

Oceanographic Services

Lars Edler

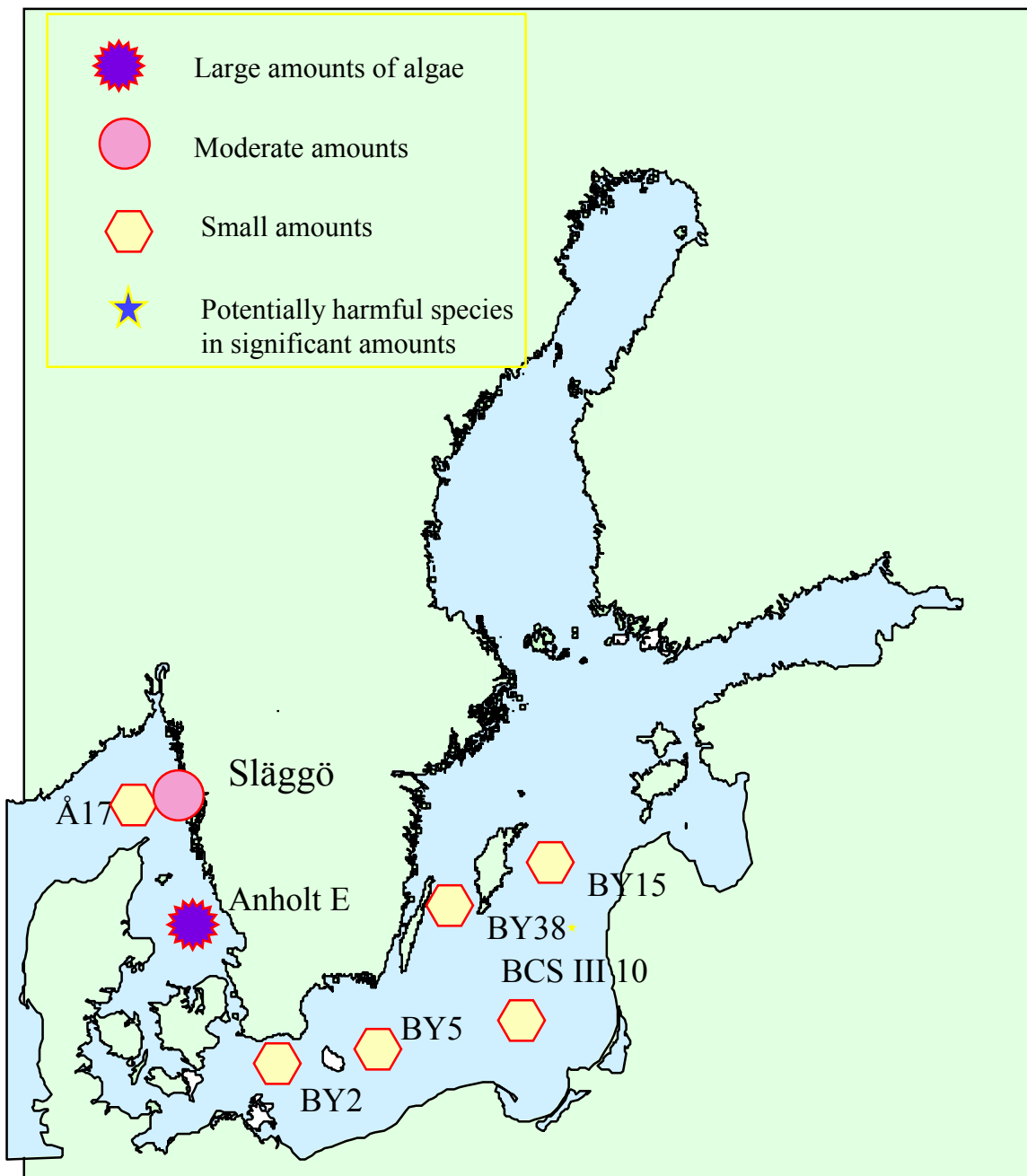
ALGAL SITUATION IN SWEDISH MARINE WATERS

No 2, 2003, 17 - 23 February

OVERVIEW

In the open Skagerrak there is still a winter situation. In the coastal zone the spring bloom is developing. In the Kattegat the spring bloom is obvious, even if it has not reached its peak.

In the Arkona Sea in the Baltic there is a tendency of developing spring bloom. In the other areas of the Baltic proper it is still a winter situation.





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DETAILS

* POTENTIALLY HARMFUL SPECIES

Sampling in the Skagerrak, Kattegat and the Baltic Sea

SKAGERRAK

Station Å17, 17 February

Poor plankton flora. Only small amounts of *Skeletonema costatum*, *Pseudo-nitzschia* sp.* and *Cylindrotheca closterium*. Single cells of naked dinoflagellates.

Station Släggö, 17 February

Here the spring bloom was developing, showing a rich composition of diatoms. *Skeletonema costatum* dominated with about 115 000 cells per liter, followed by *Thalassiosira nordenskiöldii* and different species of *Chaetoceros*, with *Chaetoceros lacinosus* being most abundant. Dinoflagellate were present in small amounts, *Ceratians* being the most common, but with less than 200 cells per liter of each species.

KATTEGAT

Station Anholt E, 18 February and 23 February

Already at the first visit on 18th of February the spring bloom was developing, showing a large number of diatoms. Many were present in large numbers, e.g. *Skeletonema costatum*, *Thalassiosira nordenskiöldii*, *Chaetoceros socialisi* and *Chaetoceros lacinosus*. Dinoflagellates were dominated by *Ceratians*.

Five days later the 23rd of February chlorophyll in the upper 10 meters was about 4 times higher and the diatom diversity and abundance much higher. The same diatoms as five days earlier dominated and among the dinoflagellates it was still *Ceratians* that were most common.



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SPECIES	18 February	23 February
<i>Attheya septentrionalis</i>	X	X
<i>Chaetoceros affinis</i>	X	X
<i>Chaetoceros brevis</i>	X	X
<i>Chaetoceros ceratosporus</i>	X	X
<i>Chaetoceros danicus</i>	200	800
<i>Chaetoceros debilis</i>	X	68 000
<i>Chaetoceros decipiens</i>	600	12 000
<i>Chaetoceros lacinosus</i>	23 000	340 000
<i>Chaetoceros similis</i>	4800	7 400
<i>Chaetoceros socialis</i>	34 000	68 000
<i>Coscinodiscus</i> sp.	X	X
<i>Cylinrotheca closterium</i>	X	X
<i>Guinardia delicatula</i>	X	X
<i>Guinardia flaccida</i>	X	X
<i>Navicula transitans</i>	2 400	13 400
<i>Pseudo-nitzschia delicatissima</i> group	4 000	13 600
<i>Rhizosolenia setigera</i>	80	2 000
<i>Skeletonema costatum</i>	1 832 000	10 512 000
<i>Thalassionema nitzschioides</i>	X	X
<i>Thalassiosira angulata</i>	X	X
<i>Thalassiosira anguste-lineata</i>	7 200	12 000
<i>Thalassiosira nordenskiöldii</i>	74 000	80 000
<i>Ceratium longipes</i>	X	X
<i>Ceratium tripos</i>	X	X
<i>Dinophysis norvegica</i>		X
<i>Gyrodinium spirale</i>	X	
<i>Katodinium glaucum</i>	X	X
<i>Lingulodinium polyedra</i>		X
<i>Protoperidinium subinermis</i>	X	
<i>Teleaulax</i> spp.	X	X

BALTIC SEA

Arkona basin. Station BY2, 19 February



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A poor plankton flora, but a tendency of increase in diatoms characteristic for the spring bloom, such as *Skeletonema costatum*, *Chaetoceros wighamii* and *Thalassiosira baltica*. Their presence already in February is uncommon.

Bornholm basin, Station BY5, 19 February

Single cells of *Thalassiosira baltica* were found. Otherwise there were only small amounts of *Teleaulax* spp.

Southeast Baltic, Station BCS III 10, 20 February

Only small amounts of *Teleaulax* spp. present.

Eastern Gotland basin, Station BY15, 20 February

Only small amounts of *Teleaulax* spp. present.

Western Gotland basin, Station BY38, 2 December

Again small amounts of *Teleaulax* spp. present, but also single filaments of *Aphanizomenon* sp. and *Dinophysis norvegica**