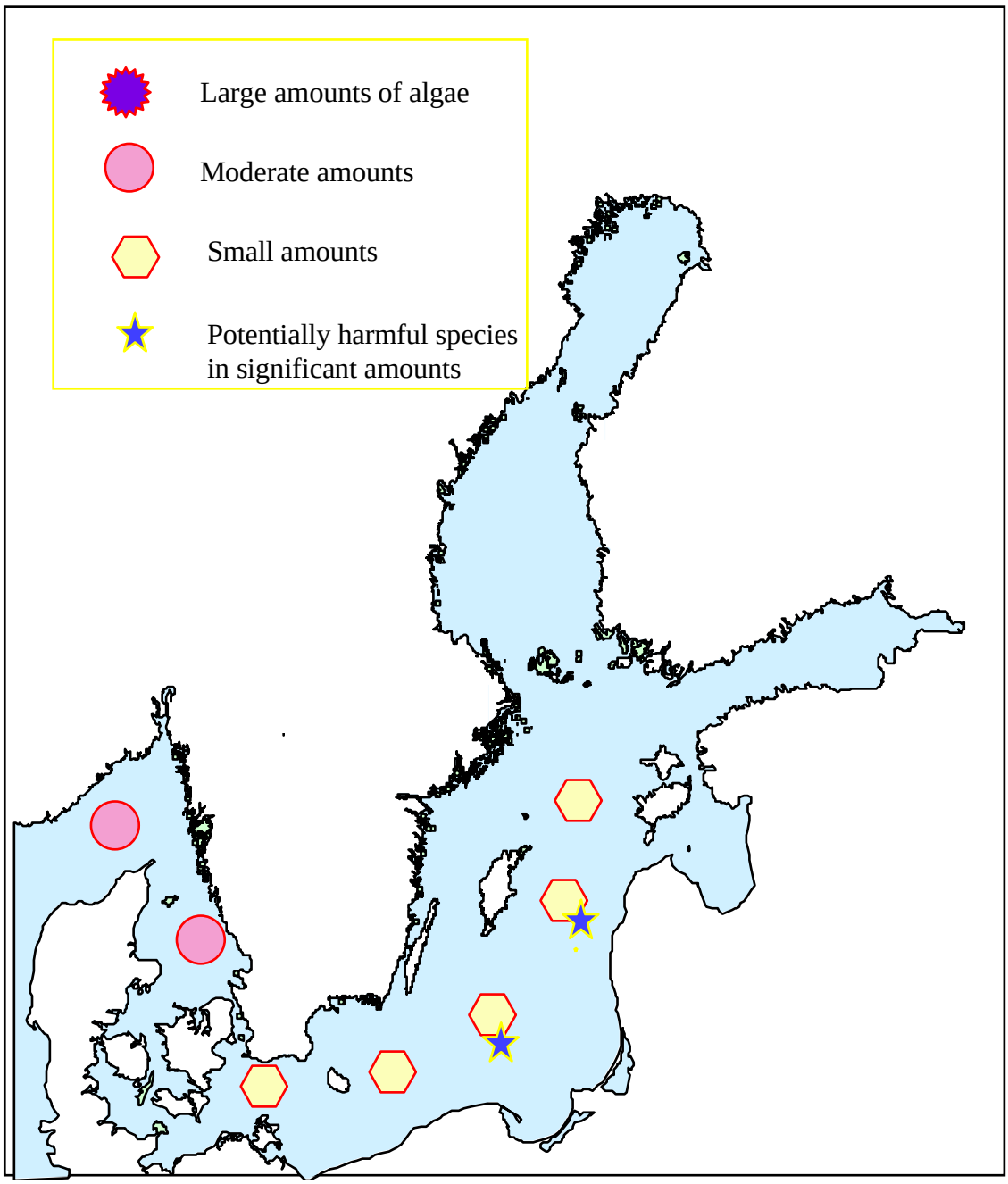
SMHI

Oceanographic Services Lars Edler

ALGAL SITUATION IN SWEDISH MARINE WATERS No 16
10-13 November, 1998

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, 10 November

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

Large amounts of phytoplankton. Typical autumn bloom situation with a large number of diatom species. Skeletonema costatum dominated. Several species of Chaetoceros, eg. C. danicus, C. curvisetus, C. laciniosus and C. radians. Several species of Thalassiosira, eg. T. angulata, T. rotula, T. nordenskioeldii and T. gravida. Species of Rhizosolenia, Coscinodiscus and Pseudo-nitzschia as well as typical autumn species eg. Ditylum brightwellii, Paralia sulcata and Odontella sinensis were also found. Among dinoflagellates, Ceratium species dominated, but several other species were present. Small amounts of Dinophysis* species, including D. cf. odiosa were present, as well as several species of Protoperidinium.

KATTEGAT

Station Anholt E, 11 November

Chlorophyll concentrations in the upper 20 m 2-3 µg.L^{-1}.

Similar to M6 with the typical autumn bloom dominated by diatoms. Very many species, in general the same as in the Skagerrak. At this station there was also the addition of the diatoms Attheya septentriopnalis, Chaetoceros similis, Cerataulina pelagica, Dactyliosolen fragilissimus and Diatoma elongatum. Among dinoflagellates Ceratium species dominated. Dinophysis* species were not uncommon and a number of Protoperidinium were also present.

BALTIC SEA

Arkona basin. Station BY2, 11 November

Chlorophyll concentrations down to 20 m 1-2 µg.L^{-1}.

The bluegreen algae Aphanizomenon sp. was present in small amounts. The plankton flora was dominated by the large centric diatoms Coscinodiscus granii, Actinocyclus octonarius and Thalassiosira hyperborea. The presence of dinoflagellates of the genus Ceratium and Prorocentrum micans indicated inflow of Kattegat water into the Arkona basin.

Bornholm basin. Station BY5, 12 November

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

The bluegreen algae Aphanizomenon sp. was more common than in the Arkona basin. Small amounts of Nodularia spumigena* were also found. The same centric diatoms, Coscinodiscus granii, Actinocyclus octonarius and Thalassiosira hyperborea. The bluegreen algae Woronichinia sp. was present in small amounts. Single cells of the dinoflagellate Dissodinium pseudolunula were also seen.

Southeast Baltic, Station BCS III 10, 12 November

Chlorophyll concentrations down to 20 m 1-2 µg.L^{-1}.

Bluegreen algae, such as Aphanizomenon sp., Woronichinia sp., Snowella sp. and cf. Aphanocapsa sp. were common and dominated the flora. The centric diatoms, Coscinodiscus granii, Actinocyclus octonarius and Thalassiosira hyperborea were common, as were the dinoflagellates Dinophysis acuminata*, D. norvegica*, Phalacroma rotundatum* and Prorocentrum minimum*.

Eastern Gotland basin, Station BY15, 13 November

Chlorophyll concentrations down to 30 m 1-2 µg.L^{-1}.

Very similar to the southeast Baltic. A mixture of bluegreens, large centric diatoms and dinoflagellates.

Northern Baltic, Station BY29, 13 November

Chlorophyll concentrations down to 30 m about 1 µg.L^{-1}.

Similar to BY15, but with more of the dinoflagellate Phalacroma rotundatum*.

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 the autumn bloom seems to continue. In the Baltic, the plankton flora has turned to large diatoms, characteristic for the autumn. Still bluegreen algae and dinoflagellates are common and the situation seems stable.