Oceanographic Services
Lars Edler

AlgAware

ALGAL SITUATION IN SWEDISH MARINE WATERS

No 7, 26 July – 31 July 2004

Sammanfattning

I **Skagerraks** kustområde fanns relativt mycket av den potentiellt giftiga *Dinophysis norvegica**. I öppna Skagerrak var planktonfloran fattig.

I **Kattegatt** fanns rikligt av diatomén *Cerataulina pelagica* och dinoflagellaten *Heterocapsa rotundata*.

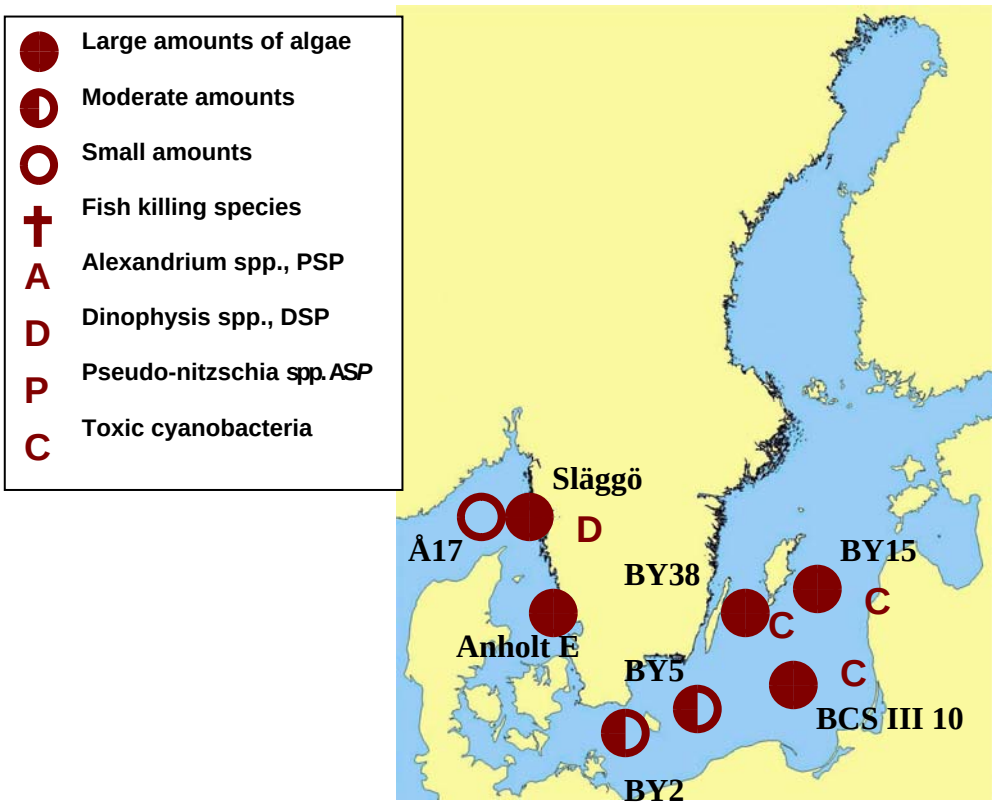
I **Östersjön** förekom rikligt med cyanobakterier (blågrönalger), med dominans av *Aphanizomenon, Anabaena* * och *Pseudoanabaena*. Mängderna av den potentiellt giftiga *Nodularia spumigena** var små, men fläckvisa ansamlingar vid ytan fanns på många ställen. Det potentiellt giftiga släktet *Chrysochromulina** var vanligt runt Gotland. Det giftiga dinoflagellatsläktet *Dinophysis** hade minskat sedan förra provtagningen.

Summary

In the coastal area of **Skagerrak** the potentially toxic *Dinophysis norvegica** was abundant. In the open area the plankton flora was poor.

In the **Kattegat** the diatom *Cerataulina pelagica* and the dinoflagellate *Heterocapsa rotundata* were very common.

In the **Baltic** cyanobacteria (bluegreen algae) were abundant, with a dominance of *Aphanizomenon, Anabaena* * and *Pseudoanabaena*. The amounts of the potentially toxic *Nodularia spumigena** were small, but accumulations of the algae on the surface were seen in many places. The potentially toxic *Chrysochromulina** was common around Gotland. The toxic *Dinophysis** had declined since last sampling..



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DETAILS

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

SKAGERRAK

Station Å17, 26 July

The poor plankton flora was dominated by small monads and flagellates. Among other species only *Chaetoceros socialis* f. *radians* and *Gymnodinium* sp. reached over 1 000 cells/L. A few cells of *Alexandrium* sp* and *Dinophysis norvegica** were seen in the net sample.

Station Släggö, 26 July

Apart from the dominating monads and flagellates the diatoms *Cerataulina pelagica*, *Leptocylindrus danicus* and the dinoflagellate *Heterocapsa rotundata* were the most common. The diversity was large with many diatoms and dinoflagellates. *Dinophysis norvegica** was abundant with more than 5 000 cells/L, while *D. acuminata** had only 150 cells/L.

KATTEGAT

Station Anholt E, 27 and 31 July

Also here monads and flagellates dominated. In contrast to the developing *Cerataulina pelagica* bloom, *Heterocapsa rotundata* decreased considerably between the two samplings. At both samplings the cyanobacterium *Anabaena* sp.* was present, suggesting a transport of water from the Baltic.

	Å17 2004-07-26 cells/L	Släggö 2004-07-26 cells/L	Anholt E 2004-07-27 cells/L	Anholt E 2004-07-31 cells/L
Cerataulina pelagica	present	65 000	225 000	390 000
Chaetoceros danicus		present	common	common
Chaetoceros socialis f. radians	present	common	present	present
Leptocylindrus danicus	present	65 000	present	
Proboscia alata		common	present	
Pseudo-nitzschia seriata-group*		present		present
Skeletonema costatum		common	common	common
Dinophysis acuminata*		150		
Dinophysis norvegica*	present	5 900	present	present
Heterocapsa rotundata		45 000	150 000	40 000
Noctiluca scintillans*		present		
Prorocentrum micans	present	common	present	
Chrysochromulina spp.*		7 000		
Anabaena spp.*			present	present

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BALTIC SEA

Arkona basin. Station BY2, 27 July

The plankton flora was rather poor. The cyanobacteria *Aphanizomenon* sp and *Nodularia spumigena** were present in small amounts. *Chrysochromulina* spp* was one of the most common species with 65 000 cells/L.

Bornholm basin. Station BY5, 28 July

The flora was dominated by the chain forming green algae *Planctonema lauterbornii* with 700 000 cells per liter. Cyanobacteria of the genera Ana*baena**, *Aphanizomenon* and *Nodularia** were present in small amounts.

South East Baltic. Station BCS III 10, 28 July

This station showed a rich plankton flora. Among the cyanobacteria *Aphanizomenon* sp was the most common, followed by *Nodularia spumigena**. *Pseudoanabaena* sp was also common. *Planctonema lauterbornii* continued to be very common with 150 000 cells per liter. The potentially toxic dinoflagellate *Dinophysis norvegica** was common.

Eastern Gotland basin, Station BY15, 29 July

In this area the cyanobacterium *Pseudoanabaena* sp dominated with more than 75 meter per liter. Also *Aphanizomenon* sp was very abundant, whereas *Nodularia spumigena** was less common. The diatom *Nitzschia paleacea*, which is often attached to senescent *Nodularia* chains, was very common. *Chrysochromulina* spp* had 250 000 cells/L, and small amounts of *Dinophysis norvegica**, *D. acuminata** and *D. rotundata** were also found.

Western Gotland basin, Station BY38, 29 July

Also on the western side of Gotland *Pseudoanabaena* sp dominated, now with more than 35 meter per liter. *Anabaena* spp* was very abundant with 6.5 meter per liter. *Aphanizomenon* sp and *Nodularia spumigena** were less common. *Nitzschia paleacea* and *Chrysochromulina* spp* were very common.

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	BY2 2004-07-27 cells/L	BY5 2004-07-28 cells/L	BCS III 10 2004-07-28 cells/L	BY15 2004-07-29 cells/L	BY38 2004-07-29 cells/L
Actinocyclus octonarius	present	present			
Chaetoceros danicus			present	present	present
Chaetoceros impressus	present	present	20 000	present	
Chaetoceros wighamii					present
Nitzschia paleacea			present	75 000	65 000
Dinophysis acuminata*		present		present	present
Dinophysis norvegica*	present	present	3 500	present	present
Dinophysis rotundata*				present	
Ceratium tripos	present				
Durinskia baltica			present	present	present
Fragilidium sp*				present	present
Gymnodinium spp.	present	present	present	present	present
Heterocapsa rotundata	present		common		
Heterocapsa triquetra					common
Scrippsiella spp		present	present	present	present
Planctonema lauterbornii		700 000	150 000		common
Ebria tripartita	present		present	present	present
Pseudopedinella sp			common	common	common
Hemiselmis virescens	present	common	present	common	present
Plagioselmis prolonga	present	common	common	common	common
Taleaulax spp				present	common
Cymbomonas tetramitiformis cf				present	common
Pyramimonas spp				present	very common
Chrysochromulina spp*	65 000	20 000	85 000	250 000	250 000
Anabaena spp*		0.5 m/L			6.5 m/L
Aphanizomenon sp	2 m/L	0.5 m/L	1.5 m/L	8 m/L	0.5 m/L
Nodularia spumigena*	present	0.5 m/L	0.5 m/L	1.2 m/L	0.5 m/L
Pseudoanabaena spp cf		present	common	75 m/L	35 m/L
Helicostomella subulata				6 000	2 500