Oceanographic Services
Lars Edler

AlgAware

ALGAL SITUATION IN SWEDISH MARINE WATERS

No 5, 11 – 16 July 2005

Sammanfattning

I öppna **Skagerrak** var planktonfloran fattig, men i kustområdet något rikligare. *Dactyliosolen fragilissimus* och *Proboscia alata* dominerade. I **Kattegatt** blommade *Proboscia alata* och *Dactyliosolen fragilissimus* var vanlig.

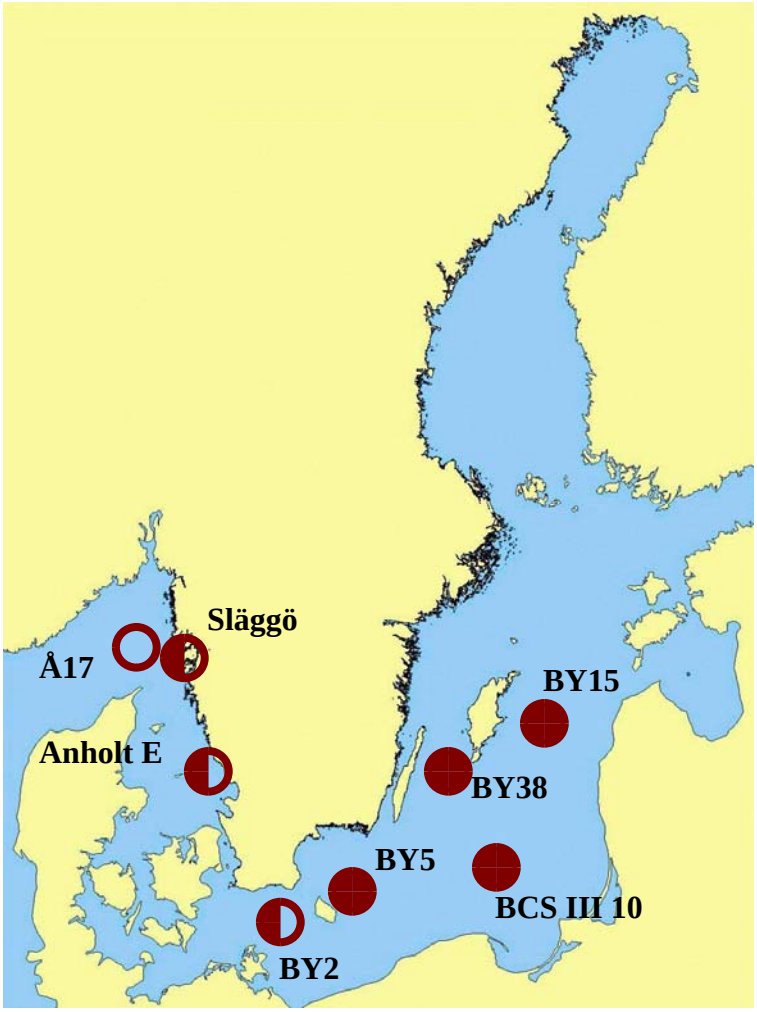
I **Östersjön** fanns extremt mycket cyanobakterier. De största mängderna av *Nodularia spumigena** och *Aphanizomenon* sp. påträffades i södra Östersjön, öster om Bornholm. Små flagellater, med *Chrysochromulina* spp.* som en av de vanligaste, var också rikligt förekommande.

Summary

In the open **Skagerrak** the plankton flora was poor, but in the coastal area somewhat richer. *Dactyliosolen fragilissimus* and *Proboscia alata* dominated In the **Kattegat** there was a bloom of *Proboscia alata* and *Dactyliosolen fragilissimus* was common.

In the **Baltic** cyanobacteria were extremely abundant. Highest abundance of *Nodularia spumigena** and *Aphanizomenon* sp. was found in the southern Baltic, east of Bornholm. Small flagellates, dominated by *Chrysochromulina* spp.* were also common.

- Large amounts of algae
- Moderate amounts
- Small amounts
- † Fish killing species
- A Alexandrium spp., PSP
- D Dinophysis spp., DSP
- P Pseudo-nitzschia spp. ASP
- C Toxic cyanobacteria



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

SKAGERRAK

Å17 11 July

The plankton flora was poor. Among diatoms *Dactyliosolen fragilissimus* and *Proboscia alata* dominated. A few dinoflagellates, e.g. *Alexandrium/Fragilidium* spp.* and *Dinophysis norvegica** were seen. The coccolithophorid *Emiliania huxleyi* was also present.

Släggö 11 July

A somewhat richer plankton flora was seen here. Still diatoms were few with *Dactyliosolen fragilissimus* and *Proboscia alata* dominating. *Alexandrium/Fragilidium* spp.* and *Dinophysis norvegica** were present in low numbers and *Emiliania huxleyi* was common.

KATTEGAT

Anholt E 12 and 16 July

The plankton flora was richer in the Kattegat. *Proboscia alata* bloomed with 370 000 cells per litre at the first sampling, but had declined at the second. *Dactyliosolen fragilissimus* showed the same pattern, but with lower abundances. A few *Anabaena* sp. and *Nodularia spumigena** were also seen. These species are not normally present in the Kattegat, but can be transported from the Baltic occasionally.

	Recommended limit	Å17 2005-07-11 cells/L	Släggö 2005-07-11 cells/L	Anholt E 2005-07-12 cells/L	Anholt E 2005-07-16 cells/L
Dactyliosolen fragilissimus		60 000	5 000	35 000	5 000
Proboscia alata		2 000	14 000	370 000	7 000
Alexandrium/Fragilidium spp.	300 cells/liter	present	present		
Ceratium tripos		100	1 100	800	800
Dinophysis norvegica	900 cells/liter	300	100		
Phalacroma rotundatum			100		
Heterocapsa triquetra				present	
Emiliania huxleyi		present	present		
Anabaena sp.				present	present
Nodularia spumigena				present	present

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BALTIC SEA

Arkona basin BY2 12 July
Small flagellates dominated with *Chrysochromulina* spp.* and *Pyramimonas* spp. *Aphanizomenon* sp. was present with about 1 metres per litre, whereas *Nodularia spumigena** was still relatively rare.

Bornholm basin BY5 13 July
*Nodularia spumigena** covered the surface and the abundance was extremely high – 15 metre per litre. Also *Aphanizomenon* sp. reached considerable abundance with 9 metres per litre. Also in this area small flagellates were important, again with *Chrysochromulina* spp.* as the dominant.

South East Baltic BCS III 10 13 July
In this part of the Baltic the cyanobacteria bloom was very intense. *Nodularia spumigena** dominated with the extraordinary abundance of 25 metres per litre. *Aphanizomenon* sp. had about 5 metres per litre. The cyanobacteria *Pseudoanabaena/Prochlorothrix* spp. and *Aphanothece/Cyanodichtyon* spp. were very common. Small flagellates were present in large quantities and *Chrysochromulina* spp.* dominated with 250 000 cells per litre. *Nitzschia paleacea* indicated that the cyanobacteria bloom was in a late stage and the decomposition had started. *Dinophysis norvegica** was present in small numbers.

Eastern Gotland basin BY15 14 July
In this area *Aphanizomenon* sp. was the dominating cyanobacterium, reaching 33 metres per litre, whereas *Nodularia spumigena** was present with 3 metres per litre. *Nitzschia paleacea* was quite common. *Pseudoanabaena/Prochlorothrix* spp. and *Aphanothece/Cyanodichtyon* spp. were also very common. *Dinophysis norvegica** was present in small numbers. Among the small flagellates *Chrysochromulina* spp.* dominated with 1 million cells per litre.

Western Gotland basin BY38 14 July
Cyanobacteria were common also at this station, but with smaller densities than east and south of Gotland. *Aphanizomenon* sp. was more common than *Nodularia spumigena**. *Nitzschia paleacea* was quite common, as well as *Pseudoanabaena/Prochlorothrix* spp. and *Aphanothece/Cyanodichtyon* spp. Among the small flagellates *Chrysochromulina* spp.* dominated with 1 million cells per litre.

	BY2 2005-07-12 cells/L	BY5 2005-07-13 cells/L	BCS III 10 2005-07-13 cells/L	BY15 2005-07-14 cells/L	BY38 2005-07-14 cells/L
Chaetoceros impressus	present	present	present		10 000
Nitzschia paleacea			common	200 000	500 000
Gymnodinium / Glenodinium spp.	common	common	common	350 000	200 000
Dinophysis acuminata*					500
Dinophysis norvegica*			present	present	600
Heterocapsa triquetra		present	present	present	present
Anabaena spp.					present
Aphanizomenon sp.	1 m/L	9 m/L	5 m/L	33 m/L	3 m/L
Aphanothece paralelliformis (colonies)				very common	common
Aphanothece / Cyanodichtyon spp. (colonies)	present	present	very common	very common	common
Nodularia spumigena	present	**15 m/L**	**25 m/L**	3 m/L	2 m/L
Pseudoanabaena / Prochlorothrix spp.			very common	very common	very common
Chrysochromulina spp.*	common	60 000	250 000	1 million	1 million
Pyramimonas spp.	very common	common	100 000	present	present