

Oceanographic Services

Lars Edler

ALGAL SITUATION IN SWEDISH MARINE WATERS

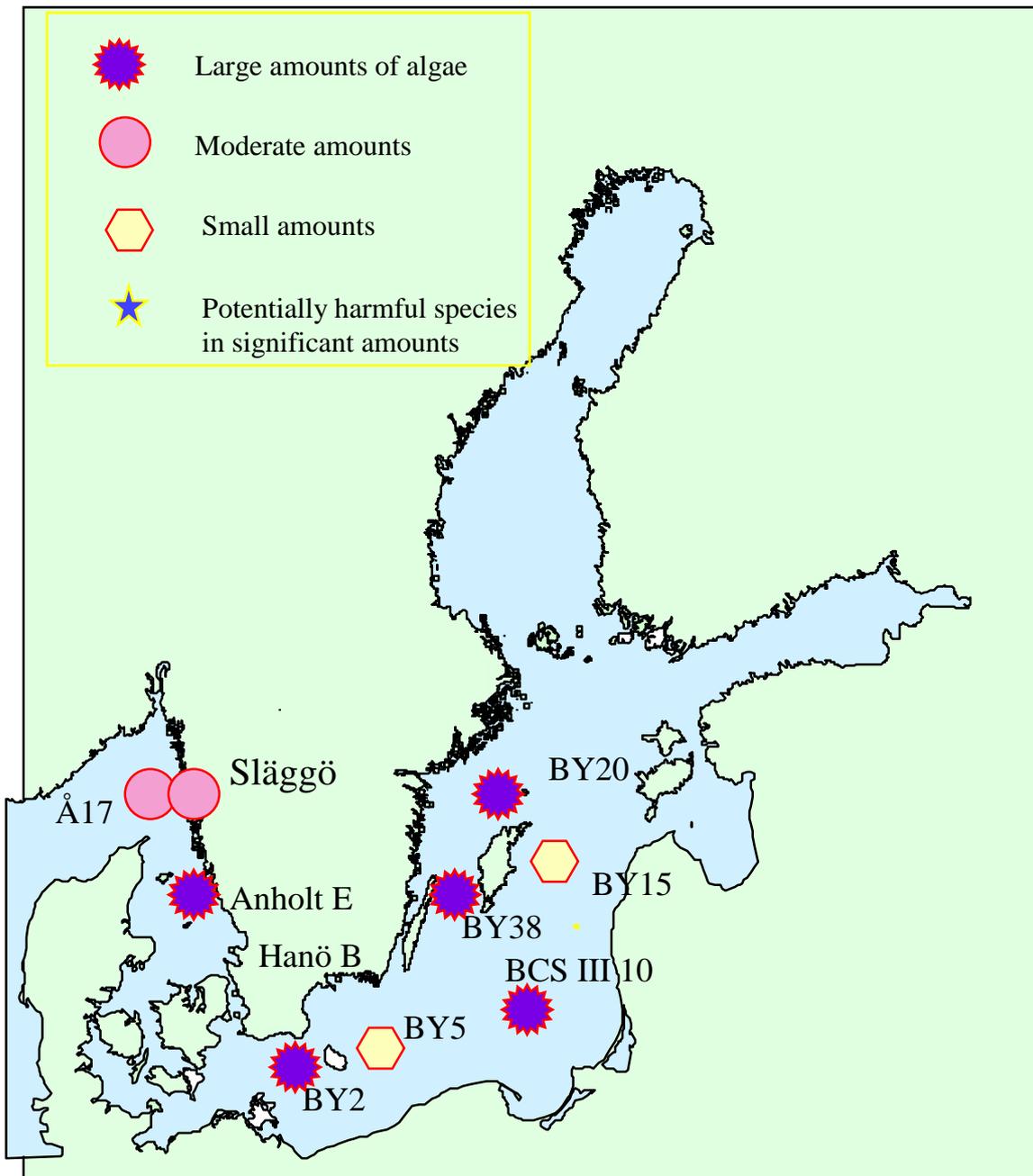
No 6, 2002, 29 July - 1 August

OVERVIEW

The amount of phytoplankton in the **Skagerrak** is relatively small and no blooms or accumulations were observed.

A large bloom of the dinoflagellate *Ceratium furca* was found in the **Kattegat**.

Considerable accumulations of blue-green algae, with a dominance of *Aphanizomenon* sp. and to a smaller degree the potentially toxic *Nodularia spumigena**, are present in the **Baltic Sea**. The distribution is however, very scattered. Most algal accumulations **north and west of Gotland**.



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**ALGAL SITUATION IN
SWEDISH MARINE WATERS****No 6, 2002, 29 July - 1 August****DETAILS**

* POTENTIALLY HARMFUL SPECIES

Sampling in the Skagerrak, Kattegat and the Baltic Sea**SKAGERRAK****Station Å17, 29 JULY**

Relatively small amounts of phytoplankton. Small monads and flagellates dominating with more than 1 million cells per liter. About five diatom species with *Cerataulina pelagica*, *Leptocylindrus danicus* and *Proboscia alata* most common. Among the dinoflagellates *Heterocapsa minima* and *Ceratium furca* dominated. *Dinophysis acuta** and *D. norvegica** present with less than 100 cells per liter each. Chlorophyll in the surface layer very low; 0.2-0.3 µg/l. At 15-20 meters depth about 3 µg/l.

Station Släggö, 29 JULY

Small monads and flagellates dominated with about 1 million cells per liter. Few diatoms present. *Cerataulina pelagica*, *Chaetoceros brevis* and *Skeletonema costatum* most common. Among the dinoflagellates *Heterocapsa minima*, *Ceratium furca* and *Prorocentrum micans* dominated. *Dinophysis acuminata**, *D. acuta** and *D. norvegica** present with less than 100-200 cells per liter each.

Chlorophyll in the surface layer about 2 µg/l.

KATTEGAT**Station Anholt E, 30 JULY**

Considerable bloom of *Ceratium furca* with 100 000 cells per liter. Of the other few dinoflagellates present *Prorocentrum micans* and *P. minimum** were the most abundant. Diatoms were rare. Only *Cerataulina pelagica* and *Proboscia alata* were present. The Cryptophyceans *Plagioselmis prolonga* and *Teleaulax* sp. were relatively common. Small monads and flagellates were present with about 600 000 cells per liter.

Chlorophyll in the surface layer about 8 µg/l.

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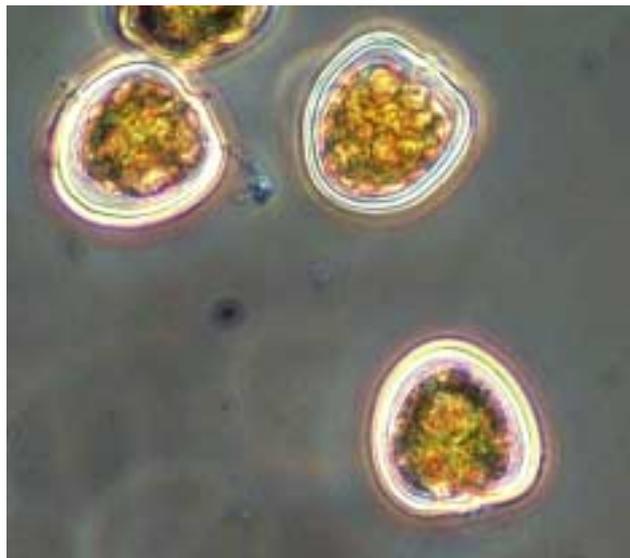
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BALTIC SEA

Arkona basin. Station BY2, 31 JULY

Blue-green algae were common in the water. *Aphanizomenon* sp. dominated with about 14 meter per liter, whereas *Nodularia spumigena** had only 0.16 meter per liter. The potentially toxic dinoflagellate *Prorocentrum minimum** bloomed with 1.63 million cells per liter. The diatom *Chaetoceros impressus* was common and small amounts of the diatoms *Dactyliosolen fragilissimus* and *Proboscia alata* indicated inflow of saltier water.



——— 0.01 mm

The potentially toxic dinoflagellate *Prorocentrum minimum*

Bornholm basin. Station BY5, 31 JULY

Small amounts of phytoplankton and very few blue-green algae. The diatom *Chaetoceros impressus*, the Cryptophyceans *Plagioselmis prolunga* and *Teleaulax* sp. and the Prymnesiophycean *Pyramimonas* sp. were the only algae found.

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Southeast Baltic, Station BCS III 10, 31 JULY

Blue-green algae were common. *Aphanizomenon* sp. dominated with about 16 meter per liter, whereas *Nodularia spumigena** had only 0.5 meter per liter. The dinoflagellate *Heterocapsa triquetra* was common with 45 000 cells per liter, as was the diatom *Chaetoceros impressus*. *Plagioselmis prolunga* and *Teleaulax* sp. were also found.

Eastern Gotland basin, Station BY15, 1 AUGUST

Small amounts of phytoplankton and very few blue-green algae. The diatom *Chaetoceros impressus*, the Cryptophyceans *Plagioselmis prolunga* and *Teleaulax* sp. and the Prymnesiophycean *Pyramimonas* sp. were the only algae found, all in small amounts.

Eastern Gotland basin, Station BY20, 1 AUGUST

Considerable accumulation of blue-green algae floating in the surface water. Outside of the thickest accumulations about 9 meter per liter of *Aphanizomenon* sp. and 7 meter per liter of *Nodularia spumigena** were found in the 0-10 meter water layer. The Tintinnid *Helicostomella* sp. was very common.

Western Gotland basin, Station BY38, 1 AUGUST

Aphanizomenon sp. dominated with about 1 meter per liter, whereas *Nodularia spumigena** was present in very small amounts. The Tintinnid *Helicostomella* sp. was very common.