SMHI

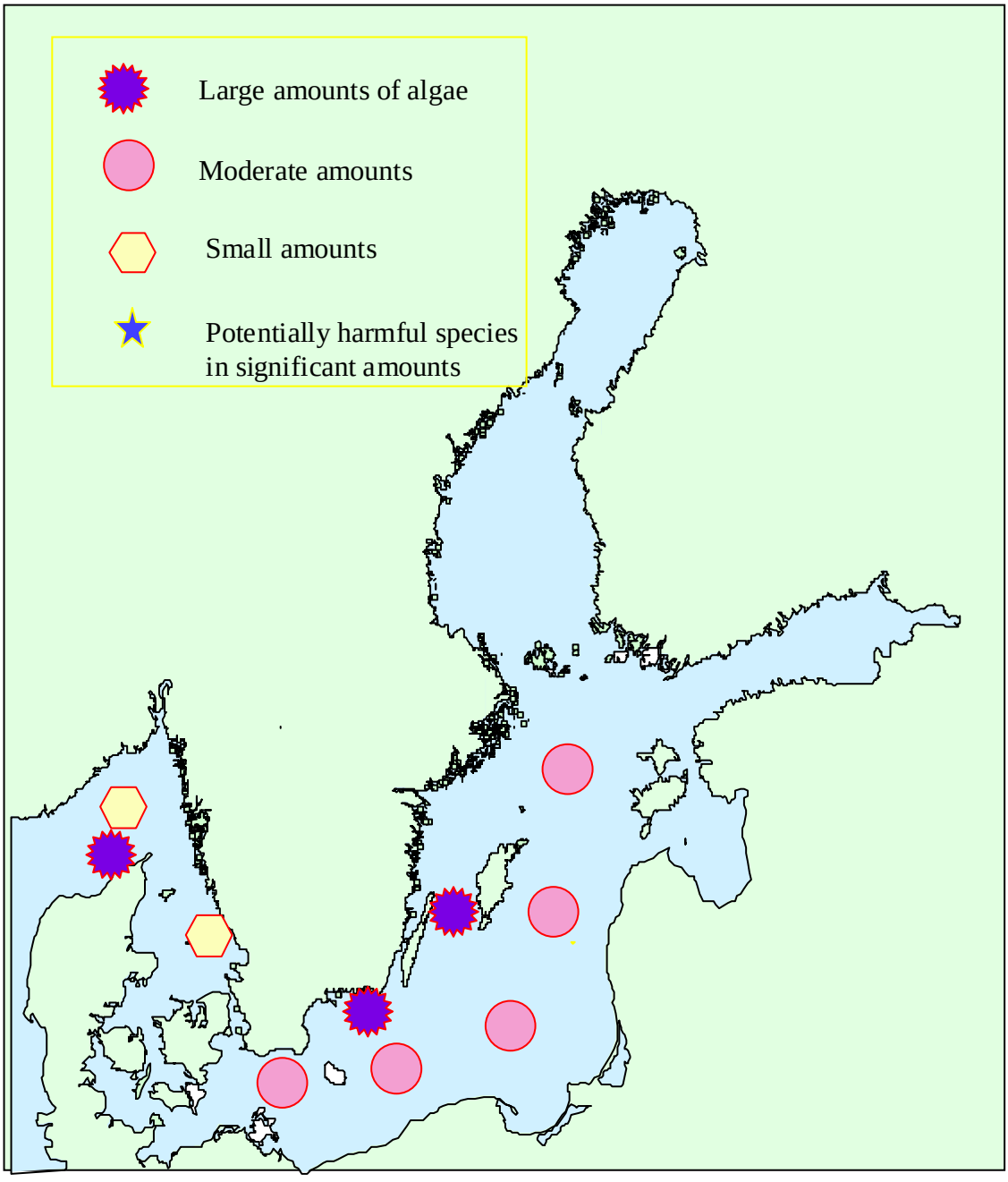
Oceanographic Services

Lars Edler

ALGAL SITUATION IN SWEDISH MARINE WATERS
No 4, 1999, 19-24 April

OVERVIEW

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 M6, 19 April

Poor plankton flora, with a dominance of dinoflagellates. Small amounts of Ceratium spp. and Dinophysis acuta* and D. norvegica*. Chlorophyll concentrations in the upper 20 m about 0,5 µg.L^{-1}.

Station HS5, 20April

Rich plankton flora, with a dominance of diatoms. Chaetoceros decipiens was common. Among Thalassiosira, T. nordenskioeldii was the most common. An unidentified Coscinodiscus was present in relatively large amounts.Chlorophyll concentrations in the upper 20 m about 5 µg.L^{-1}.

KATTEGAT

Station Anholt E, 20 April

Poor plankton flora with many heterotrophic dinoflagellates of the genus Protoperidinium. Small amounts of the dinoflagellates Ceratium and Dinophysis* and very small amounts of diatoms.The late spring species Dinobryon balticum very common. Chlorophyll concentrations in the upper 20 m about 1.5 µg.L^{-1}

Station Anholt E, 24 April

The difference from four days earlier was that there were even less diatoms now. The late spring species Dinobryon balticum very common. Chlorophyll concentrations in the upper 20 m about 2 µg.L^{-1}.

BALTIC SEA

Arkona basin, Station BY2, 24 April

Post spring bloom situation. Still large amounts of Peridiniella catenata, Chaetoceros similis and Chaetoceros wighamii. Dinobryon balticum and Scrippsiella hangoei common and heterotrophic dinoflagellates had increased. Small amounts of Aphanizomenon sp.. Chlorophyll concentrations down to 10 m about 1 µg.L^{-1}.

Bornholm basin, Station BY5, 21 April

The spring bloom is in a final stage. There is still a lot of Peridiniella catenata and quite a lot of Chaetoceros wighamii. Dinobryon balticum and Aphanizomenon sp. are present in small amounts. Chlorophyll concentrations down to 20 m 1-2 µg.L^{-1}.

Northern Hanö Bight, Stations K6 and K19, 14 April

Intensive spring bloom going on with 3-20 millions cells per liter of Skeletonema costatum.

Southeast Baltic Sea, Station BCS III 10, 21 April

Late spring bloom situation. Peridiniella catenata and Scrippsiella hangoei are very common. Several speceis of Chaetoceros also common, e.g. C. wighamii, C. holsaticus and C. ceratosporus. Aphanizomenon sp. present in small amounts. Chlorophyll concentrations down to 20 m 2-4 $\mu g.L^{-1}$.

Eastern Gotland basin, Station BY15, 22 April

Spring bloom situation similar to BCS III 10. Peridiniella catenata and Scrippsiella hangoei are very common. Several speceis of Chaetoceros also common, e.g. C. wighamii, C. holsaticus and C. ceratosporus. Aphanizomenon sp. present in small amounts. Chlorophyll concentrations down to 15m 2-5 $\mu g.L^{-1}$.

Northern Baltic, Station BY29, 22 April

Spring bloom situation similar to BY15. Peridiniella catenata and Scrippsiella hangoei are very common. Several speceis of Chaetoceros also common, e.g. C. wighamii, C. holsaticus and C. ceratosporus. Aphanizomenon sp. present in small amounts. Chlorophyll concentrations down to 20m about 2-4 $\mu g.L^{-1}$.

Western Gotland Basin, Station BY38, 23 April

Intense spring bloom dominated by Peridiniella catenata, Scrippsiella hangoei, Chaetoceros wighamii, Skeletonema costatum and Thalassiosira baltica. Small amount of heterotrophic dinoflagellates, Dinophyssis acuminata* and Chaetoceros subtilis. Chlorophyll concentrations down to 15 m about 2-10 $\mu g.L^{-1}$.

This report is based on an overview of qualitative and quantitative samples from the upper 20 m. Chlorophyll values are rough estimates based on profiles of fluorescence.

FORECAST

In the Skagerrak the spring bloom has passed and a situation with small flagellates is developing. Near the Jutland coast a considerable bloom of diatoms was going on in the nitrate rich water. This addition of nitrate may be of importance for the development of phytoplankton in the nearest future. In the Kattegat the spring bloom has passed and a situation with small flagellates is developing. In the southern part of the Baltic, the Arkona and Bornholm basins the spring bloom is ending and a late spring situation with increasing amount of flagellates and bluegreen algae is developing. In the wetern part of the Gotland Basin the spring bloom was intense and it will take some time before the late spring situation will develop.