Oceanographic Services
Lars Edler

AlgAware

ALGAL SITUATION IN SWEDISH MARINE WATERS

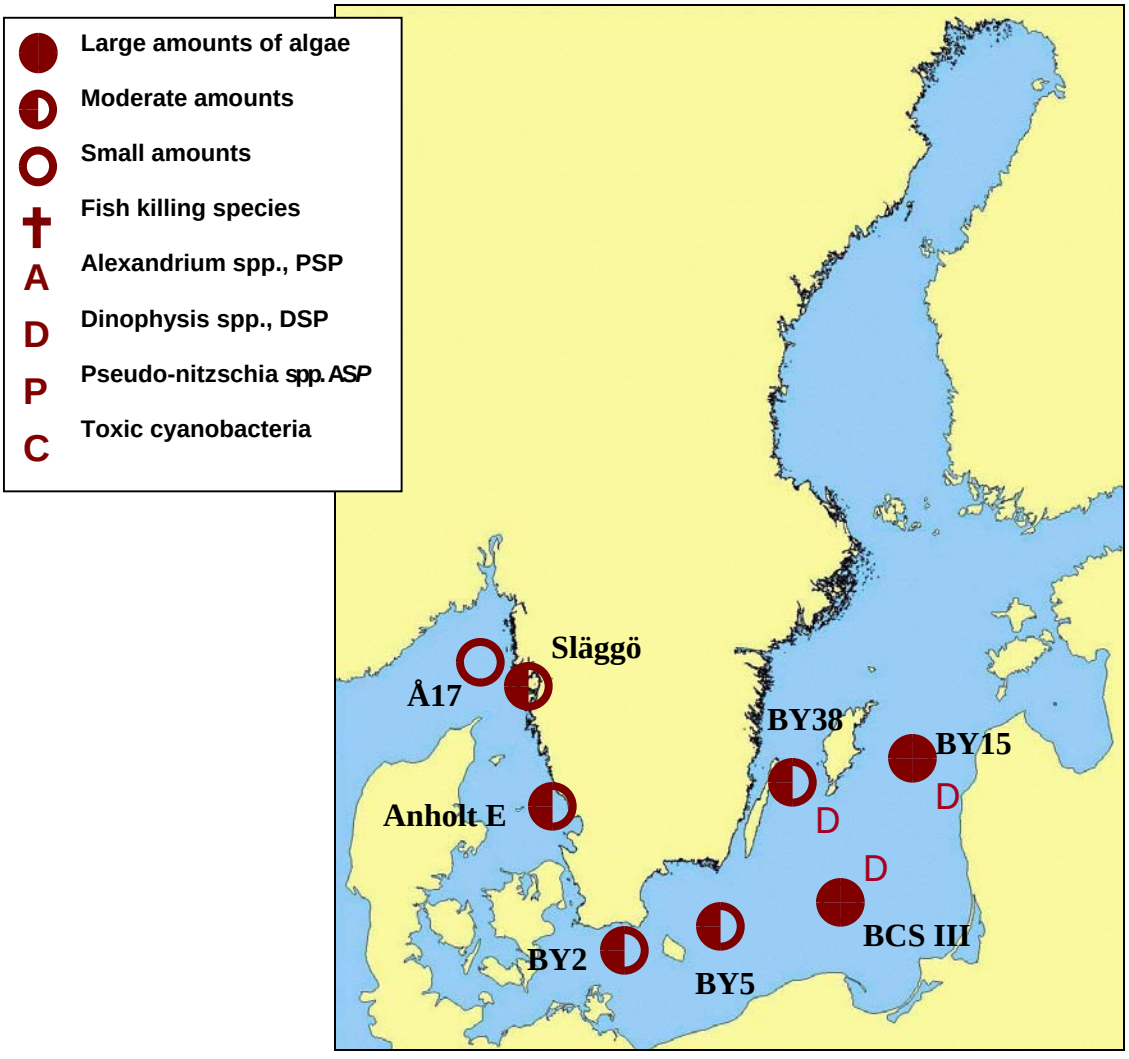
No 5, 7 – 12 June 2004

Sammanfattning

I Skagerraks kustområde finns rester av *Emiliania*-blomningen och små mängder av de giftiga dinoflagellatsläktena *Alexandrium* och *Dinophysis*. I Kattegatt avtog *Emiliania*-blomningen, liksom blomningen av diatoméerna *Dactyliosolen* och *Proboscia*. I stora delar av Östersjön blommade det potentiellt giftiga släktet *Chrysochromulina*, med som mest ca 2,5 millioner celler/liter. I de sydöstra delarna och runt Gotland fanns mycket stora mängder av det giftiga dinoflagellatsläktet *Dinophysis* och den icke giftiga blågrönalgen *Aphanizomenon*.

Summary

In the coastal area of the Skagerrak there are remains of the *Emiliania*-bloom and small amounts of the toxic dinoflagellate genera *Alexandrium* and *Dinophysis*. In the Kattegat the *Emiliania* -bloom declined, and so did the diatom bloom of *Dactyliosolen* and *Proboscia*. In large parts of the Baltic the potentially toxic genus *Chrysochromulina* bloomed with up to 2.5 million cells/liter. In the south east parts and around Gotland there were large amounts of the toxic dinoflagellate genus *Dinophysis* and the non-toxic cyanobacterium *Aphanizomenon*.



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DETAILS

Based on quantitative samples 0-10 m depth * POTENTIALLY HARMFUL SPECIES

SKAGERRAK

Station Å17, 7 June

It is an early summer situation with a lot of different dinoflagellates and diatoms. Still the cell concentrations are not very high. The diatoms Pro*boscia alata* and *Skeletonema costatum* are the most common diatoms and a small *Gymnodinium* sp. the most common dinoflagellate. The coccolithophorid *Emiliania huxleyi* has declined considerably. *Dinophysis norvegica** is present with about 300 cells/L. A massive chlorophyll peak was found at 10 m depth.

Station Släggö, 7 June

The coccolithophorid *Emiliania huxleyi* dominated at this station with almost 300 000 cells/L. There were several dinoflagellates with *Gymnodinium* sp. and *Ceratium tripos* as the most common. The toxic dinoflagellates *Alexandrium tamarense** and *Dinophysis norvegica** were also present. *Dactyliosolen fragilissimus* was the most common diatom.

KATTEGAT

Station Anholt E, 8 and 12 June

The first visit at this station showed a diatom bloom of *Dactyliosolen fragilissimus* and *Proboscia alata*. Four days later the bloom had declined considerably, but the cell concentrations were still high. *Emiliania huxleyi* followed the same pattern and decreased from 270 000 to 80 000 cells/L.

	Å17 2004-06-07 cells/L	Släggö 2004-06-07 cells/L	Anholt E 2004-06-08 cells/L	Anholt E 2004-06-12 cells/L
Dactyliosolen fragilissimus		present	475 000	150 000
Leptocylindrus danicus			present	present
Proboscia alata	50 000	very common	100 000	65 000
Skeletonema costatum	50 000			
Alexandrium spp.*		650		
Ceratium longipes	common	present		
Ceratium tripos	present	common	common	present
Dinophysis acuminata		100	200	
Dinophysis norvegica*		1 400	200	200
Chrysochromulina spp.*	present		present	present
Emiliania huxleyi	65 000	300 000	270 000	80 000

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BALTIC SEA

Arkona basin. Station BY2, 9 June

Among the few diatoms *Dactyliosolen fragilissimus* dominated. Dinoflagellates were dominated by *Heterocapsa rotundata* and *Dinophysis norvegica**. *Chrysochromulina* spp* was the most common species with more than 300 000 cells/L. Small amounts of cyanobacteria were seen.

Bornholm basin. Station BY5, 9 June

Chrysochromulina spp* had about the same concentration as at BY2. *Chaetoceros similis* bloomed with more than 500 000 cells/L and also *Planctonema lauterbornii* was very common.

South East Baltic. Station BCS III 10, 9 June

This station showed a rich plankton flora with high numbers of *Chrysochromulina* spp* (1.74 million cells/L), *Chaetoceros similis* and *Planctonema lauterbornii*. The potentially toxic dinoflagellates *Dinophysis acuminata** and *Dinophysis norvegica** were very common and *Aphanizomenon* sp. was present with about 10 m/L.

Eastern Gotland basin, Station BY15, 10 June

A very similar situation as BCS III 10 was seen at this station. The difference was that cell concentrations of the dominant species were even higher. *Chrysochromulina* spp* had 2.55 million cells/L, *Dinophysis norvegica** 50 000 cells/L and *Aphanizomenon* sp. about 13 m/L.

Western Gotland basin, Station BY38, 10 June

Here *Chrysochromulina* spp* had 1 million cells/L, *Dinophysis norvegica** 50 000 cells/L and *Aphanizomenon* sp. about 10 m/L.

	BY2 2004-06-09 cells/L	BY5 2004-06-09 cells/L	BCS III 10 2004-06-09 cells/L	BY15 2004-06-10 cells/L	BY38 2004-06-10 cells/L
Chaetoceros impressus	present			5 000	
Chaetoceros similis	present	550 000	50 000	10 000	present
Dactyliosolen fragilissimus	present				
Dinophysis acuminata*			3 000	2 000	2 500
Dinophysis norvegica*	present	present	8 000	50 000	2 000
Heterocapsa rotundata	common	common	present	present	present
Planctonema lauterbornii	present	100 000	175 000	present	
Eutreptiella sp				present	common
Hemiselmis virescens	present	common	common	common	present
Plagioselmis prolonga	present	common	common	common	present
Pyramimonas spp	very common	very common	common	present	very common
Chrysochromulina spp*	360 000	380 000	1 740 000	2 550 000	1 000 000
Aphanizomenon sp	present	present	10 m/L	13 m/L	10 m/L
Nodularia spumigena*	present	present			