SMHI

Oceanographic Services

Lars Edler

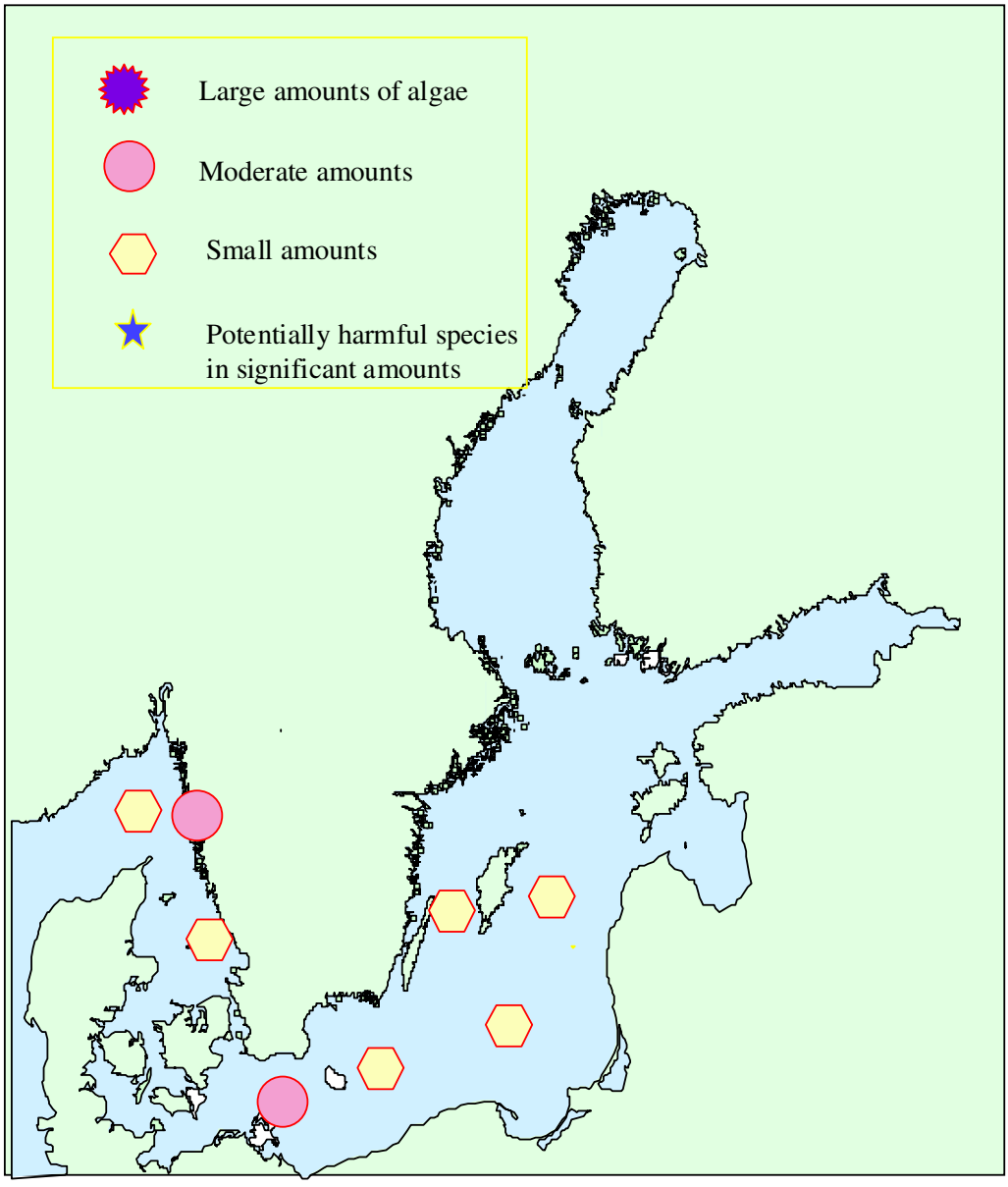
AlgAware

ALGAL SITUATION IN SWEDISH MARINE WATERS
No 6, 2000, 28 AUGUST – 2 SEPTEMBER

OVERVIEW

* POTENTIALLY HARMFUL SPECIES

Sampling in the Skagerrak, the Kattegat and the Baltic Sea



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DETAILS * POTENTIALLY HARMFUL SPECIES

Sampling in the Skagerrak, the Kattegat and the Baltic Sea

SKAGERRAK

Station Å17, 28 AUGUST

Chlorophyll in the upper 10 meters 2-3 mg/m^3.
The dinoflagellate Ceratium furca was very common with about 45 000 cells/l. Small amounts, about 1 000 cells/l, of Dinophysis norvegica*. Very few diatoms present, whereas small flagellates common.

Top 5
Flagellates 3-10 µm
Ceratium furca
Cryptophyceans
Ceratium tripos
Chaetoceros radians

Station Släggö, 28 AUGUST

Chlorophyll in the upper 10 meters 2-3 mg/m^3.
Despite a bloom of the dinoflagellate Ceratium furca with 140 000 cells/l, diatoms dominated. Most abundant was Cerataulina pelagica with 200 000 cells/l, followed by Chaetoceros species with a total of 170 000 cells/l. Small flagellates were very common. Among potentially harmful species Chrysochromulina spp.*, Dinophysis norvegica* and Gymnodinium mikimotoi* were present in low densities.

Top 5
Cerataulina pelagica
Chaetoceros spp.
Ceratium furca
Pyramimonas spp.
Dinophysis norvegica

KATTEGAT

Station Anholt E, 29 AUGUST

Chlorophyll in the upper 10 meters about 2 mg/m^3.
Small flagellates and cryptophyceans, about 200 000 cells/l, dominated. Among dinoflagellates, Ceratium furca was the most common species with 13 000 cells/l. Other dinoflagellates were also present, whereas diatoms were only represented by a very low density of Proboscia alata.

Top 5
Small flagellates
Chrysochromulina spp.
Cryptophyeans
Proboscia alata
Heterocapsa triquetra

Station Anholt E, 2 SEPTEMBER

Chlorophyll in the upper 10 meters 1.5-2 mg/m^3.
Although the slightly lower chlorophyll concentration the species diversity was much higher. The small flagellates still dominated with about 200 000 cells/l, followed by Ceratium furca, 12 000 cells/l and Ceratium fusus, 10 000 cells/l. Low numbers of Chrysochromulina spp.* and Dinophysis norvegica*. Small numbers of diatoms, e.g. Dactyliosolen fragilissimus, Guinardia delicatula and Chaetoceros spp.

Top 5
Small flagellates
Ceratium furca
Ceratium fusus
Pyramimonas spp.
Chrysochromulina spp.

BALTIC SEA

Arkona basin. Station BY2, 29 AUGUST

Chlorophyll in the upper 10 meters about 2 mg/m^3.
Small flagellates and Cryptophyceans dominated with about 300 000 cells/l. The blue-green Aphanizomenon sp. was common with 5 m/l. Dinoflagellates were represented by Gymnodinium spp., about 30 000 cells/l and diatoms by the low densities of Chaetoceros danicus, C. impressus and C. similis. Ciliates were very common.

Top 5
Small flagellates
Aphanizomenon sp.
Gymnodinium spp.
Teleaulax spp.
Plagioselmis spp.

Bornholm basin. Station BY5, 30 AUGUST

Chlorophyll in the upper 10 meters about 2 mg/m^3.
Similar to BY2. Small flagellates and Cryptophyceans dominated with about 200 000 cells/l. Dinoflagellates were represented by Gymnodinium spp., about 30 000 cells/l and diatoms by single cells of Chaetoceros danicus and C. impressus. The blue-green Aphanizomenon sp. was present with 2 m/l. Ciliates were common.

Top 5
Small flagellates
Plagioselmis spp.
Aphanizomenon sp.
Gymnodinium spp.
Teleaulax spp.

Southeast Baltic, Station BCS III 10, 30 AUGUST

Chlorophyll in the upper 10 meters 2- 2.5 mg/m^3.
Flagellates and Cryptophyceans with species of Pyramimonas spp. 200 000 cells/l, Teleaulax spp. 40 000 cells/l, Eutreptiella sp. 20 000 cells/l and Chrysochromulina spp* 20 000 cells/l. The blue-green Aphanizomenon sp. was present with less than 1 m/l. Very small numbers of dinoflagellates and diatoms. Ciliates were common.

Top 5
Pyramimonas spp.
Teleaulax spp.
Eutreptiella sp.
Chrysochromulina spp.*
Aphanizomenon sp.

Eastern Gotland basin, Station BY15, 31 AUGUST

Chlorophyll in the upper 10 meters 2- 2.5 mg/m^3.
Cryptophyceans with species of Plagioselmis sp. 200 000 cells/l, Pyramimonas spp. 150 000 cells/l, Chrysochromulina spp.*, 100 000 cells/l and Teleaulax spp. 20 000 cells/l. The blue-greens Snowella/ Woronichinia and Aphanizomenon sp. were present. Very small numbers of Dinophysis acuminata* and Actinocyclus octonarius.

Top 5
Plagioselmis spp.
Pyramimonas spp.
Chrysochromulina spp*
Teleaulax spp.
Snowella/Woronichinia

Western Gotland basin, Station BY38, 31 AUGUST

Chlorophyll in the upper 10 meters about 2 mg/m^3.
Flagellates with species of Chrysochromulina spp.*, 150 000 cells/l, Plagioselmis sp. 120 000 cells/l and Teleaulax spp. 30 000 cells/l. The blue-greens Snowella/Woronichinia and Aphanizomenon sp. were present. Very small numbers of Dinophysis acuminata* and D. norvegica*. Single cells of Cheatoceros danicus and Actinocyclus octonarius.

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Top 5
Chrysochromulina spp.*
Plagioselmis spp.
Teleaulax spp.
Snowella/Woronichinia
Small flagellates

This report is based on quantitative samples between 0 and 10 m. Chlorophyll values are rough estimates by the fluorescense profiling.

FORECAST

The flora is turning to an autumn situation with increasing concentrations of diatoms in both Skagerrak Kattegat and the Baltic Sea. Harmful dinoflagellates may still develop in the Skagerrak-Kattegat. In the Baltic harmful blooms are not likely to develop.