Oceanographic Services
Lars Edler

AlgAware

ALGAL SITUATION IN SWEDISH MARINE WATERS

No 9, 24 – 29 October 2005

Sammanfattning

I öppna **Skagerrak** dominerade små flagellater, men det förekom också en hel del diatoméer och dinoflagellater. I kustområdet dominerade *Pseudo-nitzschia delicatissima*-gruppen*.

I **Kattegatt** blommade *Pseudo-nitzschia* spp*, men också andra diatoméer var vanliga, liksom dinoflagellater.

I **Östersjön** dominerade stora diatoméer tillsammans med små flagellater, huvudsakligen *Teleaulax* spp. I Arkonahavet fanns fortfarande förhållandevis mycket *Aphanizomenon* sp.

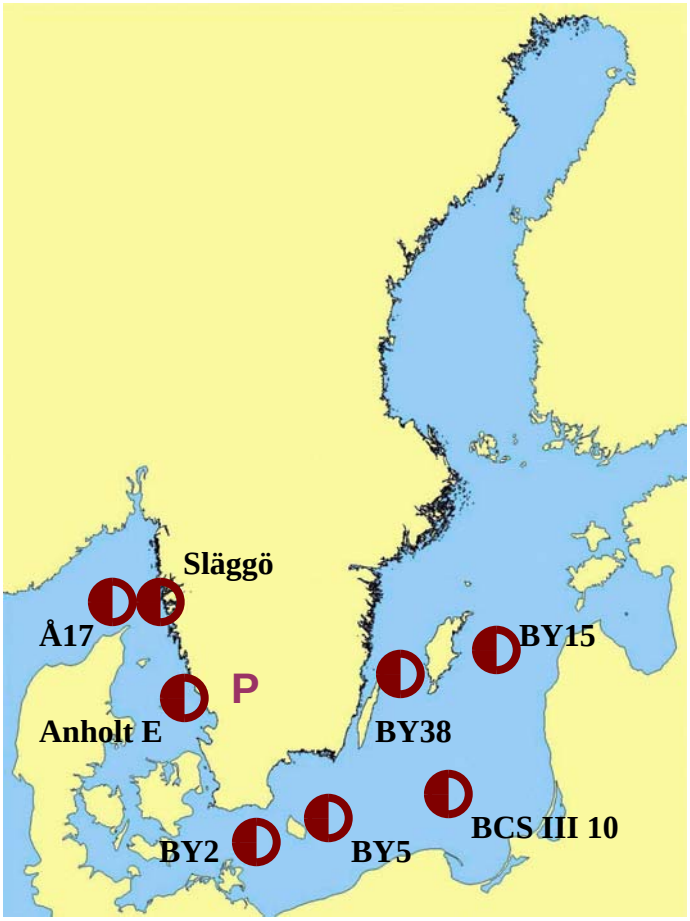
Summary

In the open **Skagerrak** small flagellates dominated, but there was also a lot of diatoms and dinoflagellates. In the coastal area *Pseudo-nitzschia delicatissima*-group* dominated.

In the **Kattegat** *Pseudo-nitzschia* spp* bloomed, but other diatoms, as well as dinoflagellates were common.

In **Baltic** large diatoms, together with small flagellates , e.g. *Teleaulax* spp. dominated. In the Arkona basin there was still quite a lot of . *Aphanizomenon* sp.

- 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



SMHI
Oceanographic Services
Lars Edler

AlgAware

ALGAL SITUATION IN SWEDISH MARINE WATERS

No 9, 24 – 29 October 2005

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

SKAGERRAK

Å17 24 October A relatively poor flora with a few diatom species, such as *Pseudo-nitzschia delicatissima-group**, *Guinardia delicatula, Cerataulina pelagica, Dactyliosolen fragilissimus.*and *Proboscia alata* in low numbers. Less than 100 cells/l of *Ceratium fusus, C. lineatum, C. longipes* and *C. macroceros*. Small flagellates were abundant. Chlorophyll was about 2.4 µg/l.

Släggö 24 October A relatively poor flora dominated by diatoms with *Pseudo-nitzschia delicatissima*-group* as the most common. Some *Rhizosolenia styliformis, Guinardia delicatula* and *Proboscia alata* were present. Among dinoflagellates small *Gymnodinium* spp. were most abundant. *Ceratium* species were present in small amounts. Chlorophyll was about 1.7 µg/l.

KATTEGAT

Anholt E 25 and 29 October The two sampling occasions showed a similar rich plankton flora with lots of diatom species. *Pseudo-nitzschia delicatissima*-group* and *Pseudo-nitzschia seriata*-group* bloomed with 325 000-420 000 and 50 000-170 000 cells/l respectively. Other diatoms of importance were *Thalassiosira punctigera, Cerataulina pelagica, Dactyliosolen fragilissimus* and *Skeletonema costatum. Ceratium* species were also abundant with all together 4000-5000 cells/l. *Dinophysis norvegica** reached 200-500 cells/l, whereas the other *Dinophysis* species were fewer. Chlorophyll at the first sampling was about 3.4 µg/l.

Selection of observed species	Recommended limit	Å17 2005-10-24 cells/L	Släggö 2005-10-24 cells/L	Anholt E 2005-10-25 cells/L	Anholt E 2005-10-29 cells/L
Chlorophyll a µg/l, mean 0-10m		2.4	1.7	3.4	
Cerataulina pelagica		present		present	common
Chaetoceros socialis f. radians		present		common	common
Coscinodiscus wailesii				present	
Ditylum brightwellii				present	present
Guinardia delicatula		present	present	present	present
Guinardia flaccida				common	common
Dactyliosolen fragilissimus		present		common	very common
Proboscia alata		present	present		common
Pseudo-nitzschia delicatissima-group	1 million cells/liter	common	present	325 000	420 000
Pseudo-nitzschia seriata-group	1 million cells/liter	present		50 000	170 000
Skeletonema costatum					very common
Thalassionema nitzschioides		present	present	common	common
Thalassiosira punctigera		present		present	present
Ceratium fusus		present	present	3 500	1 200
Ceratium lineatum		present		present	2 500
Ceratium macroceros		present	present		
Ceratium tripos		net	present	1 000	1 000
Dinophysis acuminata	900 cells/liter			300	100
Dinophysis acuta	300 cells/liter	present		net	150
Dinophysis dens	900 cells/liter			net	200
Dinophysis norvegica	2000 cells/liter	present	present	present	present
Prorocentrum micans		present	net	present	present
Prorocentrum minimum		net			
Dictyocha speculum		present	net	common	common
Pyramimonas sp.		common			
Nodularia spumigena					present

SMHI

Oceanographic Services

Lars Edler

AlgAware

ALGAL SITUATION IN SWEDISH MARINE WATERS

No 9, 24 – 29 October 2005

BALTIC SEA

Arkona basin BY2 26 October The cyanobacterium *Aphanizomenon* sp. dominated with about 1 meter per litre. Some remains of *Nodularia spumigena* were seen. Dinoflagellates were few and only seen in the net samples. *Chaetoceros impressus* and *Coscinodiscus granii* were present together with *Ebria tripartita* and *Teleaulax acuta*. Chlorophyll was about 2.7 µg/l.

Bornholm basin BY5 26 October *Chaetoceros impressus*, *Actinocyclus octonarius* and a few *Coscinodiscus granii* were present. *Aphanizomenon* sp. occurred in small amounts and Chlorophyll was about 3.3µg/l.

South East Baltic BCS III 10 26 October The diatom *Dactyliosolen fragilissimus* was present with about 1500 cells/l, which is very uncommon so far east in the Baltic. *Actinocyclus octonarius* and *Coscinodiscus granii* were present in low amounts and the plankton flora was dominated by small flagellates, with *Teleaulax* spp. as the most common. Chlorophyll was about 3.4µg/l.

Eastern Gotland basin BY15 27 October *Actinocyclus octonarius*, *Coscinodiscus granii* and *Cyclotella choctawhatcheana* were present in low amounts. Some colonies of the cyanobacteria *Snowella* and *Woronichinia* were seen, but the plankton flora was dominated by small flagellates, with *Teleaulax* spp. and *Plagioselmis* sp. as the most common. Chlorophyll was about 2.8 µg/l.

Western Gotland basin BY38 28 October *Aphanizomenon* sp. occurred with about 0.5 m/l. Otherwise the situation was very similar to station BY15.

Selection of observed species	BY2 2005-10-26 cells/L	BY5 2005-10-26 cells/L	BCS III 10 2005-10-26 cells/L	BY15 2005-10-27 cells/L	BY38 2005-10-28 cells/L
Chlorophyll a µg/l, mean 0-10m	2.7	3.3	3.4	2.8	
Actinocyclus octonarius		common	present	present	commom
Chaetoceros danicus		net		net	net
Chaetoceros impressus	common	common	present	net	present
Coscinodiscus granii	present	present	present	1 300	present
Dactyliosolen fragilissimus			common		
Ceratium tripos		net			
Dinophysis norvegica	present			present	present
Dissodinium pseudolunula		net			
Heterocapsa triquetra	present	net			
Ebria tripartita	common	common		present	net
Teleaulax spp.	common	common	common	present	very common
Planktonema lauterbornii				present	
Oocystis sp.				net	net
Aphanizomenon sp.	1 meter/l	net		net	very common
Nodularia spumigena	net	net		net	net
Snowella spp.				present	net
Woronichinia spp.				present	present