.
- Torn, K. 2008. Distribution and ecology of charophytes in the Baltic sea. Dissertationes Biologicae Universitatis Tartuensis, 143.