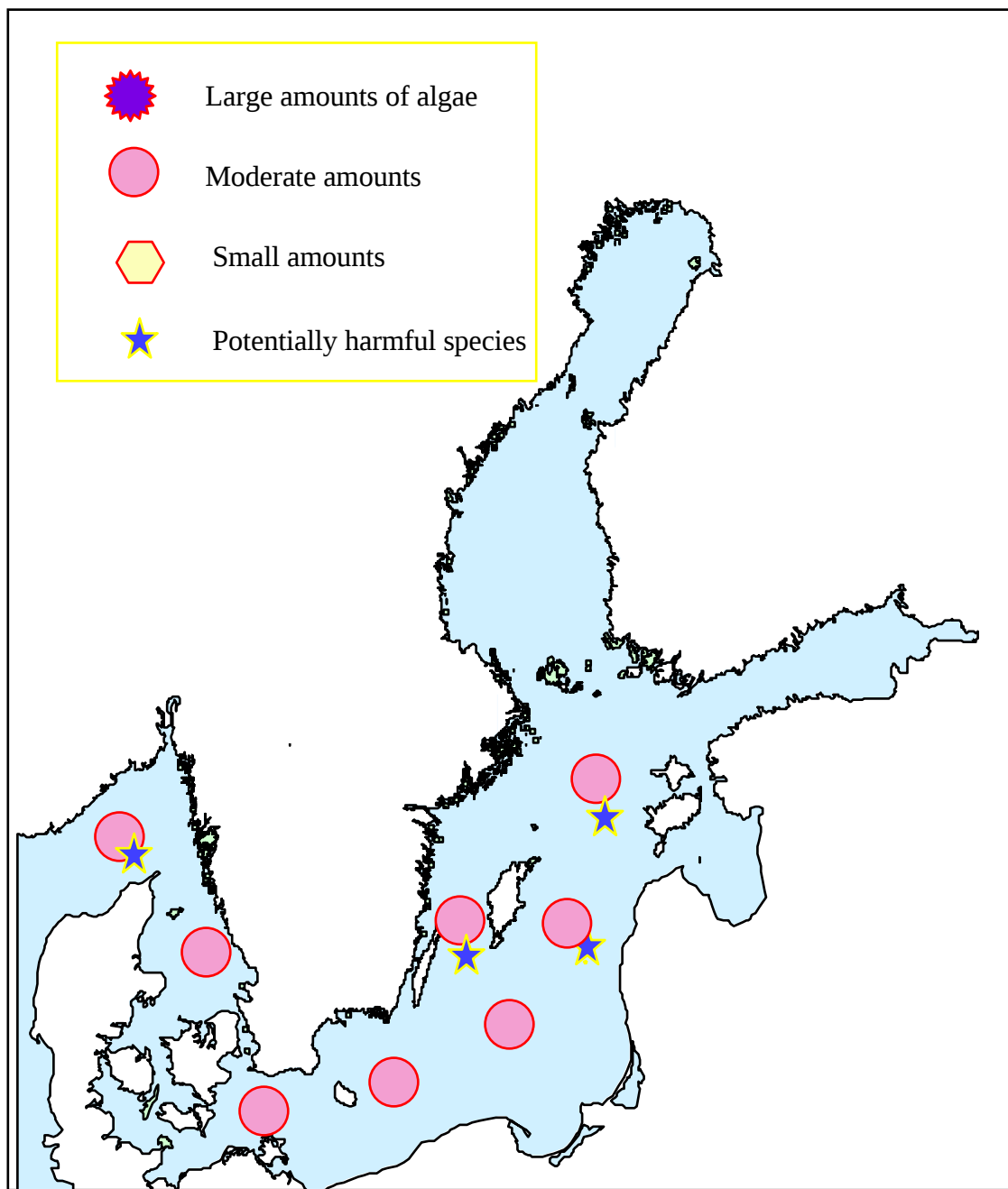


ALGAL SITUATION IN SWEDISH MARINE WATERS No 13

21-28 August, 1998



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DETAILS

* POTENTIALLY HARMFUL SPECIES

Sampling in the Skagerrak, Kattegat and the Baltic Sea

SKAGERRAK

Station M6, 22 August

Chlorophyll concentrations in the upper 10 m about 1 $\mu\text{g.L}^{-1}$ and a peak of about 5 $\mu\text{g.L}^{-1}$ at 15 m depth.

Rich plankton flora. Several species of dinoflagellates present in small amounts. Ceratium species common. Dinophysis acuminata*, acuta* and norvegica* present in small amounts. Gyrodinium aureolum* common. Diatoms relatively common with several species, eg. Guinardia flaccida, Pseudo-nitzschia delicatissima, P-n. cf fraudulenta, Chaetoceros affinis. Single trichoms of the baltic bluegreen algae Nodularia spumigena* observed.

KATTEGAT

Station Anholt E, 23 August

Chlorophyll concentrations in the upper 20 m about 1 $\mu\text{g.L}^{-1}$.

Small amounts of phytoplankton, but high diversity. Ceratium species and Dinophysis* species dominated the dinoflagellates. Several species of Protoperidinium (eg. P. divergens) present. Few cells of Gyrodinium aureolum*.

Among diatoms. Guinardia flaccida dominated. Several other species belonging to the genus Chaetoceros, Proboscia, Rhizosolenia and Thalassiosira were also found in small amounts.

Station Anholt E, 27 August

Chlorophyll concentrations in the upper 20 m about 1 $\mu\text{g.L}^{-1}$.

The phytoplankton composition similar to that of four days earlier, with the addition of Chaetoceros decipiens.

BALTIC SEA

Arkona basin. Station BY2, 23 August

Chlorophyll concentrations down to 25 m 2-3 $\mu\text{g.L}^{-1}$.

The bluegreen algae Aphanizomenon sp. dominated. Nodularia spumigena* and Anabaena sp. and Woronichinia sp. also common. The dinoflagellate Prorocentrum minimum* very common and the diatom cf. Thalassiosira hyperborea common.

Bornholm basin. Station BY5, 24 August

Chlorophyll concentrations down to 30 m about 2-3 $\mu\text{g.L}^{-1}$.

Similar to BY2, but fewer Prorocentrum minimum* and hardly any Thalassiosira hyperborea. Small amounts of Dinophysis acuminata* and D. norvegica*.

Southeast Baltic, Station BCS III 10, 24 August

Chlorophyll concentrations down to 35 m 2-3 µg.L⁻¹.

The bluegreen algae Aphanizomenon sp. dominated together with Woronichinia sp., whereas Nodularia spumigena* was present in smaller amounts. Dinophysis norvegica and Prorocentrum minimum* not uncommon.. The diatom Thalassiosira hyperborea not uncommon. Small amounts of the cryptomonad Teleaulax spp.

Eastern Gotland basin, Station BY15, 24 August

Chlorophyll concentrations down to 20 m 2-3 µg.L⁻¹.

The bluegreen algae Aphanizomenon sp. dominated completely. Nodularia spumigena* , Woronichinia sp. and Anabaena sp. also relatively common. Dinophysis norvegica* very common, whereas D. acuminata* and Prorocentrum minimum* and Heterocapsa triquetra were present in small amounts.

Northern Baltic, Station BY29, 25 August

Chlorophyll concentrations down to 20 m 2-3 µg.L⁻¹.

Very similar to BY15, but more dinoflagellates.

Western Gotland basin, Station BY38, 26 August

Chlorophyll concentrations down to 25 m 1.5-2 µg.L⁻¹.

The bluegreen algae Aphanizomenon sp. dominated completely. Nodularia spumigena*, Woronichinia sp. and Anabaena sp. also common. Dinophysis norvegica* and D. acuminata* present. Small amounts of Heterocapsa triquetra.

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 Skagerrak and Kattegat dinoflagellates will continue to be important. The considerable addition of river water may stimulate bloom formation in the coastal areas. The dinoflagellate Gyrodinium aureolum may form large populations along the Swedish Skagerrak coast.

In the Baltic bluegreen algae will continue to flourish and with a period of calm and sunny weather surface accumulations may develop in certain areas.