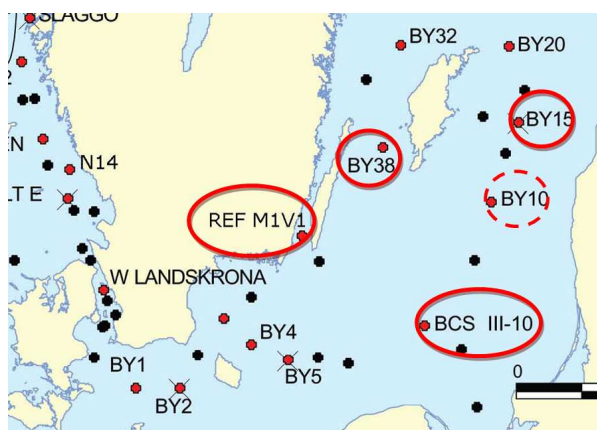


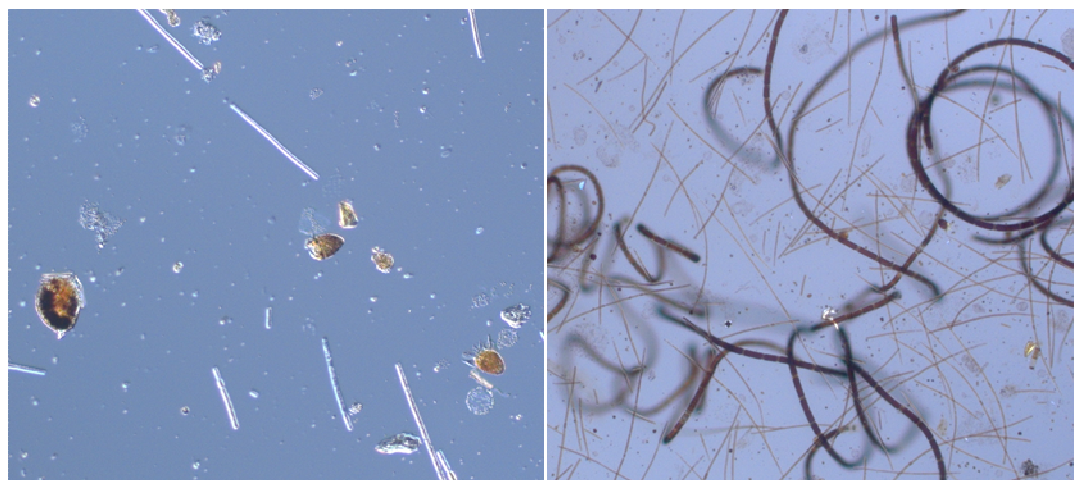
The Baltic Sea

The AlgAware report No 6 will be divided in PART 1 and PART 2 because the expedition in June is divided in two cruises. This report present phytoplankton analyses from the Baltic Sea.



BCS III-10 Southeast Baltic 18th of June

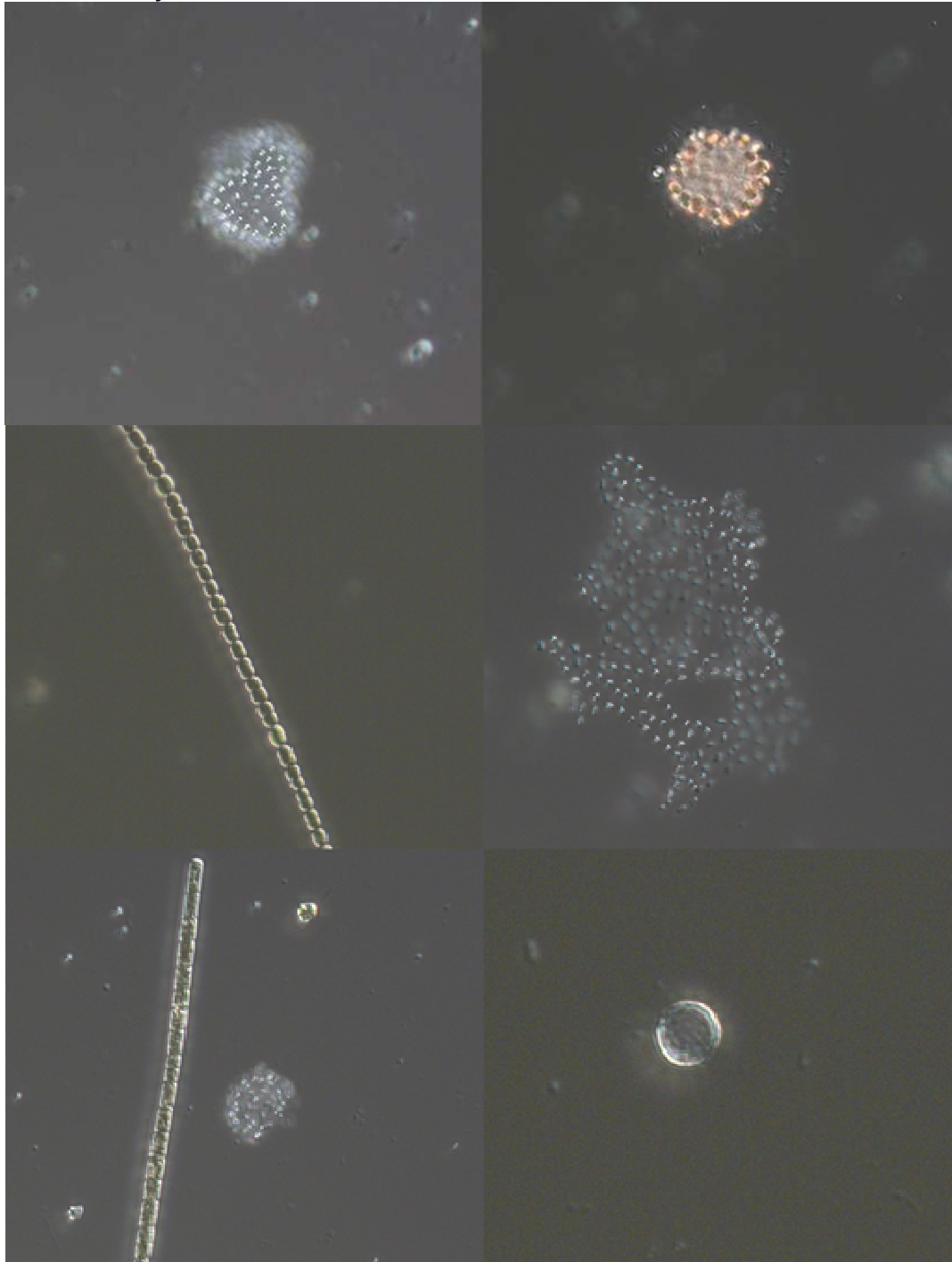
The *Aphanizomenon flos-aquae* dominated southeast part of the Baltic and three species from the genus *Dinophyceae* was present *D. acuminata*, *D. norvegica* and *D. rotundata*. Species from the order Prymnesiales and small flagellates were numerous at this station. In the sample taken from the surface there was a dominance of the species *Nodularia spumigena*, *Aphanizomenon flos-aquae* and species from Prymnesiales.



Phytoplankton community in the South East Baltic from 0-10m (left) and from surface water (right).

BY15 Eastern Gotland Basin 18th of June and BY38 Western Gotland Basin 19th of June

Gotland Basin was dominated by small colonyforming cyanobacteria and the filamentous *Aphanizomenon flos-aquae*. *Dinophysis acuminata* and *D. norvegica* were numerous and species from the order Prymnesiales and small flagellates were common. There was a chlorophyll fluorescence peak at 10 m depth in BY38. The phytoplankton community at this depth was dominated by unidentified species from the order Prymnesiales.



Eastern Baltic basin and Western Gotland basin was dominated by colony forming cyanobacteria and possibly one species from the genus *Pterosperma* (lower right corner)

Ref M1V1 Kalmar Sound 19th of June

It was a very low cell density in Kalmar Sound and the phytoplankton community consisted mainly of picocyanobacteria and cryptomonads. *Dinophysis acuminata* and *D. norvegica* were present in low numbers and there were also small amounts of *Aphanizomenon flos-aquae*.

Selection of observed species	BCS III-10	BY15 Gotlandsdj	BY38 Karlsödj	Ref M1-V1
Red=potentially toxic species	2013-06-18	2013-06-18	2013-06-19	2013-06-19
	cells/l	cells/l	cells/l	cells/l
<i>Aulacoseira</i> spp	present			
<i>Ceratium tripos</i>			present	
<i>Dinophysis acuminata</i>	present	present	present	present
<i>Dinophysis norvegica</i>	present	present		present
<i>Dinophysis rotundata</i>	present	present		
Gymnodiniales	present	common		
<i>Heterocapsa rotundata</i>			common	
<i>Katodinium glaucum</i>		present		
<i>Peridiniella danica</i>			present	
<i>Prorocentrum minimum</i>	present			
<i>Oocystis</i> spp	present	common		
<i>Planctonema lauterbornii</i>	present	common	common	
<i>Pterosperma</i> spp			88500	
<i>Pyramimonas</i> spp	common			common
<i>Ebria tripartita</i>		present		
Cryptomonadales	common	common	common	common
<i>Plagioselmis</i> spp				common
<i>Teleaulax</i> spp	present			
<i>Dinobryon faculiferum</i>	common	common	common	
<i>Anabaena</i> spp			present	
<i>Aphanizomenon flos-aquae</i>	very common	common	very common	present
<i>Aphanocapsa</i> spp	present	common	present	
<i>Aphanothece paralleliformis</i>	present			
<i>Aphanothece</i> spp	common	very common	present	
<i>Cyanobacteria</i> spp				very common
<i>Cyanodictyon</i> spp	present	common	present	
<i>Nodularia spumigena</i>	present			
<i>Snowella</i> spp		common	present	
<i>Woronichinia</i> spp		very common	common	
<i>Prymnesiales</i>	common	very common	very common	very common
Ciliophora	present	present		
<i>Mesodinium rubrum</i>	present	present		
Flagellates		common	very common	
Unicell	common	common	very common	

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>Pseudo-nitzschia</i> spp.	Amnesic shellfish poisoning (ASP)	Milda symptom: Efter 3-5 timmar: yrsel, illamående, kräkningar, diarré, magkramp Extrema symptom: Yrsel, hallucinationer, förvirring, förlust av korttidsminnet, kramp	Mild case: Within 3-5 hours: dizziness, nausea, vomiting, diarrhoea, abdominal cramps. Extreme case: dizziness, hallucinations, confusion, loss of memory, cramps.
<i>Chaetoceros concavicornis</i> / <i>C. convolutus</i>	Mechanical damage through hooks on setae	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>Pseudochattonella</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.