

Oceanographic Services Lars Edler



ALGAL SITUATION IN SWEDISH MARINE WATERS

No 9, 20–23 September 2004

Sammanfattning

- I **Skagerraks** kustområde dominerade diatoméer den rika floran, men även dinoflagellater var vanliga. *Asterionellopsis glacialis* blommade med 1.5 miljoner celler per liter.
- I Kattegatt dominerade diatoméer, men även dinoflagellater var vanliga.
- I Östersjön dominerades planktonfloran av små flagellater, som *Pyramimonas* spp. och *Chrysochromulina* spp.*. Öster och väster om Gotland fanns mycket *Aphanizomenon* sp. och *Pseudoanabaena* sp. *Dinophysis norvegica** fanns i låga koncentrationer vid alla stationer.

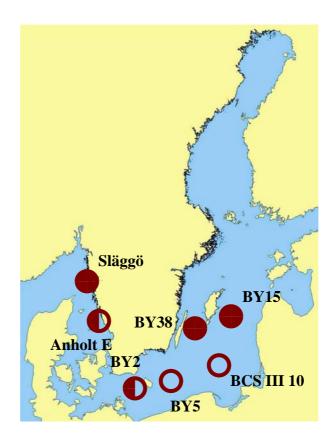
Summary

In the coastal area of **Skagerrak** diatoms dominated, but also dinoflagellates were common. *Asterionellopsis glacialis* was blooming with 1.5 million cells per liter.

In the **Kattegat** diatoms dominated, but also dinoflagellates were common.

In the Baltic small flagellates, such as *Pyramimonas* spp. and *Chrysochromulina* spp.* dominated. East and west of Gotland *Aphanizomenon* sp. and *Pseudoanabaena* sp. were abundant. *Dinophysis norvegica** was present in low amounts at all stations.

Large amounts of algae
 Moderate amounts
 Small amounts
 Fish killing species
 Alexandrium spp., PSP
 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

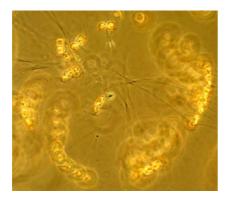
SKAGERRAK Släggö 20 September

The plankton flora was very rich with about 25 diatom and 20 dinoflagellate species. *Asterionellopsis glacialis*, which previously has been rare, had a bloom of about 1.5 million cells per liter. Other abundant diatoms included *Chaetoceros socialis* f. *radians* and *Skeletonema costatum*. *Prorocentrum micans* was the most common dinoflagellate with 10000 cells per liter. *Ceratium* and *Dinophysis** species were present in low numbers.

KATTEGAT Anholt E 21 September

The rich flora was also seen at this station. But there was no blooming diatom species. The most common were *Cylindrotheca closterium* and *Leptocylindrus danicus*. *Prorocentrum micans*, with 7000 cells per liter, was followed by *Ceratium tripos* with 3000 cells per liter. Small monads were very common.

		Släggö	Anholt E	
	Recommended limit	2004-09-20	2004-09-21	
	Recommended mint	cells/L	cells/L	
Asterionellopsis glacialis		1.5 million	present	
Chaetoceros affinis		common	present	
Chaetoceros socialis f. radians		75 000	present	
Ditylum brightwellii		present	present	
Eucampia zodiacus		present		
Leptocylindrus danicus		common	common	
Pseudo-nitzschia delicatissima-group	1000000 cells/liter	present	present	
Skeletonema costatum		50 000		
Ceratium furca		present	present	
Ceratium fusus		present	1 000	
Ceratium lineatum		present	present	
Ceratium longipes			present	
Ceratium macroceros		present	present	
Ceratium tripos		present	3 000	
Dinophysis acuta	500 cells/liter	100		
Dinophysis norvegica	2000 cells/liter	50	150	
Dinophysis rotundata	900 cells/liter	250		
Prorocentrum micans		10 000	7 000	
Protoperidinium curtipes		150	present	





Chaetoceros socialis colonies



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BALTIC SEA

Arkona basin BY2 21 September

A few large species were present, but the plankton was dominated by small flagellates with *Pyramimonas* spp., *Teleaulax* spp. and *Chrysochromulina* spp.* as the most common. *Aphanizomenon* sp. and *Nodularia spumigena** were only seen in the net sample. The presence of a few Prorocentrum micans indicates inflow of saline water from the Kattegat.

Bornholm basin BY5 22 September

The flora was poor at this station. A few large diatoms, *Chaetoceros danicus, Chaetoceros impressus* and *Coscinodiscus granii* were present, but small flagellates, with *Pyramimonas* spp. and *Chrysochromulina* spp*. dominated. *Dinophysis norvegica** was present with 700 cells per liter. *Aphanizomenon* sp and *Nodularia spumigena** were only seen in the net sample.

South East Baltic BCS III 10 22 September

This station resembled BY5, with a poor flora and in general the same species composition.

Eastern Gotland basin BY15 23 September

The rich plankton community was dominated by the cyanobacteria *Aphanizomenon* sp., *Anabaena* sp.* and *Pseudoanabaena* sp.. *Chaetoceros danicus* and *Chaetoceros impressus* were common and several *Dinophysis** species were present. The small flagellates were common also at this station.

Western Gotland basin BY38 23 September

Aphanizomenon sp. dominated with about 10 meter per liter. Also other cyanobacteria, *Pseudoanabaena* sp., *Anabaena* sp.*., *Nodularia spumigena* *, *Snowella* sp. and *Woronichinia* sp. were present, all in low amounts. The small flagellates, with *Pyramimonas* spp. and *Chrysochromulina* spp.* dominating, were very common.

	BY2 2004-09-21	BY5 2004-09-22	BCS III 10 2004-09-22	BY15 2004-09-23	BY38 2004-09-23
	cells/L	cells/L	cells/L	cells/L	cells/L
Chaetoceros danicus	present	present	present	1 000	present
Chaetoceros impressus	present	present	present	2 500	present
Chaetoceros throndsenii	present				
Coscinodiscus granii		present	present		
Dinophysis acuminata*	present			present	
Dinophysis norvegica*	present	700	400	700	present
Dinophysis rotundata*			present	present	present
Heterocapsa rotundata					common
Heterocapsa triquetra	common	present	present		present
Prorocentrum micans	present				
Ebria tripartita	present	present	present	present	present
Eutreptiella sp.	present		present	present	
Planctonema lauterbornii	present	present		present	present
Hemiselmis virescens	present	present	present		
Plagioselmis prolonga	present	present		present	present
Teleaulax spp.	present		present	present	
Pyramimonas spp.	80 000	90 000	40 000	30 000	90 000
Chrysochromulina spp*	common	present	present	present	100 000
Anabaena spp*				present	present
Aphanizomenon sp	present	present	present	6.7 m/L	10 m/L
Nodularia spumigena*	present	present		present	present
Pseudoanabaena spp				6 m/L	0.5 m/L