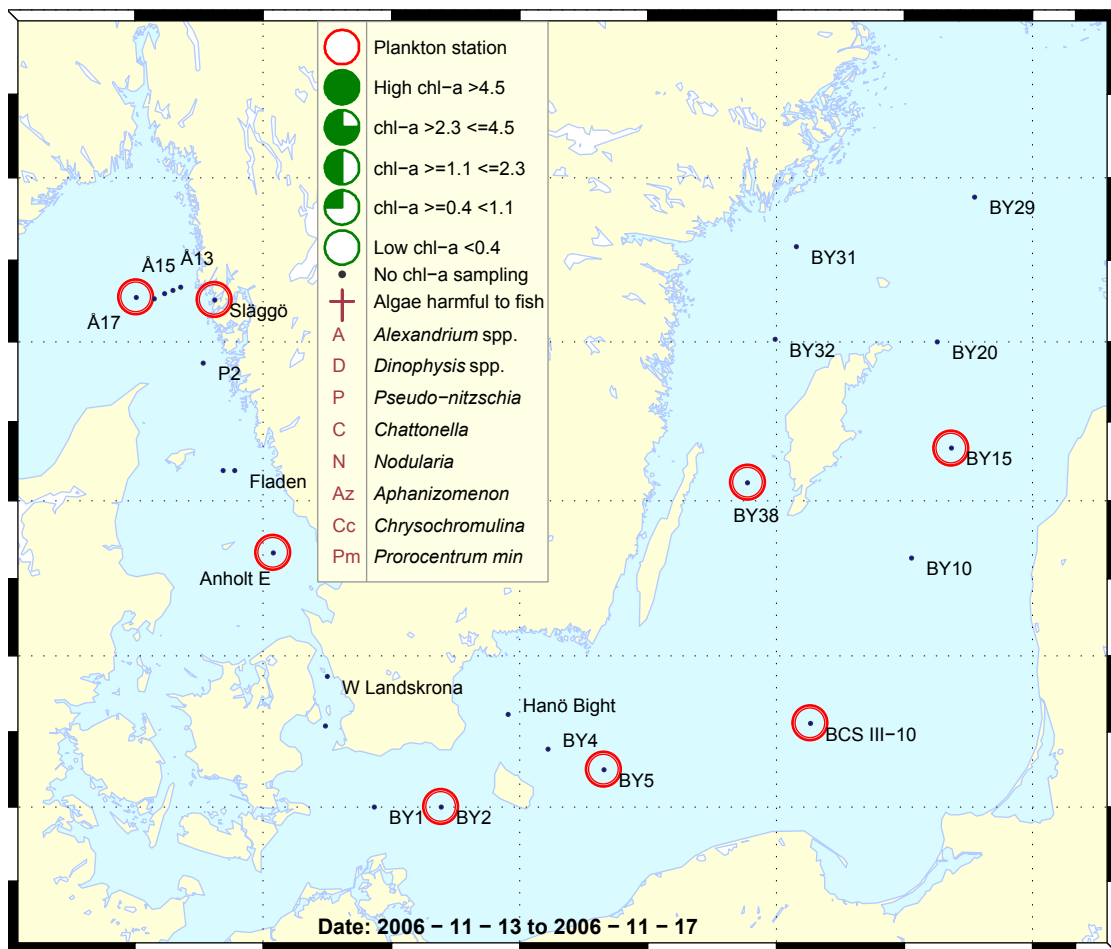


Sammanfattning

Bara en förenklad version av AlgAware presenteras denna gången eftersom klorofyllproven är kvar på R/V Argos, som är väntad till Göteborgs först om några veckor. Klorofyll är mycket transportkänsligt, då pigmentet bryts ner om det inte hålls nedfryst.

Planktonfloran var fattig både i yttre och kustnära Skagerrak, och cellantalen var låga. I Kattegatt var diversiteten ganska hög med tydlig dominans av kiselalger.

Östersjöproverna innehöll mycket få arter i låga antal.



Abstract

This is a simplified version of the AlgAware just to give a picture of the algae situation. No chlorophyll results are reported as the chlorophyll samples are still on the R/V Argos and will not be available for some weeks.

The plankton flora was poor both in open and coastal Skagerrak, i.e. a few species in low cell numbers. The diversity was rather high in Kattegat, with diatoms as the dominating group.

The samples from the Baltic contained very few species in low cell numbers.

Om AlgAware

SMHI genomför ca en gång per månad expeditioner med U/F Argos i Östersjön och Västerhavet. Resultat baserade på mikroskopianalys av planktonprover samt klorofyllmätningar presenteras kortfattat i denna rapport. Information från SMHI:s satellitövervakning av algbloomningar finns på www.smhi.se.

About AlgAware

SMHI carries out monthly cruises with R/V Argos in the Baltic and the Kattegat/Skagerrak. Results from microscopic analysis of phytoplankton samples as well as chlorophyll measurements are presented in brief in this report. Information from SMHI:s satellite monitoring of algal blooms is found on www.smhi.se.

Art / Species	Gift / Toxin	Eventuella symptom	Clinical symptoms
<i>Alexandrium</i> spp.	Paralytic shellfish poisoning (PSP)	Milda symptom: Inom 30 min.: Stickningar eller en känsla av bedövning runt läpparna, som sprids gradvis till ansiktet och nacken; stickningar i fingertoppar och tår; Huvudvärk; yrsel, illamående, kräkningar, diarré Extrema symptom: Muskelförlamning; andningssvårigheter; känsla av att kvävas; Man kan vara död inom 2-24 timmar efter att ha fått i sig giftet, på grund av att andningsmuskulaturen förlamas.	Mild case: Within 30 min: tingling sensation or numbness around lips, gradually spreading to face and neck; prickly sensation in fingertips and toes; headache, dizziness, nausea, vomiting, diarrhoea. Extreme case Muscular paralysis; pronounced respiratory difficulty; choking sensation; death through respiratory paralysis may occur within 2-24 hours after ingestion.
<i>Dinophysis</i> spp.	Diarrhetic shellfish poisoning (DSP)	Milda symptom: Efter cirka 30 minuter till några timmar: yrsel, illamående, kräkningar, diarré, magont Extrema symptom: Upprepad exponering kan orsaka cancer	Mild case: Within 30 min-a few hours: dizziness, nausea, vomiting, diarrhoea, abdominal pain. Extreme case: Repeated exposure may cause cancer.
<i>Chattonella</i> spp.	Fish toxin	Låg celltäthet: Ingen påverkan. Hög celltäthet: Fiskens gälar skadas, fisken dör.	Low cell numbers: No effect on fish. High cell numbers: Fish death due to gill damage.
<i>Pseudo-nitzschia</i> spp.	Amnesic shellfish poisoning (ASP)	Milda symptom: Efter 3-5 timmar: yrsel, illamående, kräkningar, diarré, magkramper Extrema symptom: Yrsel, hallucinationer, förvirring, förlust av korttidsminnet, kramper	Mild case: Within 3-5 hours: dizziness, nausea, vomiting, diarrhoea, abdominal cramps. Extreme case: dizziness, hallucinations, confusion, loss of memory, cramps.

Översikt av potentiellt skadliga alger och det aktuella giftets effekt. Overview of potentially harmful algae and effects of toxins. Manual on harmful marine microalgae (2003 - UNESCO Publishing).

Kartan på framsidan visar viktat medelvärde för klorofyll *a*, µg/l (0-20 m) vid de olika stationerna. Förekomst av skadliga alger vid stationer där arter analyseras markeras med symbol.

The map on the front page shows weighted mean of chlorophyll *a*, µg/l (0-20 m) at sampling stations. Presence of harmful algae at stations where species analysis is performed is shown with a symbol.

More detailed information on species composition and abundance. * = potentially toxic.

The Skagerrak

Å17 13th of November

The plankton flora was very poor, with only a few species present at low cell numbers. The diatom genera *Chaetoceros* spp. and *Pseudo-nitzschia* spp.* were observed.

Släggö 13th of November

The plankton flora was somewhat richer in number of species as compared to Å17, but the cell numbers were still low.

The Kattegat

Anholt E 14th of November



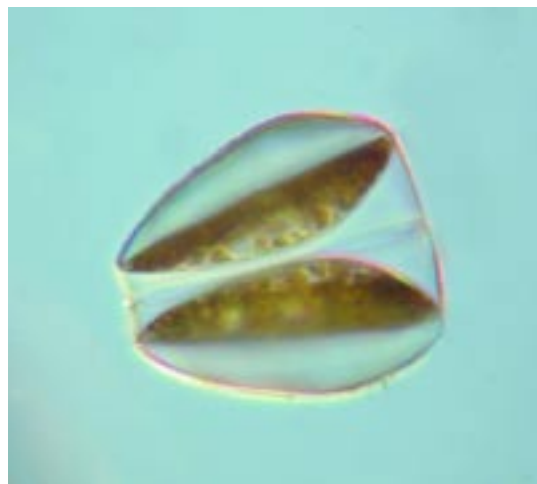
Chrysochromulina sp.

The most species rich station of this cruise, although the cell numbers were low. The diatoms dominated, and very few dinoflagellates were present, *Dinophysis acuminata** being one of them. The fish toxin producer *Chrysochromulina* spp.* was present and the most abundant diatom was the *Pseudo-nitzschia delicatissima*-group*. The diatom *Skeletonema costatum* was the second most abundant with 17000 cells/L.

The Baltic Sea

14th - 17th of November

In the Baltic the situation was similar at all stations. The plankton flora was very poor, with one or a few species of the diatom genera *Chaetoceros* and *Coscinodiscus* observed and one or a few dinoflagellate species; *Katodinium glaucum* and *Heterocapsa rotundata* being two of them. Small flagellated species were the most abundant, and at BCS III-10 and BY29 colonies of small (1-2µm) cyanobacteria were observed.



Coscinodiscus granii

Ann-Turi Skjevik

Selection of observed species Red=potentially toxic species	Å17 2006-11-13 cells/L	Släggö 2006-11-13 cells/L	Anholt E 2006-11-14 cells/L
<i>Apedinella radians</i>	present	present	present
<i>Cerataulina pelagica</i>			present
<i>Chaetoceros danicus</i>			present
<i>Chaetoceros similis</i>	present		present
<i>Chaetoceros socialis</i>		present	present
<i>Chaetoceros</i> spp.	present		present
<i>Cylindrotheca closterium</i>		present	present
<i>Dactyliosolen fragilissimus</i>			7 500
<i>Ditylum brightwellii</i>			present
<i>Eucampia zodiacus</i>		present	
<i>Leptocylindrus danicus</i>			9 000
<i>Leptocylindrus minimus</i>			present
<i>Proboscia alata</i>			present
<i>Pseudo-nitzschia delicatissima</i> -group	present	present	50 000
<i>Pseudo-nitzschia seriata</i> -group			9 900
<i>Skeletonema costatum</i>			17 000
<i>Thalassiosira</i> cf. <i>angulata</i>			present
<i>Thalassiothrix longissima</i>		present	
<i>Ceratium tripos</i>			present
<i>Dinophysis acuminata</i>			225
<i>Heterocapsa</i> cf. <i>minima</i>	5100		present
<i>Heterocapsa rotundata</i>		present	
<i>Katodinium glaucum</i>		present	present
<i>Dictyocha speculum</i>		present	present
<i>Chrysochromulina</i> spp.		present	present
Cryptomonadales spp.	37700	52000	30000
<i>Plagioselmis prolunga</i>	24000	28000	23000
<i>Pyramimonas</i> spp.		5100	5300
<i>Strombidium</i> spp.		present	present

Selection of observed species	BY2 2006-11-14 cells/L	BY5 2006-11-15 cells/L	BCS III 10 2006-11-15 cells/L	BY15 2006-11-16 cells/L	BY29 2006-11-16 cells/L	BY38 2006-11-17 cells/L
Red=potentially toxic species ¹ quantified in m/L						
<i>Chaetoceros danicus</i>	present	present				
<i>Chaetoceros impressus</i>		present	present	present		present
<i>Coscinodiscus</i> spp.	present	present	2 600	present	present	2 900
<i>Thalassiosira</i> spp.		present				
<i>Ceratium tripos</i>	present					
<i>Dinophysis acuminata</i>					230	
<i>Dinophysis rotundata</i>					230	
<i>Heterocapsa rotundata</i>	12 400	12 000		present	present	
<i>Katodinium glaucum</i>			present		present	present
<i>Chrysochromulina</i> spp	present			present	present	present
Cryptomonadales spp	85 000	69300	24000	35500	51 500	38 900
<i>Plagioselmis prolonga</i>	26 700		15500	28400	37 300	17 700
<i>Teleulax amphioxeia</i>	present				present	present
<i>Pyramimonas</i> spp	44400	16000	10300	14000	3500	7000
<i>Aphanizomenon</i> sp.¹				present	present	
Cyanobacteria spp_colony			860000		62000	
<i>Mesodinium rubrum</i>	present	present	present	present	present	present
<i>Strombidium</i> spp.	present	present	present	present	present	present
Choanoflagellates spp.	present	present	present	present	25000	28300

