

EXPEDITIONSRAPPORT FRÅN U/F ARGOS

CRUISE REPORT FROM R/V ARGOS

Expeditionens varaktighet: 980418-980424
Survey period:

Undersökningsområde: The Skagerrak, the Kattegat,
Survey area: the Sound and the Baltic Proper

Uppdragsgivare: SMHI
Principal:

SUMMARY

The expedition was performed within SMHI's regular marine monitoring programme and covered the Skagerrak, the Kattegat, the Sound and the Baltic Proper. Weak winds from the north dominated. The surface water temperatures were normal for the season in the whole area i.e. about 6°C in the Skagerak, 6.5°C in the Kattegat and between 5 and 3°C in the Baltic. Water of high nitrate content (20 µM) was found north of Jylland (station HS5) In the Kattegat both inorganic nitrogen and the phosphate concentrations were low in the surface water. The spring bloom in the Baltic had started. The oxygen concentrations in the Baltic were below 2 ml/l from about 80 m depth in the Gotland Basin and about 70 m in the Bornholm Basin. No hydrogen sulphide was detected in the Baltic Sea. A full algal report No 7, 1998 is available on <http://www.smhi.se/sgn0102/nodc/index.htm>

PRELIMINÄRA RESULTAT

Expeditionen som ingick i SMHIs ordinarie havsövervakningsprogram startade i Göteborg den 18/4 och avslutades på samma plats den 24/4.

Ett högtryck som varade under hela expeditionen gav svaga vindar omkring nord.

En detaljerad algrappport nr 7, 1998 finns på

<http://www.smhi.se/sgn0102/nodc/index.htm>.

Skagerrak

Temperaturen i ytvattnet var knappt 6°C. Ett 7 m tjock ytlager med nitrathalter på nästan 20 µM fanns på station HS5 utanför Jyllands norra kust där även växtplanktonproduktion var kraftig.

Närsaltshalterna i övrigt var i stort normala för årstiden.

Kattegatt och Öresund

Ytvattentemperaturen låg mellan 6 och 7°C. En kraftig växtplanktonblomning förekom på station Läsö ränna i nordvästra Kattegatt. På stationerna längs svenska kusten var produktionen måttlig i början av veckan. Då stationerna återbesöktes i slutet av expeditionen hade en kraftig planktonproduktion börjat i ett tunt skikt alldeles under språngskiktet vilket låg på c:a 10 meters djup. Ytlagret var så gott som tömt på både nitrat och fosfat.

Syrgashalterna i bottenvattnet var för årstiden normala. Lägst syrgasmättnad, 60%, uppmättes i bottenvattnet på station W Landskrona, i Öresund.

Östersjön

Ytvattentemperaturen i södra Östersjön var nästan 5°C och avtog till knappt 3 i norr. Vårblomningen pågick i hela området och hade hunnit längst i Arkonabassängen där ytlagret var tömt på nitrat och fosfathalterna hade sjunkit till c:a 0,2µM

Syrgasmättnaden i Arkonabassängen understeg ej 50%. Syrgashalter under 2 ml/l uppmättes från c:a 80 m och djupare i

Gotlandsbassängen samt från c:a 70 m i Bornholmsbassängen. Inget svavelväte uppmättes i Östersjön.

DELTAGARE

Namn	Från
Bengt Yhlen, expeditjonsledare	SMHI Oceanografiska lab.
Tuulikki Jaako	- " -
Mikael Krysell	- " -
Eva Nyberg	- " -
Bo Juhlin	SMHI Norrköping

BILAGOR

- Färdkarta
- Tabell över stationer, antal parametrar och provtagningsdjup
- Karta över syrehalter i bottenvattnet
- Profilplottar för basstationer
- Månadsmedelvärdesplottar för vissa basstationer

SMHI
Ocean lab

***** Hydrographic Ship: 14-Argos
***** series Year: 1998

***** Date: 1998-04-28
Time: 09:16

Ser no	Stat code	P o j	Station-----	Lat-----	Lon-----	Date yyymmdd	Time hhmm	Bott deph	Mld m	Secc deph	Wind di ve	Air temp	Air pres	WCSI elec	C Hrhh	PPCPZT Cil yooa	No de e	T a h	S x	P x	O x	H x	P x	T x	N x	N x	T x	A x	S x	H x	L x	P x	P x	T x	C x			
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0279	SKEX17BAS	Å16		N5816	E1043.5	980418	2145	196			05 7	6.5	1007	9920	x	--x----	12	x	x	-	x	-	x	x	x	x	x	x	-	x	-	-	-	-	-	-	x	
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0293	BPSE11BAS	BCS III-10		N5533.3	E1824	980421	0145	90			32 4	3.7	1017	4990	x	--xx---	12	x	x	x	x	-	x	x	x	x	x	x	-	-	-	-	-	-	-	-	-	
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***** Hydrographic
series

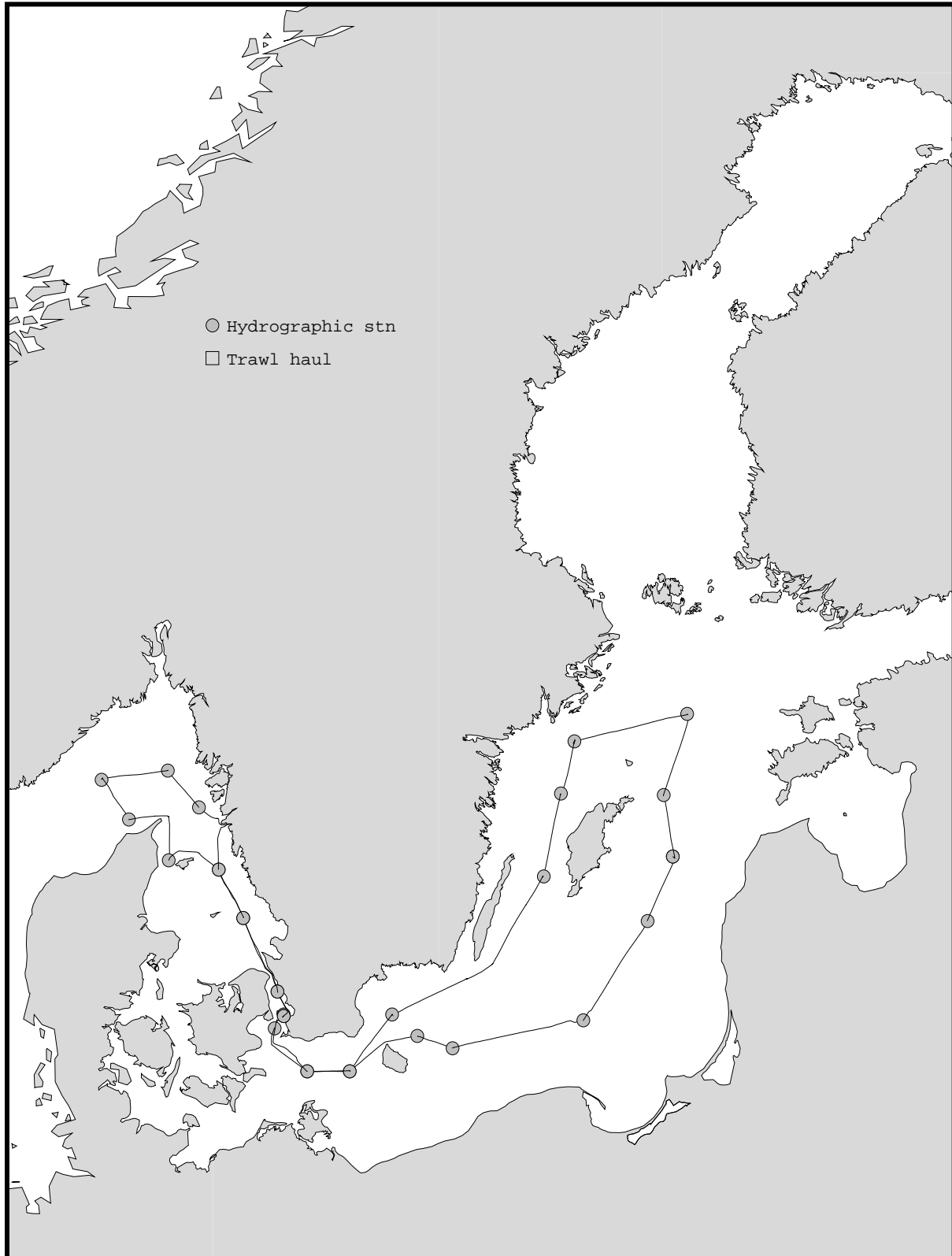
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Year: 1998

Date: 1998-04-28
Time: 09:16

Ser no	Stat code	P r	Station----- o j	Lat-----	Lon-----	Date yyymmdd	Time hhmm utc	Bott m	Mld m	Secc m	Wind dir ve	Air temp C	Air pres hPa	WCSI elec tu	C aoae	PPCPZT Cilyooa motPBw PrP l	No de	T e	S a	P h	O x	H 2	P o	T o	N o	N o	N o	T h	A o	S l	H i	L u	P i	P o	T o	C					
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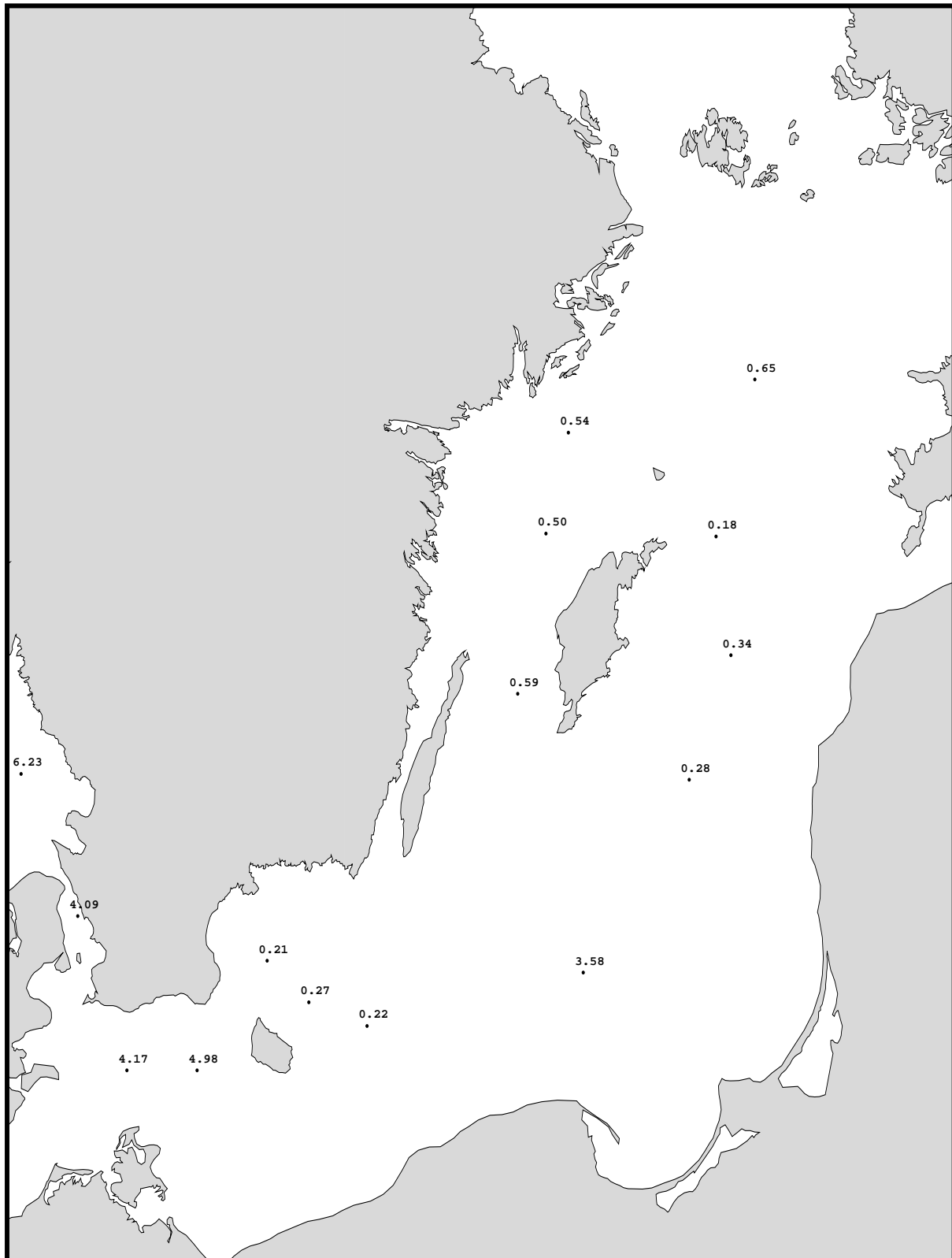
TRACK CHART

Country: Sweden
Ship : Argos
Date : 980418-980424
Series : 0278-0308



Bottom water oxygen concentration (ml/l)

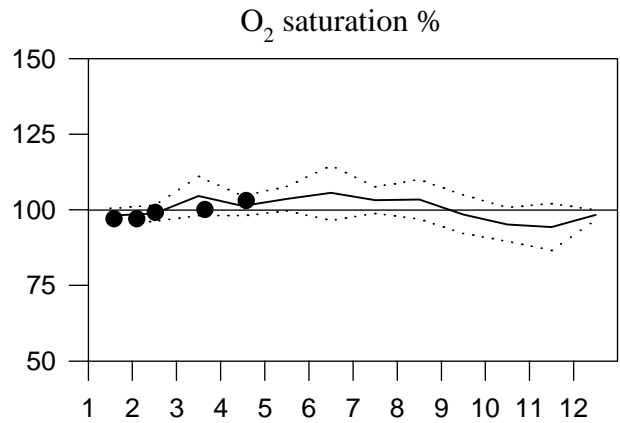
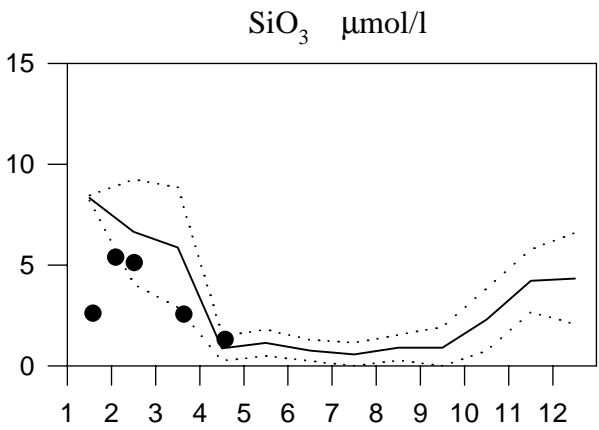
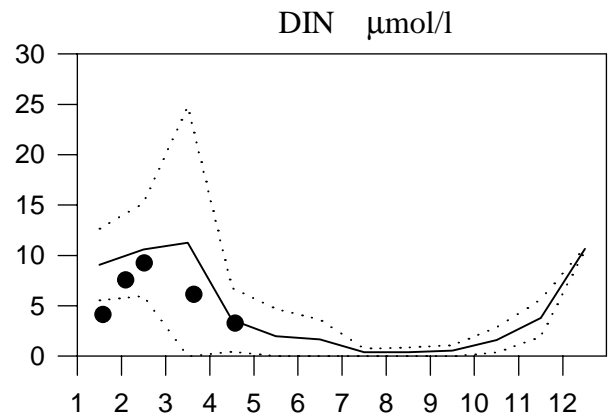
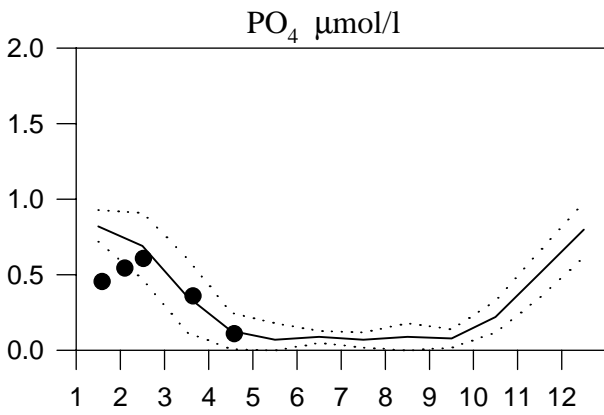
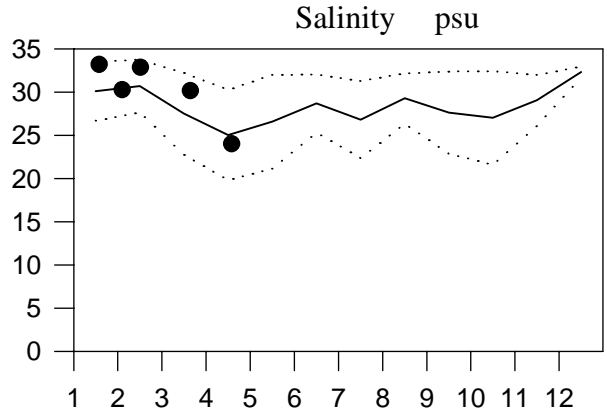
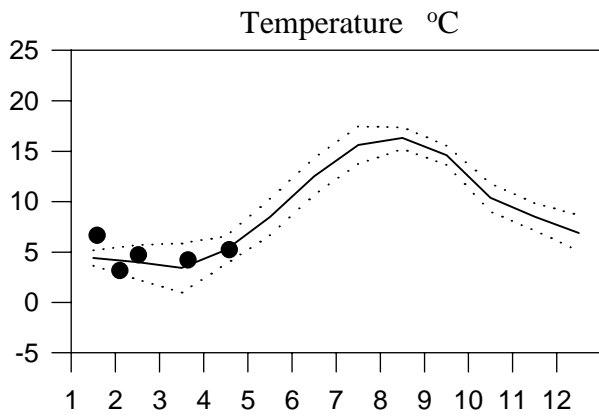
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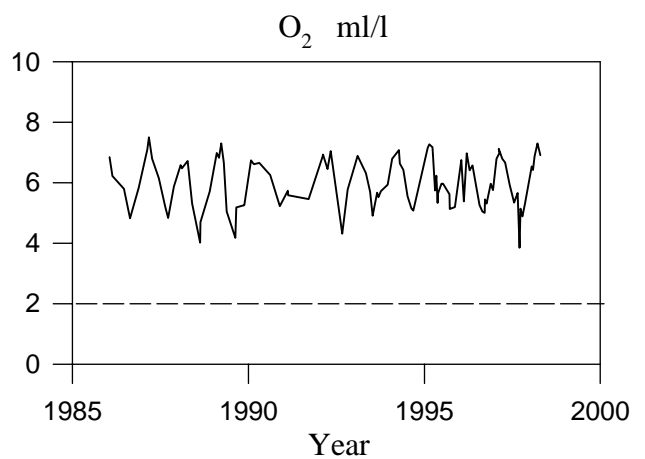
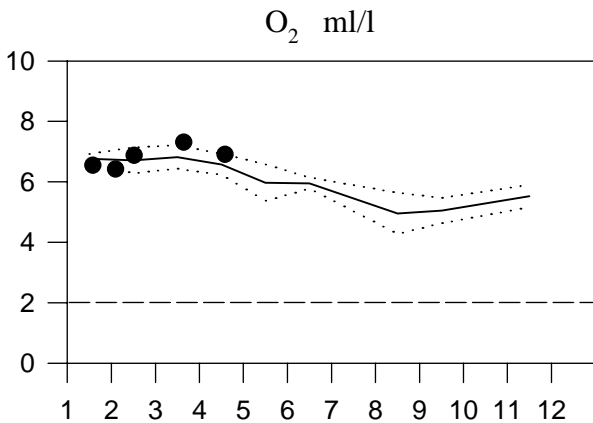
STATION P2 SURFACE WATER (0-15 m)

Annual Cycles

— Mean 1986-1995 St.Dev. ● 1998



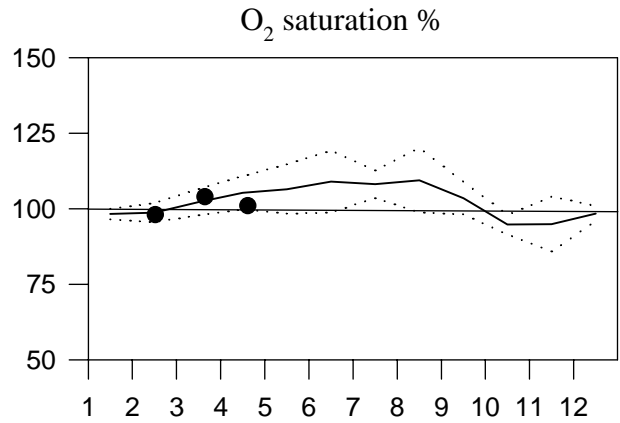
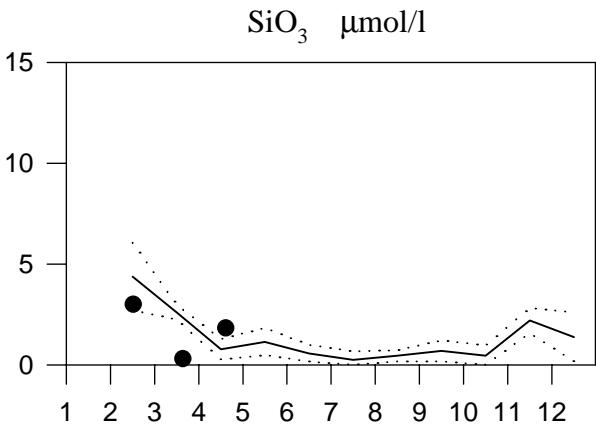
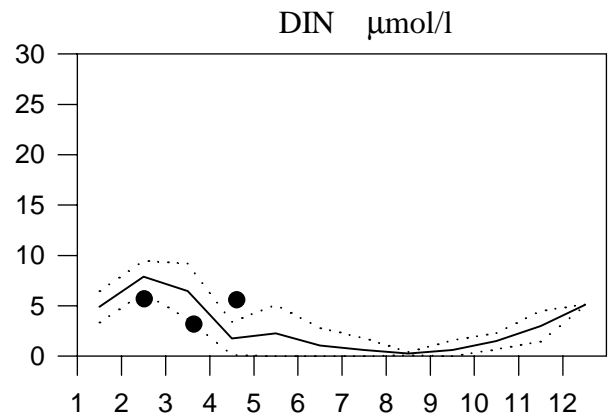
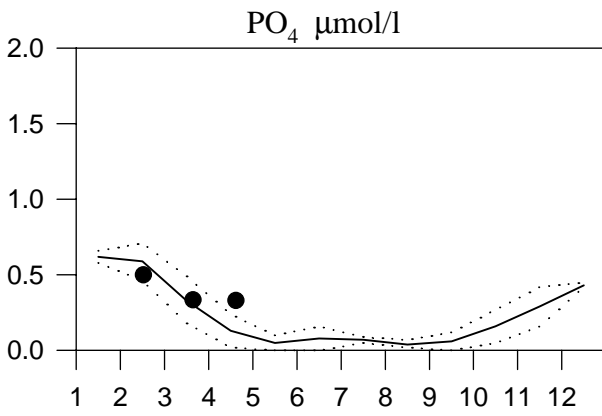
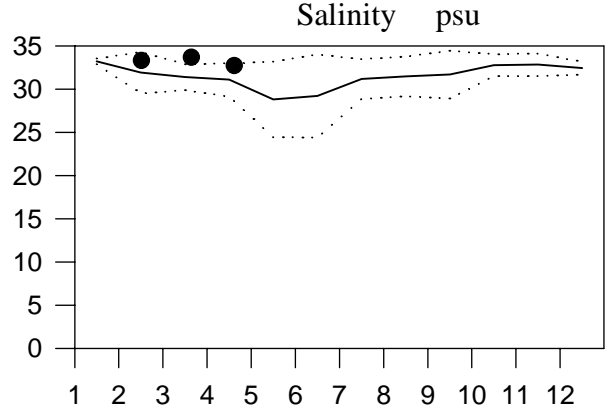
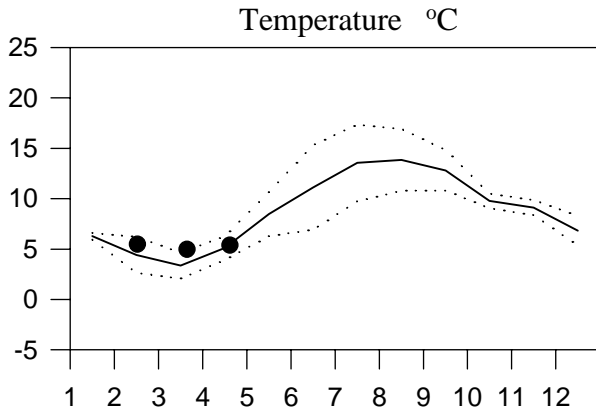
OXYGEN IN BOTTOM WATER



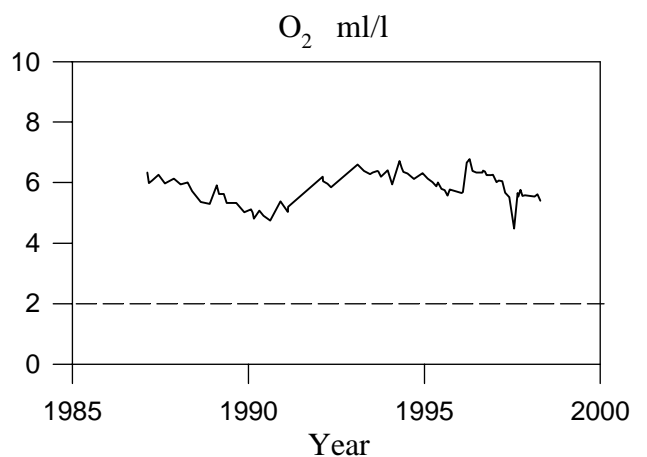
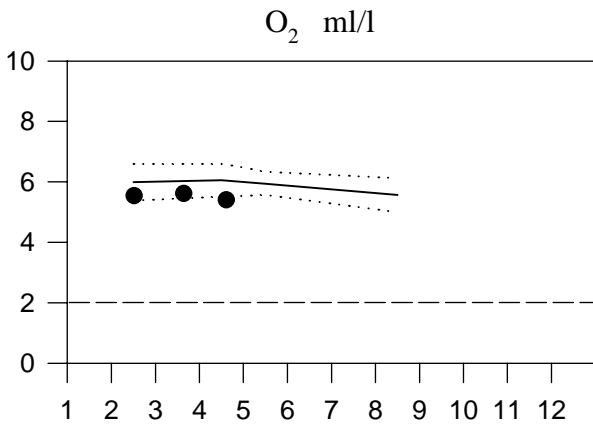
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Annual Cycles

— Mean 1986-1995 ····· St.Dev. ● 1998



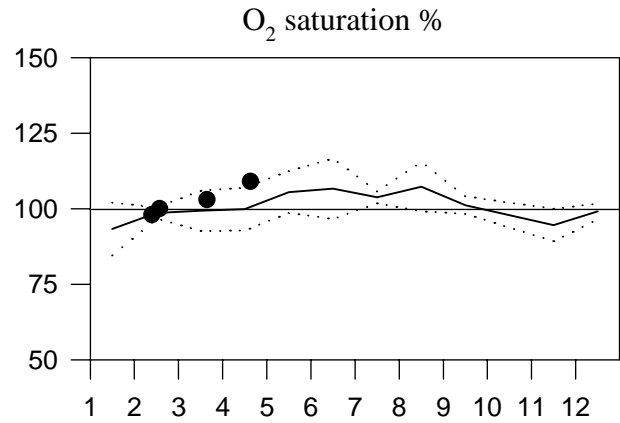
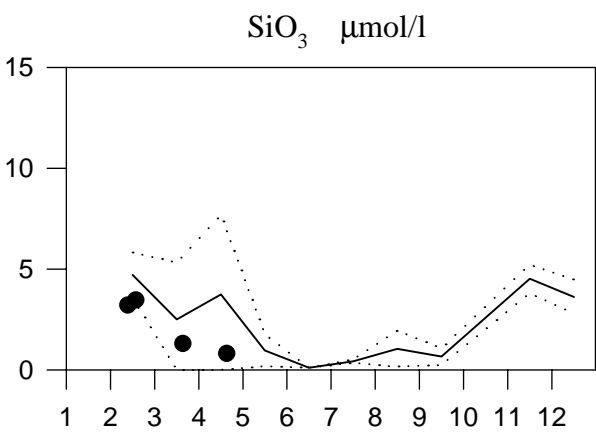
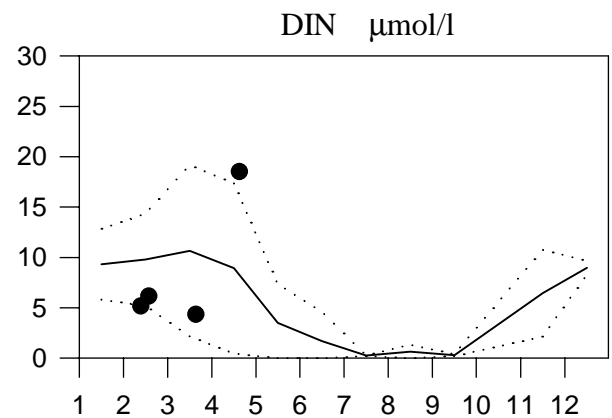
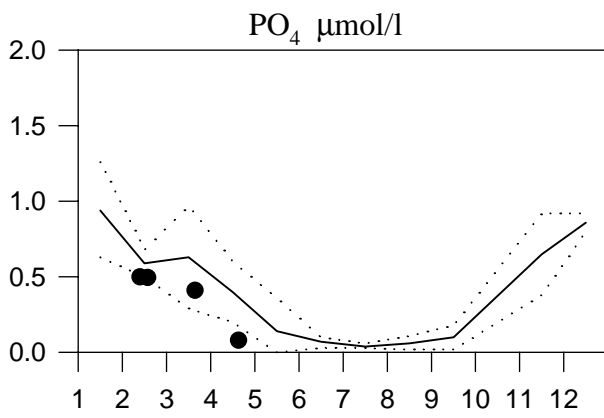
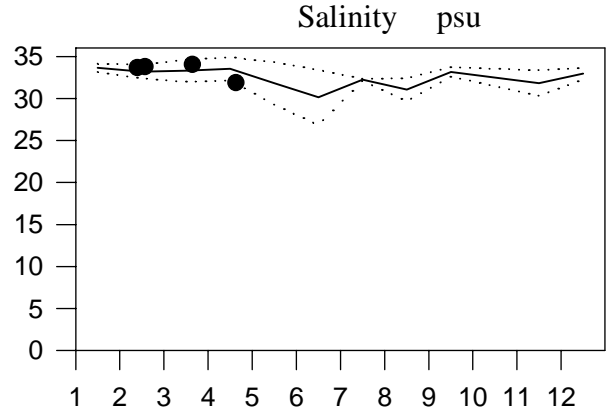
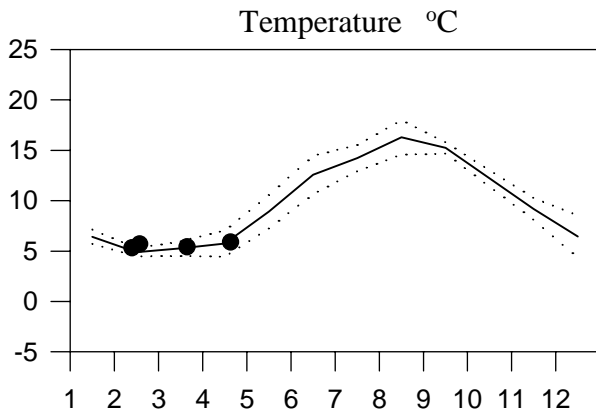
OXYGEN IN BOTTOM WATER



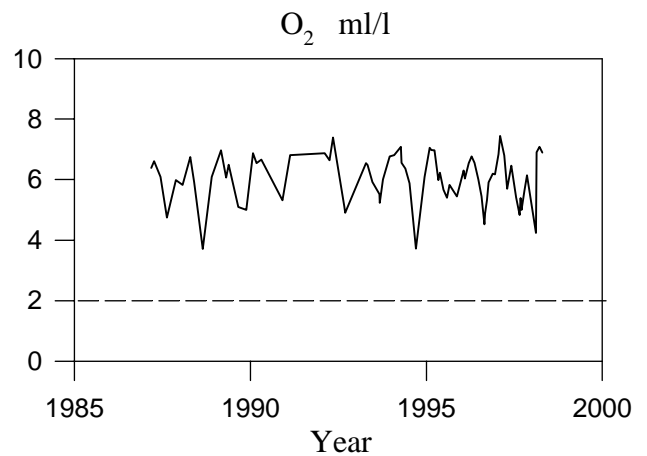
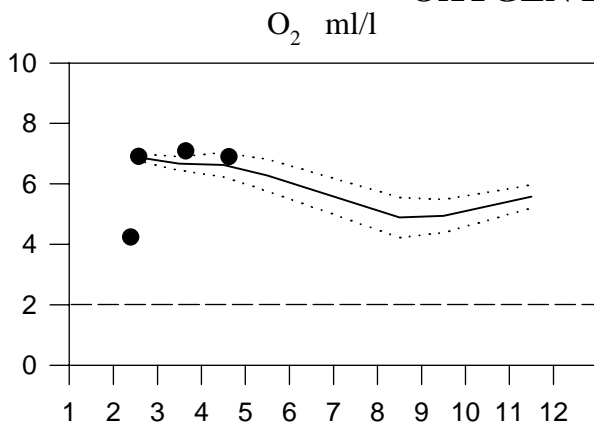
STATION HS5 SURFACE WATER (0-15 m)

Annual Cycles

— Mean 1986-1995 ····· St.Dev. ● 1998



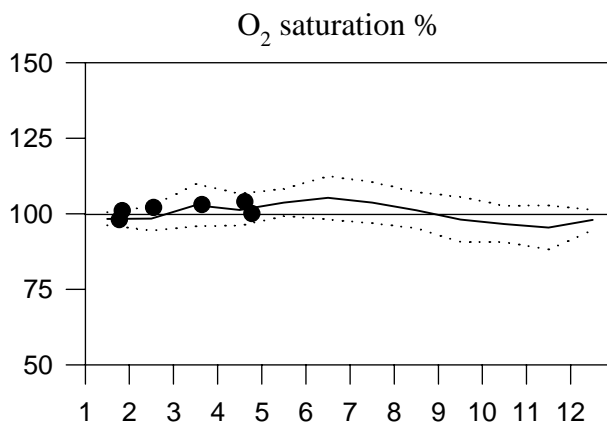
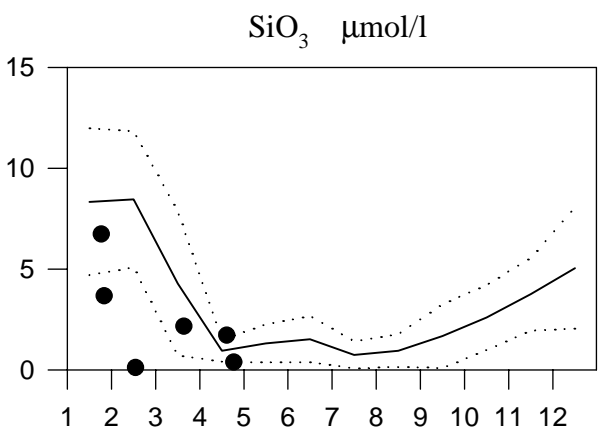
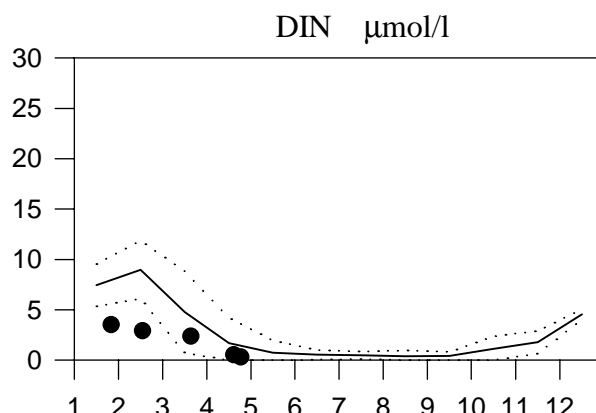
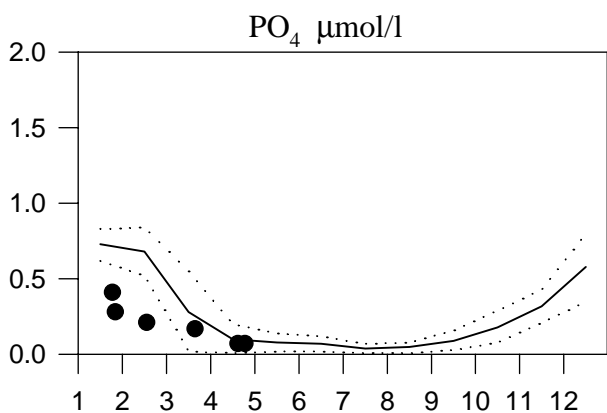
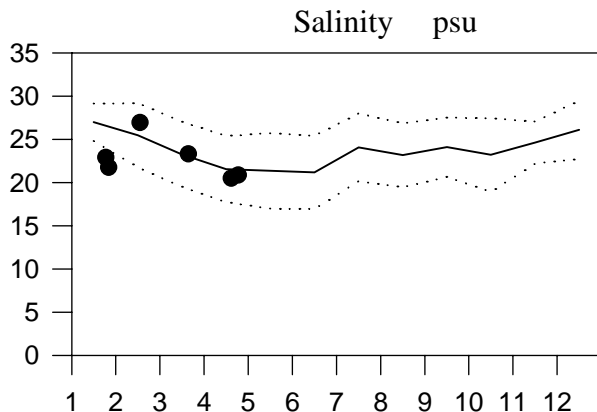
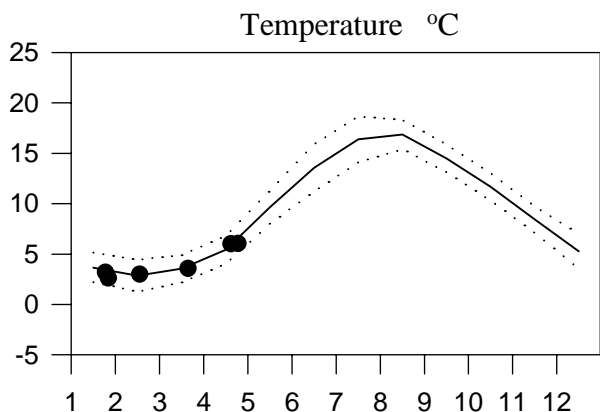
OXYGEN IN BOTTOM WATER



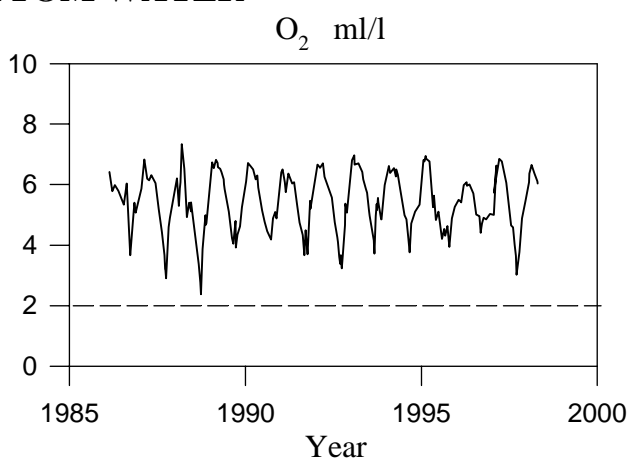
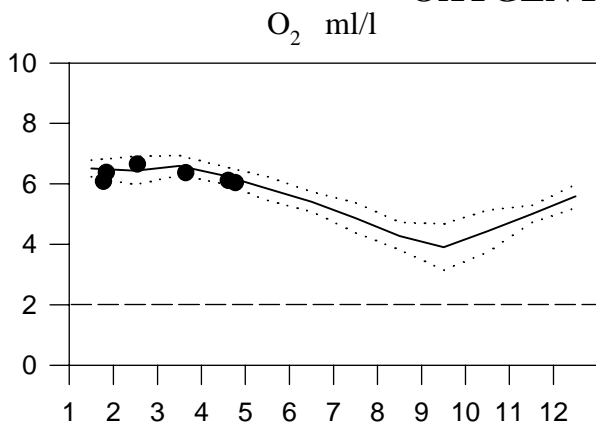
STATION FLADEN SURFACE WATER (0-15 m)

Annual Cycles

— Mean 1986-1995 ····· St.Dev. ● 1998



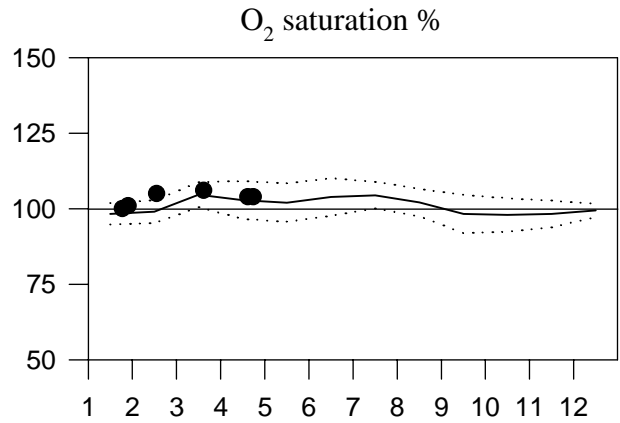
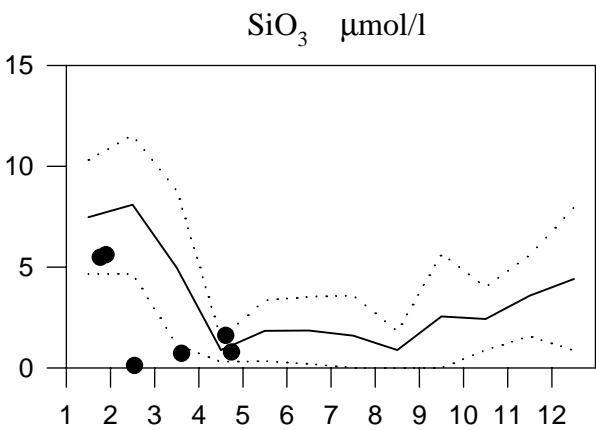
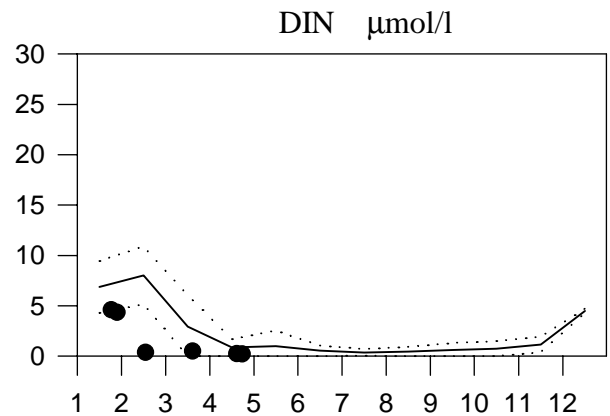
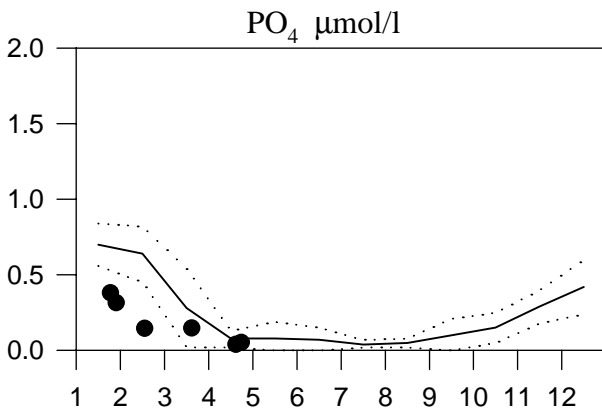
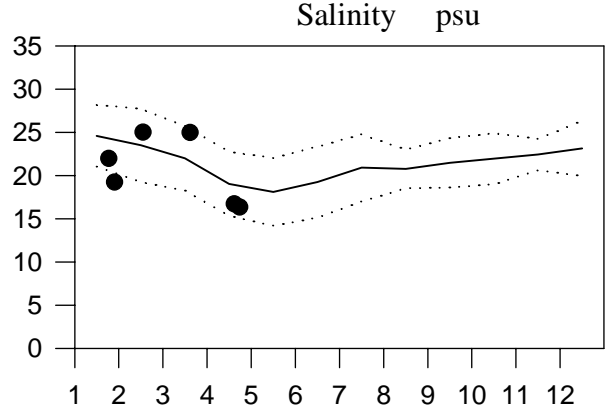
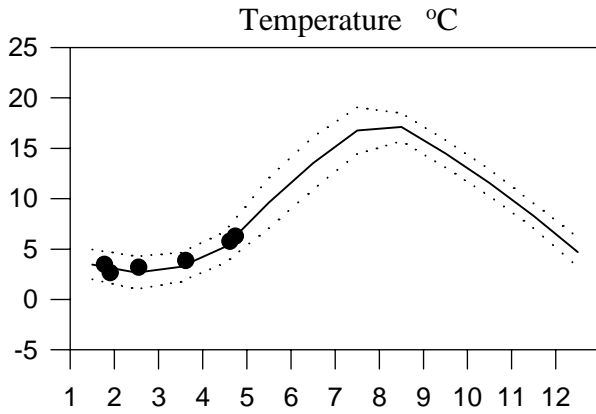
OXYGEN IN BOTTOM WATER



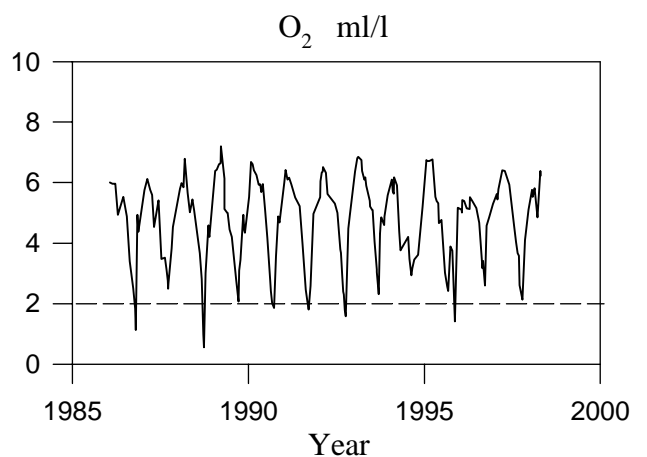
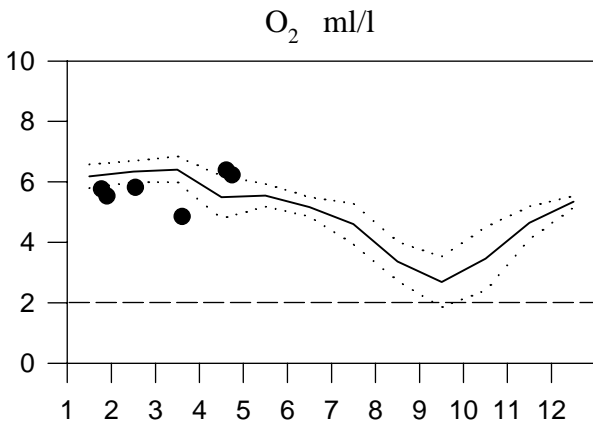
STATION ANHOLT E SURFACE WATER (above halocline)

Annual Cycles

— Mean 1986-1995 ····· St.Dev. ● 1998



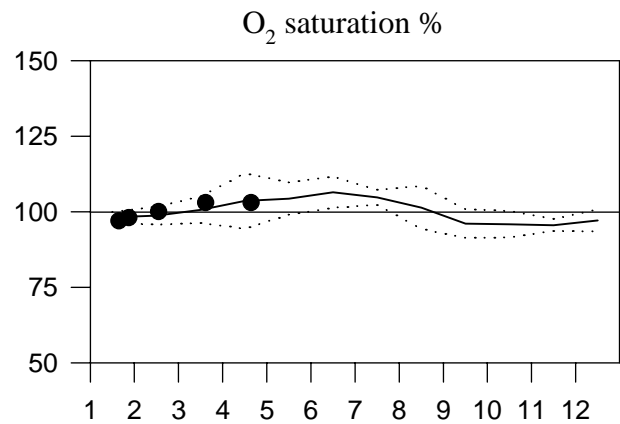
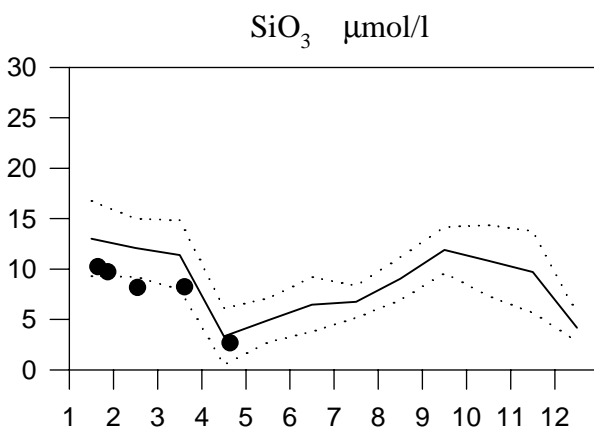
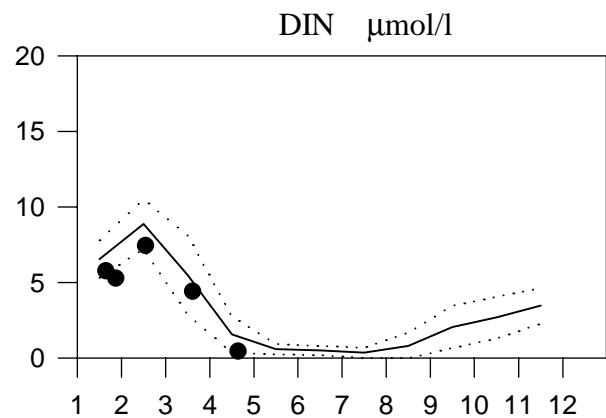
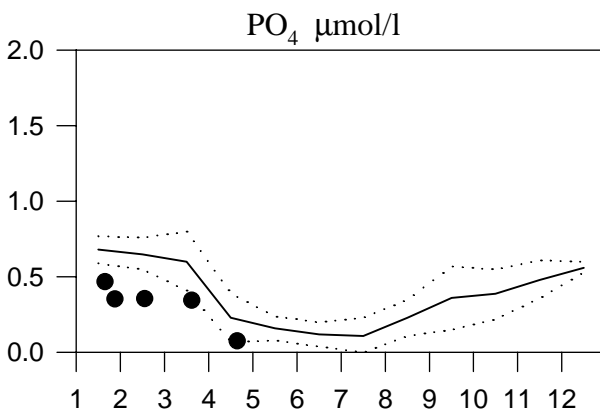
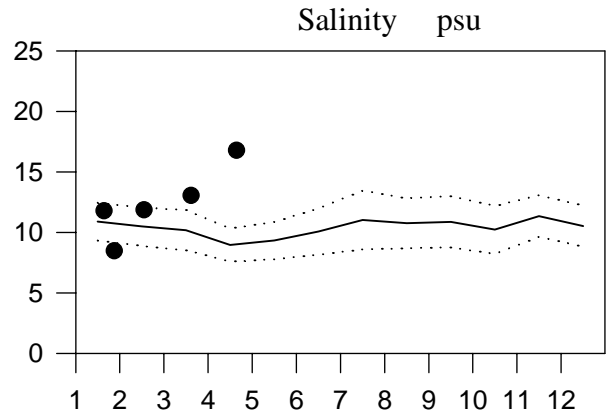
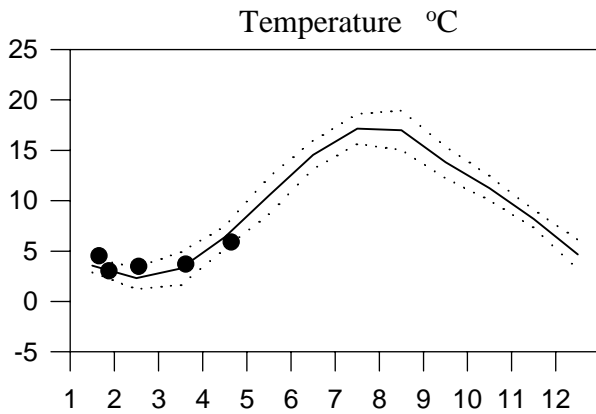
OXYGEN IN BOTTOM WATER



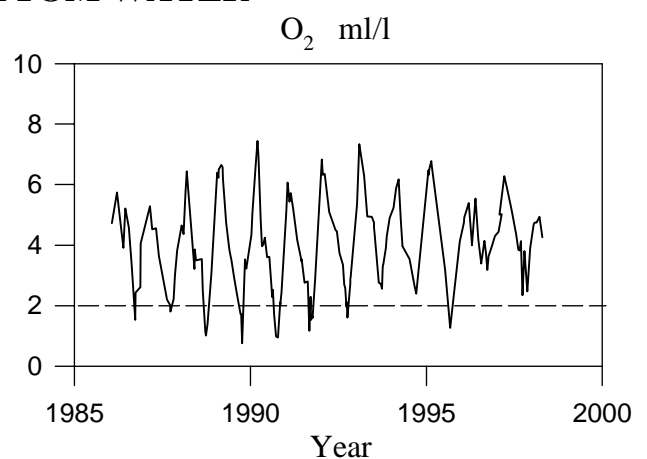
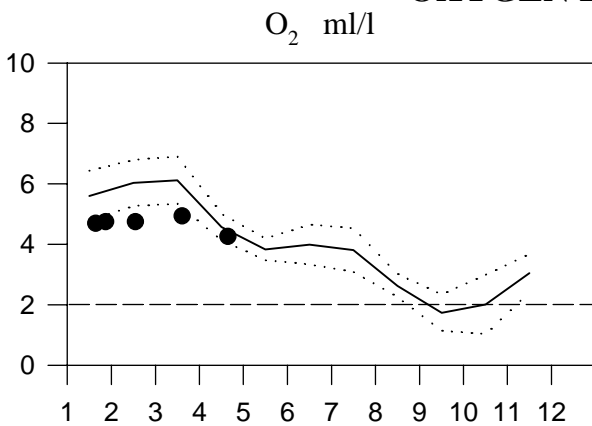
STATION W LANDSKRONA SURFACE WATER (0-15 m)

Annual Cycles

— Mean 1986-1995 ····· St.Dev. ● 1998



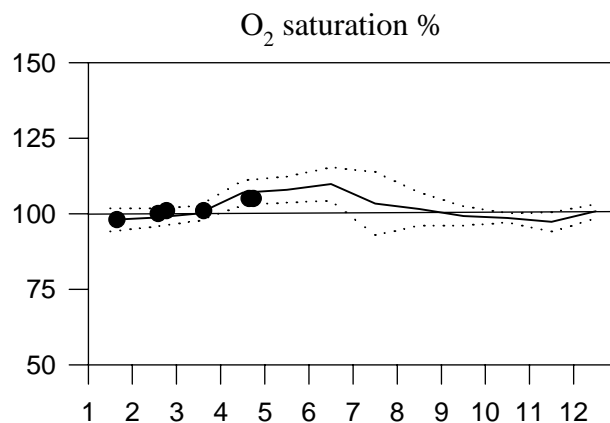
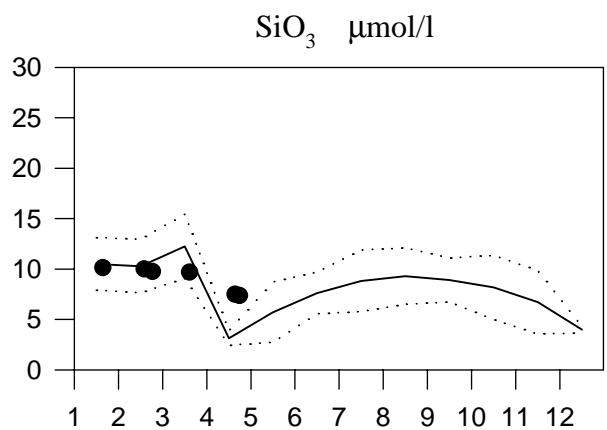
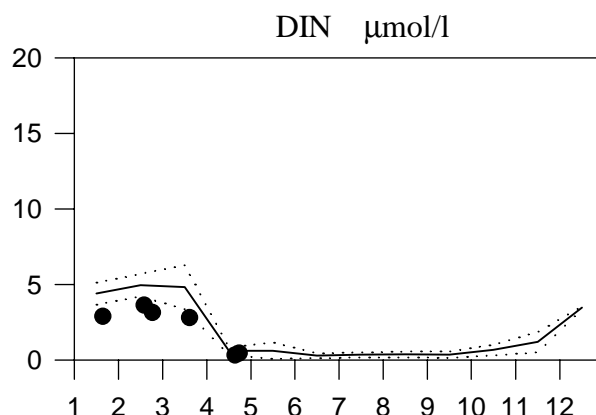
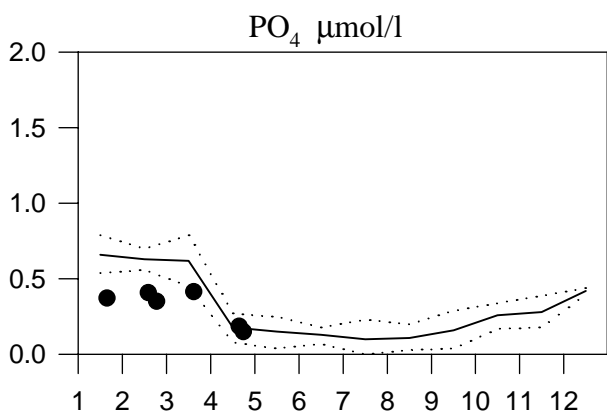
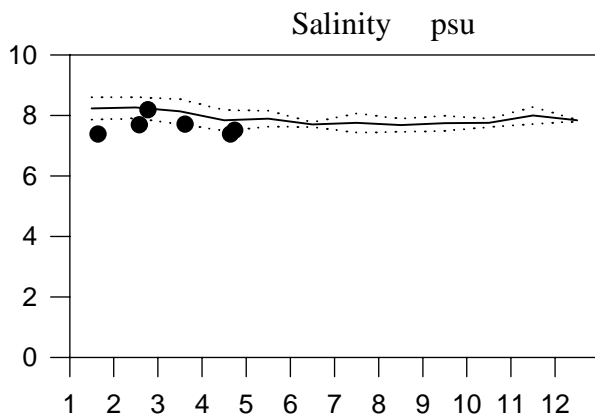
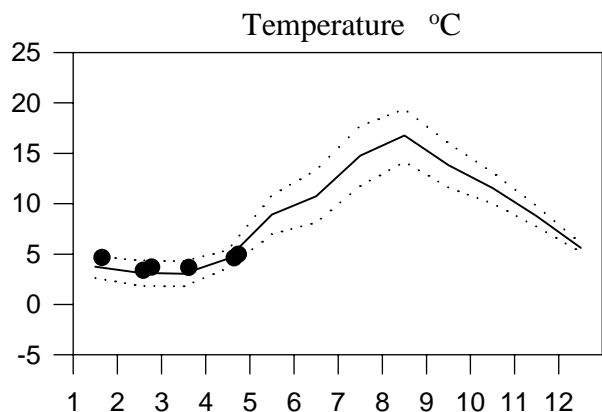
OXYGEN IN BOTTOM WATER



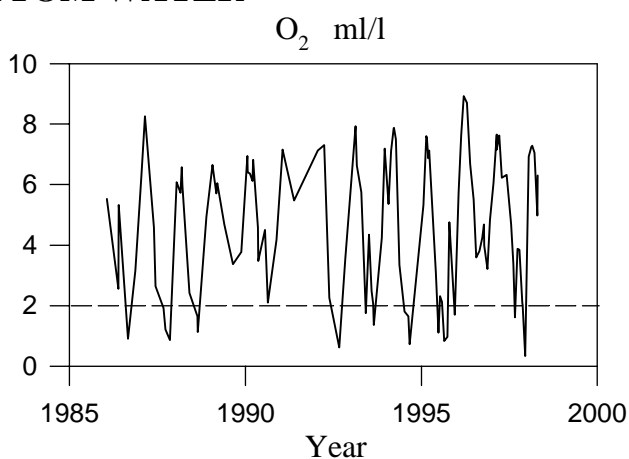
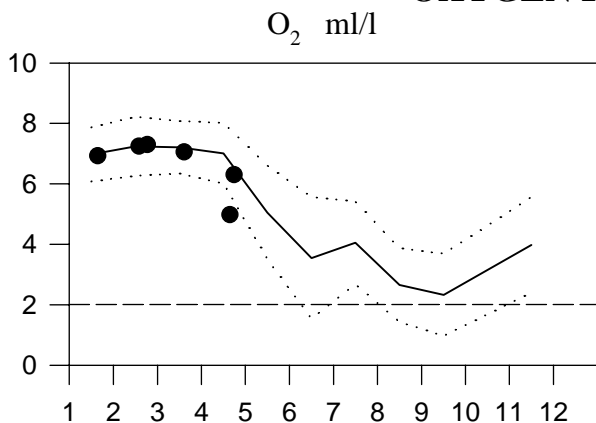
STATION BY2 SURFACE WATER (0-15 m)

Annual Cycles

— Mean 1986-1995 ····· St.Dev. ● 1998



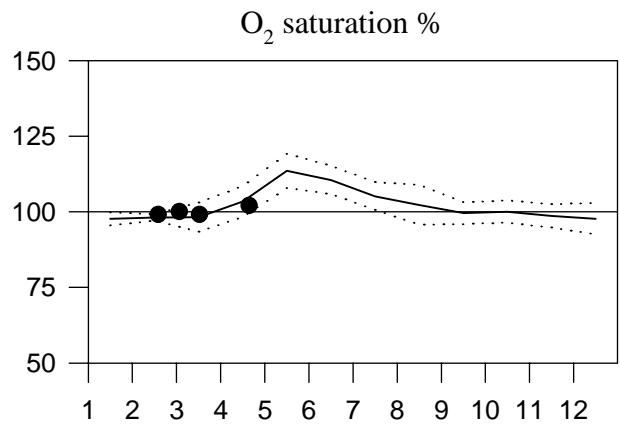
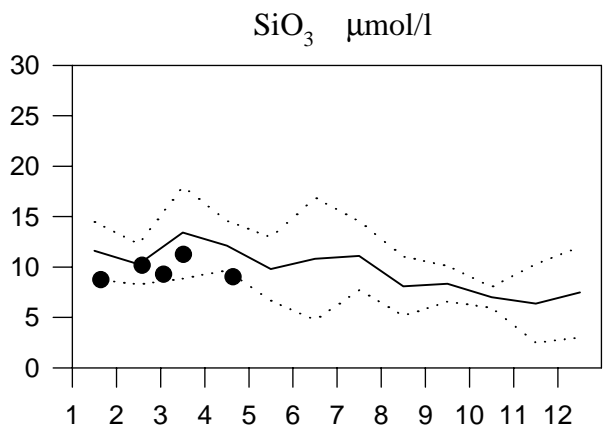
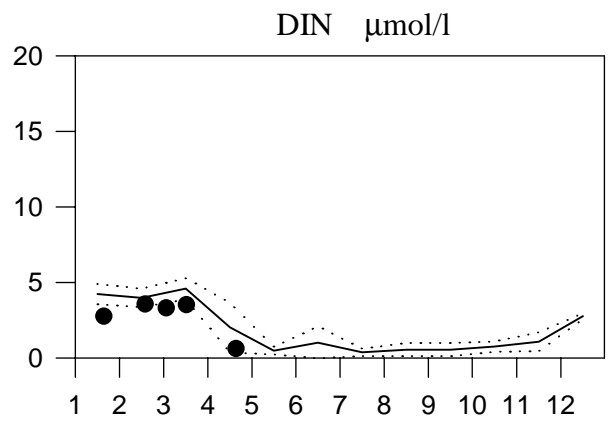
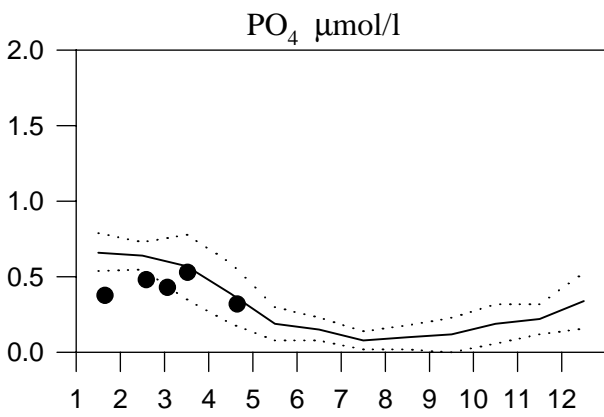
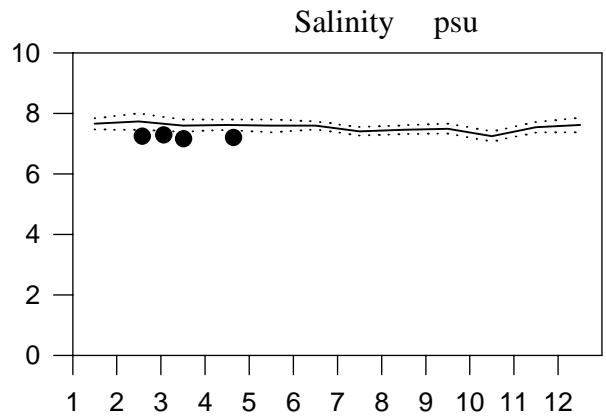
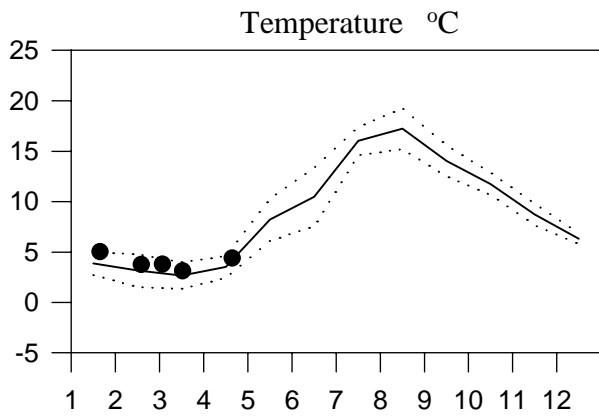
OXYGEN IN BOTTOM WATER



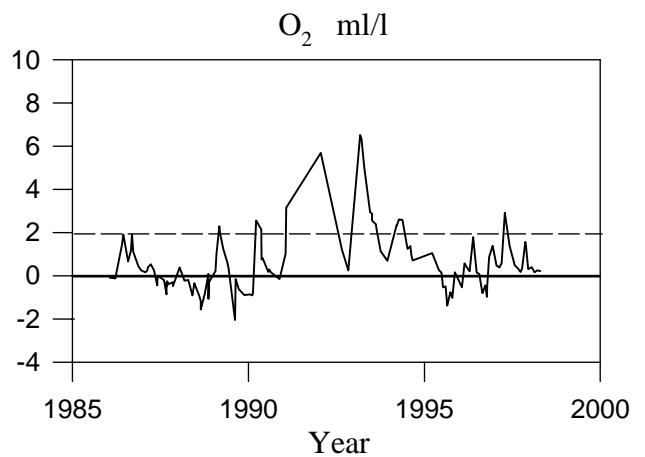
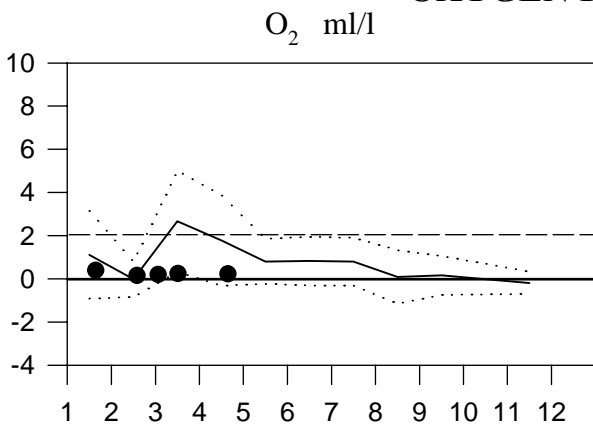
STATION BY5 SURFACE WATER (0-15 m)

Annual Cycles

— Mean 1986-1995 ····· St.Dev. ● 1998



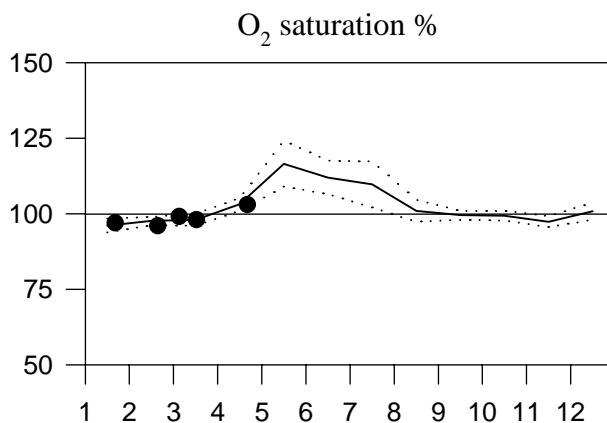
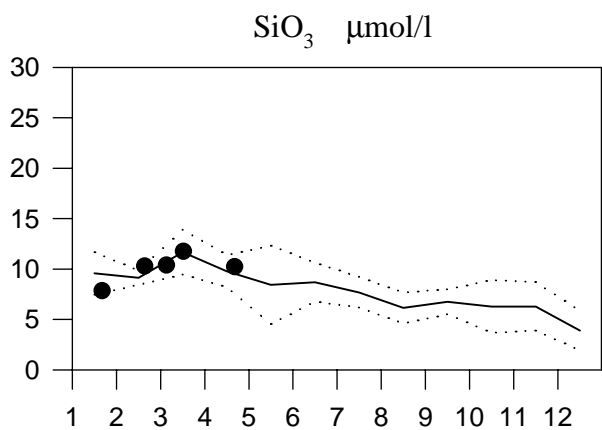
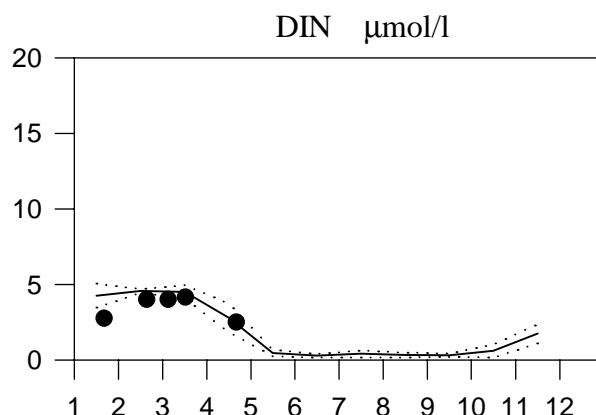
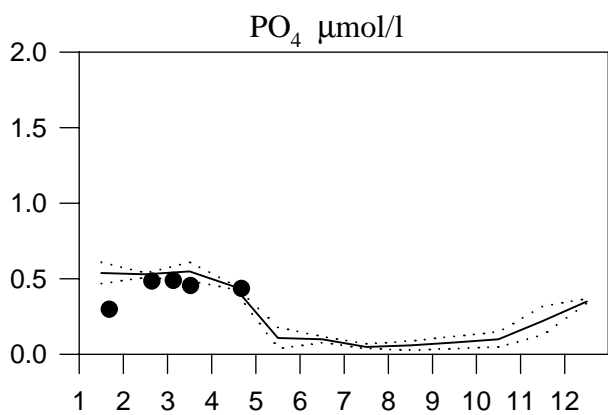
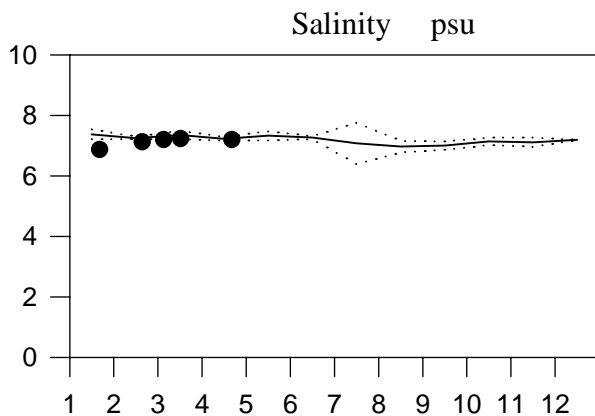
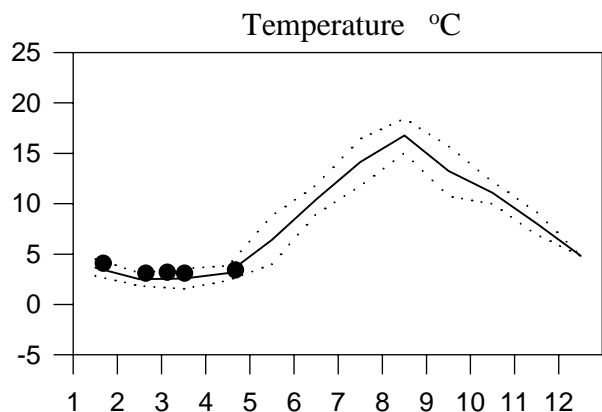
OXYGEN IN BOTTOM WATER



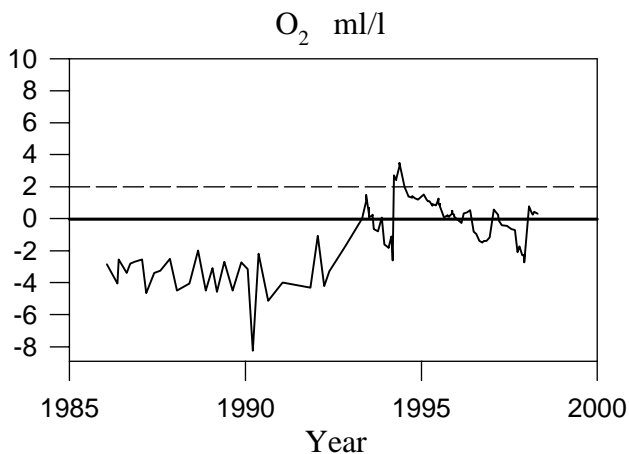
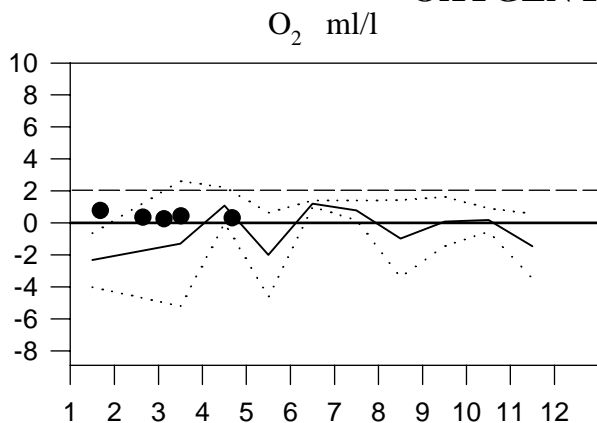
STATION BY15 SURFACE WATER (0-15 m)

Annual Cycles

— Mean 1986-1995 ····· St.Dev. ● 1998



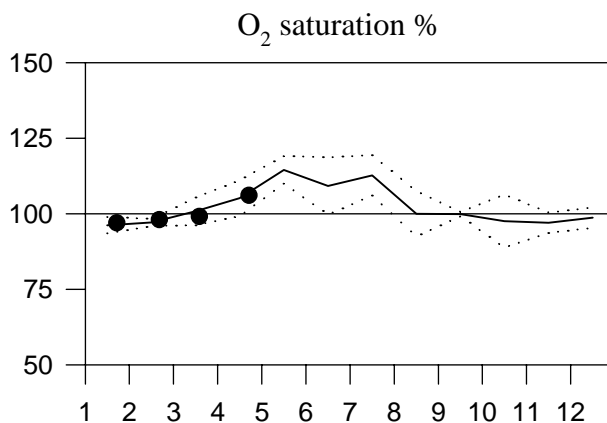
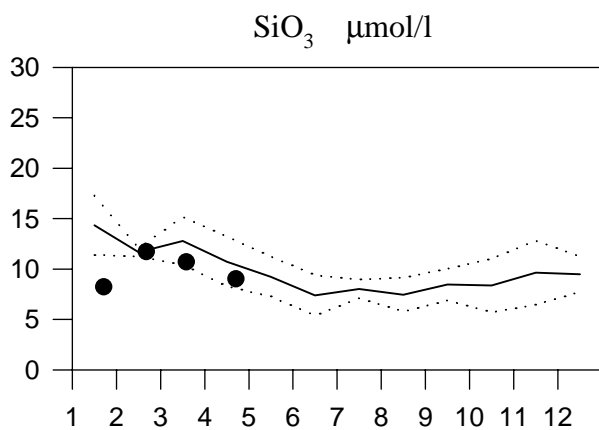
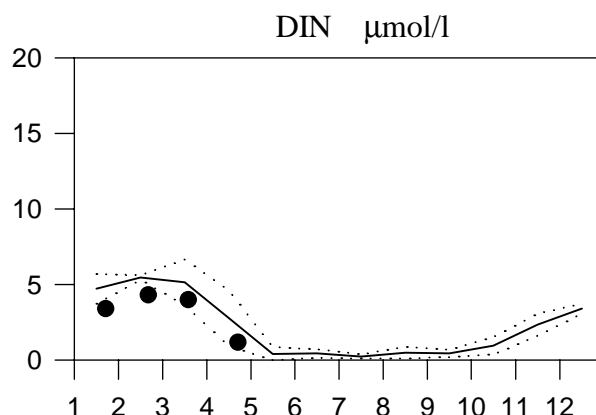
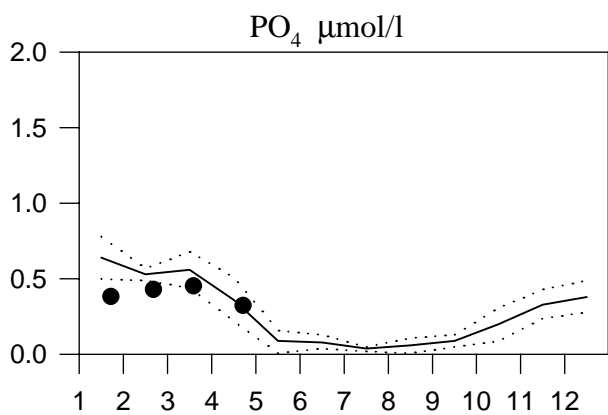
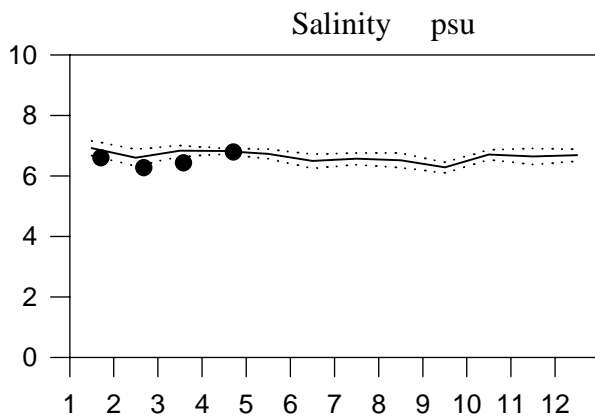
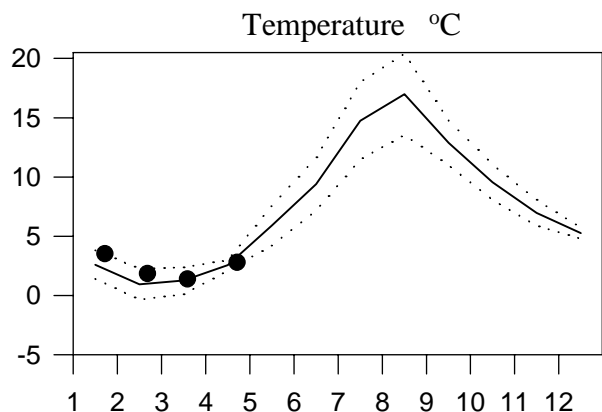
OXYGEN IN BOTTOM WATER



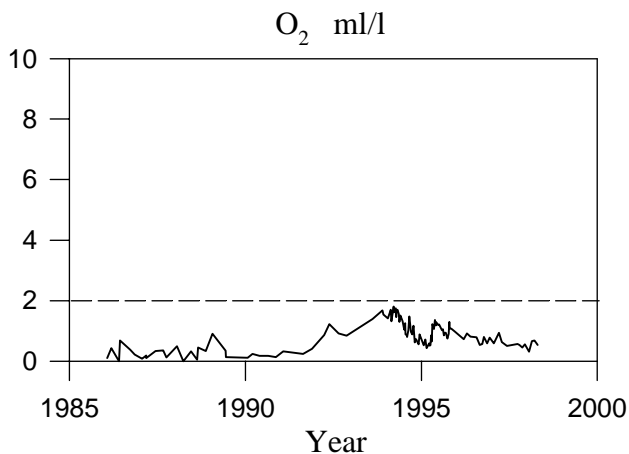
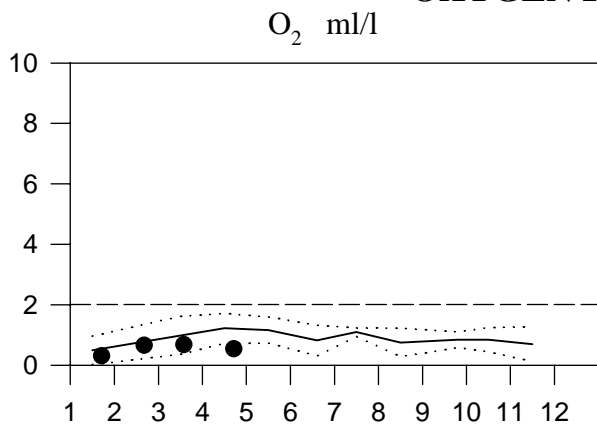
STATION BY31 SURFACE WATER (0-15 m)

Annual Cycles

— Mean 1986-1995 ····· St.Dev. ● 1998



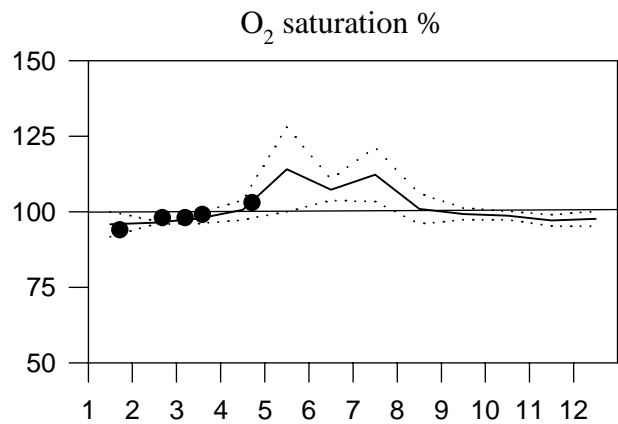
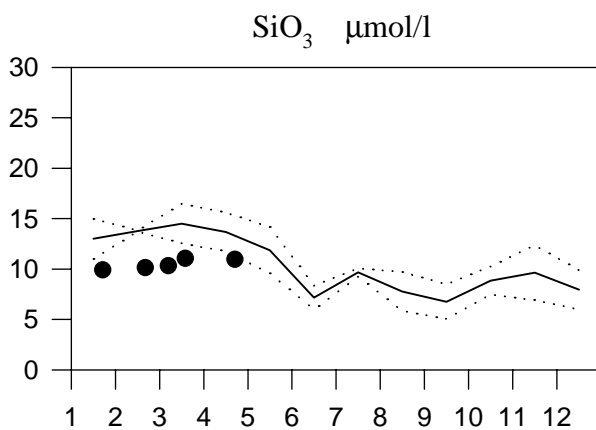
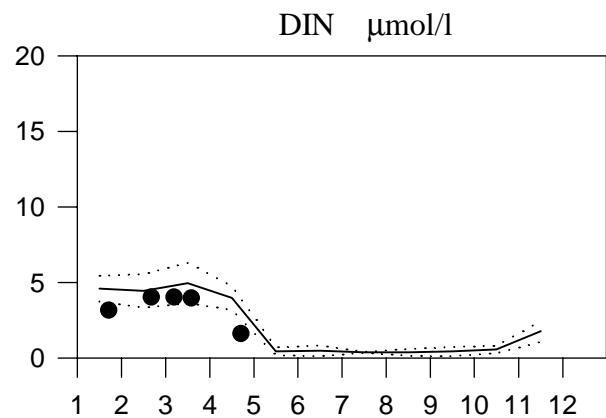
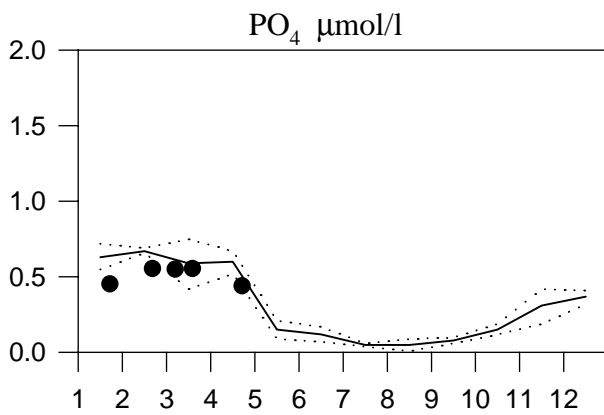
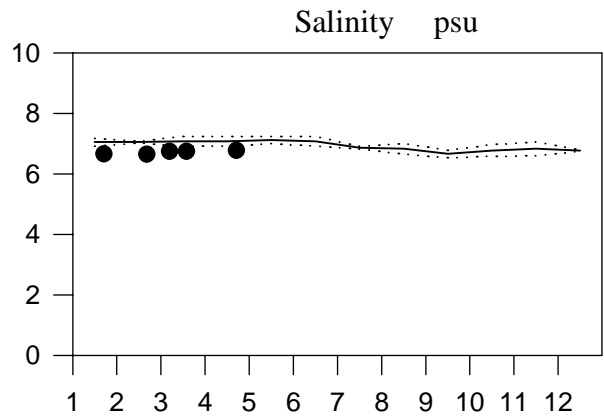
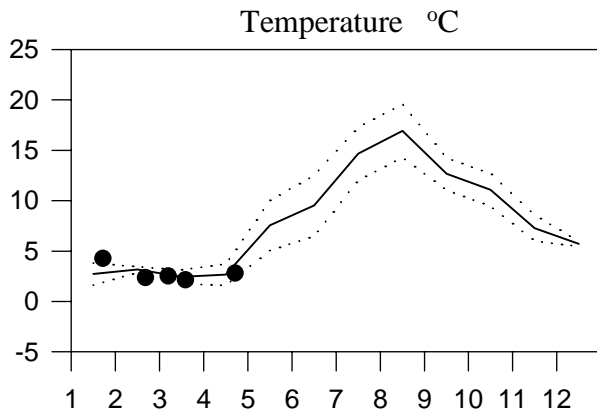
OXYGEN IN BOTTOM WATER



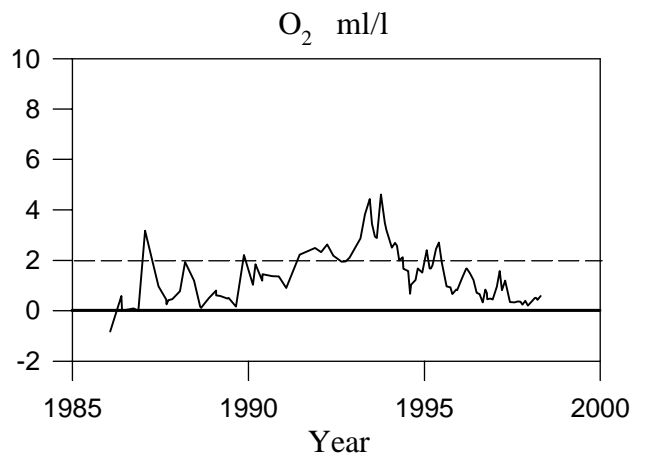
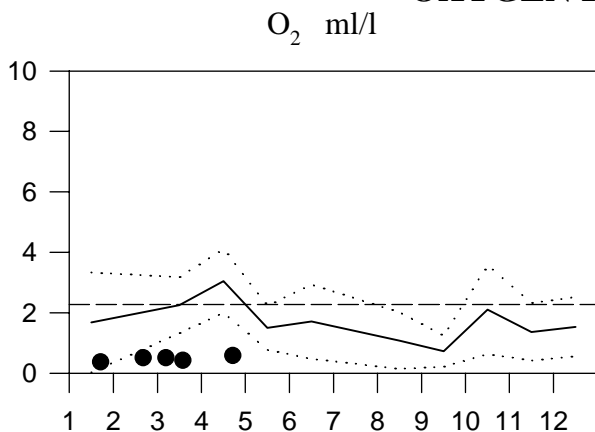
STATION BY38 SURFACE WATER (0-15 m)

Annual Cycles

— Mean 1986-1995 ····· St.Dev. ● 1998

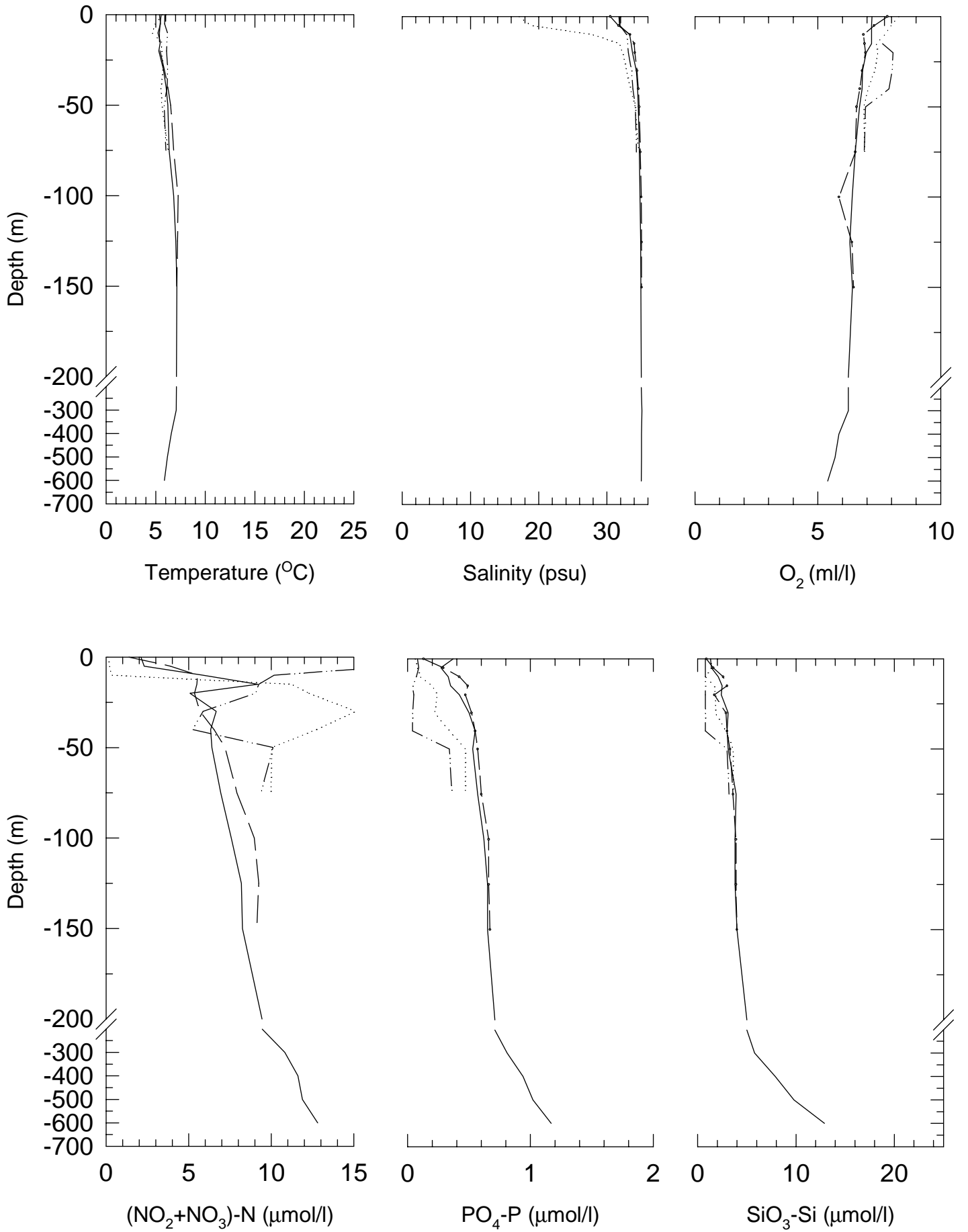


OXYGEN IN BOTTOM WATER

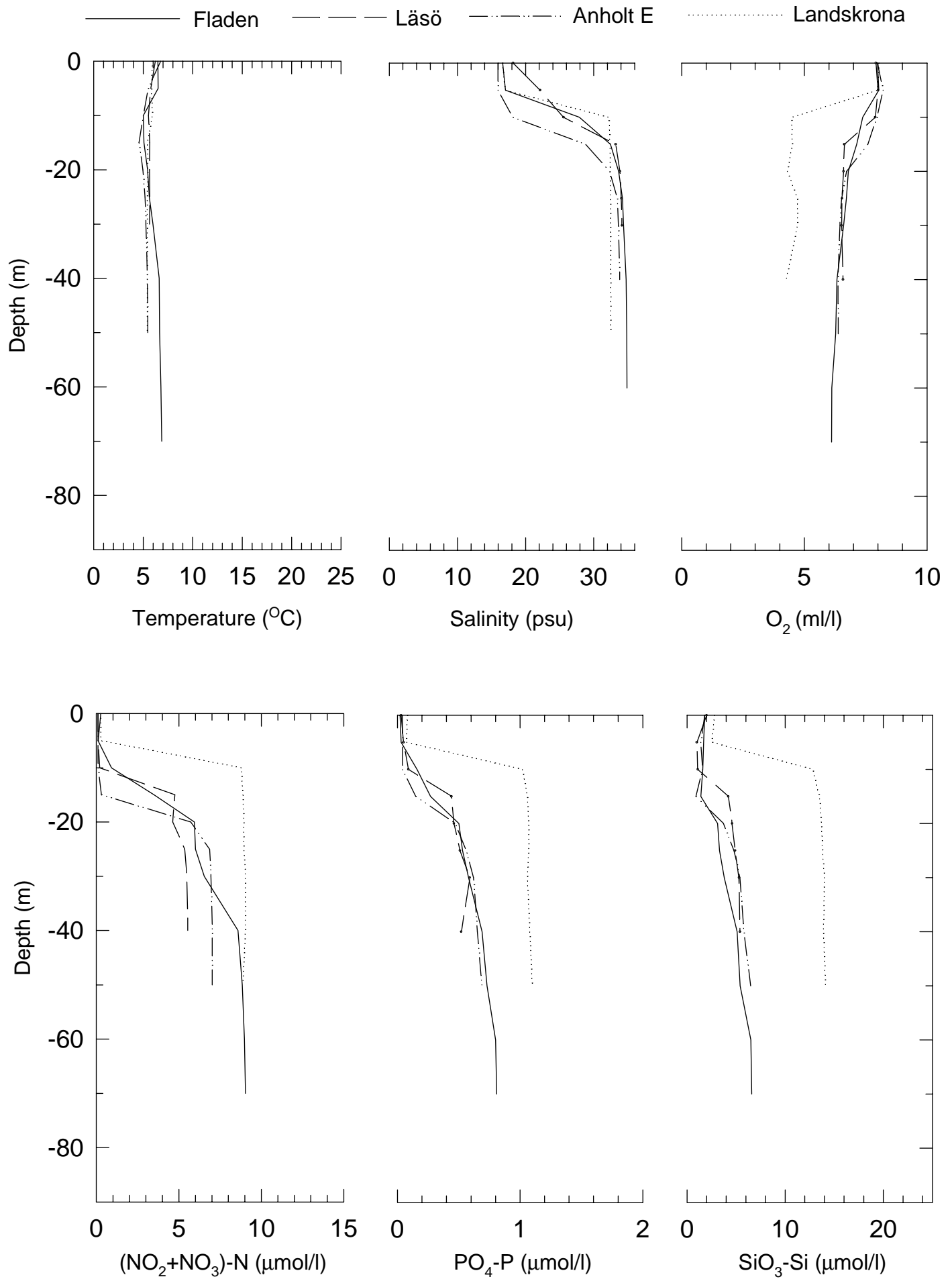


SKAGERRAK 980418-980424

— M6 - - - Å16 - · - · HS5 ····· P2

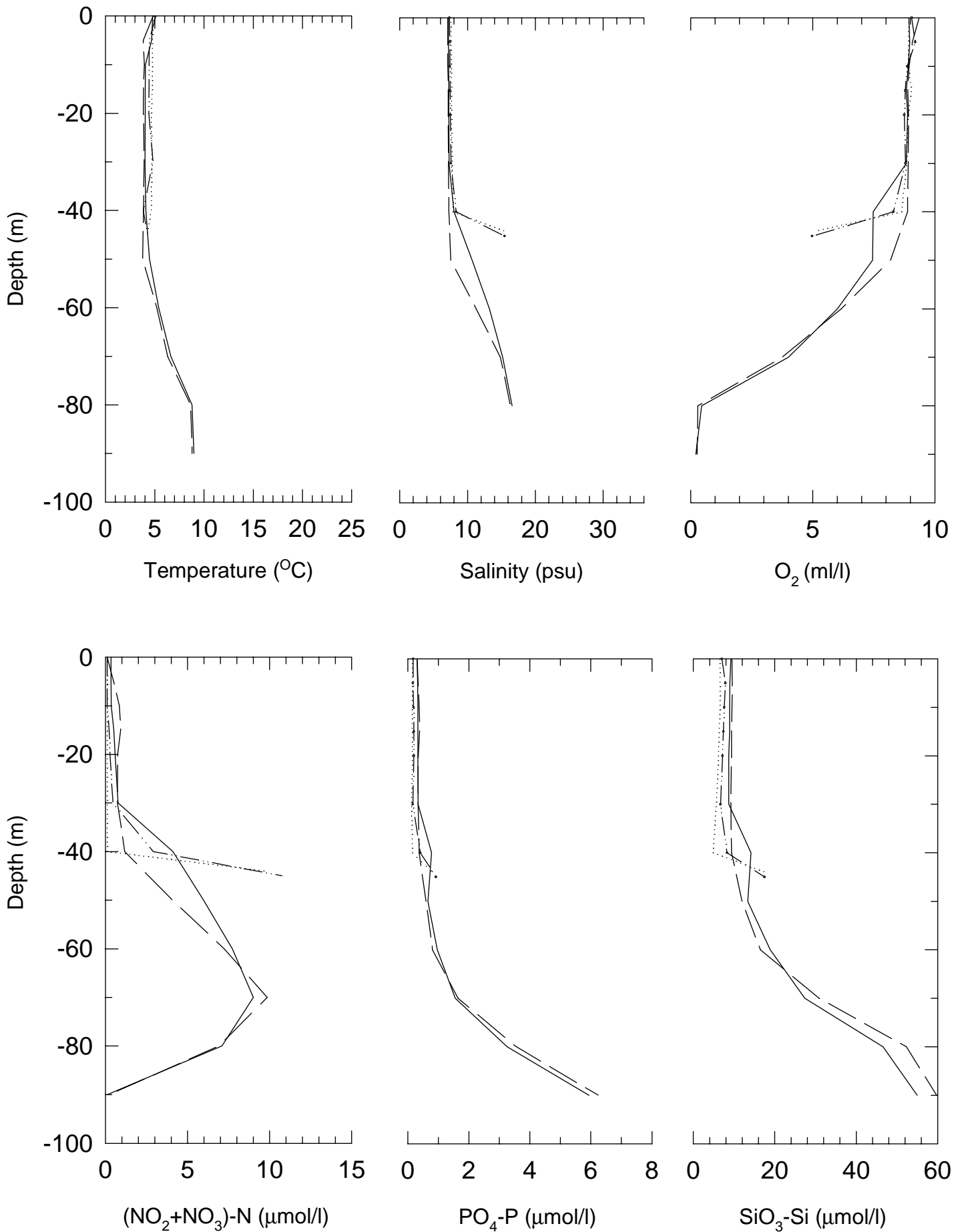


KATTEGAT and THE SOUND 980418-980424



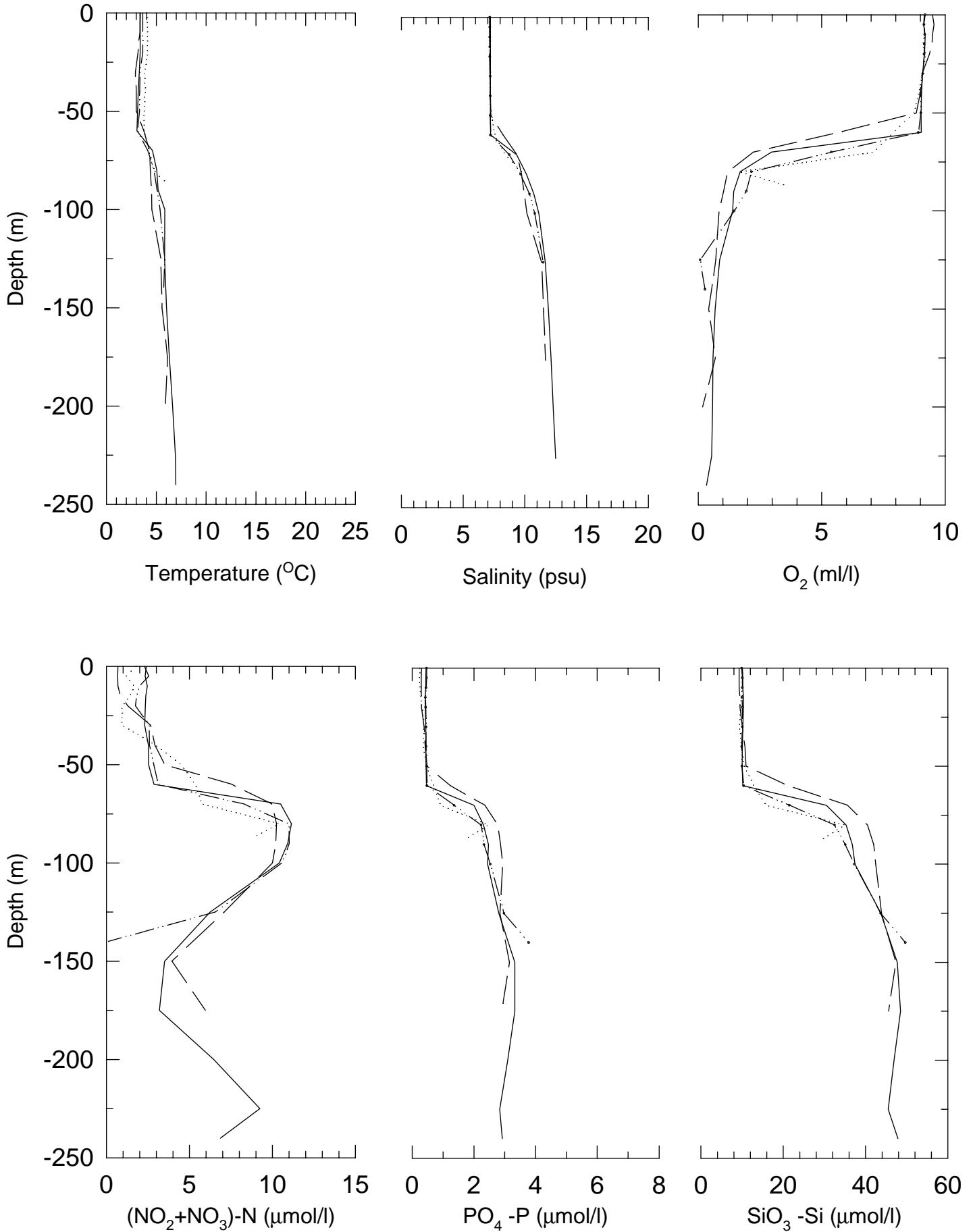
SOUTH BALTIC 980418-980424

— BY5 - - - BY4 - · - · - BY2 ····· BY1



EAST BALTIC 980418-980424

--- BY20 — BY15 - · - BY10 ····· BCS III-10



WEST BALTIC 980418-980424

— BY31 - - - BY32 BY38

