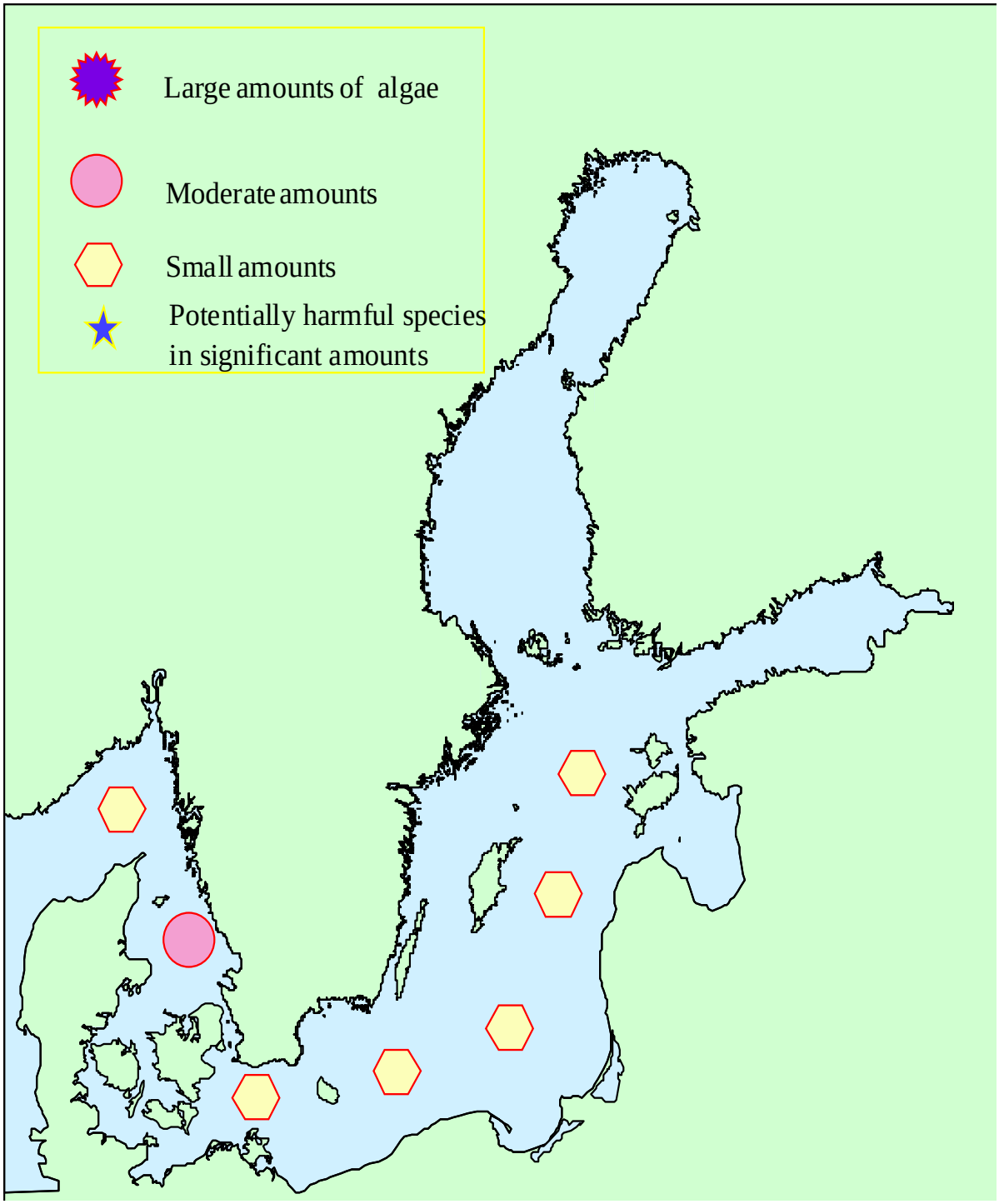
SMHI
Oceanographic Service Lars Edler

ALGAL SITUATION IN SWEDISH MARINE WATERS No 10
28 September - 2 October, 1999.

OVERVIEW

Sampling in the Skagerrak, the Kattegat and the Baltic Sea



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DETAILS * Potentially toxic species

Sampling in the Skagerrak, the Kattegat and the Baltic Sea

SKAGERRAK
Station Å17, 28 September

Chlorophyll about 1.5 g/l down to 15 m depth.

Species diversity high with a dominance of diatoms. Cell densities low. Among diatoms the Pseudo-nitzschia seriata-group* dominated, but several other species belonging to Chaetoceros, Rhizosolenia, Eucampia, Guinardia, Thalassiosira, Dactyliosolen, Ditylum and Coscinodiscus were also present. Among dinoflagellates, Gyrodinium aureolum* dominated with about 15 000 cells/l. Ceratians and Prorocentrum micans also present. Dinophysis norvegica* present as single cells. Chrysochromulina sp.* present with about 15 000 cells/l.

KATTEGAT
Station Anholt E, 28 September

Chlorophyll about 1.5 g/l down to 15 m depth.

Species diversity high with a dominance of diatoms. Cell densities mostly low. Among diatoms the Pseudo-nitzschia seriata-group* dominated with about 50 000 cells/l, followed by Cerataulina pelagica with 12 000 cells/l and Chaetoceros curvisetus with 8 000 cells/l. Several other species belonging to Chaetoceros, Rhizosolenia, Eucampia, Guinardia, Thalassiosira, Leptocylindrus, Dactyliosolen, Ditylum and Coscinodiscus were also present. Among dinoflagellates, Ceratium furca dominated with about 3 000 cells/l, followed by C. tripos with 2 000 cells/l. Dinophysis norvegica*, D. acuminata* and D. acuta* present with a total of about 1 000 cells/l. Small amounts of Polykrikos schwartzii observed. Chrysochromulina sp.* present with about 30 000 cells/l. Among small flagellates Plagioselmis sp. dominated with about 75 000 cells/l.

BALTIC
Arkona Basin, Station BY2, 29 September

Small flagellates, Plagioselmis sp. and Teleaulax sp. dominated together with Prorocentrum minimum*. Cell densities for all three were 30 000 – 50 000 cells/l. Pyramimonas sp. and Ebria tripartita had about 15 000 cells/l. The diatoms Dactyliosolen fragilissimus and Cyclotella sp. were present with 8 000 cells/l and Chaetoceros impressus and Coscinodiscus sp. with 1 000 – 1 500 cells/l. Aphanizomenon sp. (“baltica”) made up 0.66 m/l.

Bornholm Basin, Station BY2, 29 September

Chlorophyll about 2 g/l down to 20 m depth.

Small flagellates, Plagioselmis sp., Teleaulax sp., *Heterocapsa rotundatum* and Pyramimonas sp. dominated together with Gymnodinium simplex. Cell densities ranged between 30 000 and 100 000 cells/l. Single cells of Dinophysis norvegica* and D. acuminata* present. Aphanizomenon sp. (“baltica”) present with 6 m/l.

Southeast Gotland Basin, Station BCS III 10, 30 September

Three species dominated here. Prorocentrum minimum* with ~300 000 cells/l, "Pseudoanabaena sp." with ~12 m/l and Cyclotella sp. with ~200 000 cells/l. Aphanizomenon sp. ("baltica") present with 0.5 m/l and Nodularia spumigena* with 0.1 m/l. Low numbers of Chaetoceros impressus and C. danicus. Single cells of Dinophysis acuminata* and Phalachroma rotundatum* observed.

Eastern Gotland Basin, Station BY15, 30 September

Chlorophyll about 2 g/l down to 20 m depth.

Small flagellates, Plagioselmis sp. and Teleaulax sp. dominated together with Prorocentrum minimum*. Cell densities for all three were about 15 000 cells/l. Pyramimonas sp. and Ebria tripartita had about 15 000 cells/l. Chaetoceros danicus had 6 000 cells/l, whereas other diatoms, such as *C.* impressus, Coscinodiscus sp. and Actinocyclus octonarius were present as single cells. Small amounts of Aphanizomenon sp. ("baltica") and Nodularia spumigena*, as well as dinoflagellates. Only Dinophysis acuminata* present in amount possible to count – 4 200 cells/l.

Northern Baltic, Station BY29, 1 October

Chlorophyll about 2 g/l down to 25 m depth.

The small flagellate Teleaulax sp. dominated together with Prorocentrum minimum*. Cell densities for both of them were about 18 000 cells/l. Among diatoms Chaetoceros danicus had 6 000 cells/l, C. impressus 2 000 cells/l and Actinocyclus octonarius 2 000 cells/l. Aphanizomenon sp. ("baltica") present with 4 m/l. Single cells of Dinophysis norvegica*, D. acuminata*, Phalachroma rotundatum* and Gymnodinium simplex.

Western Gotland Basin, Station BY38, 2 October

Chlorophyll about 2 g/l down to 20 m depth.

Rather poor flora. The small flagellate Plagioselmis sp., 50 000 cells/l, dominated together with "Pseudoanabaena sp." with ~2.5 m/l. Cell densities for both of them were about 18 000 cells/l. Among diatoms Chaetoceros danicus and C. impressus present. Aphanizomenon sp. ("baltica") and Nodularia spumigena* present with 0.3 m/l each. Single cells of Dinophysis norvegica*, D. acuminata*. Chrysochromulina sp.* present with 30 000 cells/l..

This report is based on qualitative and quantitative samples between 0 and 10 m depth. Chlorophyll data are based on rough calculations from fluorescens profiling.

FORECAST

In the Skagerrak-Kattegat an autumn diatom development is under way. In the Baltic Sea there is a slow change to winter conditions with few and large diatoms.