

Oceanographic Services Lars Edler

AlgAware

ALGAL SITUATION IN SWEDISH MARINE WATERS

No 3, 4-9 April 2005

Sammanfattning

I öppna **Skagerrak** var planktonfloran fattig, men i kustområdet fanns rikligt med diatoméer, t.ex. *Skeletonema costatum* och *Rhizosolenia hebetata*. I **Kattegatt** var både diatoméer och dinoflagellater mycket vanliga. *Skeletonema costatum* fanns med mer än 1 miljon celler per liter.

I **Östersjön** pågick kraftig vårblomning i de flesta områden. Vissa diatoméer nådde flera miljoner celler per liter. *Skeletonema costatum* och *Chaetoceros wighamii* var de vanligaste arterna.

Summary

In the open **Skagerrak** the plankton flora was poor, but in the coastal area diatoms were very common with highest densities of *Skeletonema costatum* and *Rhizosolenia hebetata*. In the **Kattegat** there was a lot of diatoms and dinoflagellates. *Skeletonema costatum* had more than 1 million cells per litre.

In the Baltic the spring bloom was intense. *Skeletonema costatum* and *Chaetoceros wighamii* were the most common species.

Large amounts of algae

Moderate amounts

Small amounts

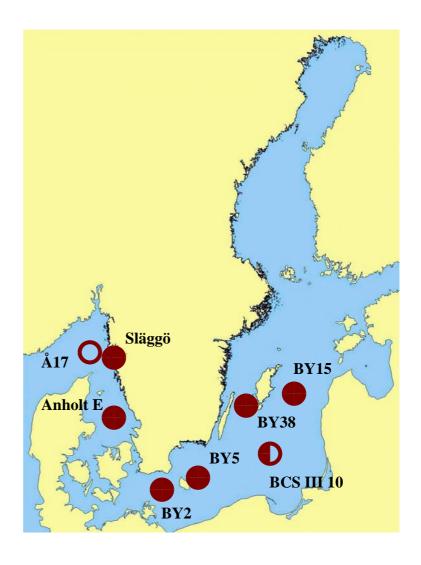
Fish killing species

Alexandrium spp., PSP

D Dinophysis spp., DSP

Pseudo-nitzschia spp. ASP

Toxic cyanobacteria





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

SKAGERRAK

Å17 4 April

Only a few diatoms were present, among them *Pseudo-nitzschia* spp.* with 3000 cells per litre. There were even less dinoflagellates. Small flagellates dominated and *Chrysochromulina* spp.* reached 25000 cells per litre. The chlorophyll concentration was about 0.4 µg/L.

Släggö 4 April

A rich diatom flora with many species of *Chaetoceros, Rhizosolenia* and other diatoms was present. *Skeletonema costatum* dominated with about 250000 cells per litre. Some dinoflagellates were seen, but except for *Peridiniella danica* and *Gymnodinium* spp. the abundances were low. The chlorophyll concentration was about 1.3 µg/L.

KATTEGAT

Anholt E 5 and 9 April

A rich flora of more than 20 species of diatoms was present in the beginning of April. *Chaetoceros* species were common, but *Rhizosolenia hebetata* and *Skeletonema costatum* were the most common with about 100000 and 1 million cells per litre respectively. *Pseudo-nitzschia* spp.* had about 5000-cells per litre. *Peridiniella danica* and *Protoperidinium pellucidum* were common dinoflagellates, and *Chrysochromulina* spp.* was present with 50000 cells per litre. At the second sampling 9th April diatoms and dinoflagellates had decreased considerably.

	<u> </u>	Å17	Släggö	Anholt E	Anholt E
	Recommended	2005-04-04	2005-04-04	2005-04-05	2005-04-09
	limit	cells/L	cells/L	cells/L	cells/L
Chaetoceros curvisetus			present	common	common
Detonula confervacea				present	
Pseudo-nitzschia pseudodelicatissima-group	1 million cells/liter	2 000	present	present	4 500
Pseudo-nitzschia seriata-group	1 million cells/liter	present	6 500	4 000	4 500
Rhizosolenia hebetata f. semispina		present	40 000	90 000	25 000
Skeletonema costatum		present	250 000	1 000 000	360 000
Dinophysis norvegica	2000 cells/liter		200	100	50
Peridiniella danica			20 000	10 000	20 000
Protoceratium reticulatum			600		
Chrysochromulina spp.		25 000	40 000	15 000	35 000
Apedinella radians				20 000	30 000



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BALTIC SEA

Arkona basin BY2 6 April

The spring bloom was going on, showing large amounts of diatoms. *Skeletonema costatum* and *Chaetoceros wighamii* reached 5 and 3 million cells per litre respectively. Other *Chaetoceros* species were also common with densities from 10000 to 550000 cells per litre. Among dinoflagellates *Heterocapsa rotundata* was the most common.

Bornholm basin BY5 6 April

The spring bloom was going on in this area too, with more than 6 million *Skeletonema costatum* and 1.5 million *Chaetoceros wighamii* per litre. *Chaetoceros ceratosporus* and *C. holsaticus* were also very common. Among dinoflagellates *Scrippsiella hangoei* was the most common.

South East Baltic BCS III 10 6 April

In this area of the southeast Baltic the spring bloom was in an early stage and only *Skeletonema* costatum, Chaetoceros subtilis and Thalassiosira levanderi had densities of more than 30000 cells per litre. The dinoflagellate *Peridiniella catenata* was present with about 5000 cells per litre.

Eastern Gotland basin BY15 7 April

The spring bloom was well on its way here. Chaetoceros wighamii, Thalassiosira levanderi and Skeletonema costatum had several hundred thousand cells per litre each. Chaetoceros holsaticus, C. subtilis and Melosira arctica were also common. The dinoflagellates Peridiniella catenata, Scrippsiella hangoei and Wolozsynskia halophila were common.

Western Gotland basin BY38 8 April

Skeletonema costatum, Chaetoceros wighamii, C. holsaticus, C. subtilis were very common diatoms during the spring bloom development. The dinoflagellates *Peridiniella catenata* and *Wolozsynskia halophila* were also quite common.

	BY2 2005-04-06 cells/L	BY5 2005-04-06 cells/L	BCS III 10 2005-04-06 cells/L	BY15 2005-04-07 cells/L	BY38 2005-04-08 cells/L
Chaetoceros ceratosporus	very common	very common	common	present	common
Chaetoceros holsaticus	500 000	very common	common	common	very common
Chaetoceros cf. salsugenius	common	common	present	present	common
Chaetoceros subtilis	very common	very common	very common	very common	150 000
Chaetoceros wighamii	3 000 000	1 700 000	common	200 000	650 000
Skeletonema costatum	5 200 000	6 300 000	common	750 000	2 600 000
Thalassiosira levanderi	present	common	common	500 000	present
Dinophysis norvegica					100
Peridiniella catenata			present	present	10 000
Scrippsiella hangoei	present	present		present	present
Woloszynskia halophila	present	present	present	20 000	200 000
Aphanizomenon sp.				present	