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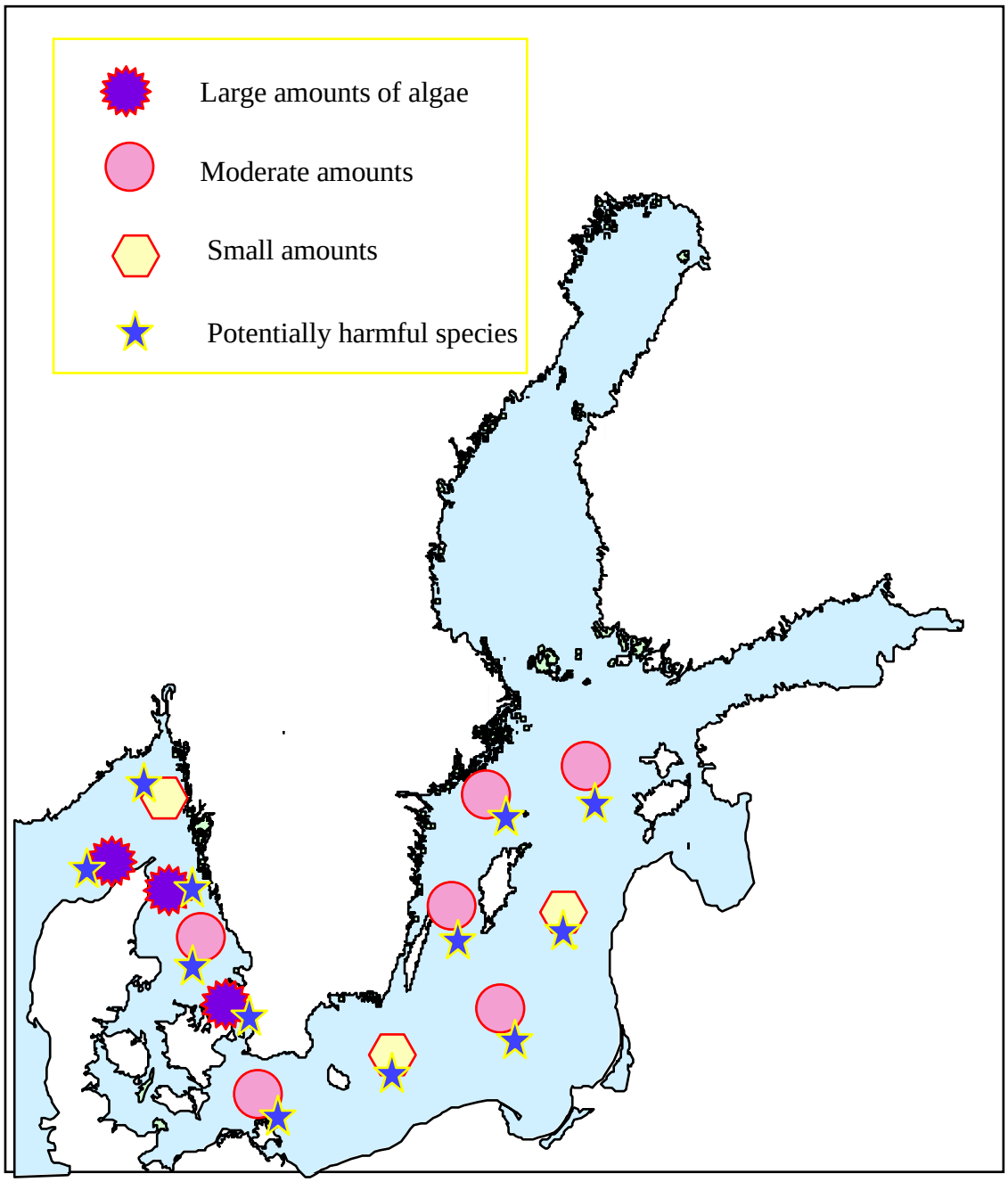
Oceanographic Service

Lars Edler

ALGAL SITUATION IN SWEDISH MARINE WATERS No 7, 1998

OVERVIEW

19-24 April, 1998



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ALGAL SITUATION IN SWEDISH MARINE WATERS No 7, 1998 DETAILS

19-24 April

* POTENTIALLY HARMFUL SPECIES

Sampling in the Skagerrak, Kattegat and Baltic Sea

SKAGERRAK

Stations **M6, 19 April:**
The springbloom is about to end. Still several species of diatoms present; Thalassiosira nordenskioeldii, Proboscia alata, Guinardia flaccida and Coscinodiscus sp.. Coscinodiscus wailesii not uncommon. Among dinoflagellates Ceratium longipes and C. tripos dominated. Small amounts of Dinophysis acuminata*. A few specimens of Gyrodinium aureolum* observed. Small amounts of Phaeocystis sp.*. Chlorophyll concentration about 1µg.L^{-1} in the upper 20 m.

Station **HS5, 19 April:**
Springbloom situation with large amounts of diatoms. Coscinodiscus sp. very common, as well as Thalassiosira nordenskioeldii, T. anguste-lineata, Rhizosolenia hebetata and Stephanopyxis turris. Dinoflagellates rare. Phaeocystis sp.* very common. Chlorophyll concentration 3-12 µg.L^{-1} in the upper 20 m.

KATTEGAT

Station **Läsö Ränna, 19 April:**
Springbloom situation with Phaeocystis sp*., Among diatoms Guinardia flaccida dominated, accompanied by Chaetoceros debilis, C. curvisetus, Thalassiosira nordenskioeldii, Skeletonema costatum and several other spring diatoms. Dinophysis acuminata * and D. norvegica* present in small amounts. Ceratium species and Protoperidinium depressum scattered. Chlorophyll concentration 1-8 µg.L^{-1} in the upper 20 m.

Station **Anholt E, 19 April:**
End of springbloom. Still, however large amounts of Phaeocystis sp.*. The diatoms Guinardia flaccida, Thalassiosira angulata and species of Chaetoceros present. Dinophysis norvegica* and D. acuminata* present in small amounts. Ceratium species scattered. Chlorophyll concentration 1-2 µg.L^{-1} in the upper 20 m.

Station **Anholt E, 23 April and Fladen, 24 April:**
Remains of the springbloom present below the pycnocline, where the chlorophyll had a narrow peak of 5-7 µg.L^{-1} . Several species of diatoms were present, e.g. Skeletonema costatum, Guinardia flaccida, Thalassiosira spp. Chaetoceros spp., Coscinodiscus wailesii and Coscinodiscus sp. Ceratium species occurred scattered as well as other dinoflagellates. Dinobryon balticum and Phaeocystis sp.* present in small amounts.

Station **Landskrona W, 23 April:**
Remains of the springbloom present below the pycnocline, where the chlorophyll had a narrow peak of about 15 µg.L^{-1} . Several species of diatoms were present, e.g. Skeletonema costatum, Thalassiosira spp. Chaetoceros spp. and Coscinodiscus sp. Thalassiosira nordenskioeldii and Guinardia flaccida dominated. Small amounts of Dinophysis spp.*.

BALTIC SEA

Arkona basin, 20 April, Station **BY2:**
Springbloom situation dominated by the dinoflagellate Peridiniella catenata and the diatom Skeletonema costatum. Other diatoms, typical for the springbloom, such as Chatoceros wighamii, C. similis and Navicula vanhoeffenii also present. Among dinoflagellates Amylax triachantha, Protoperidinium bipes and Dinophysis norvegica* were present in small amounts. The bluegreen algae Aphanizomenon sp. occured scattered as did Dinobryon balticum. Chlorophyll peaked at 3-4 µg.L^{-1} in the upper 10 m.

Arkona basin, 23 April, Station **BY2**:
Similar to the 20 April, but now the diatom Achnanthes taeniata was present in high amounts. Chlorophyll 1-2 µg.L^{-1} in the upper 20 m.

Bornholm basin, 20 April, Station **BY5:**
Very similar to BY2, but with more Aphanizomenon sp. and less Skeletonema costatum and dinoflagellates. Chlorophyll concentration about 2 µg.L^{-1} in the upper 15 m.

Southeast Baltic, 21 April, Station **BCS III 10**:
Very similar to BY5, but with more Skeletonema costatum and also small amounts of Achnanthes taeniata. Chlorophyll concentration 3-4 µg.L^{-1} in the upper 20 m.

Eastern Gotland basin, 21 April, Station **BY15:**
Despite low chlorophyll concentration (1-2 µg.L^{-1}) the flora showed springbloom situation with large amounts of the dinoflagellate Peridiniella catenata. Small amounts of spring diatoms, such as Skeletonema costatum, Chatoceros wighamii, C. similis, C. sp. A (cf. danicus), Thalassiosira baltica and T. levanderi also present. Aphanizomenon sp. and Protoperidinium bipes common. Small amounts of the dinoflagellates Dinophysis norvegica* and D. acuminata*.

Northern Baltic, 22 April, Station **BY29**:
Very similar to BY15, but considerably more of Protoperidinium bipes. Chlorophyll concentration 3-4 µg.L^{-1} in the upper 15 m.

Northwest Baltic, 22 April, Station **BY31**:
Very similar to BY29, but high amounts of Thalassiosira baltica. Chlorophyll concentration 3-4 µg.L^{-1} in the upper 25 m.

Western Gotland basin, 22 April, Station **BY38:**
Very similar to BY31. Dinobryon balticum very common. Chlorophyll concentration about 3 µg.L^{-1} in the upper 25 m.

This report is based on net samples from the upper 20 m. Chlorophyll values are rough estimates based on profiles of fluorescens.

FORECAST

The springbloom situation is near the end and a period dominated by autotrophic and heterotrophic flagellates is likely to develop.