

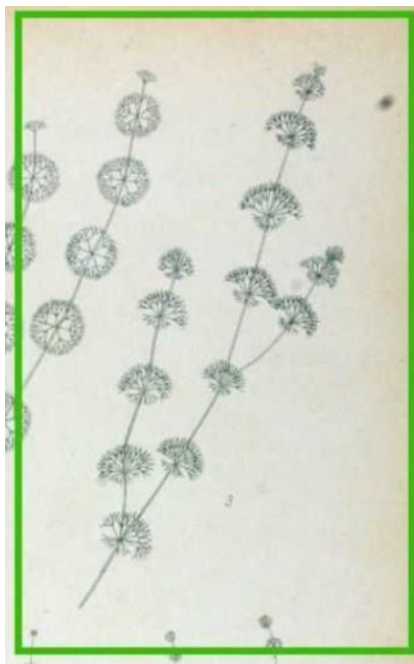
SPECIES INFORMATION SHEET

Nitella hyalina

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| English name: Many-branched Stonewort | Scientific name: <i>Nitella hyalina</i> | |
| Taxonomical group: Class: Charophyceae Order: Charales Family: Characeae | Species authority: (D.C. in Lam. & DC.) C. Agardh 1824 | |
| Subspecies, Variations, Synonyms: – | Generation length: – | |
| Past and current threats (Habitats Directive article 17 codes): Overgrowth of open areas (A04.03, K04.01), Eutrophication (H01.05), Water traffic (G01.01.01), Construction (D03, J02.01.02, J02.02.02) | Future threats (Habitats Directive article 17 codes): Overgrowth of open areas (A04.03, K04.01), Eutrophication (H01.05), Water traffic (G01.01.01), Construction (D03, J02.01.02, J02.02.02) | |
| IUCN Criteria: B2ab(iii) | HELCOM Red List Category: | VU Vulnerable |
| 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 –/–(1, Critically endangered in freshwaters), Latvia –/–, Lithuania –/–, Poland –/–, Russia –/–, Sweden –/– | | |

Distribution and status in the Baltic Sea region

In the Baltic Sea, the only records of *Nitella hyalina* are from Finnish and Russian waters. Although mainly a fresh water species, in Finland it has been found almost exclusively in slightly brackish water along the south coast. One of the former sites of occurrence (Saltfjärden in Kirkkonummi) is known to have been totally changed as the bay has been drained to gain arable land (Langangen et al. 2002). According to Koistinen (2003) the species has been found at four different sites at two locations in the eastern part of the Finnish south coast since the year 2000. In 2007 it was found at two sites in one of



Nitella hyalina. Source: www.biolib.de

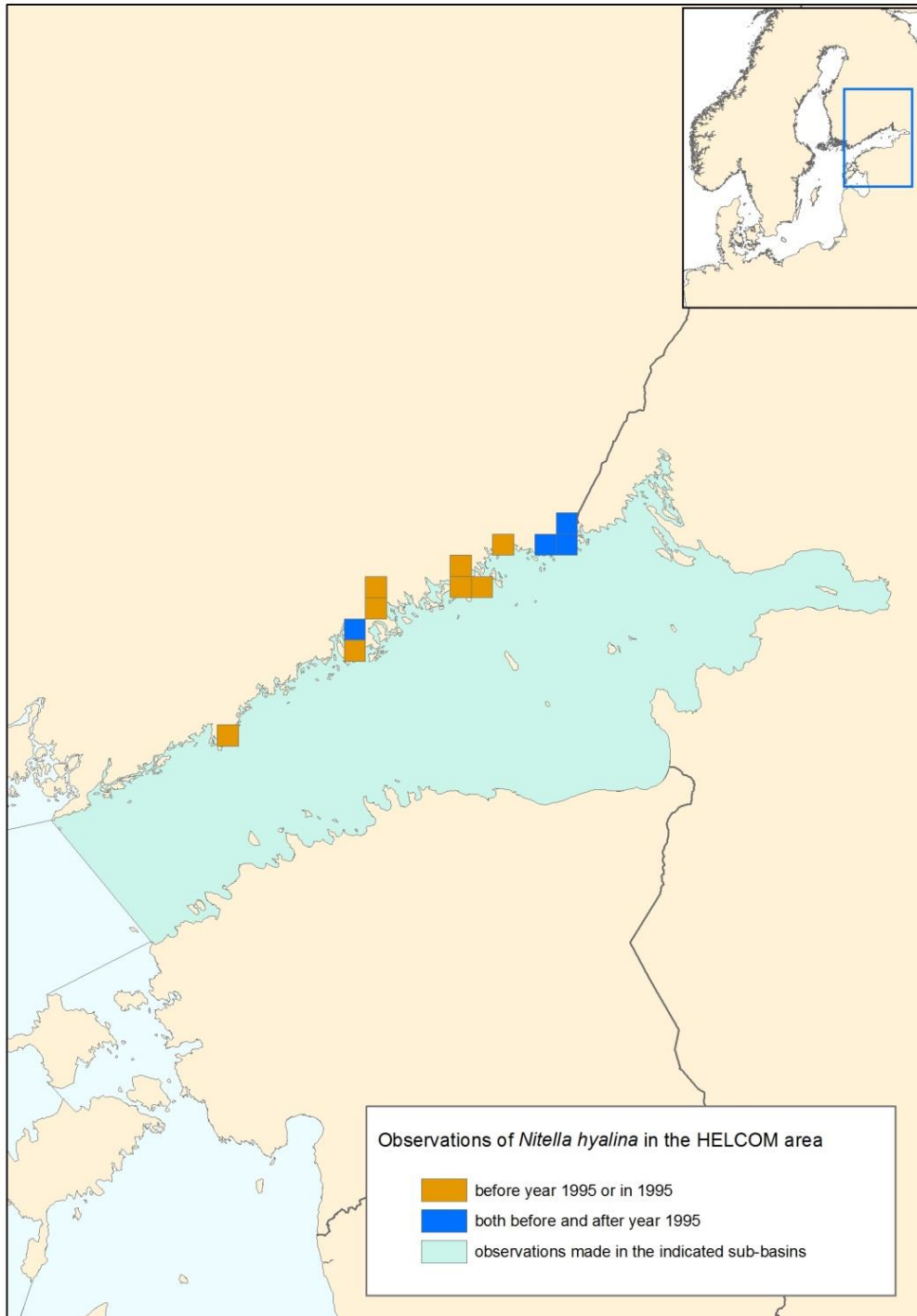
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the earlier locations at Vilkkilänlahti. In the Finnish Red List *Nitella hyalina* has been classified as VU. Of the Russian location no recent information is available and the species is not included in the Red Data Book of the Leningrad Region (Koistinen 2003).

Distribution map

The records of species compiled from the Finnish Museum of Natural History (Botanical Museum) and from the Finnish database for threatened species (Hertta). There has been an occurrence also on the Russian side of the Gulf of Finland but there is no recent information on that location.



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Habitat and ecology

Nitella hyalina is a freshwater species that can also be found in brackish water (Langangen et al. 2002). The species grows along the shore line, preferably on bare bottoms between reed stands and in sheltered openings inside them. It can also be found in moderately exposed areas in shallow water. In Finland the species has been growing in salinities ranging from freshwater to 2.8 psu.

Description of major threats

All major threats to the species are related to either decline of habitat quality or destruction of suitable habitat. *Nitella hyalina* grows in shallow, sheltered waters that are susceptible to be overgrown by reeds (*Phragmites australis*). The reeds propagate effectively through their root system and block other aquatic plants. The expansion of reed belts has been accelerated by anthropogenic eutrophication, post-glacial land up-heaval and a lack of grazing of coastal meadows and adjacent shallow water areas. The effects of eutrophication also include increased turbidity. This disturbs the growth of submerged aquatic plants such as charophytes, both by decreasing the amount of available light and by increasing silting and sedimentation. Other human induced threats, such as construction of shipping lanes and ports and estuarine and coastal dredging cause direct habitat destruction. In addition, increased boat traffic in shallow areas causes resuspension of sediments increasing turbidity and further accelerating eutrophication.

Assessment justification

Nitella hyalina has restricted geographic distribution and its population is regarded continually declining. The number of locations is estimated to 6–10. The continuing decline is assumed to concern at least the area, extent or quality of the habitat which are negatively affected by eutrophication and reed belt expansion. The species is categorized as Vulnerable according to the criteria B2a,b(iii).

Recommendations for actions to conserve the species

As with most charophytes, not much of the habitat of this species is protected. Possible actions for conservation should include protection of habitats from anthropogenic effects ranging from eutrophication to marine traffic related issues such as effects of boating and dredging for boat lanes. Also restoration of coastal meadows by cattle grazing might benefit the species.

Common names

Denmark: –, Estonia: –, Finland: kalvassiloparta, Germany: –, Latvia: –, Lithuania: žalsvasis menturdumlis, Poland: (krynicznik), Russia: нителла гиалиновая, Sweden: blekslinke

References

- Hertta, the database of threatened species in Finland. Finnish Environment Institute.
- Koistinen, M. 2003. Chapter 4.23. *Nitella hyalina* (DC in Lam. & DC) C. Agardh1824. – In: Schubert, H. & Blindow, I. (eds.). Charophytes of the Baltic Sea. The Baltic Marine Biologists Publication No. 19. A.R.G. Gantner Verlag Kommanditgesellschaft. Ruggell. 326 s, VI figures.
- Koistinen, M. 2010. Näkinpartaislevät, Stoneworts, Characeae. In: Rassi, P., Hyvärinen, E., Juslén, A., Mannerkoski, I. (eds.). Suomen lajien uhanalaisuus – Punainen kirja 2010, The Red List of Finnish Species. Ministry of the Environment & Finnish Environment Institute. P. 204–207.
- Langangen, A., Koistinen, M. ja Blindow, I., 2002. The charophytes of Finland. Memoranda Societatis pro Fauna et Flora Fennica 78: 17–48.