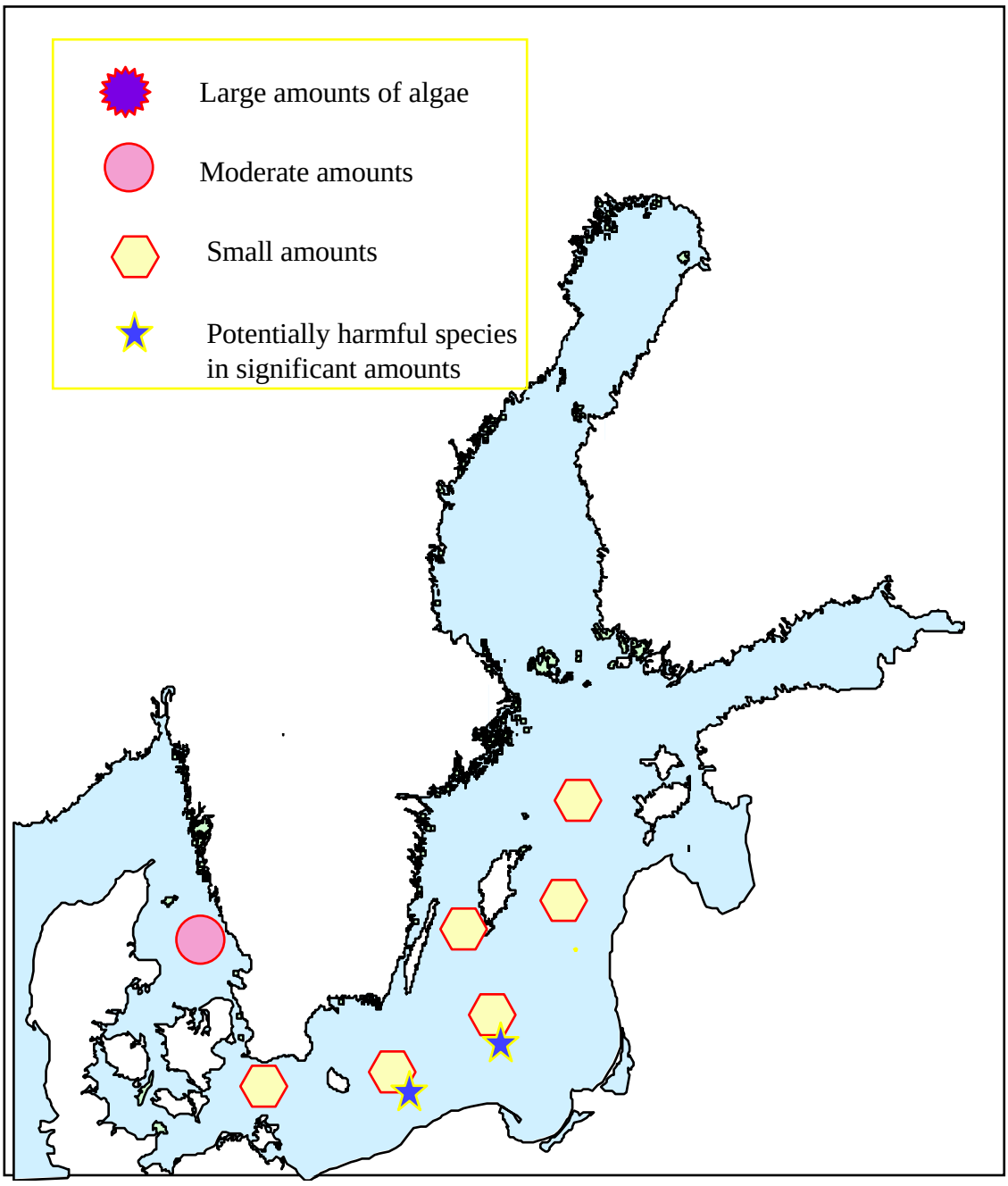
SMHI
Oceanographic Service

Lars Edler

ALGAL SITUATION IN SWEDISH MARINE WATERS No 15
19-22 October, 1998

OVERVIEW

Sampling in the Skagerrak, the Kattegat and the Baltic Sea



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DETAILS * POTENTIALLY HARMFUL SPECIES

Sampling in the Kattegat and the Baltic Sea

KATTEGAT

Station Anholt E, 22 October

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

Large amounts of phytoplankton, with a complete dominance of diatoms. Several species of Chaetoceros, eg. C. affinis, C. danicus, C. curvisetus and C. radians. Also other diatoms, significant for the autumn were found, eg. Ditylum brightwellii, Thalassionema nitschioides, Guinardia flaccida. Among dinoflagellates, Ceratium tripos dominated, but several other species were present. Small amounts of Dinophysis* species were present, as well as several species of Protoperidinium (eg. P. divergens).

BALTIC SEA

Arkona basin. Station BY2, 22 October

Chlorophyll concentrations down to 40 m 1-2 µg.L^{-1}.

The bluegreen algae Aphanizomenon sp. dominated together with a mixture of the diatoms Coscinodiscus granii and cf. Thalassiosira hyperborea. A few chains of Nodularia spumigena were found, whereas the dinoflagellate Prorocentrum minimum* had disappeared. Small amounts of Ceratium tripos, Gymnodinium simplex, the diatoms Actinocyclus octonarius and Chaetoceros sp. A (cf. danicus) were also seen.

Bornholm basin. Station BY5, 19 October

Chlorophyll concentrations between the surface and 20 m about 2 µg.L^{-1}.

The bluegreen algae Aphanizomenon sp. was common, as was the diatom Coscinodiscus granii, although in smaller amounts compared to station BY2. The dinoflagellate Prorocentrum minimum* was very common together with the bluegreens Woronichinia sp. and Snowella sp.

Southeast Baltic, Station BCS III 10, 19 October

Chlorophyll concentrations down to 15 m 1-2 µg.L^{-1}.

Quite diverse flora with several species of bluegreen algae, such as Aphanizomenon sp., Woronichinia sp. and Snowella sp. cf. Aphanocapsa sp. was very common and dominated the flora. The diatom Coscinodiscus granii was present in smaller amounts, whereas the dinoflagellate Prorocentrum minimum* was quite common and Dinophysis norvegica* was not uncommon.

Eastern Gotland basin, Station BY15, 20 October

Chlorophyll concentrations down to 10 m 1-2 µg.L^{-1}.

Small amounts of phytoplankton. A mixture of the bluegreens Aphanizomenon sp., Woronichinia sp., Snowella sp. and cf. Aphanocapsa sp.. The diatoms Coscinodiscus granii, Chaetoceros sp. A. (cf. danicus) and Actinocyclus octonarius, together with the dinoflagellate Dinophysis norvegica* were also found.

Northern Baltic, Station BY29, 20 October

Chlorophyll concentrations down to 10 m about 1 µg.L^{-1}.

Similar to BY15, but with additional diatoms such as cf. Thalassiosira hyperborea, Chaetoceros danicus and Chaetoceros wighamii. The last mentioned is an indicator of the Baltic spring bloom and it is surprising to see it at this time of the year.

Western Gotland basin, Station BY38, 21 October

Chlorophyll concentrations down to 15 m 1-2 µg.L^{-1}.

Bluegreen algae dominated. Aphanizomenon sp. was the most common. Woronichinia sp., Snowella sp. were also abundant. The diatoms Coscinodiscus granii, Chaetoceros sp. A. (cf. danicus) and Actinocyclus octonarius, together with the dinoflagellates Dinophysis norvegica* and cf. Gymnodinium simplex were also found.

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

FORECAST

In the Kattegat an autumn diatom bloom is continuing. The very unstable weather will decide the direction of the phytoplankton development. Anyway, it seems as a winter minimum is approaching .

This is also true for the Baltic, where the plankton flora is turning to large diatoms and in the northern part, even to diatom species, common for the spring bloom.