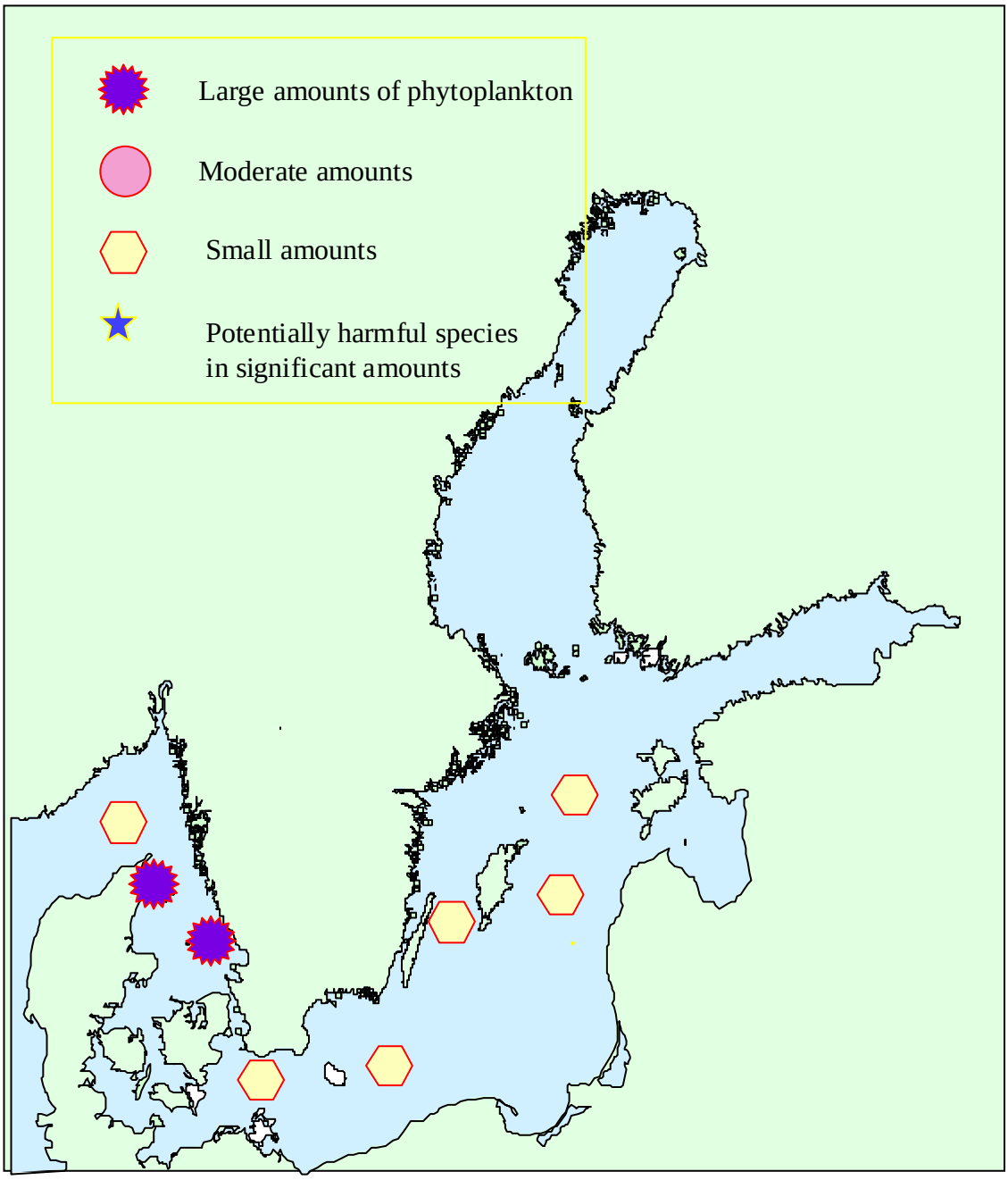
SMHI
Oceanographic Services

Lars Edler

ALGAL SITUATION IN SWEDISH MARINE WATERS
No 2, 1999, 22-27 February

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, 22 February

Chlorophyll concentrations in the upper 20 m less than 1 µg.L^{-1}.

Small amounts of phytoplankton. Several Ceratium species present. Few Dinophysis acuminata*. Several diatom speices present in small amounts. Chaetoceros socialis, C. curvisetus, Skeletonema costatum and Thalassiosira nordenskioeldii were the most common.

KATTEGAT

Station Läsö Ränna, 23 February

Chlorophyll concentrations in the upper 15m 5 – 8 µg.L^{-1}.

Spring bloom has started. Complete dominance of diatoms and only single cells of dinoflagellates (Ceratium tripos). High diversity of diatoms, with high numbers of Skeletonema costatum and Chaetoceros socialis. Odontalia aurita quite common. Thalassiosira gravida, T. nordenskioeldii and Navicula transitans relatively common.

Station Anholt E, 23 February

Chlorophyll concentrations in the upper 20 m 2 – 4 µg.L^{-1}.

Spring bloom has started also at this station, but has not reached the same level as at Läsö. Rich plankton flora dominated by diatoms. High numbers of Skeletonema costatum and Chaetoceros socialis. Several other Chaetoceros species also present, as well as Navicula transitans and Rhizosolenia species. Small amounts of dinoflagellates. Ceratium tripos most common, followed by Dinophysis acuminata* and D. norvegica*.

BALTIC SEA

Arkona basin. Station BY2, 24 February

Chlorophyll concentrations down to 20 m less than 1 µg.L^{-1}.

The plankton flora was dominated by the dinoflagellate Peridiniella catenata.The bluegreen algae Aphanizomenon sp. was present in small amounts together with the diatoms Actinocyclus octonarius, Chaetoceros impressus and C. danicus. The presence of small amounts of Odontalia aurita, Rhizosolenia hebetata, Thalassionema nitzschioides and Thalassiosira nordenskioeldii indicated inflow of Kattegat water into the Arkona basin.

Bornholm basin. Station BY5, 24 February

Poor plankton flora. The dinoflagellate Peridiniella catenata dominated followed by the bluegreen algae

Woronichinia/Snowella spp. and Aphanizomenon sp.. Small amounts of the diatoms Actinocyclus octonarius, Chaetoceros impressus and C. danicus. The dinoflagellates Dinophysis acuminata* and D. norvegica* also present.

Eastern Gotland basin, Station BY15, 24 February

Chlorophyll concentrations down to 15m about 0.5 µg.L^{-1}.

Very poor plankton flora, similar to the Bornholm basin. Aphanizomenon sp. dominated. Small amounts of Dinophysis acuminata*.

Northern Baltic, Station BY29, 24 February

Chlorophyll concentrations down to 15m about 0.5 µg.L^{-1}.

Poor plankton flora, similar to Eastern Gotland basin. Small amounts of the dinoflagellates Dinophysis acuminata*, D. norvegica* and Peridiniella catenata. The diatom Thalassiosira baltica present as single cells. Ciliates common.

Western Baltic, Station BY38, 24 February

Chlorophyll concentrations down to 20 m about 0.5 µg.L^{-1}.

Small amounts of phytoplankton, but relatively high diversity. The diatom Actinocyclus octonarius dominated together with the bluegreen algae Aphanizomenon sp.. Small amounts of the dinoflagellates Dinophysis acuminata*, D. norvegica* and Protoperidinium cf. pellucidum. The diatoms Chaetoceros ceratosporus, C. danicus, C. holsaticus, C. similis, Skeletonema costatum and Rhizosolenia hebetata also present.

This report is based on an overview of qualitative samples from the upper 20 m. Chlorophyll values are rough estimates based on profiles of *in situ* fluorescens.

FORECAST

In the Skagerrak there are signs of a developing spring bloom.
In the Kattegat the spring bloom has started to develop. As nutrient concentrations are still high, the bloom will develop further.
In the Baltic, it is a late winter situation, but some species signal the oncoming spring bloom.