ALG@LINE FERRYBOX MONITORING

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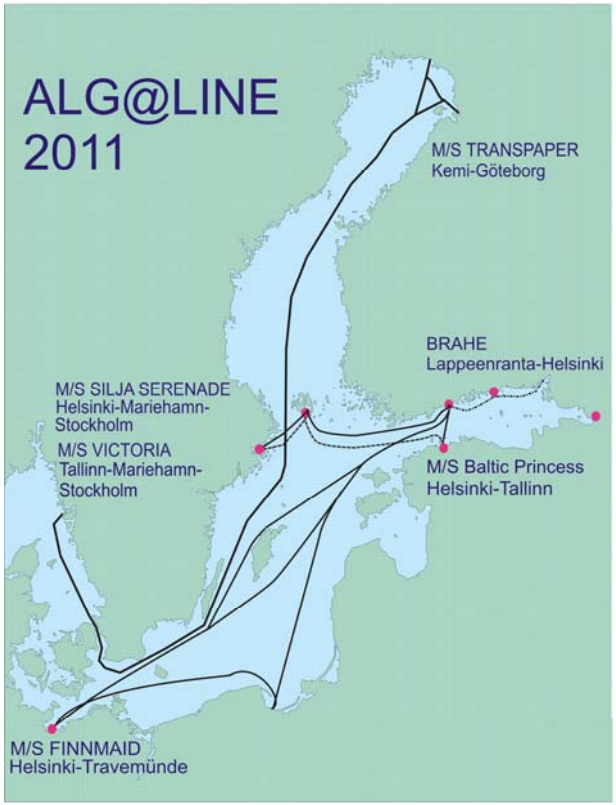
Alg@line Highlights



1991: the first recordings on-route Helsinki-Tallinn with Georg Ots

1992: the system installed on-board Finnjet

1993: the ”official” launch of Alg@line

1997: Finnish-Estonian operative monitoring system of the state of the Gulf of Finland

- Finnish Institute of Marine Research
- Estonian Marine Institute
- Uusimaa Regional Environment Centre
- City of Helsinki Environment Centre

2003-2005 : Ferrybox EU project

2005- current: ESA/MarCoast baseline service

2008: Cooperation with SMHI for Oulu-Göteborg route

2009: MyOcean In Situ Tematic Center

http://BalticSeaPortal.fi -> Algaline

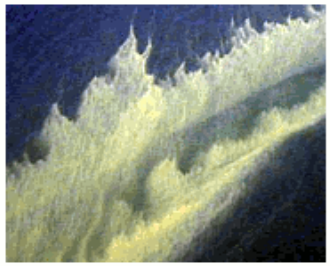
These pages will be updated with the renewal of the service in 2009.

» General information
» Water movements
» Ice conditions
» Open sea
» Sea bottom
» Eutrophication
» Harmful substances
» Invasive species
» Reports on the state of the Baltic Sea
» Helcom monitoring +
» Algaline -
  » Newest measurements
  » Time series
  » Species reports
  » Data archive
» State of the Baltic Sea News

Tämä sivu suomeksi
Denna sida på svenska

Alg@line is a forerunner in the field of monitoring research

Algaline monitors the fluctuations in the Baltic Sea ecosystem in real-time using several approaches. It combines studies onboard research vessels with high-frequency automated sampling onboard several merchant ships, satellite imagery, buoy recordings and traditional sampling in coastal waters.



Results of the Algaline project

- Newest measurements
- Time series
- Species reports
- Data archive

updated 7.5.2008

Related topics

» Algaline method description
» Algae information

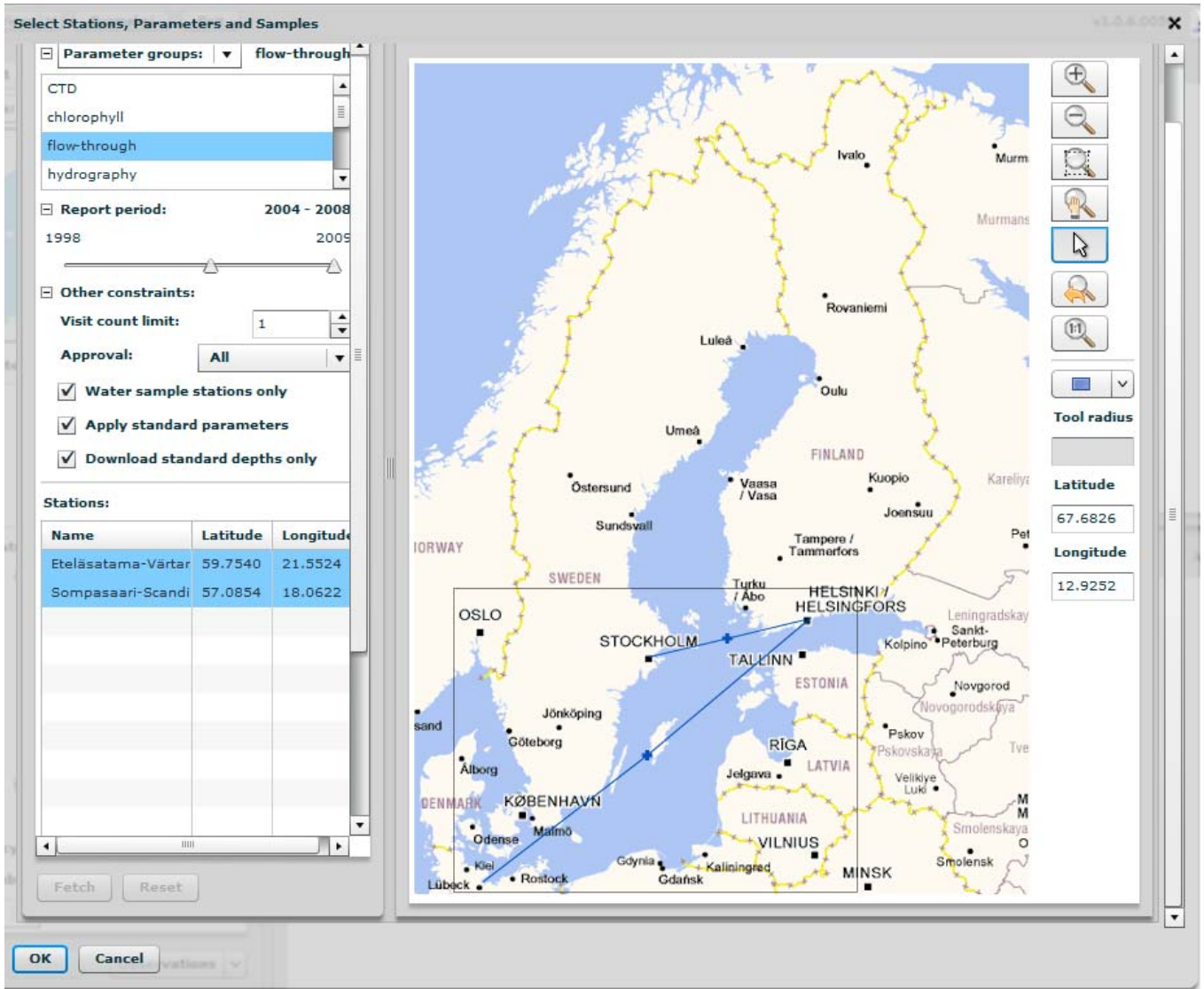
See also

» Eutrophication at the Baltic Sea
» Studies of eutrophication
» State of the Baltic Sea

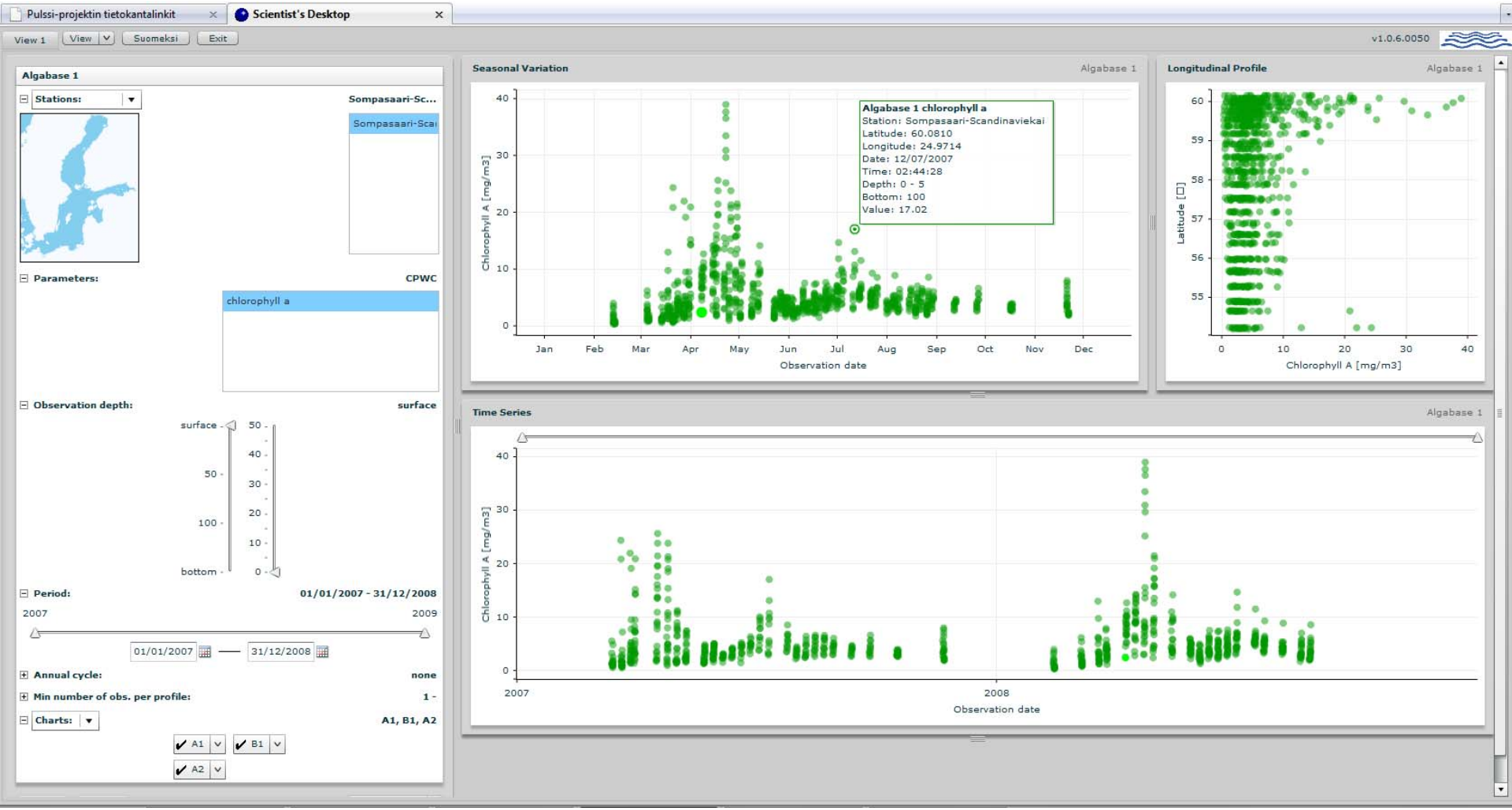
Baltic Sea Now

» Cyanobacterial biomass forecast

Data selection with GRAFEIO interface



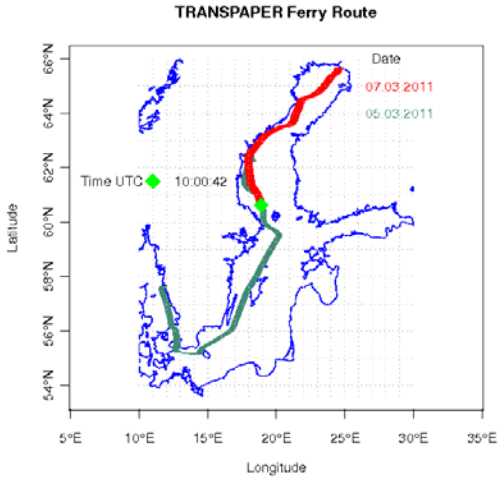
Exploring the data in GRAFEIO

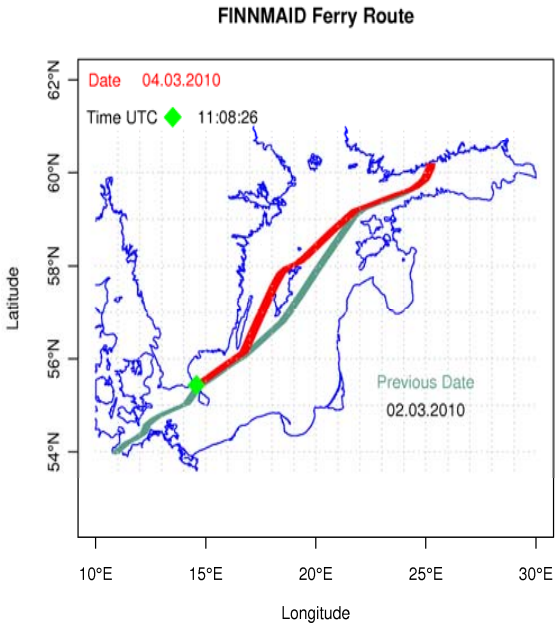


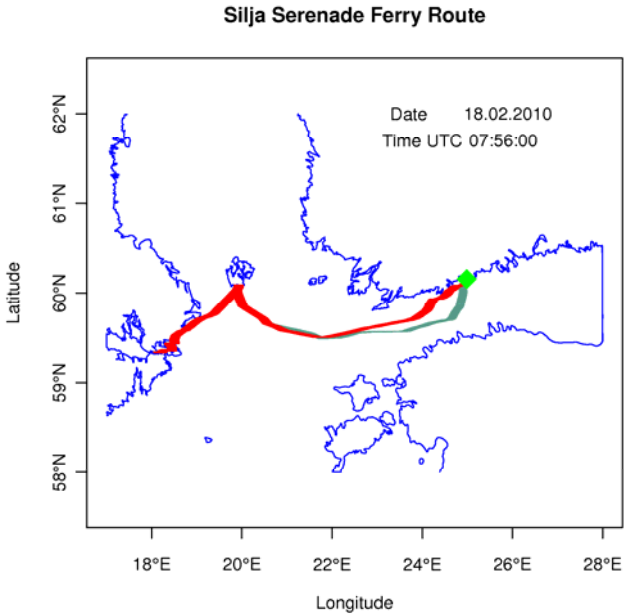
Near real time observations on commercial ferries

Time, location, from GPS
Salinity
Temperature
Chlorophyll
Phycocyanin
Turbidity
Water samples for CHLA, inorganic nutrients and phytolankton species analysis

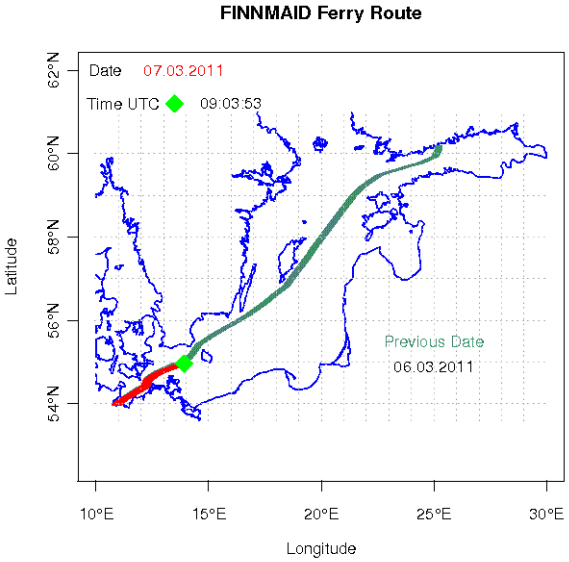
Traspaper in cooperation with SMHI
Finnmaid in coopertion with IOW
Silja Serenade in cooperation with Uusimaan ELY center and Helsinki Environment Center

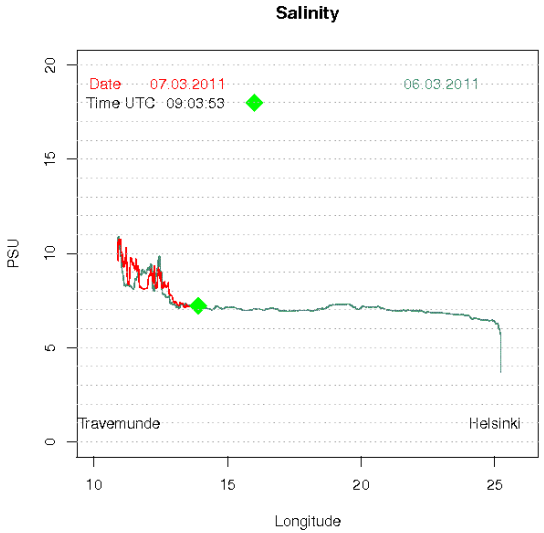


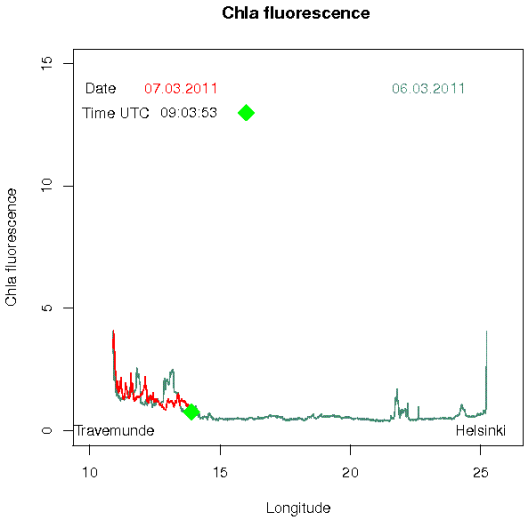


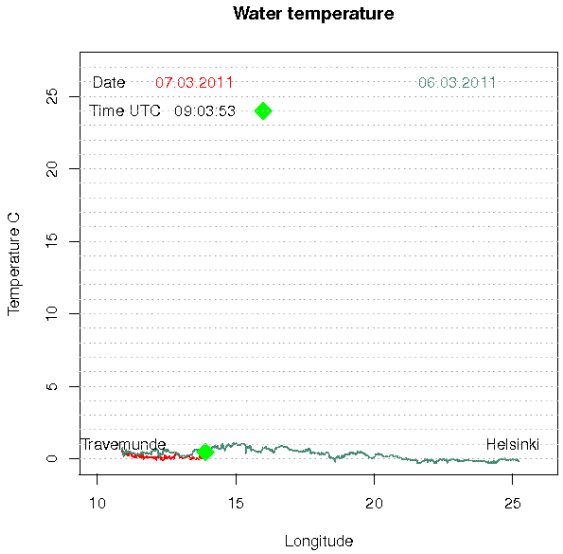


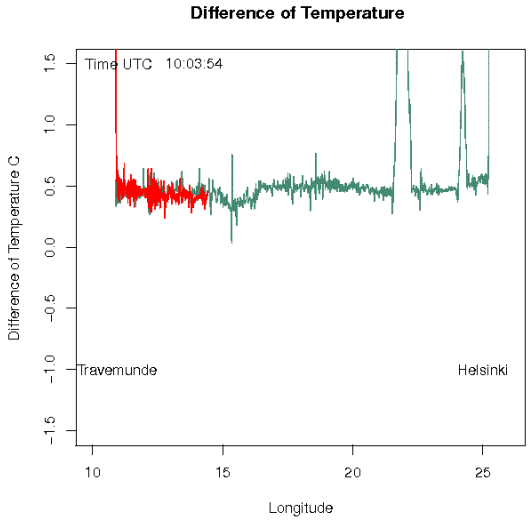
Current observations on FINNMAID (7.3.2011) www.baltiseaportal.fi

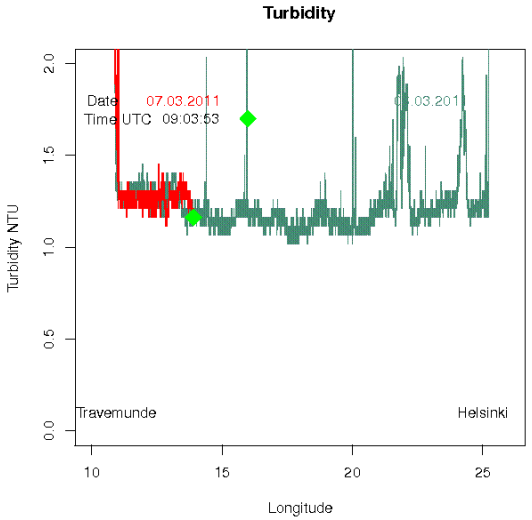




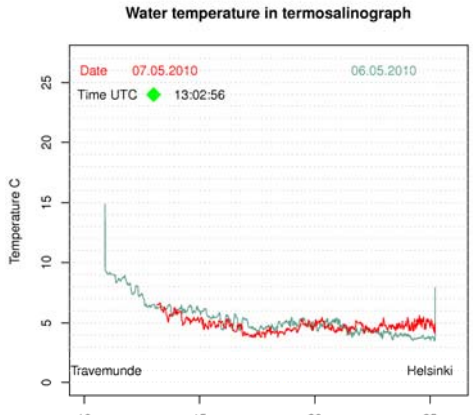


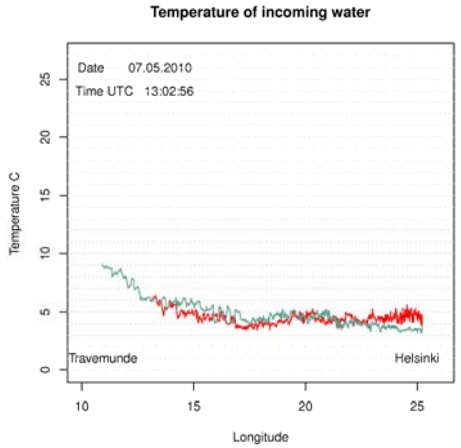


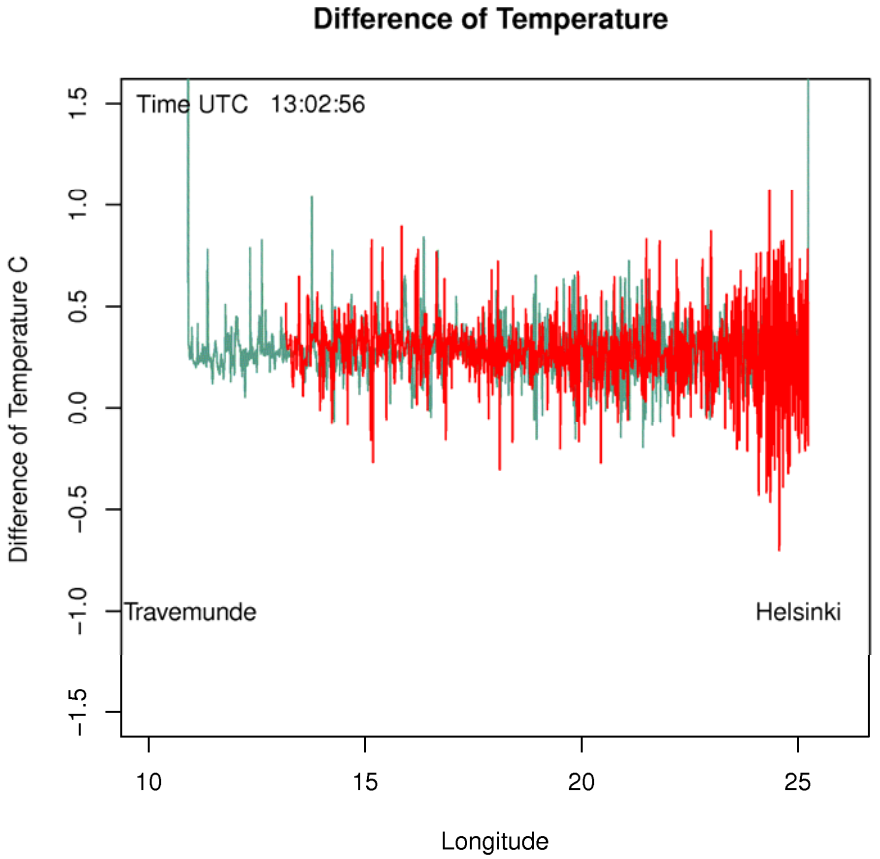




One of the tasks is to ensure the routine validation of real-time production
In Algaline monitoring this is partly carried out with the difference of 2 parallel observations of temperature; termometer by the water inlet and the termosalinograph. Red is current observations, gray is previous cruise data.



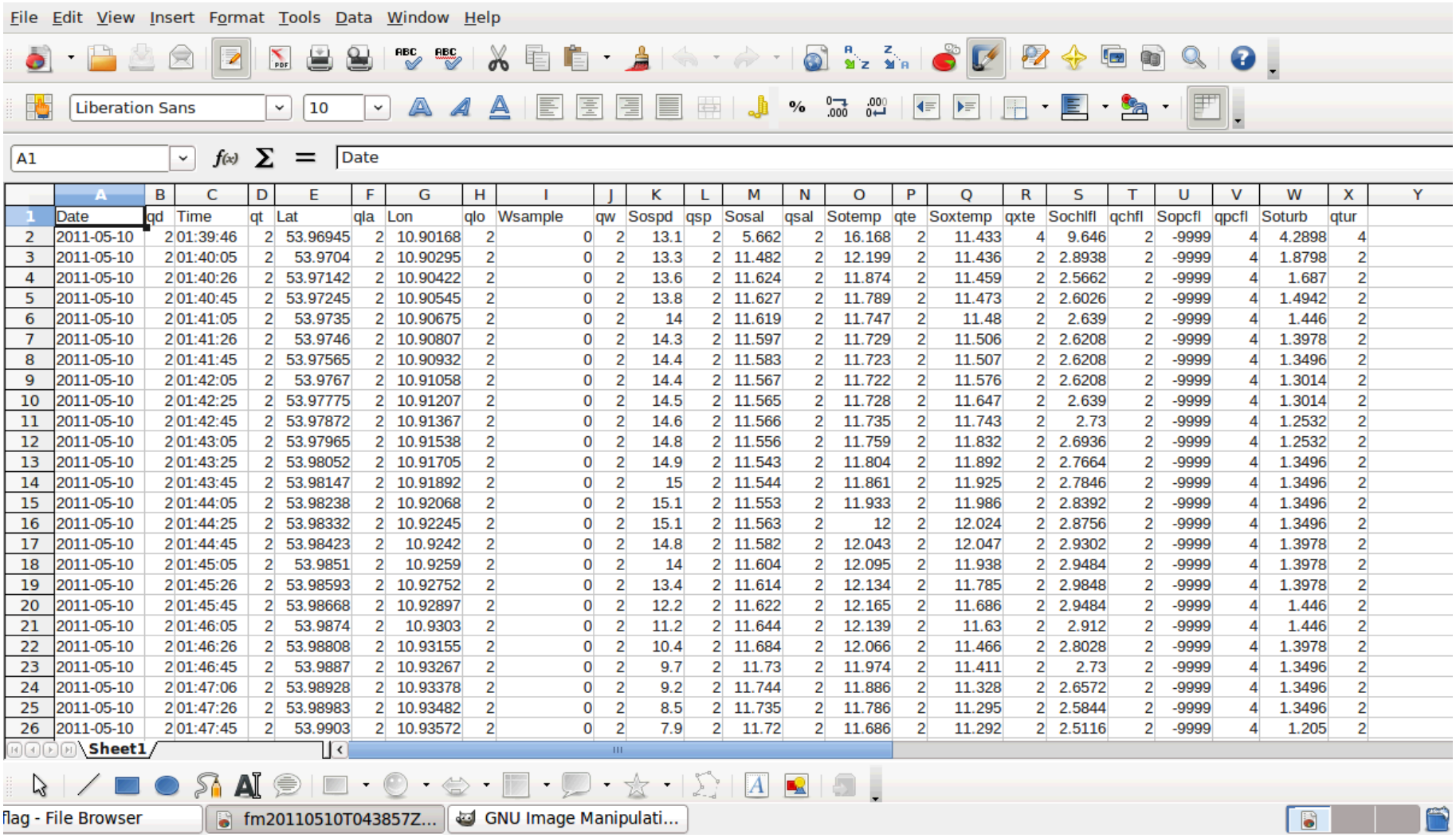




Real Time Quality Control of biogeochemical measurements

Table 1: Quality flag scale. Codes marked in red are mandatory following the RTQC procedure **Code**	**Meaning**
0	No QC was performed
1	Good data
2	Probably good data
3	Bad data that are potentially correctable
4	Bad data
5	Value changed
6	Below detection limit
7	In excess of quoted value
8	Interpolated value
9	Missing value
A	Incomplete information

Flaged data to database



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Liberation Sans 10

A1 Date

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
1	Date	qd	Time	qt	Lat	qla	Lon	qlo	Wsample	qw	Sospd	qsp	Sosal	qsal	Sotemp	qte	Soxtemp	qxte	Sochlfl	qchfl	Sopcfl	qpcfl	Soturb	qtur	
2	2011-05-10	2	01:39:46	2	53.96945	2	10.90168	2	0	2	13.1	2	5.662	2	16.168	2	11.433	4	9.646	2	-9999	4	4.2898	4	
3	2011-05-10	2	01:40:05	2	53.9704	2	10.90295	2	0	2	13.3	2	11.482	2	12.199	2	11.436	2	2.8938	2	-9999	4	1.8798	2	
4	2011-05-10	2	01:40:26	2	53.97142	2	10.90422	2	0	2	13.6	2	11.624	2	11.874	2	11.459	2	2.5662	2	-9999	4	1.687	2	
5	2011-05-10	2	01:40:45	2	53.97245	2	10.90545	2	0	2	13.8	2	11.627	2	11.789	2	11.473	2	2.6026	2	-9999	4	1.4942	2	
6	2011-05-10	2	01:41:05	2	53.9735	2	10.90675	2	0	2	14	2	11.619	2	11.747	2	11.48	2	2.639	2	-9999	4	1.446	2	
7	2011-05-10	2	01:41:26	2	53.9746	2	10.90807	2	0	2	14.3	2	11.597	2	11.729	2	11.506	2	2.6208	2	-9999	4	1.3978	2	
8	2011-05-10	2	01:41:45	2	53.97565	2	10.90932	2	0	2	14.4	2	11.583	2	11.723	2	11.507	2	2.6208	2	-9999	4	1.3496	2	
9	2011-05-10	2	01:42:05	2	53.9767	2	10.91058	2	0	2	14.4	2	11.567	2	11.722	2	11.576	2	2.6208	2	-9999	4	1.3014	2	
10	2011-05-10	2	01:42:25	2	53.97775	2	10.91207	2	0	2	14.5	2	11.565	2	11.728	2	11.647	2	2.639	2	-9999	4	1.3014	2	
11	2011-05-10	2	01:42:45	2	53.97872	2	10.91367	2	0	2	14.6	2	11.566	2	11.735	2	11.743	2	2.73	2	-9999	4	1.2532	2	
12	2011-05-10	2	01:43:05	2	53.97965	2	10.91538	2	0	2	14.8	2	11.556	2	11.759	2	11.832	2	2.6936	2	-9999	4	1.2532	2	
13	2011-05-10	2	01:43:25	2	53.98052	2	10.91705	2	0	2	14.9	2	11.543	2	11.804	2	11.892	2	2.7664	2	-9999	4	1.3496	2	
14	2011-05-10	2	01:43:45	2	53.98147	2	10.91892	2	0	2	15	2	11.544	2	11.861	2	11.925	2	2.7846	2	-9999	4	1.3496	2	
15	2011-05-10	2	01:44:05	2	53.98238	2	10.92068	2	0	2	15.1	2	11.553	2	11.933	2	11.986	2	2.8392	2	-9999	4	1.3496	2	
16	2011-05-10	2	01:44:25	2	53.98332	2	10.92245	2	0	2	15.1	2	11.563	2	12	2	12.024	2	2.8756	2	-9999	4	1.3496	2	
17	2011-05-10	2	01:44:45	2	53.98423	2	10.9242	2	0	2	14.8	2	11.582	2	12.043	2	12.047	2	2.9302	2	-9999	4	1.3978	2	
18	2011-05-10	2	01:45:05	2	53.9851	2	10.9259	2	0	2	14	2	11.604	2	12.095	2	11.938	2	2.9484	2	-9999	4	1.3978	2	
19	2011-05-10	2	01:45:26	2	53.98593	2	10.92752	2	0	2	13.4	2	11.614	2	12.134	2	11.785	2	2.9848	2	-9999	4	1.3978	2	
20	2011-05-10	2	01:45:45	2	53.98668	2	10.92897	2	0	2	12.2	2	11.622	2	12.165	2	11.686	2	2.9484	2	-9999	4	1.446	2	
21	2011-05-10	2	01:46:05	2	53.9874	2	10.9303	2	0	2	11.2	2	11.644	2	12.139	2	11.63	2	2.912	2	-9999	4	1.446	2	
22	2011-05-10	2	01:46:26	2	53.98808	2	10.93155	2	0	2	10.4	2	11.684	2	12.066	2	11.466	2	2.8028	2	-9999	4	1.3978	2	
23	2011-05-10	2	01:46:45	2	53.9887	2	10.93267	2	0	2	9.7	2	11.73	2	11.974	2	11.411	2	2.73	2	-9999	4	1.3496	2	
24	2011-05-10	2	01:47:06	2	53.98928	2	10.93378	2	0	2	9.2	2	11.744	2	11.886	2	11.328	2	2.6572	2	-9999	4	1.3496	2	
25	2011-05-10	2	01:47:26	2	53.98983	2	10.93482	2	0	2	8.5	2	11.735	2	11.786	2	11.295	2	2.5844	2	-9999	4	1.3496	2	
26	2011-05-10	2	01:47:45	2	53.9903	2	10.93572	2	0	2	7.9	2	11.72	2	11.686	2	11.292	2	2.5116	2	-9999	4	1.205	2	

Sheet1

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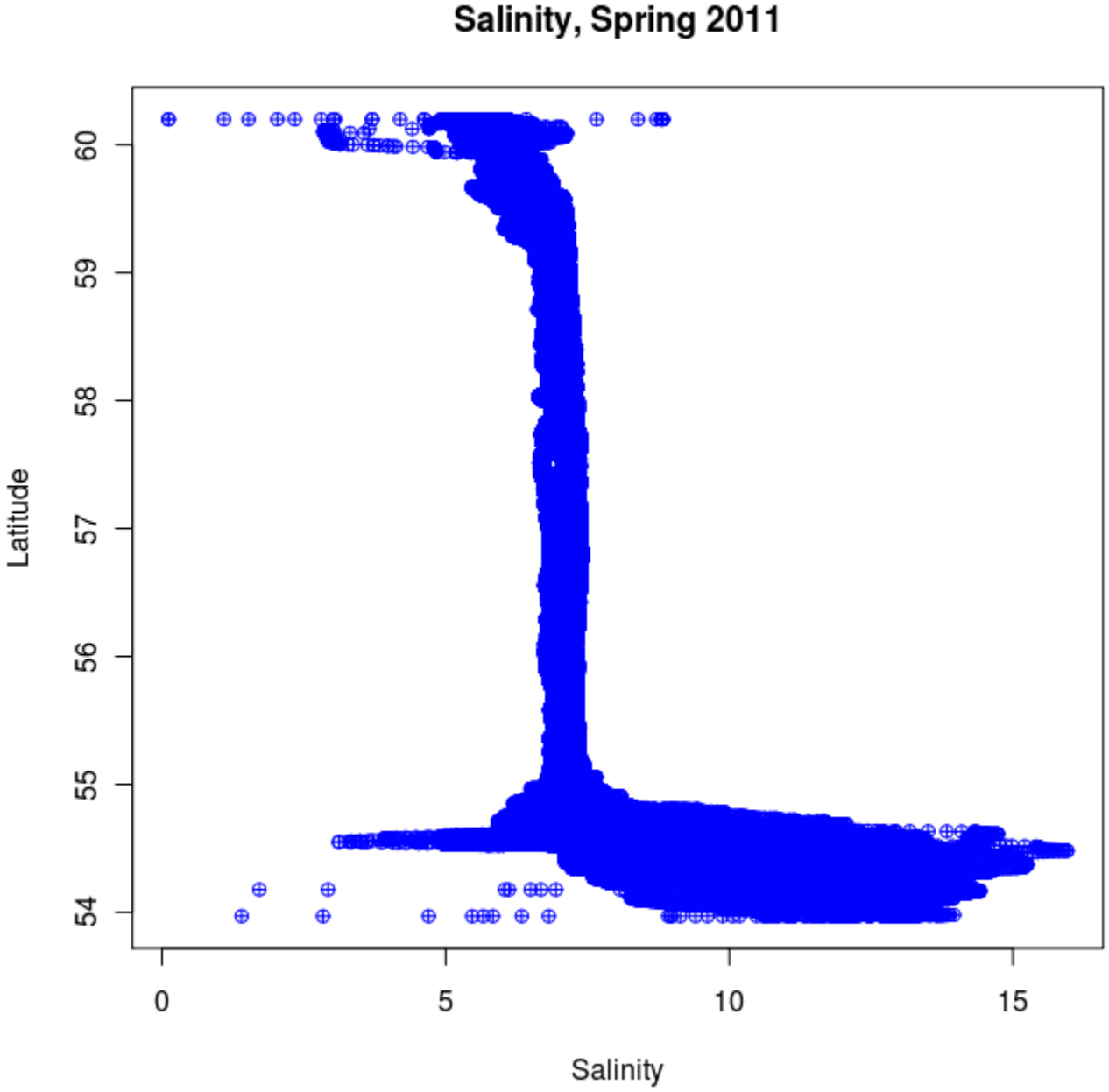
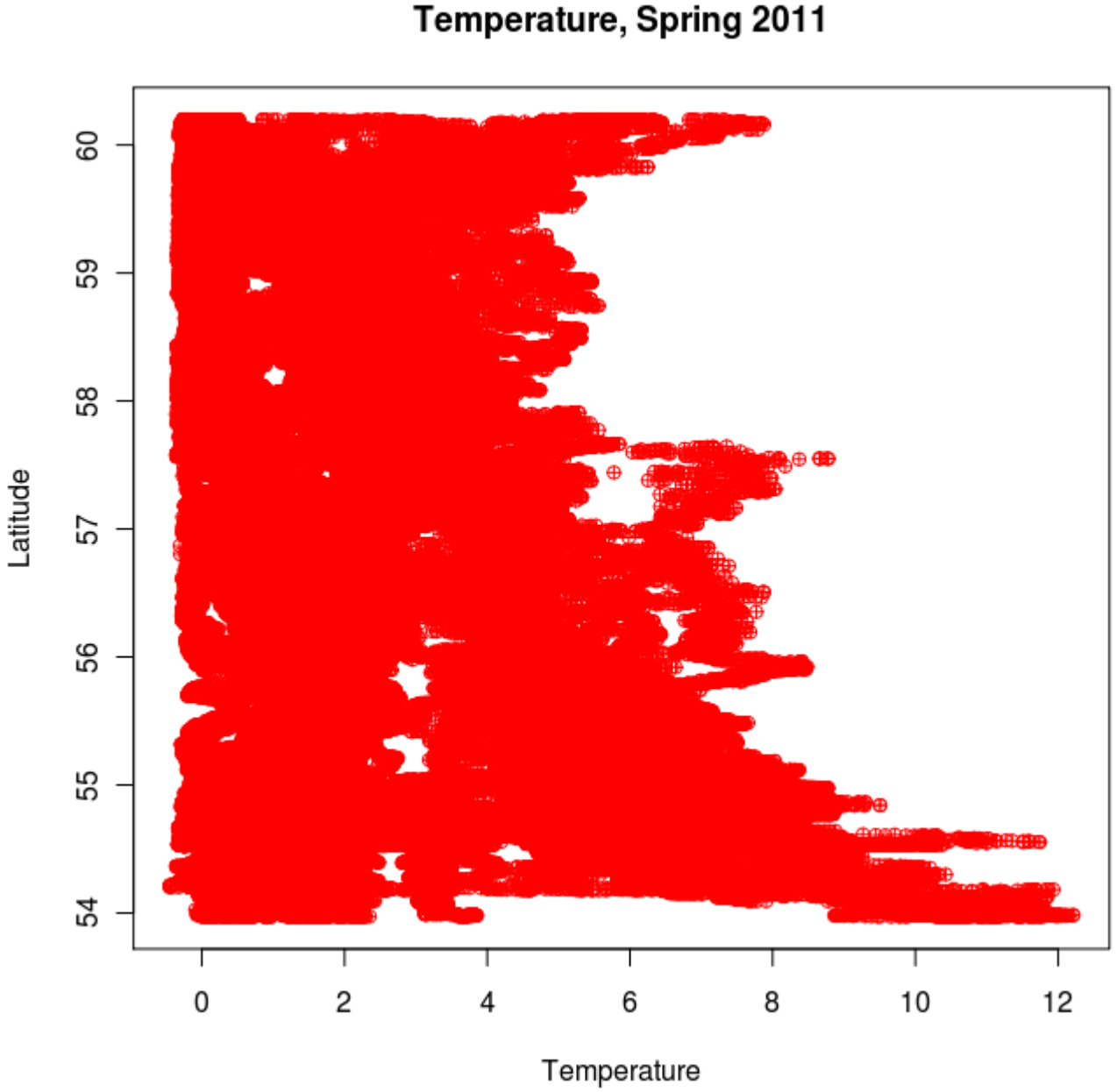
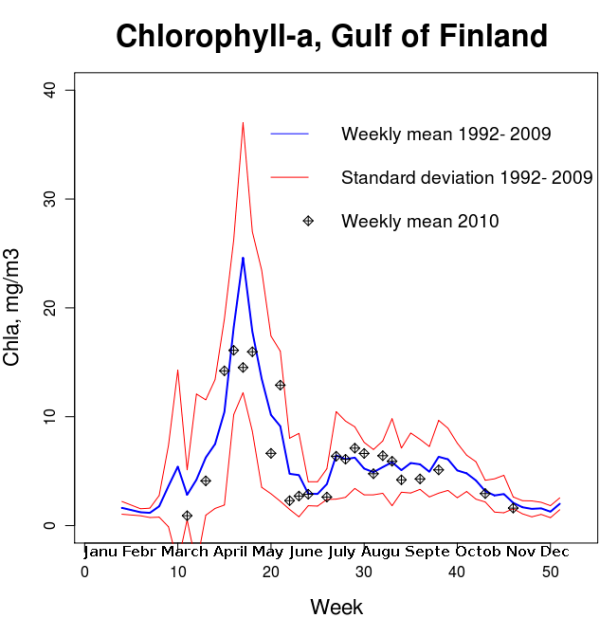
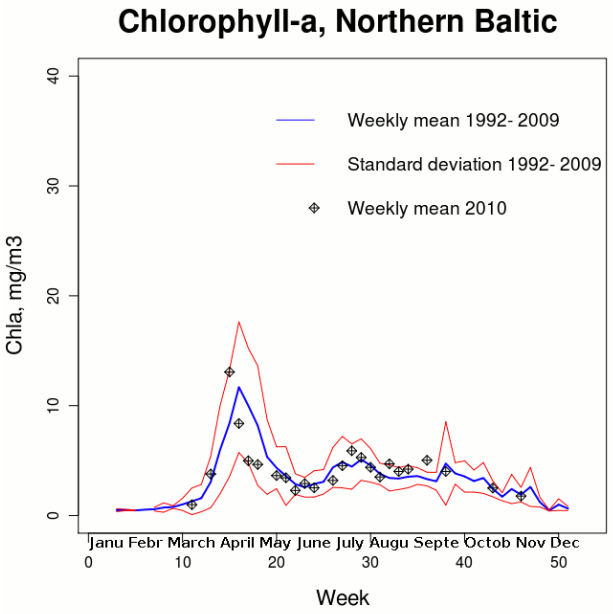
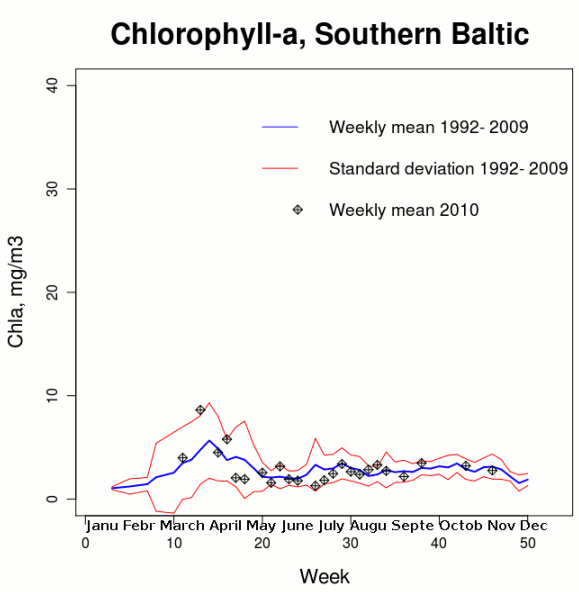

Salinity, Spring 2011
Latitude
60
59
58
57
56
55
54
0
5
10
15
Salinity


Temperature, Spring 2011
Latitude
54
55
56
57
58
59
60
0
2
4
6
8
10
12
Temperature

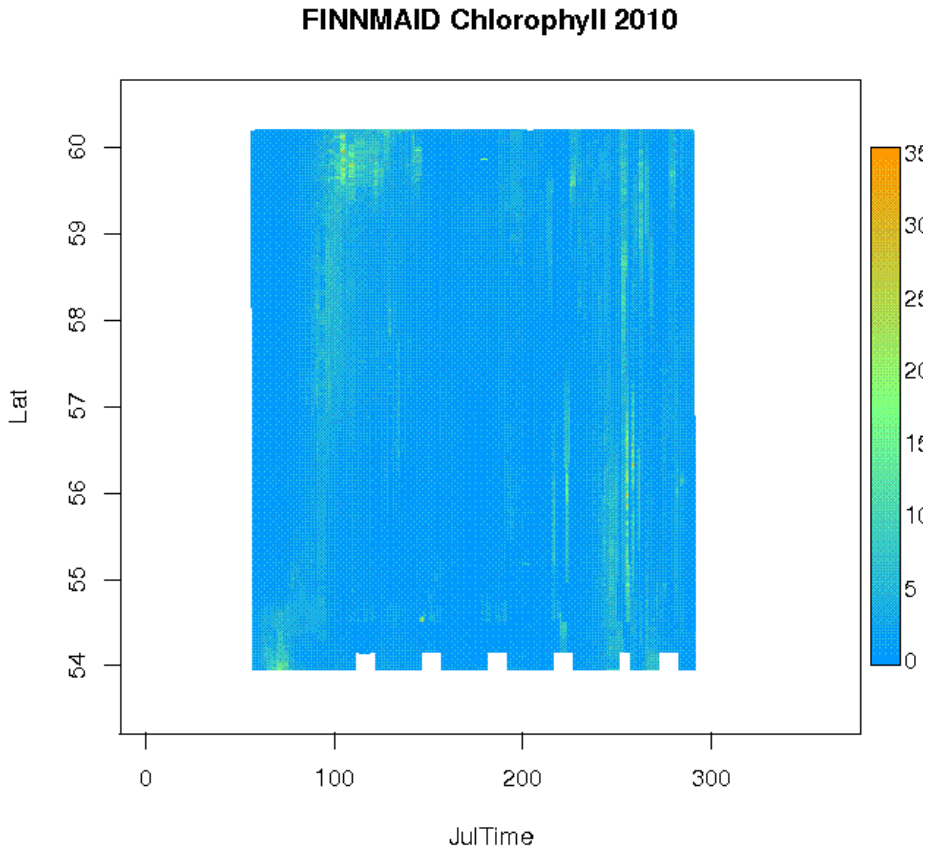
Phytoplankton biomass and species succession in the Gulf of Finland, Northern Baltic Proper and Southern Baltic Sea in 2010, HELCOM Factsheet

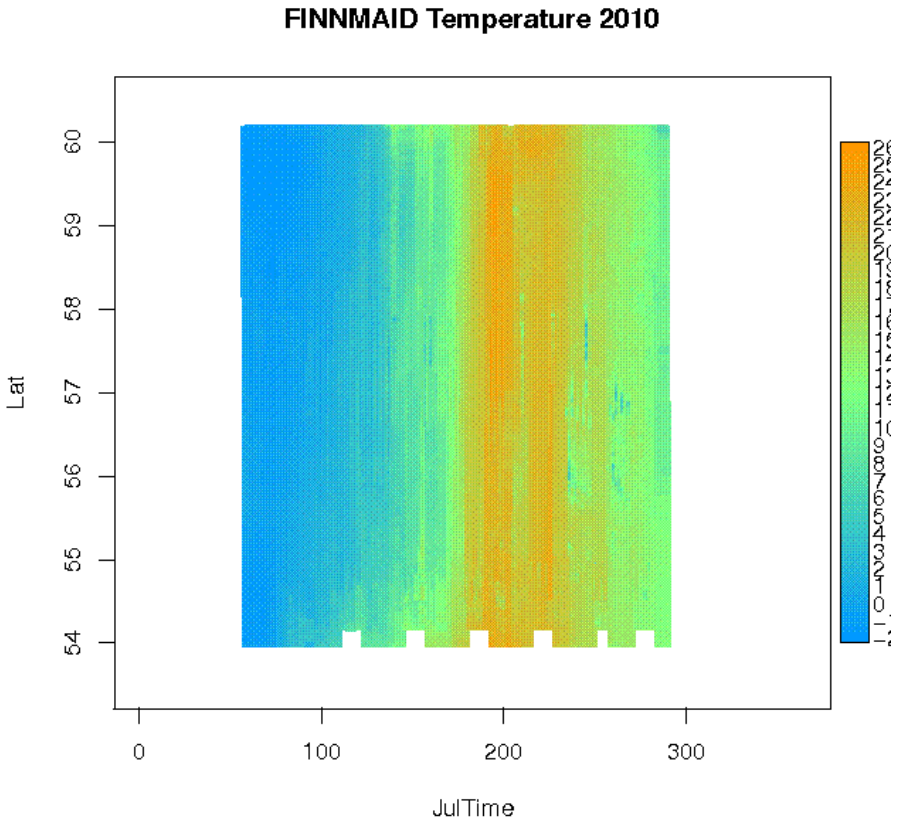


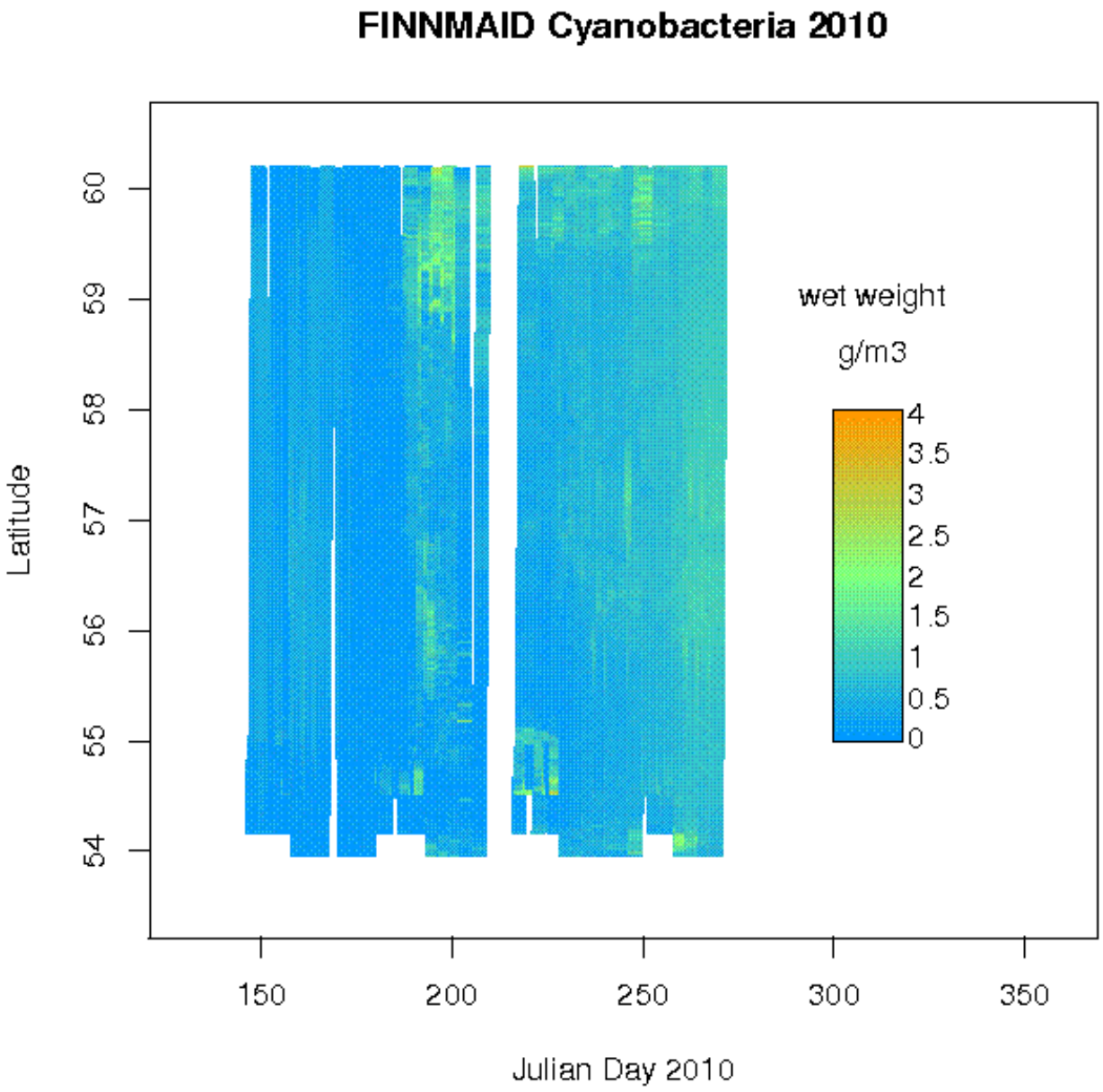




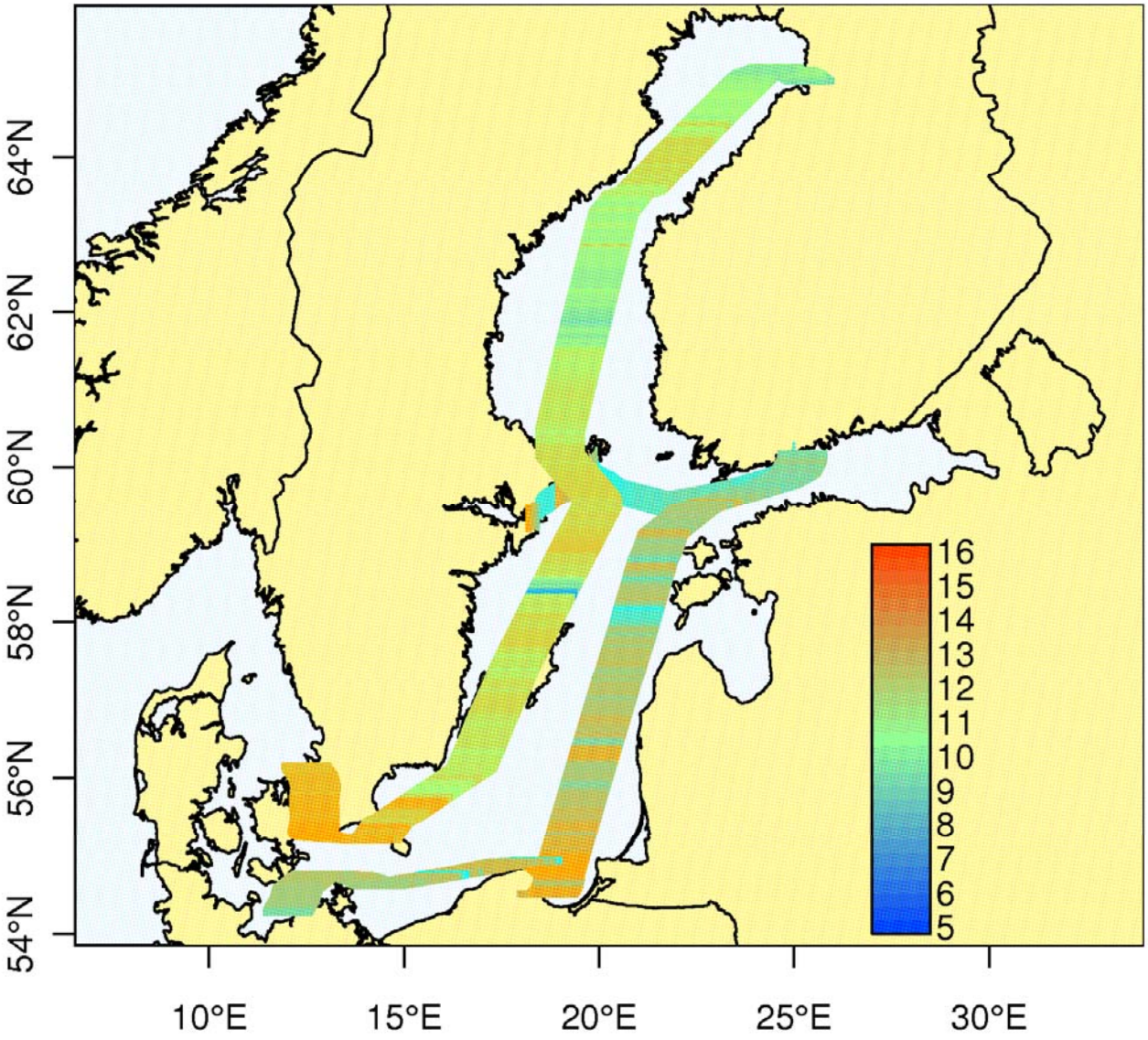
FINNMAID 2010: Extent and quality



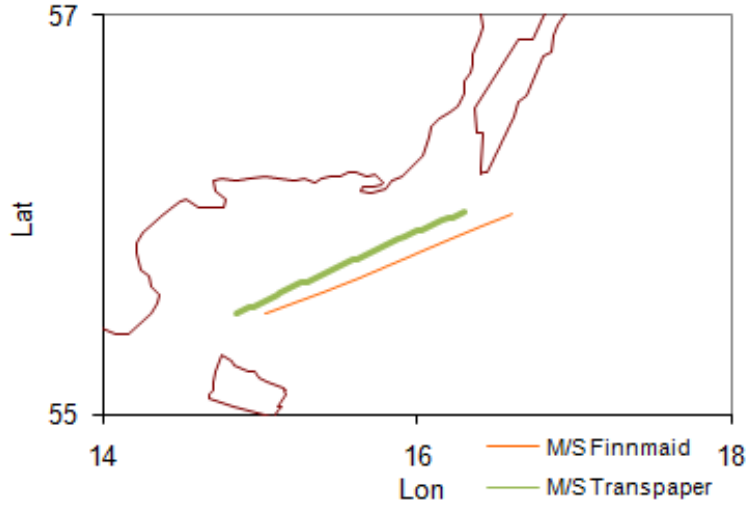


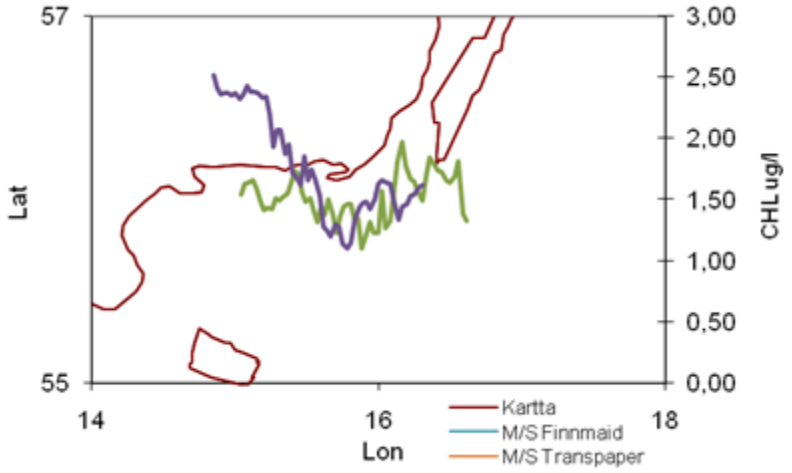

FINNMAID Cyanobacteria 2010
Latitude
54
55
56
57
58
59
60
150
200
250
300
350
Julian Day 2010
wet weight
g/m3
4
3.5
3
2.5
2
1.5
1
0.5
0

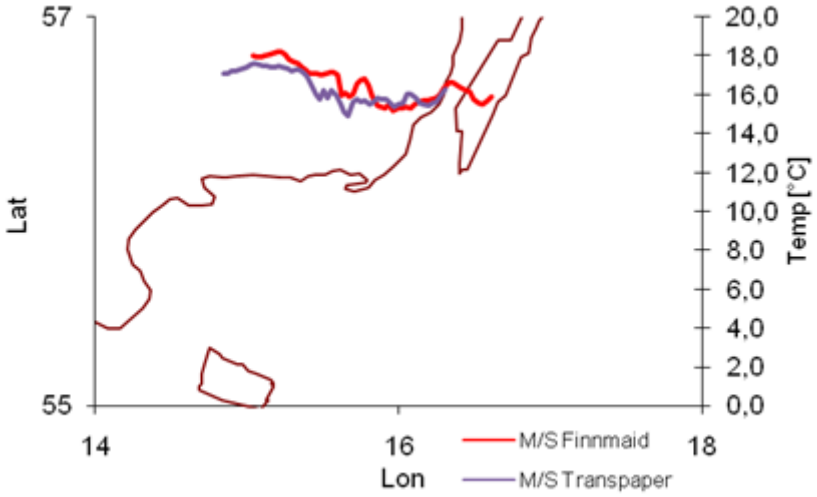
Ferrybox temperature, 5 October 2010

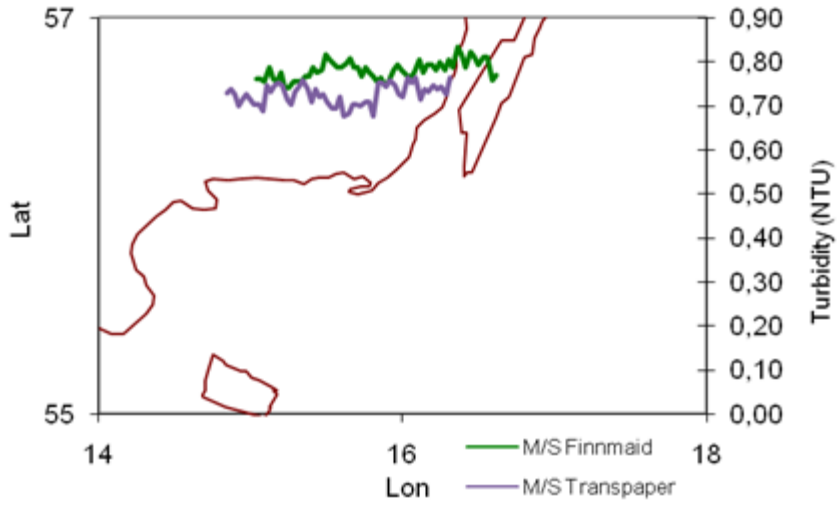


Comparison of TRANSPAPER and FINNMAID on 26.7.2010, time diff 2.5 h









Comparison of TRANSPAPER and FINNMAID on 23.8.2010, time diff 16 h