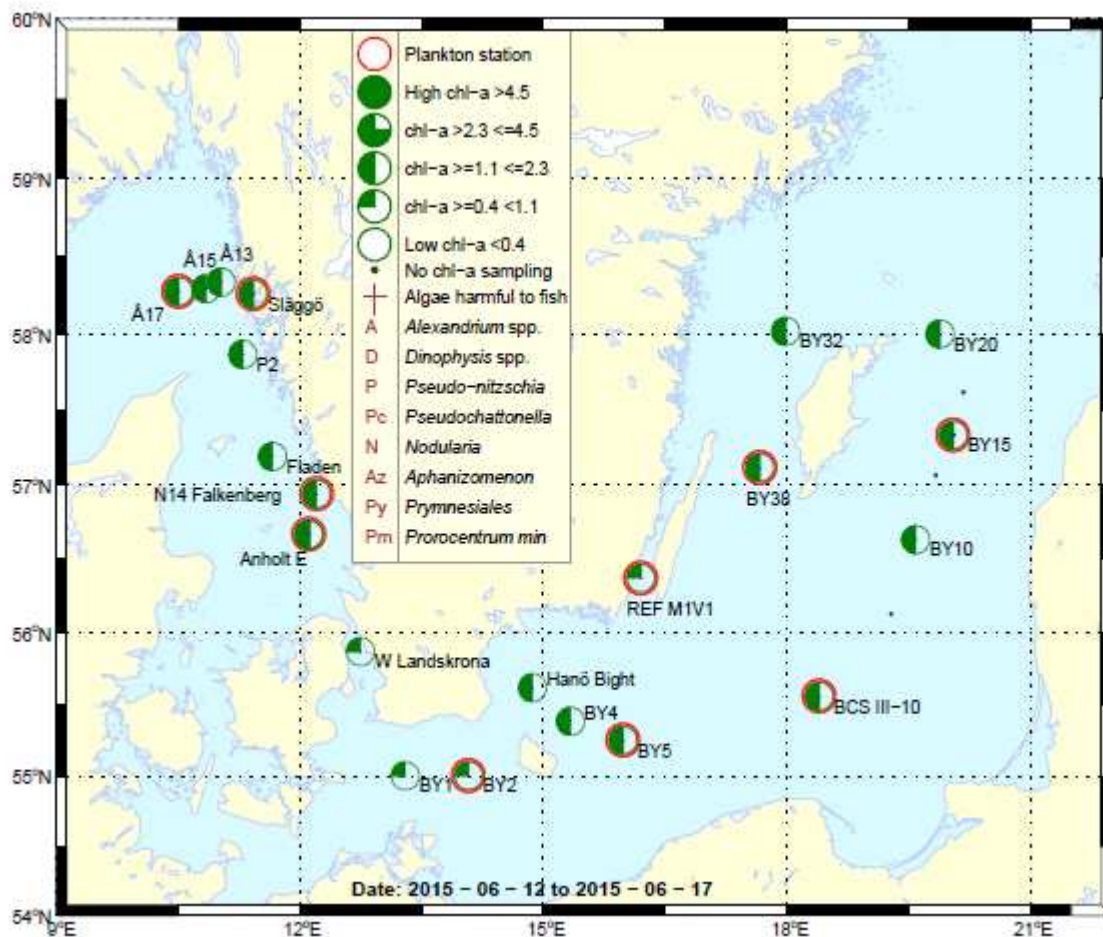


Sammanfattning

I Skagerrak dominerades planktonsamhället av stora dinoflagellater från släktet *Ceratium* och i Kattegat var det kiselalgen *Phaeodactylum tricornatum* som var flest till antal.

Östersjön var framförallt dominerat av cyanobakterien *Aphanizomenon flos-aquae* och dinoflagellaten *Dinophysis norvegica* men även av en liten unicell som var mycket vanlig i stora delar av Östersjön. De integrerade (0-20 m) klorofyll *a* värdena var normala för månaden vid alla stationer som besöktes.

**Abstract**

The stations at Skagerrak were dominated by large cells from the dinoflagellate genus *Ceratium*. The phytoplankton community in the Kattegat was dominated by the diatom *Phaeodactylum tricornatum*. The cyanobacterial species *Aphanizomenon flos-aquae* and the dinoflagellate *Dinophysis norvegica* were common in the Baltic Sea and a small (1 μ m) unicell was common in all parts of the Baltic Sea visited.

The integrated (0-10 m) chlorophyll *a* concentrations were normal for this month.

More detailed information on species composition and abundance

The Skagerrak

Å17 (open Skagerrak) and Släggö (Skagerrak coast) 15th of June

There were a few large cells from the dinoflagellate genus *Ceratium* (Fig 1, left) present in the Skagerrak. At Släggö there was in addition some diatoms present in small amounts e.g. *Cerataulina pelagica*, *Skeletonema marinoi*, *Guinardia delicatula* and *Thalassionema nitzschoides* (Fig 1). During the expedition a fluorescence peak was found at Å15 at 15m depth and the phytoplankton genus responsible for that was most likely the dinoflagellate genus *Ceratium* (Fig 2). The integrated (0-10m) chlorophyll *a* concentrations were normal for this month.



Fig.1 *Ceratium macroceros* (left) and *Thalassionema nitzschoioides* (right) were present at Släggö in The Skagerrak.

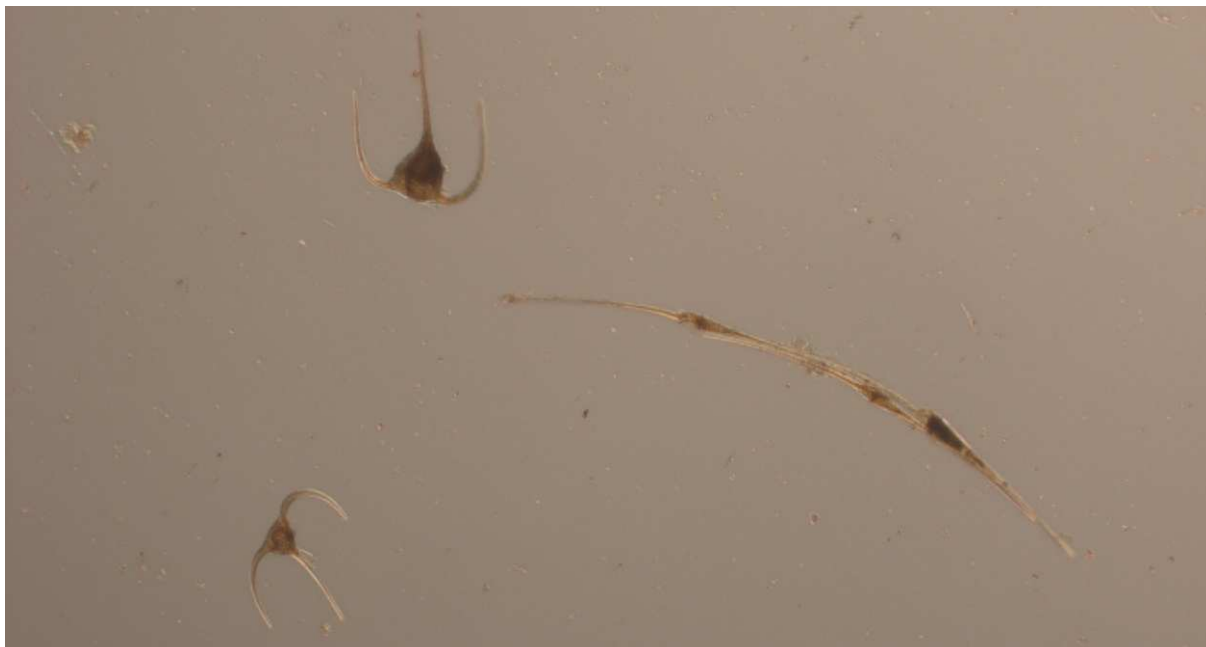


Fig.2 There was a chlorophyll fluorescence peak at Å15 in the Skagerrak at 20 m depth and the phytoplankton genus responsible for that was the dinoflagellate genus *Ceratium*.

The Kattegat

N14 Falkenberg and Anholt E 14th of June and Anholt E 15th of June

In the Kattegat all stations were dominated by the diatom species *Phaeodactylum tricornutum* (Fig 3). There were also large dinoflagellates from the genus *Ceratium* and small amounts of the diatom species *Skeletonema marinoi*.

The integrated (0-10m) chlorophyll *a* concentrations were low at all stations and are normal for this month.

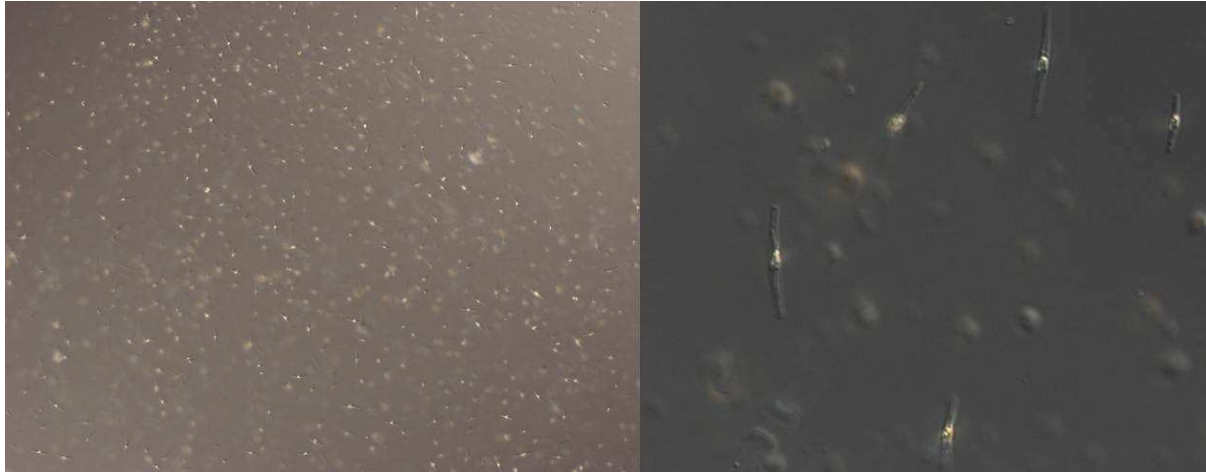


Fig.3 The diatom species *Phaeodactylum tricornutum* was dominating the phytoplankton community in The Kattegat.

The Baltic Sea

The Southern Baltic Sea

BY2 Arkona Basin and BY5 Bornholm Basin 13th of June

The phytoplankton community in southern part of the Baltic Sea was dominated by a small (1 μ m) unicell. Furthermore, *Aphanizomenon flos-aquae* and *Planctonema lauterbornii* were very common and a few cells of *Dinophysis norvegica*.

The integrated (0-10 m) chlorophyll *a* concentrations were low but within normal for this month.

The samples taken from the fluorescence peaks at 20m depth at BY4 and Hanö Bight, and 18m at BY5 were generally dominated by cyanobacterial colonies and especially cf. *Lemmermaniella* spp. was very common (Fig 4).



Fig.4 Cyanobacterial colonies in general and cf. *Lemmermaniella* spp. in particular dominated the samples taken from at fluorescence peaks found at 20m depth at BY4 and 18m at BY5.

The Eastern Gotland Basin

BCS III-10 13th of June and BY15 12th of June

The eastern part of the Baltic Sea had similar species diversity as in the southern part of the Baltic Sea. The most common species were *Aphanizomenon flos-aquae*, *Dinophysis norvegica* and *Planctonema lauterbornii*. In addition *Thalassiosira angulata* was present at BY15 and the community at BCS III was dominated by small (1 µm) unicells.

The chlorophyll *a* concentrations were low and within normal values for this month.

The Western Baltic Sea

BY38 17th of June

The species composition at the Karlsö Deep (Fig 5) was similar to other parts of the Baltic Sea during this expedition but with a much more dense population of the dinoflagellate *Dinophysis norvegica* and the filamentous cyanobacteria *Aphanizomenon flos-aquae*.

REF M1V1 16th of June

Close to the southwest coast of Öland the dinoflagellates *Heterocapsa triquetra* and *Dinophysis norvegica* were numerous and dominated the phytoplankton community. The small (1 µm) unicell that was common in the eastern part of the Baltic Sea was very common at this station and at BY38.

The integrated (0-10 m) chlorophyll *a* concentrations in the Western Baltic Sea were low and normal for this month.

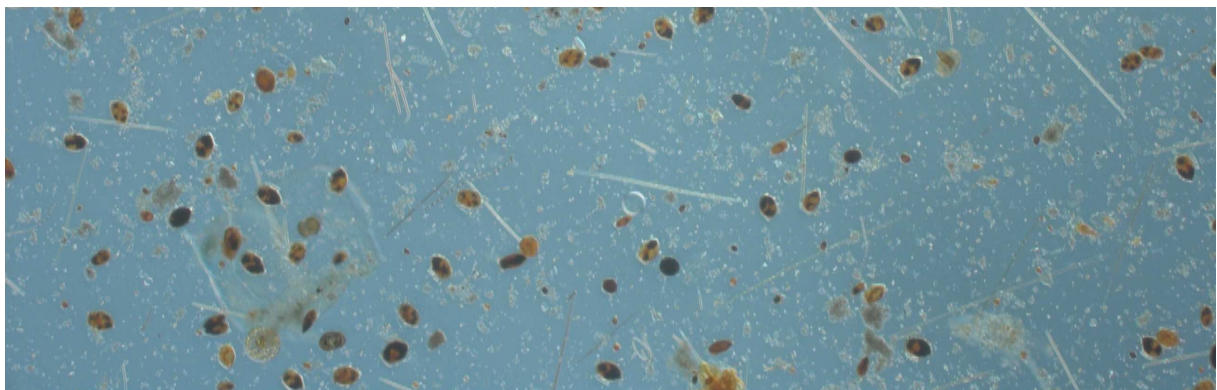
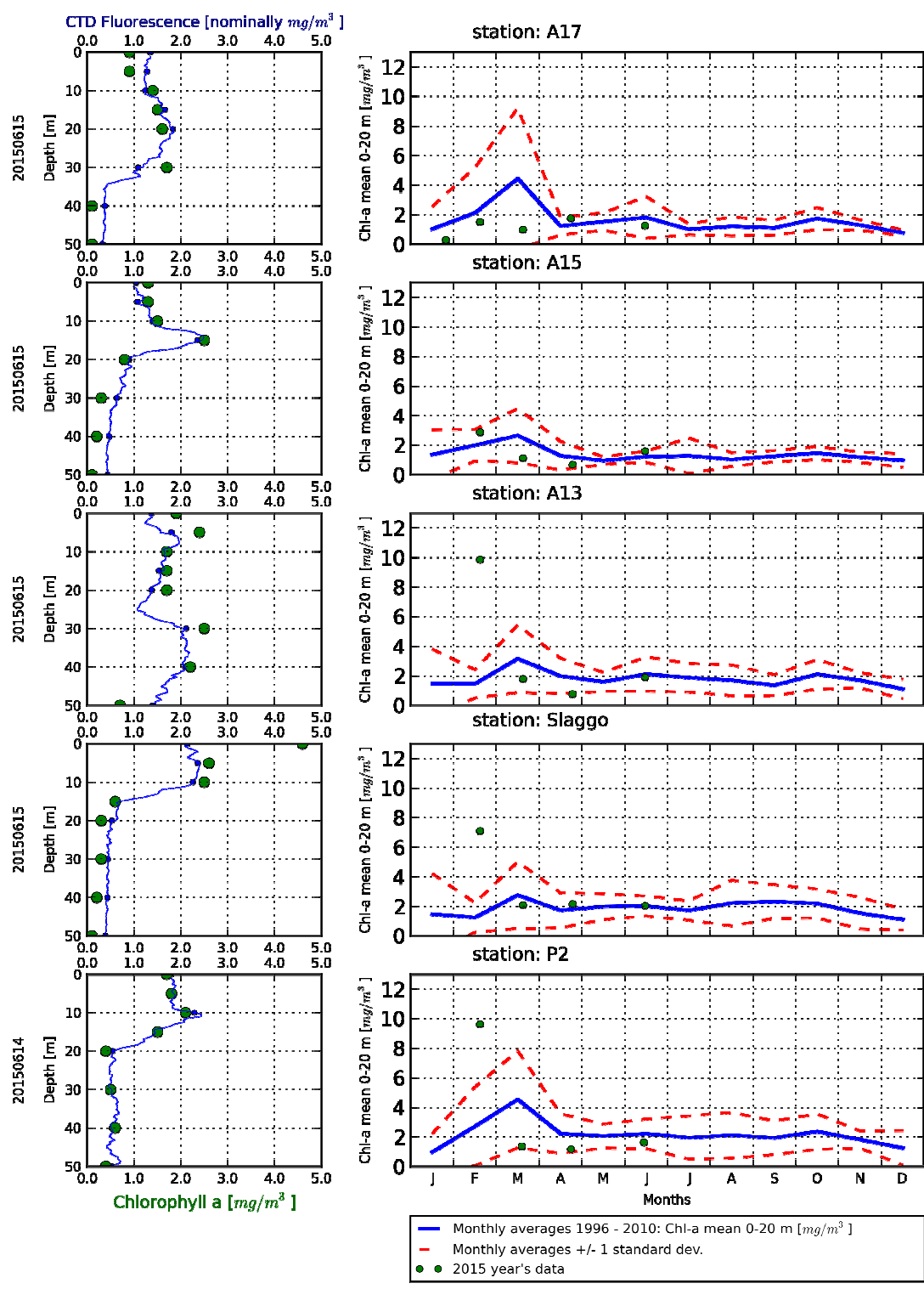


Fig.5. The phytoplankton community at the Karlsö Deep BY38 in June 2015.

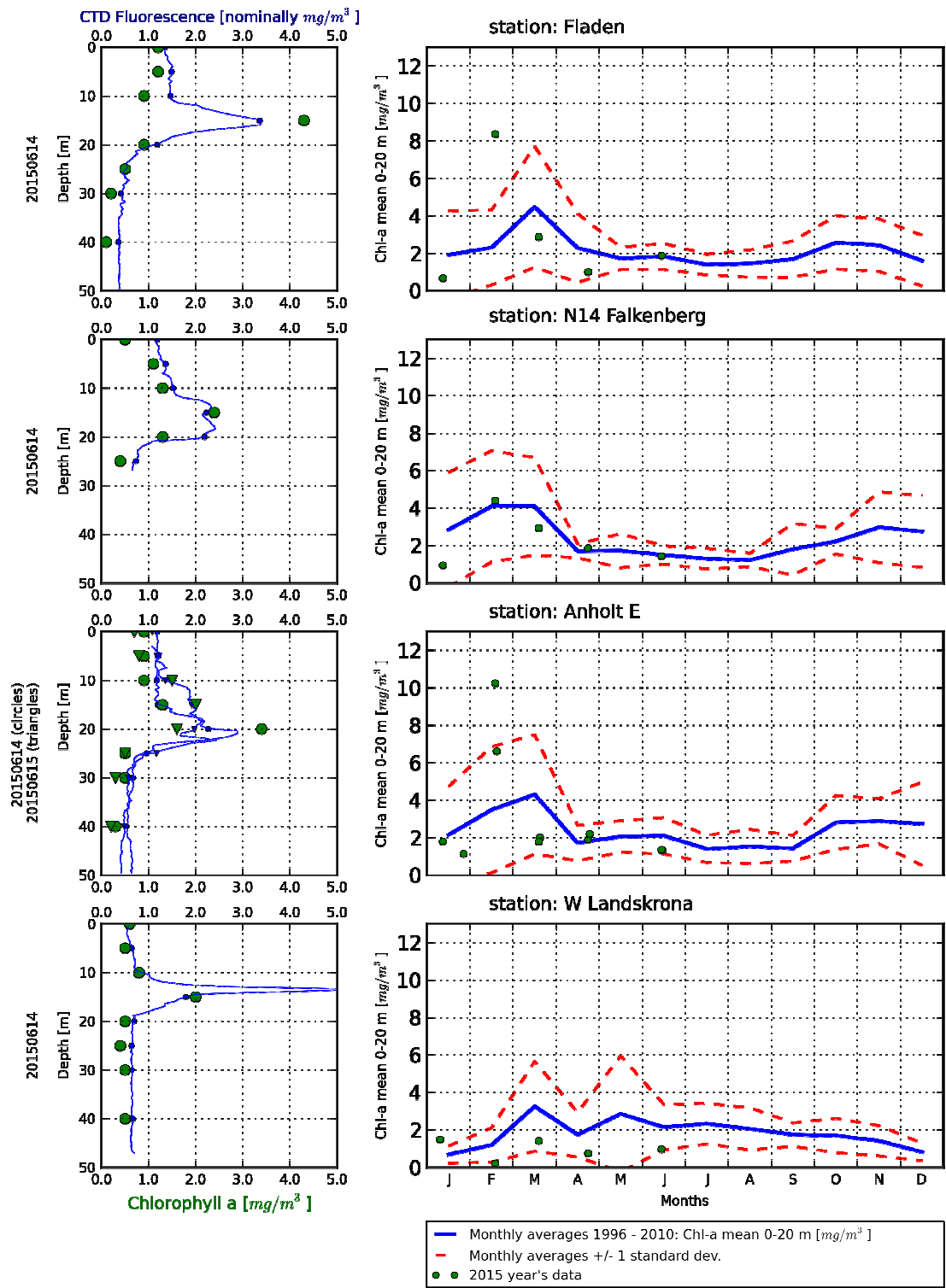
Selection of observed species	Anholt E	Anholt E	N14 Falkenberg	Släggö	Å17
Red=potentially toxic species	2015-06-14	2015-06-15	2015-06-14	2015-06-15	2015-06-15
Hose 0-10 m	presence	presence	presence	presence	presence
<i>Cerataulina pelagica</i>		common		present	
<i>Coscinodiscus radiatus</i>	present	present	present	present	
<i>Ditylum brightwellii</i>			present		
<i>Guinardia delicatula</i>				present	
<i>Phaeodactylum tricornutum</i>	very common		very common		
<i>Proboscia alata</i>		present		present	present
<i>Pseudo-nitzschia</i> spp			present	present	
<i>Rhizosolenia hebetata</i>	present		present		
<i>Skeletonema marinoi</i>	common		common	present	
<i>Thalassionema nitzschioides</i>				present	
<i>Ceratium fusus</i>	present	common	present	present	present
<i>Ceratium lineatum</i>	common	common	present	present	
<i>Ceratium longipes</i>	present	common			present
<i>Ceratium macroceros</i>		present		present	
<i>Ceratium tripos</i>	present	common		present	present
<i>Dinophysis norvegica</i>		present	present	present	present
Gymnodiniales			present	present	
Peridinales	present				
<i>Protoperidinium depressum</i>				present	
<i>Protoperidinium pellucidum</i>		present			
<i>Protoperidinium</i> spp		present		present	
<i>Ebria tripartita</i>				present	
<i>Pterosperma</i> spp					present
Cryptomonadales				present	

Selection of observed species	BCS III-10	BY2 Arkona	BY5 Bornholmsdj	BY15 Gotlandsdj	BY38 Karlsödj	REF M1-V1
Red=potentially toxic species	2015-06-13	2015-06-13	2015-06-13	2015-06-12	2015-06-17	2015-06-16
Hose 0-present0 m	presence	presence	presence	presence	presence	presence
<i>Actinocyclus</i> spp	present			present	present	present
<i>Chaetoceros impressus</i>		present				
<i>Skeletonema marinoi</i>						present
<i>Thalassiosira</i> spp		present	present		present	
<i>Thalassiosira angulata</i>				present		
<i>Dinophysis acuminata</i>	present				common	present
<i>Dinophysis norvegica</i>	very common		present	very common	very common	common
<i>Dinophysis rotundata</i>	present			present	present	
Gymnodiniales		present	present	present	present	present
<i>Heterocapsa triquetra</i>					common	very common
<i>Katodinium glaucum</i>				present		
Peridinales	present			present	present	present
<i>Peridiniella danica</i>	present	present	present	present	present	
<i>Protoceratium reticulatum</i>				present	present	
<i>Protoperidinium</i>						present
<i>Protoperidinium brevipes</i>				present		present
<i>Anabaena</i> spp						present
<i>Aphanizomenon flos-aquae</i>	very common	very common	very common	very common	very common	present
<i>Aphanocapsa</i> spp		present	present	present		
<i>Aphanothece</i> spp	present	present	present	present		
<i>Cyanodictyon</i> spp	present	present	present	present		
<i>Snowella</i> spp	present	present	present			present
<i>Woronichinia</i> spp	present	present	present			present
<i>Pseudopedinella</i> spp	present					
<i>Ebria tripartita</i>	present	present	present			
<i>Eutreptiella</i>			present			
<i>Oocystis</i> spp		present	present	present	present	
<i>Planctonema lauterbornii</i>	common	common	present	present	common	
Pyrmnesiales	common	present		present		
Cryptomonadales	present	present	present			
Ciliophora						present
<i>Mesodinium rubrum</i>	present					present
Unicell	very common		very common		very common	very common

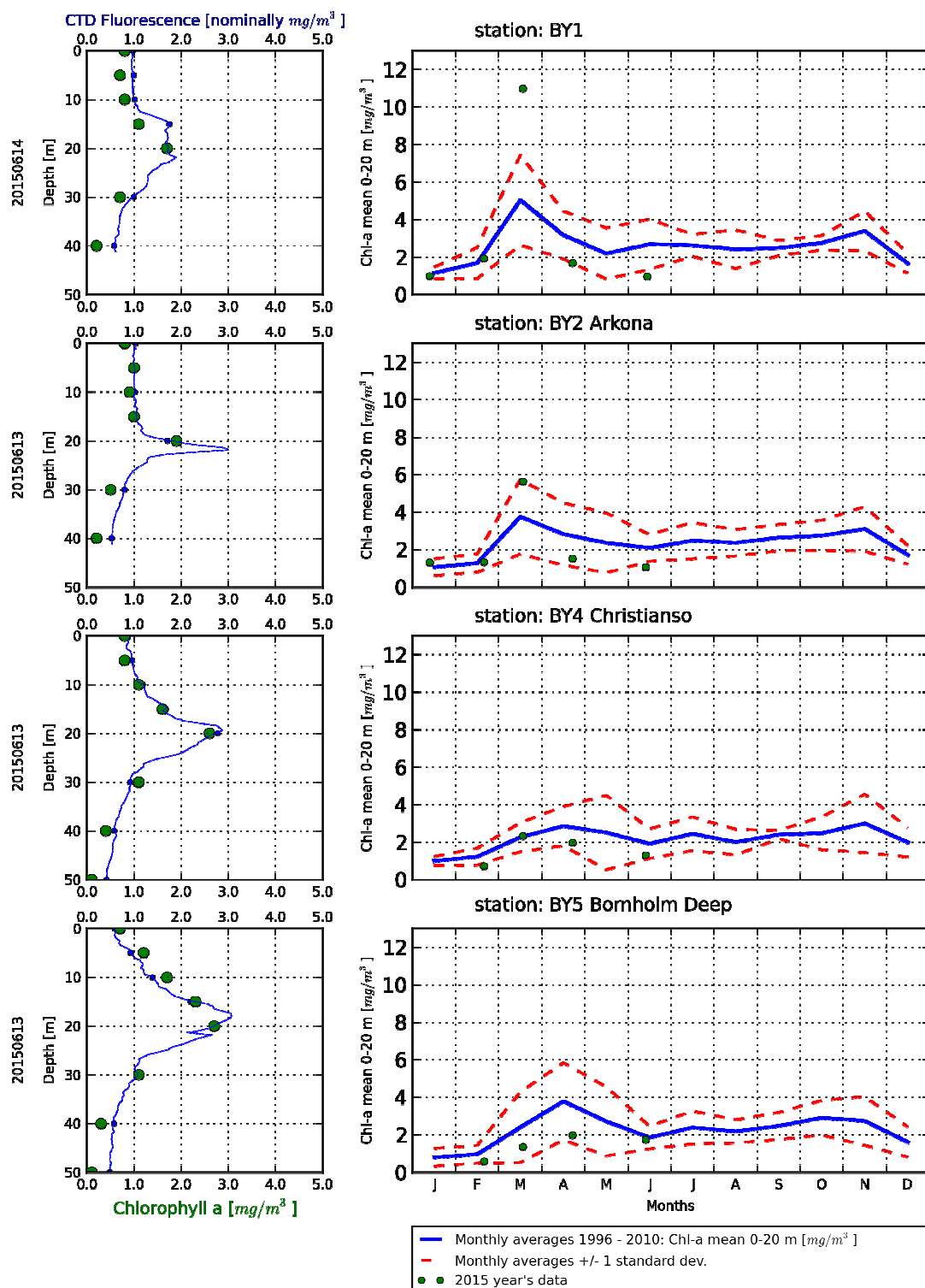
The Skagerrak



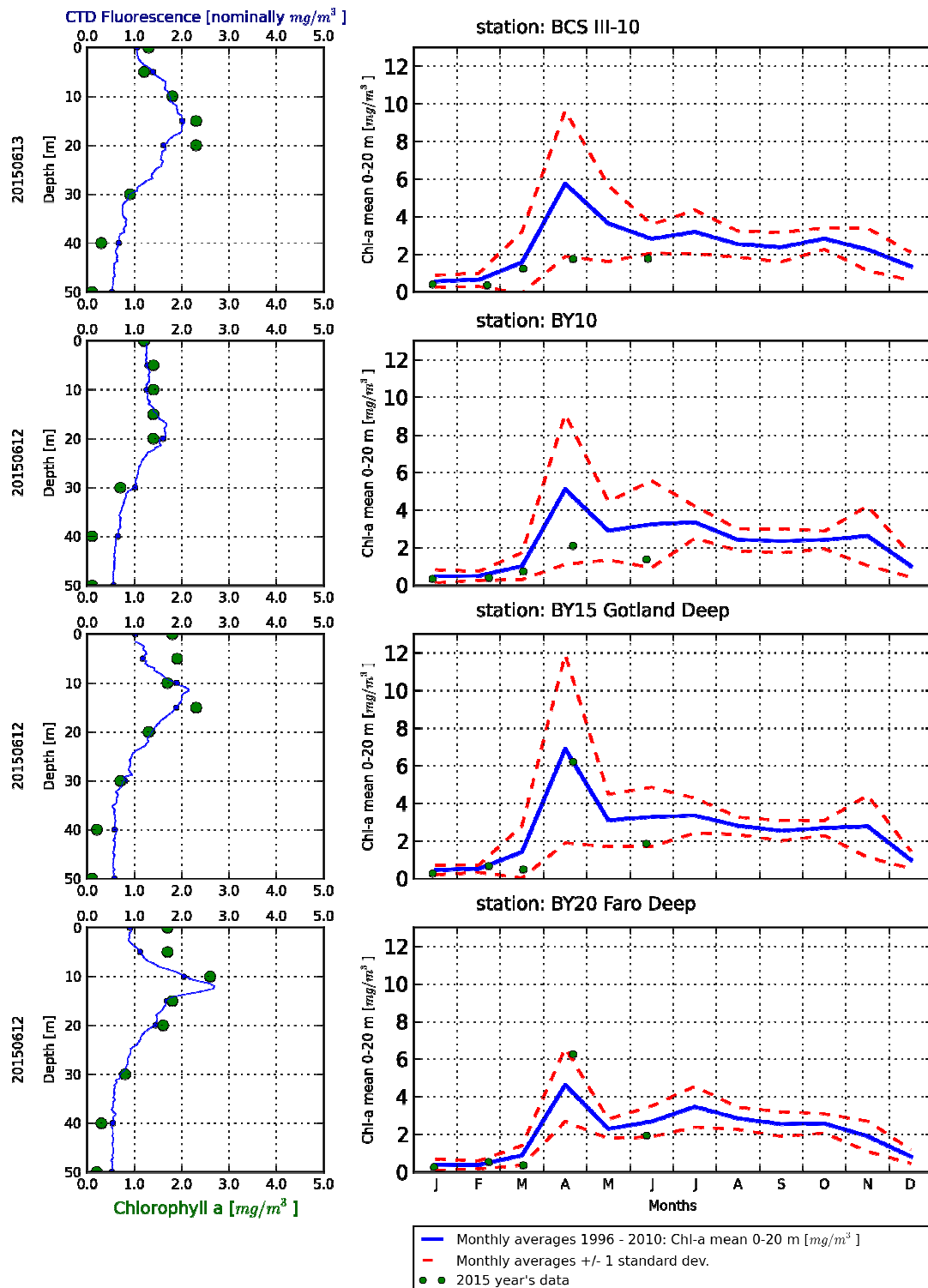
The Kattegat and The Sound



The Southern Baltic



The Eastern Baltic



The Western Baltic

