

EXPEDITIONSRAPPORT FRÅN U/F ARGOS

CRUISE REPORT FROM R/V ARGOS

Expeditionens varaktighet: 980315-980320
Survey period:

Undersökningsområde: The Skagerrak, the Kattegat,
Survey area: the Sound, 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.

The weather was either totally cloudy or quite clear with sunshine. The first part of the expedition had winds from the Southeast to the South, the later part winds from the West to the North. Sometimes the wind was within the limit of gale. The surface temperatures were between 1.5 and 3.5°C in the Baltic, between 3.5 and 4°C in the Sound and the Kattegat and between 3.5 and 5.5°C in the Skagerrak. In the Baltic there were still winter conditions with high values of nutrients and no algae bloom could be observed. No hydrogen sulphide was found, but there was lack of oxygen at the Fårö Deep from 175 m and down.

Phytoplankton production was seen in the Kattegat and in the Skagerrak.

PRELIMINÄRA RESULTAT

Expeditionen, som ingick i SMHIs ordinarie program för integrerad havsövervakning, startade i Karlskrona den 15 mars och avslutades i Göteborg den 20 mars. Vädret växlade mellan att vara helmulet och soligt. Under veckans första del rådde sydostliga till sydliga vindar med en del nederbörd i form av snö. Under senare delen, i södra Östersjön och Kattegatt, rådde vindar mellan väst och nord. Stundtals nådde vinden kulingstyrka.

Skagerrak

Ytvattentemperaturerna varierade mellan 3.5 och 4°C på svenska sidan och mellan 5 och 5.5°C i yttre Skagerrak. Framförallt längs svenska kusten var närsaltshalterna betydligt lägre i ett ytlager på 5-20 meter, där produktionen pågick, än i underliggande skikt. Lägre siktdjup jämfört med det på vintertid och högre fluorescens visade också på detta.

Kattegatt och Öresund

Ytvattentemperaturerna låg mellan 3.5 och 4°C. Syremättnaden var 70% på 40-metersnivån vid W Landskrona och Anholt E. Vid Anholt E resp. Läsö ränna fanns tydliga indikationer på en algbloomning. Fluorescensen var hög resp. mycket hög och närsaltsvärdena låga ner till 15- 20 m. Vid Kullen och Fladen rann baltiskt vatten i ytan med lägre salinitet och avsevärt högre närsaltsvärden (nitrat och silikat) än underliggande skikts.

Östersjön

Ytvattentemperaturerna låg mellan 1.5 och 3.5°C. Vid Fårödjupet var syret förbrukat från 175 m och ner, dock hade inget svavelväte bildats. Från 80 m var syrekonzentrationen under 2 ml/l. Vid Gotlandsdjupet låg denna gräns djupare, på 125 m. Närsaltshalterna var fortfarande höga och ingen algbloomning kunde observeras. Siktdjupet var i Östersjön omkring 10 meter.

DELTAGARE

Namn	Från
Bodil Thorstensson, expeditionsledare	SMHI Oceanografiska lab.
Tuulikki Jaako	- " -
Mats Ohlson	- " -
Jan Szaron	- " -
Bo Juhlin	SMHI Norrköping

BILAGOR

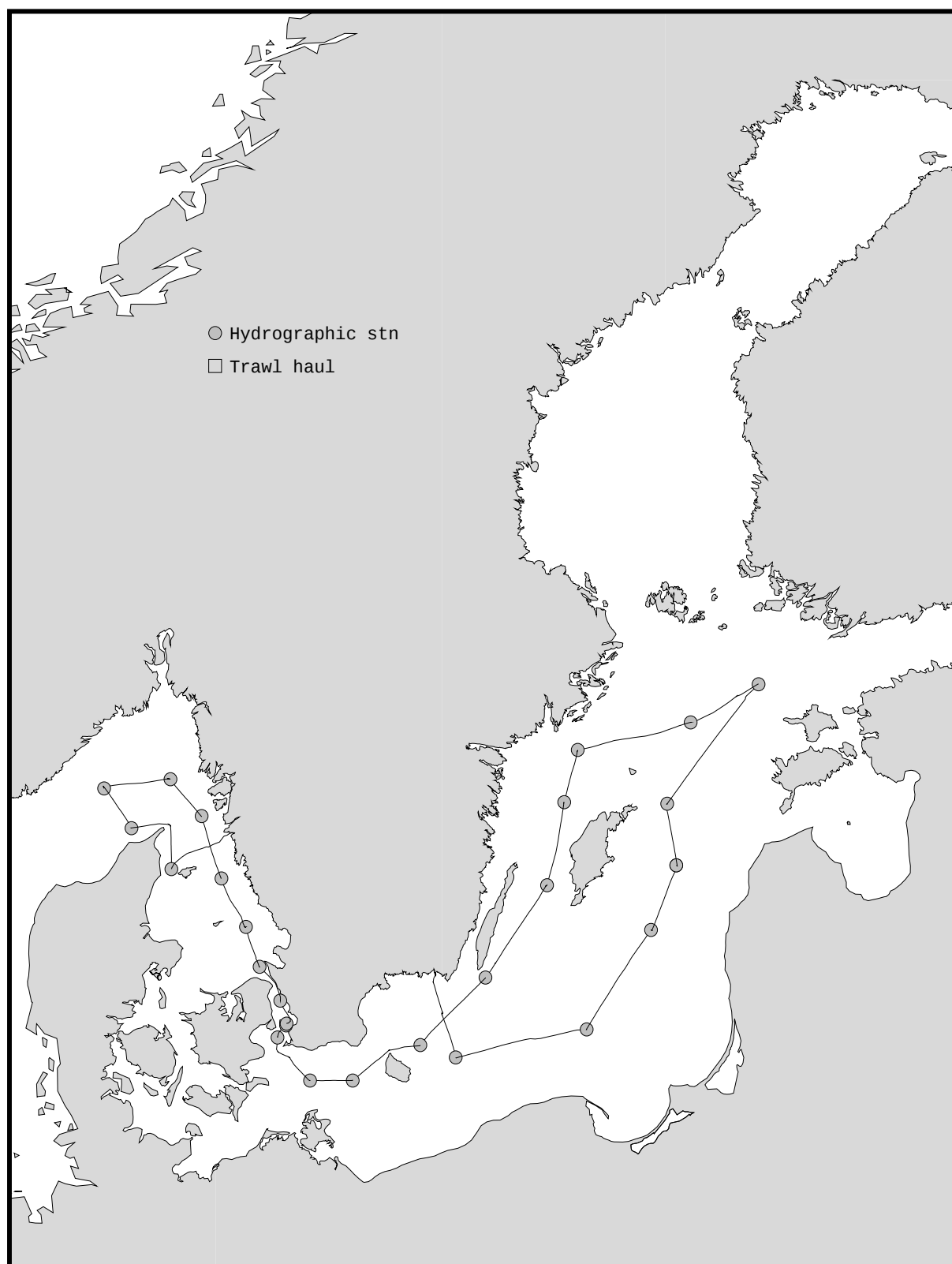
- Färdkarta
- Tabell över stationer, antal parametrar och provtagningsdjup
- Karta över syrehalter i bottenvattnet
- Profilplottar för basstationer
- Månadsmedelvärdesplottar för vissa basstationer

Date: 1998-03-23
Time: 10:21

Ser no	Stat code	P o j	Station-----	Lat-----	Lon-----	Date yymmdd	Time hhmm	Bott deph m	Mld m	Secc deph m	Wind di ve	Air temp C	Air pres hPa	WCSI elec t aoae d tu	C PPCZZT Hrhhoo motPBw PrP l	No de e a h x m l y S	T P O H P T N N N T A S H L P P T C	P O H P T N N N T A S H L P P T C
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0273	SKEX17BAS																	

TRACK CHART

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Ship : Argos
Date : 980315-980320
Series : 0250-0276



Bottom water oxygen concentration (ml/l)

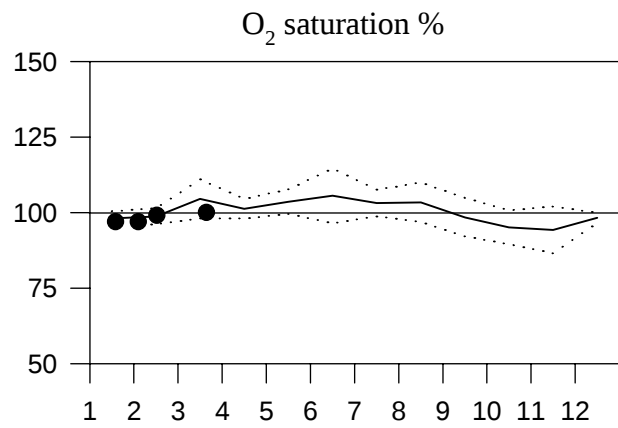
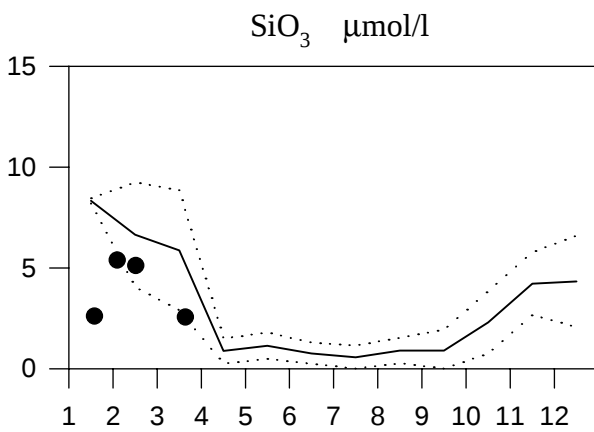
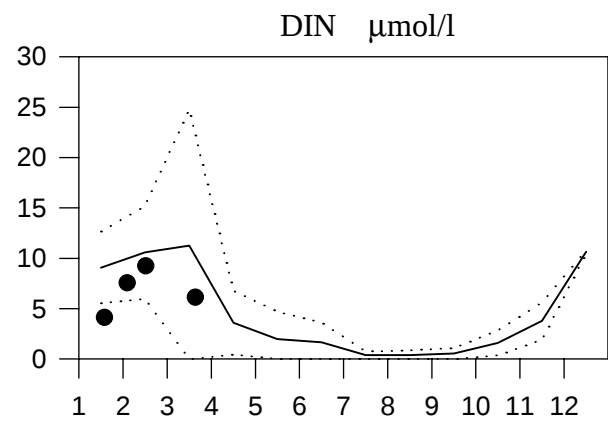
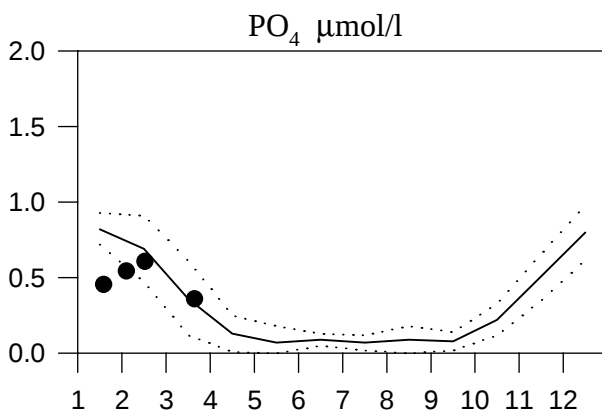
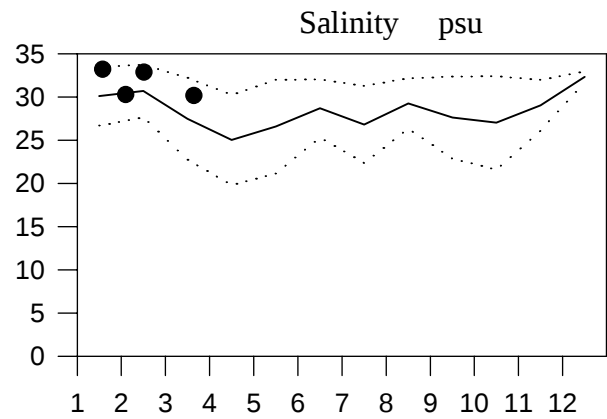
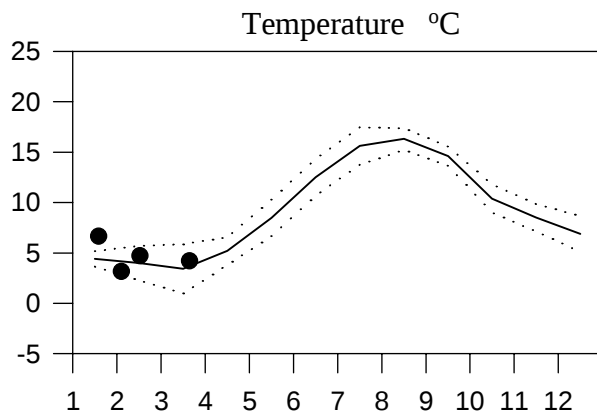
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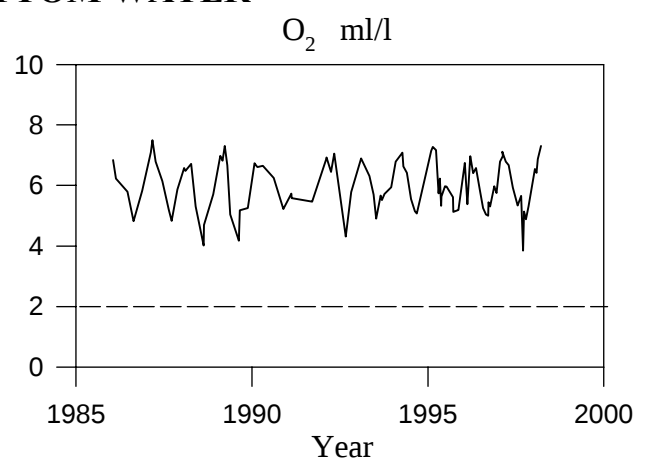
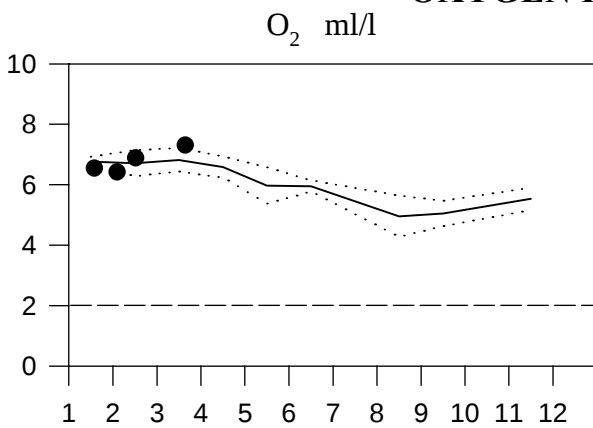
STATION P2 SURFACE WATER (0-15 m)

Annual Cycles

— Mean 1986-1995 St.Dev. ● 1998



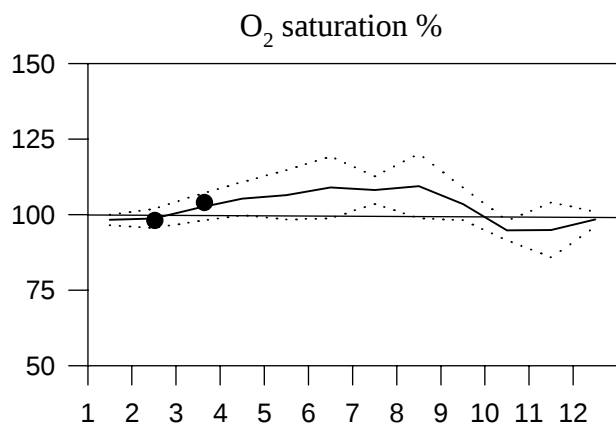
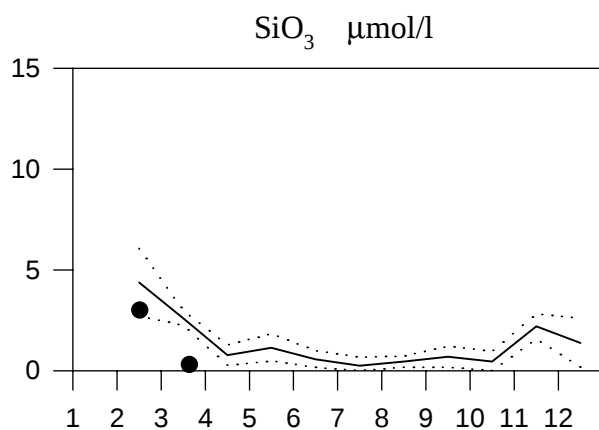
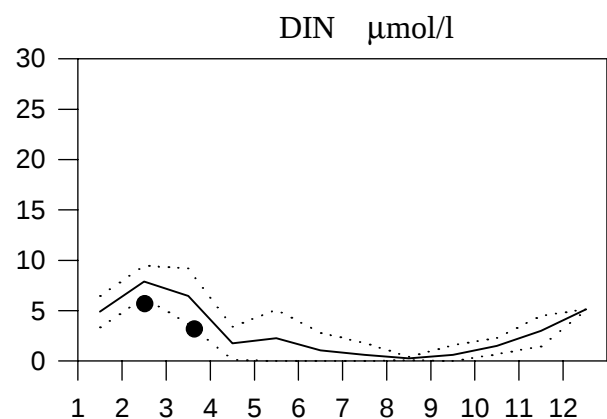
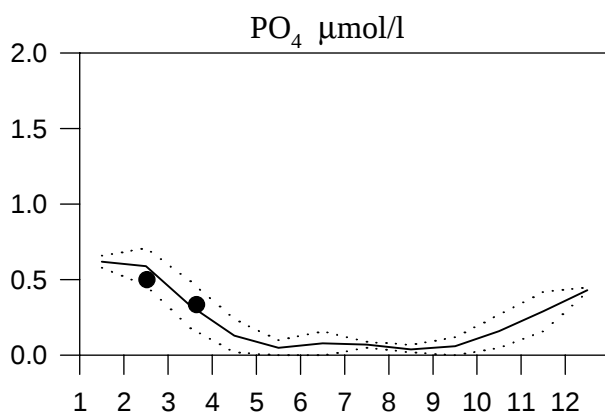
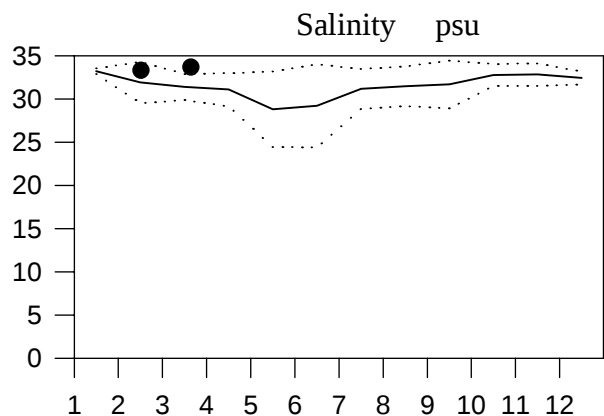
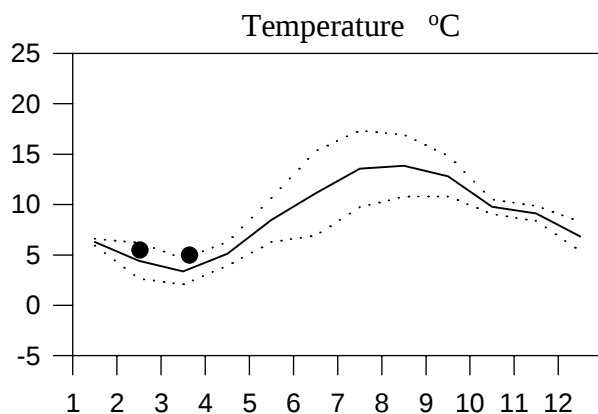
OXYGEN IN BOTTOM WATER



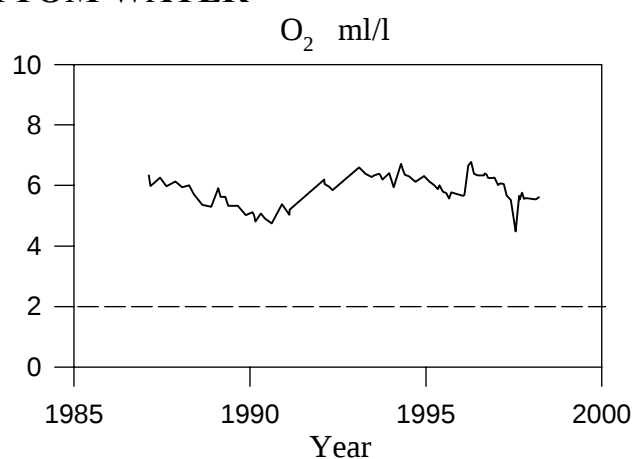
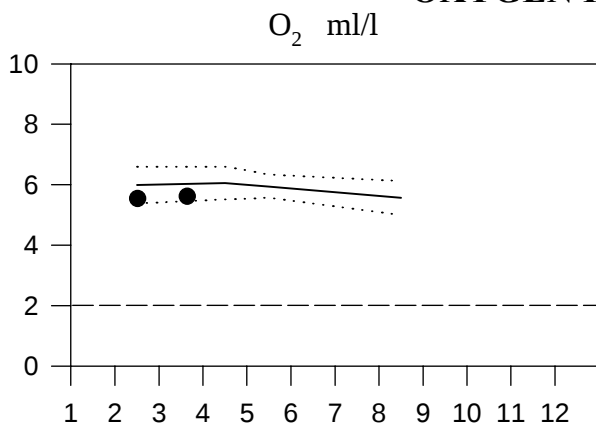
STATION M6 SURFACE WATER (0-15 m)

Annual Cycles

— Mean 1986-1995 St.Dev. ● 1998



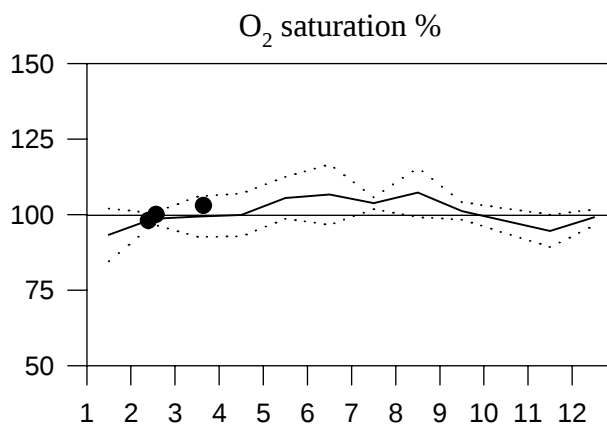
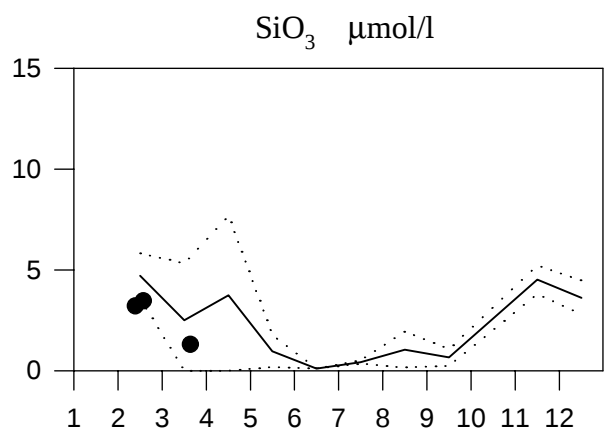
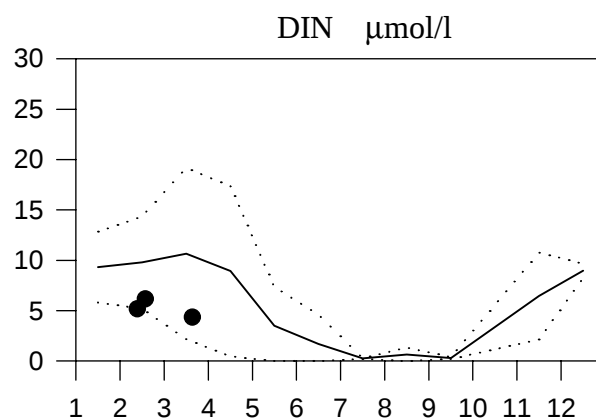
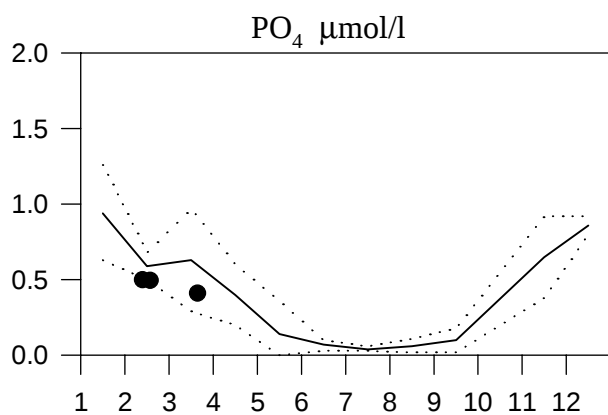
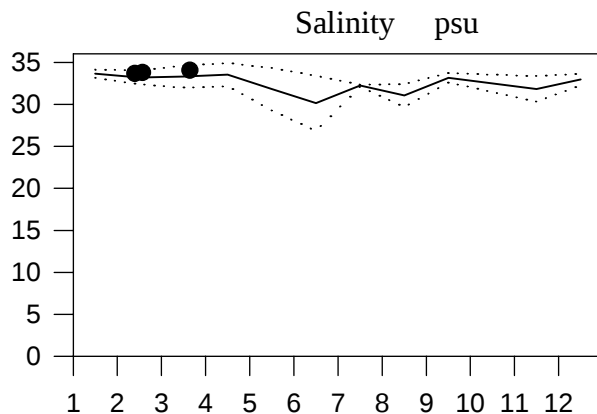
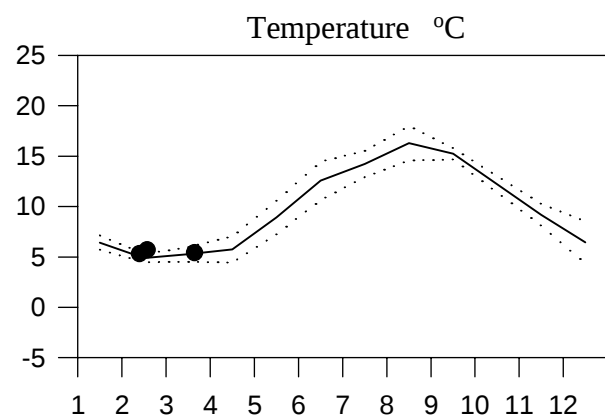
OXYGEN IN BOTTOM WATER



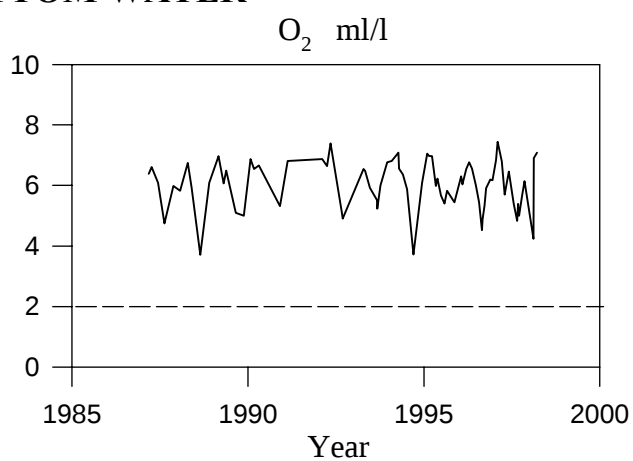
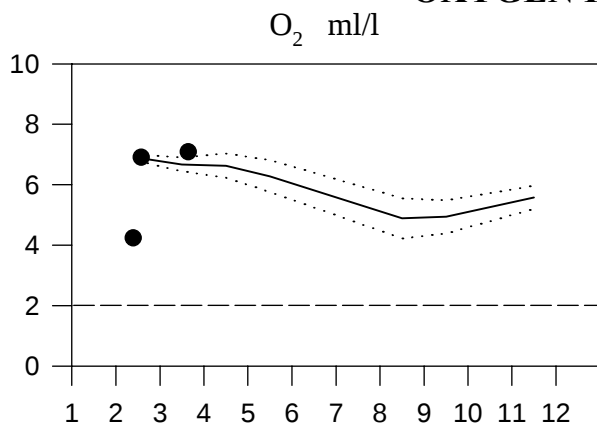
STATION HS5 SURFACE WATER (0-15 m)

Annual Cycles

— Mean 1986-1995 St.Dev. ● 1998



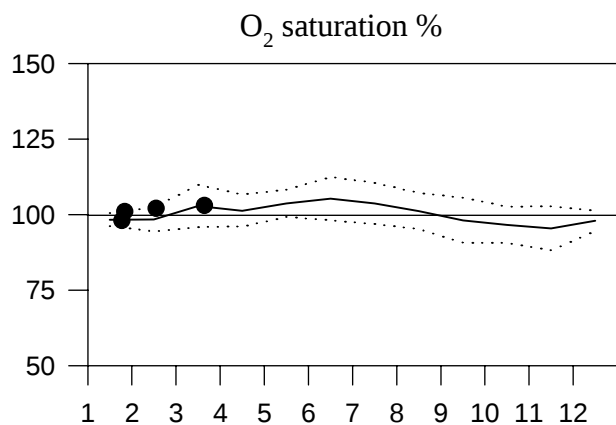
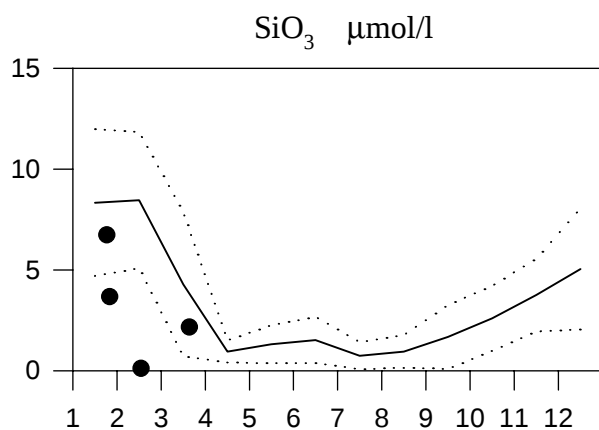
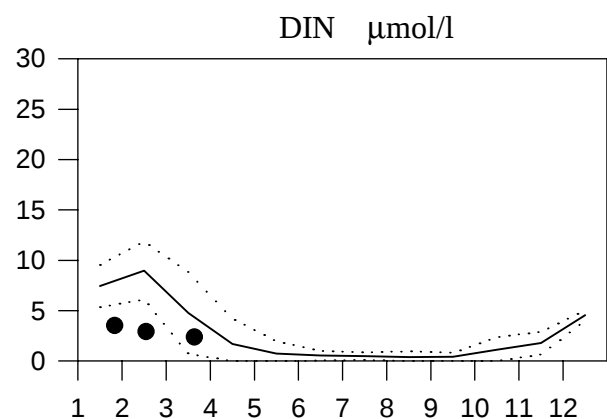
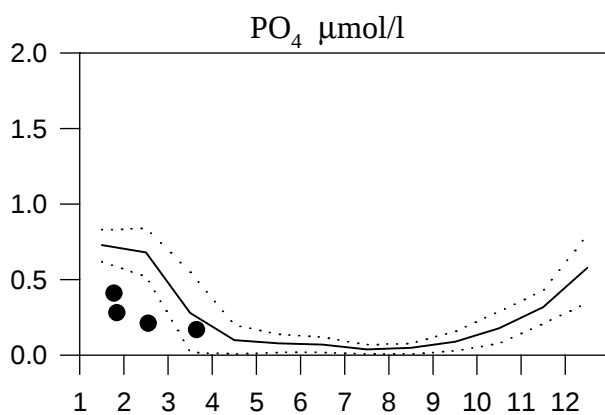
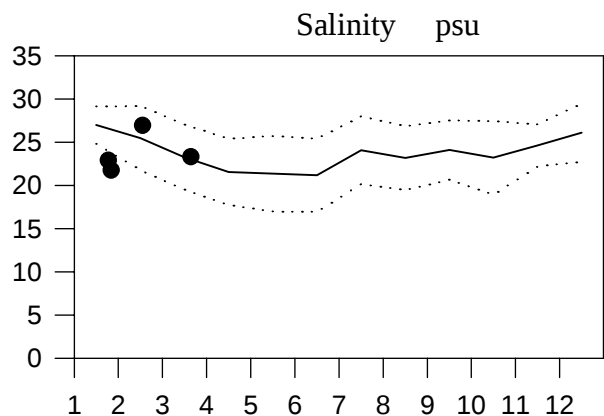
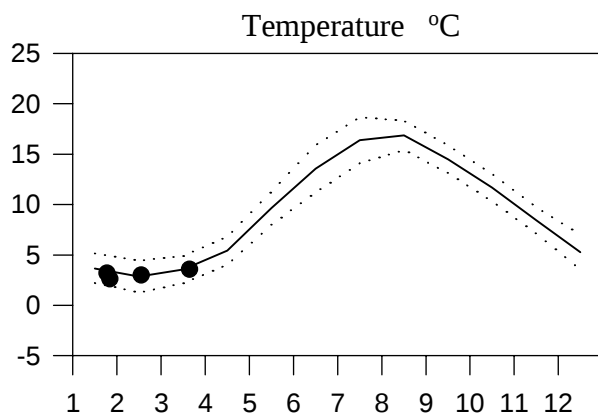
OXYGEN IN BOTTOM WATER



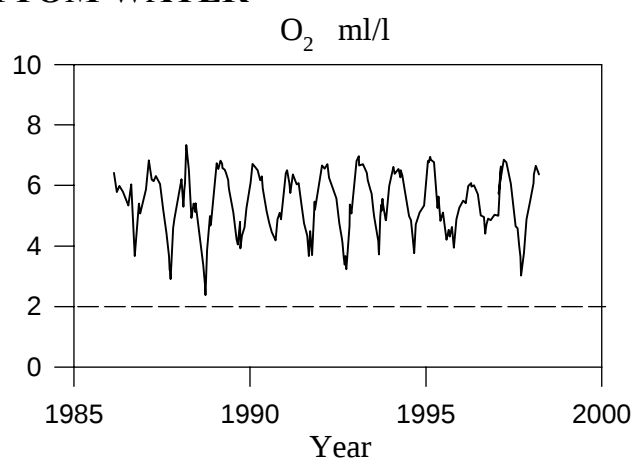
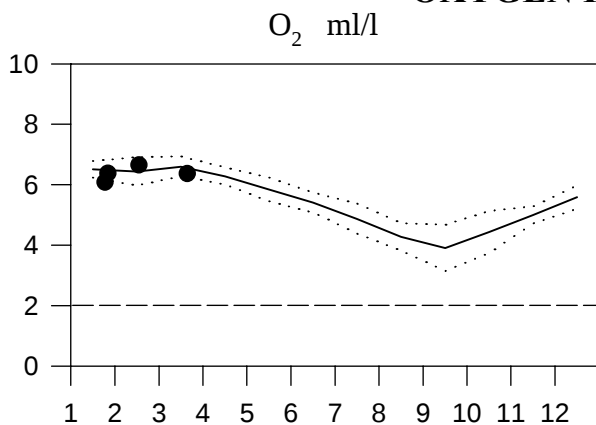
STATION FLADEN SURFACE WATER (0-15 m)

Annual Cycles

— Mean 1986-1995 St.Dev. ● 1998



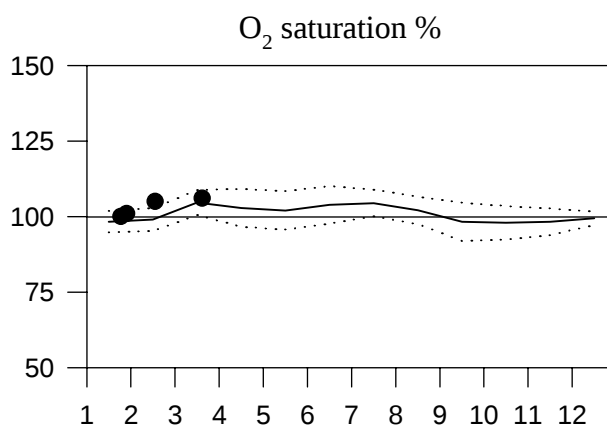
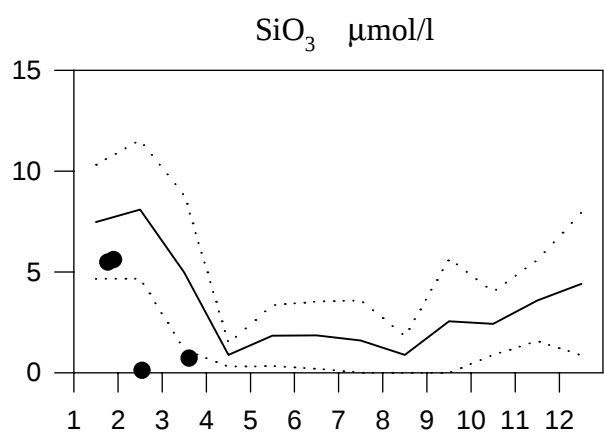
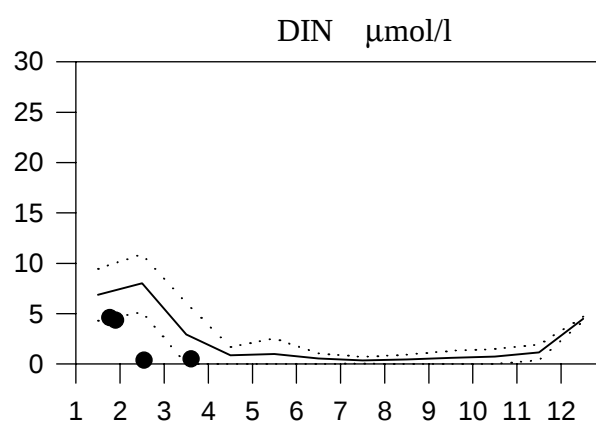
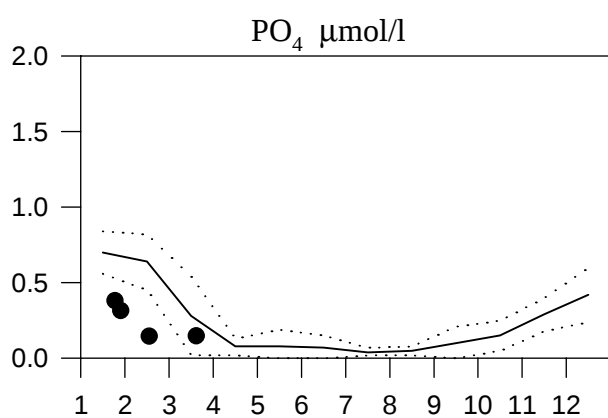
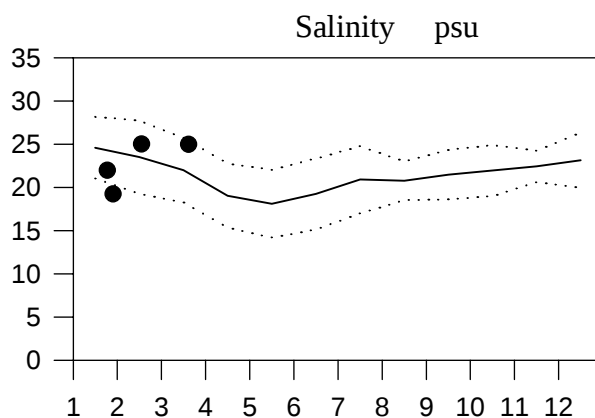
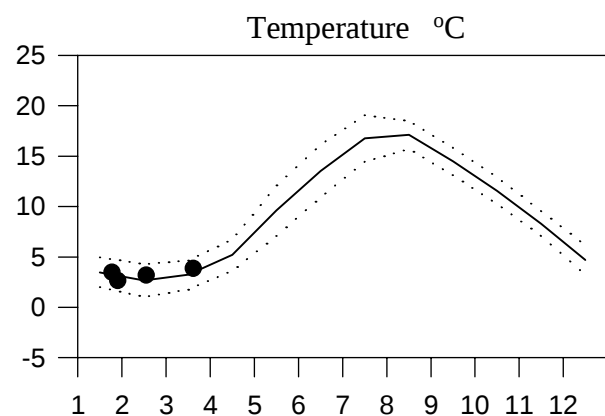
OXYGEN IN BOTTOM WATER



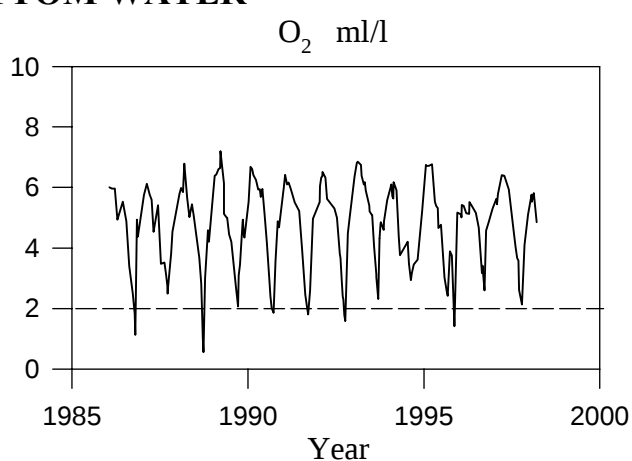
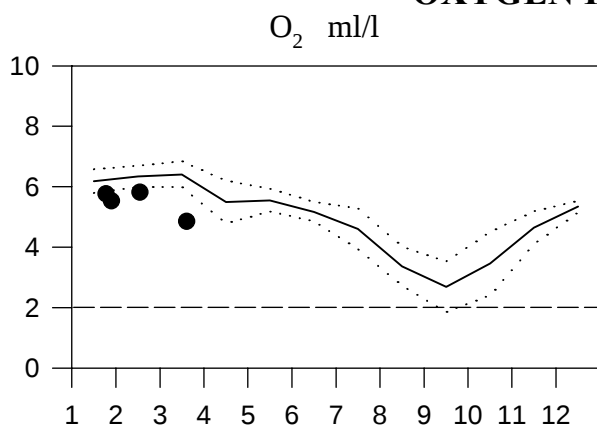
STATION ANHOLT E SURFACE WATER (above halocline)

Annual Cycles

— Mean 1986-1995 St.Dev. ● 1998



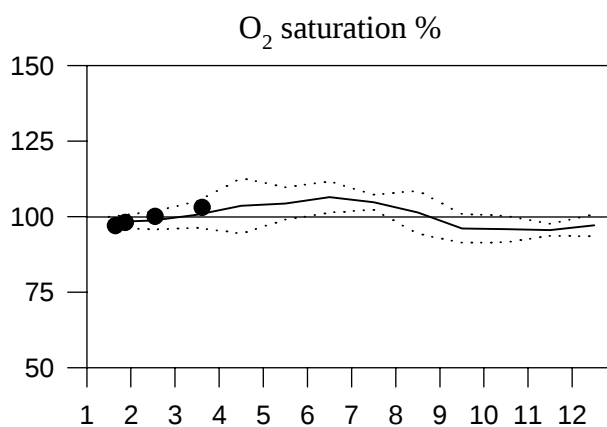
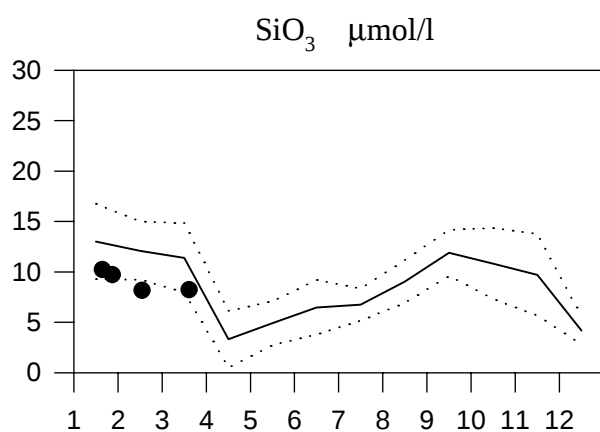
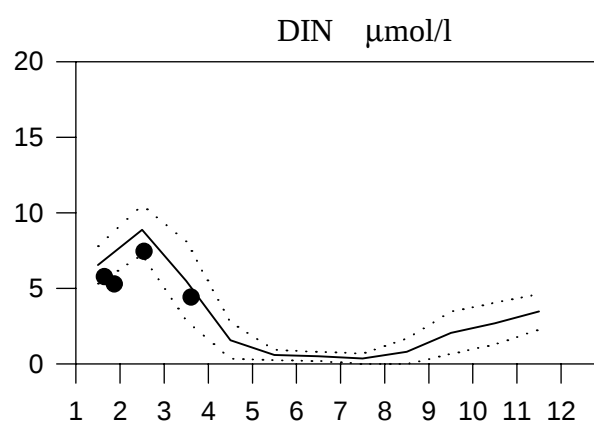
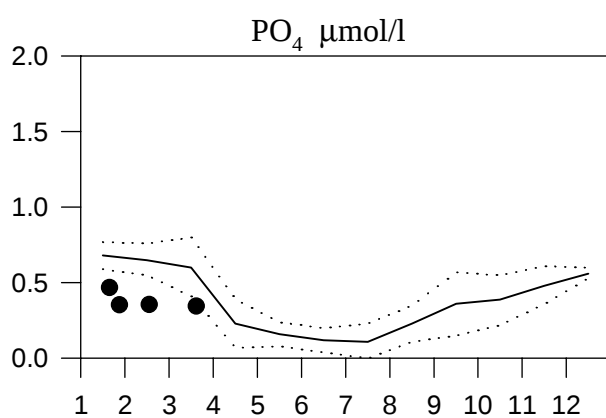
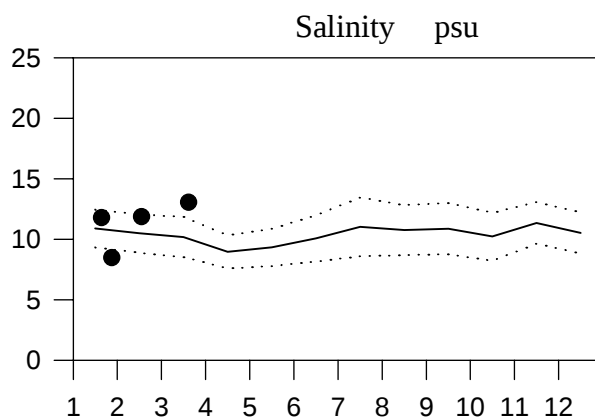
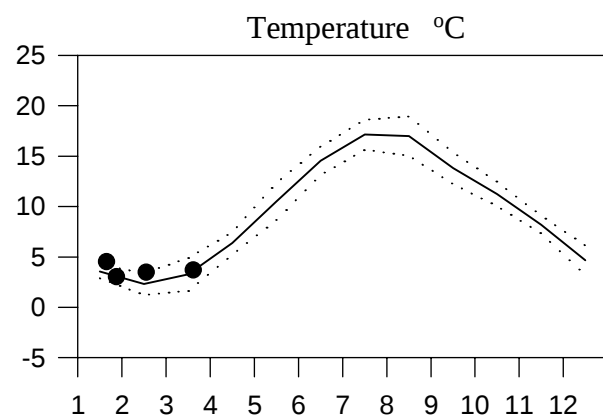
OXYGEN IN BOTTOM WATER



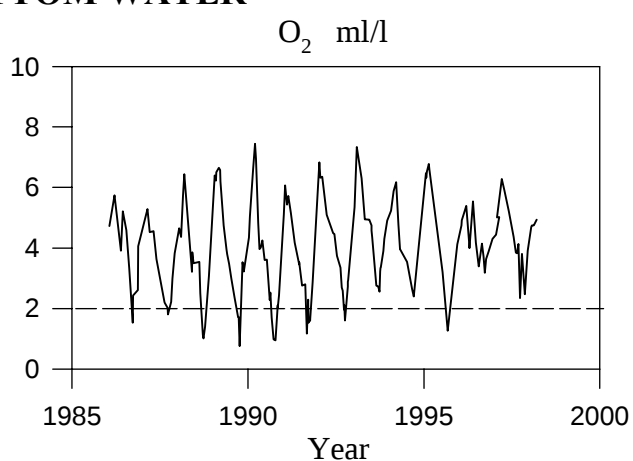
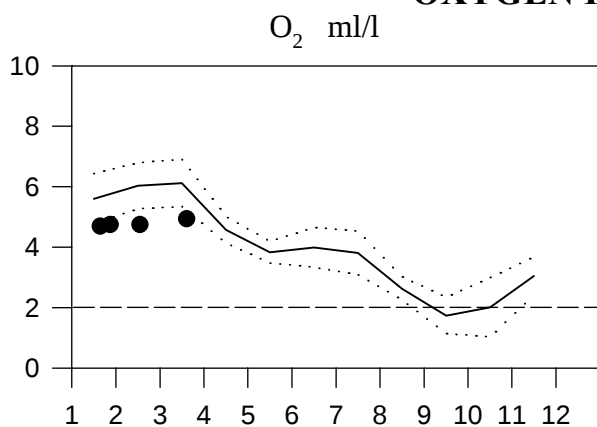
STATION W LANDSKRONA SURFACE WATER (0-15 m)

Annual Cycles

— Mean 1986-1995 St.Dev. ● 1997



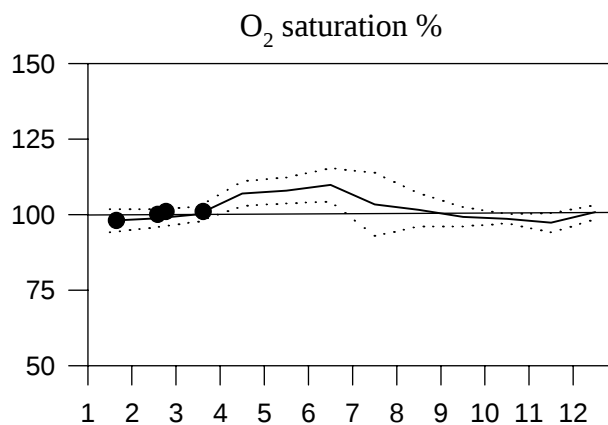
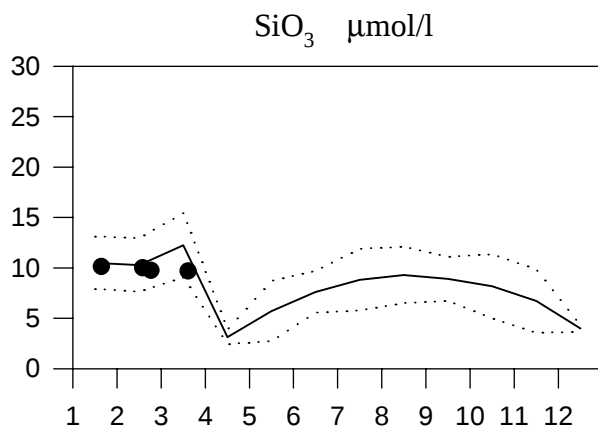
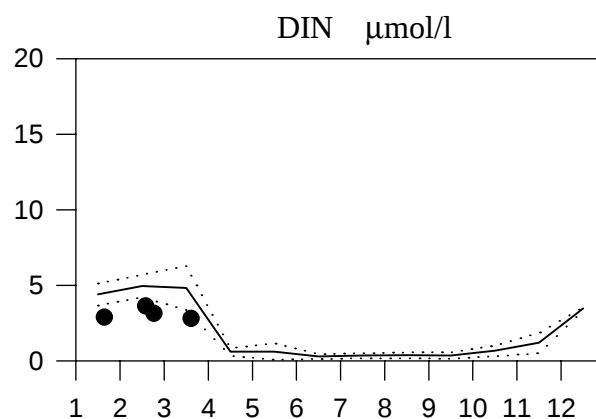
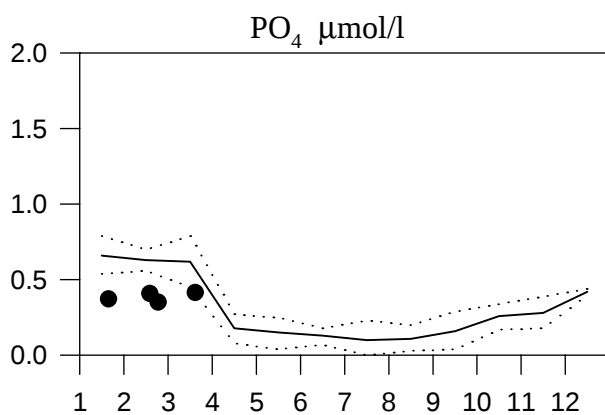
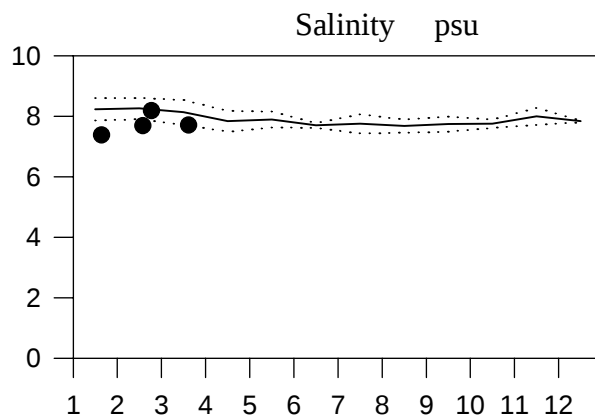
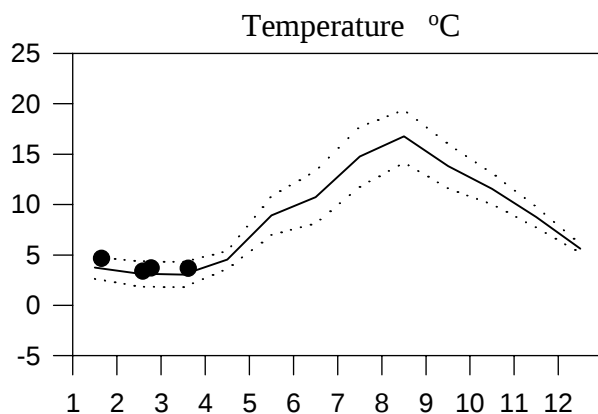
OXYGEN IN BOTTOM WATER



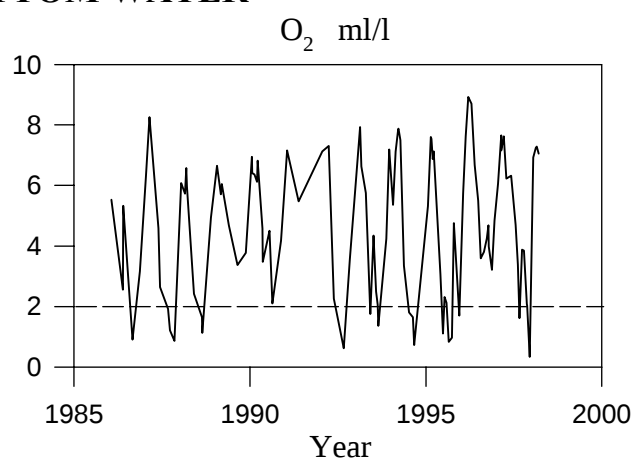
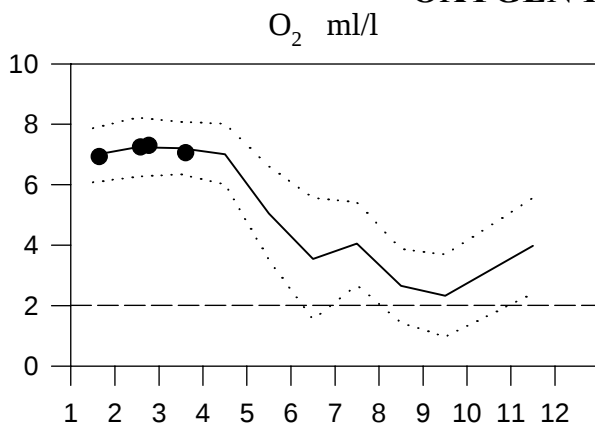
STATION BY2 SURFACE WATER (0-15 m)

Annual Cycles

— Mean 1986-1995 St.Dev. ● 1998



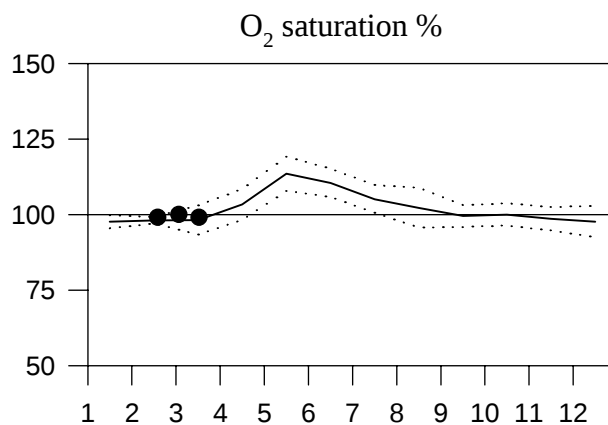
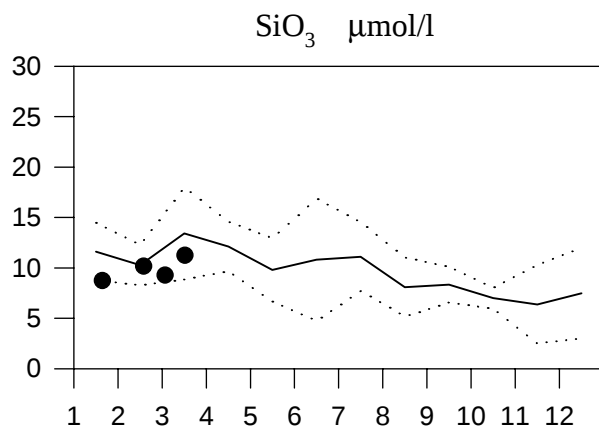
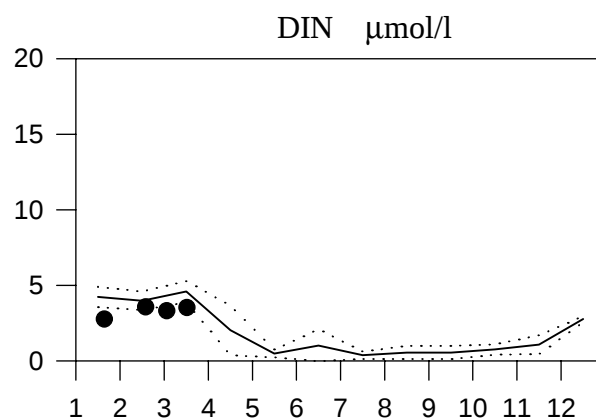
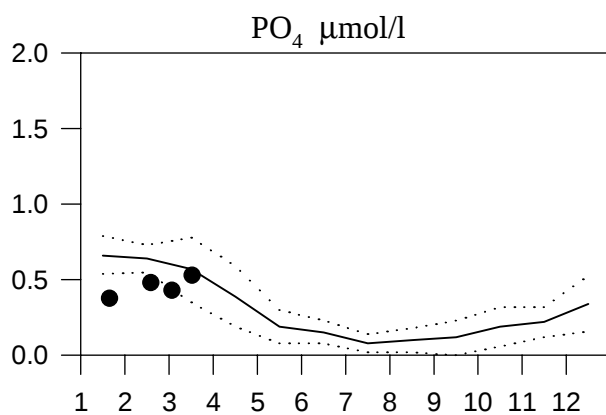
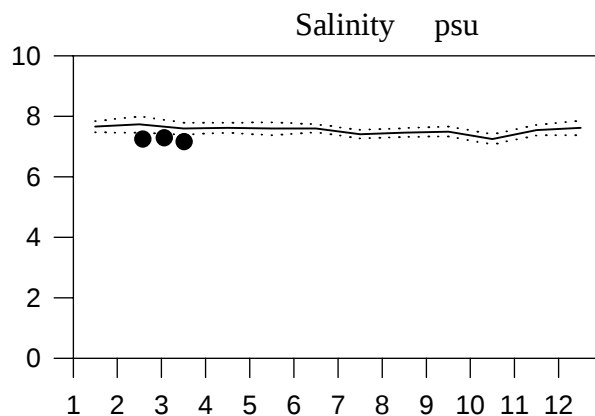
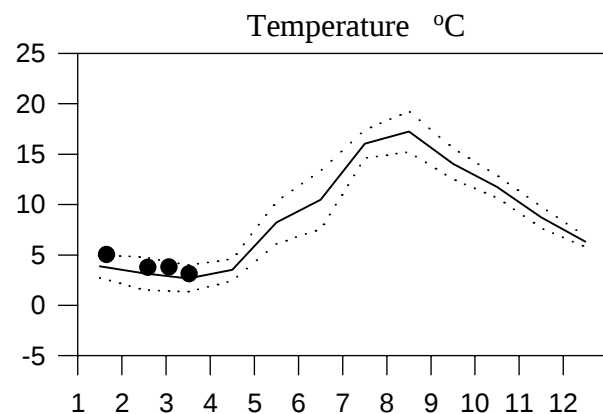
OXYGEN IN BOTTOM WATER



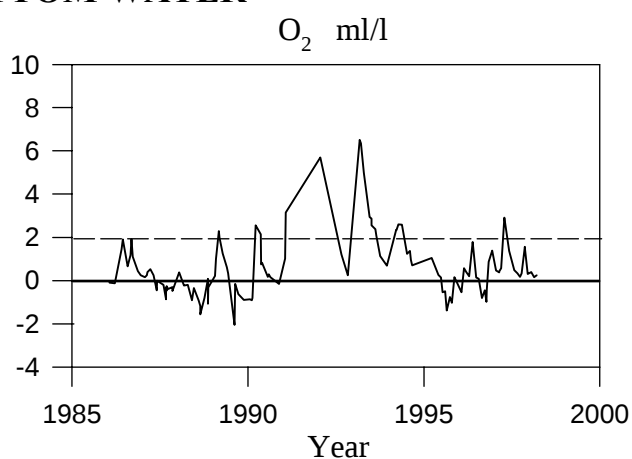
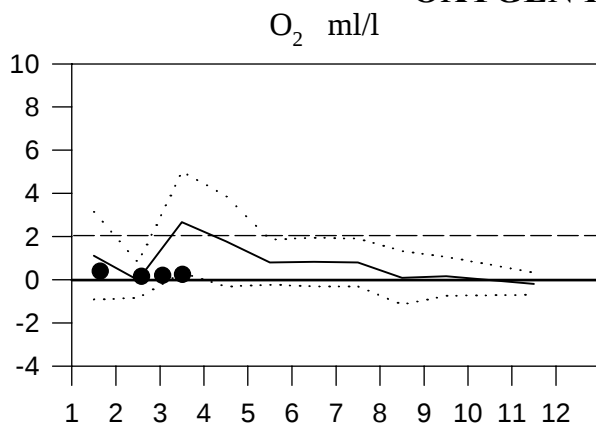
STATION BY5 SURFACE WATER (0-15 m)

Annual Cycles

— Mean 1986-1995 St.Dev. ● 1998



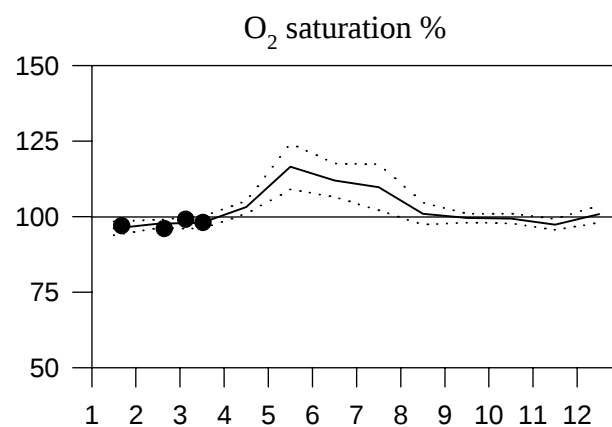
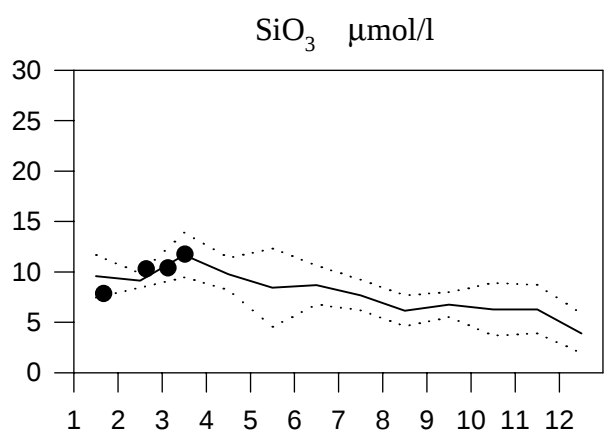
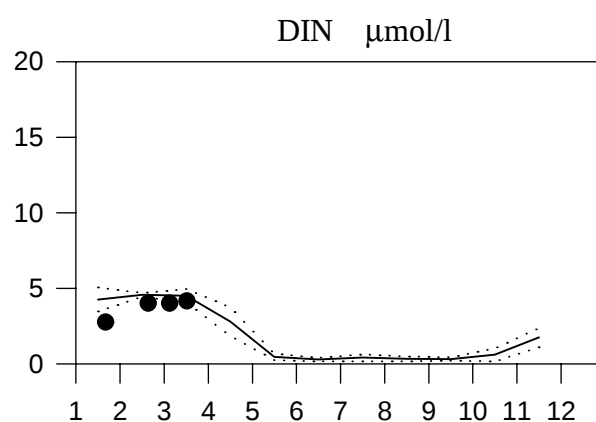
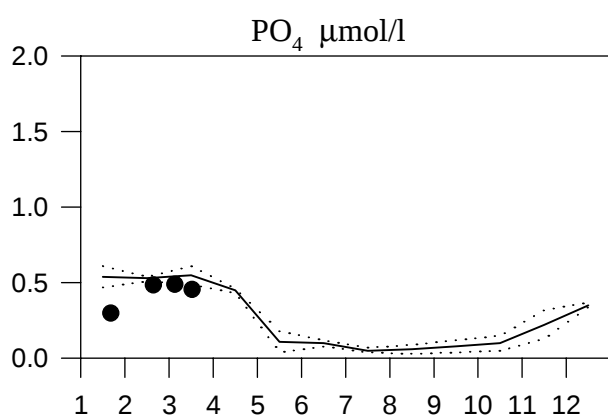
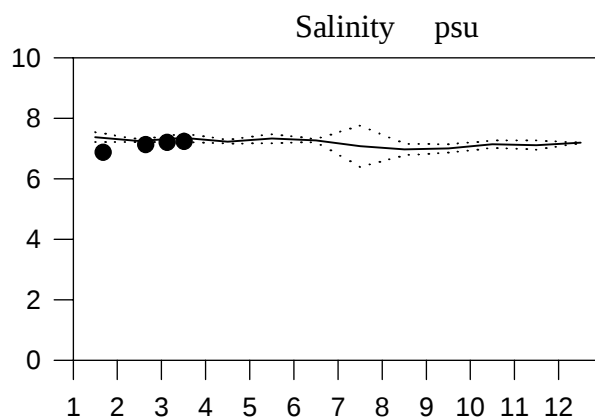
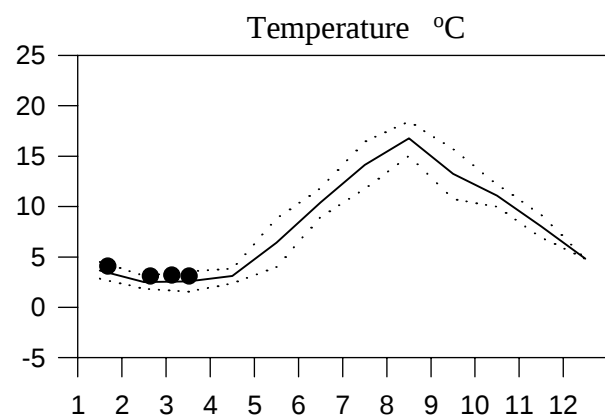
OXYGEN IN BOTTOM WATER



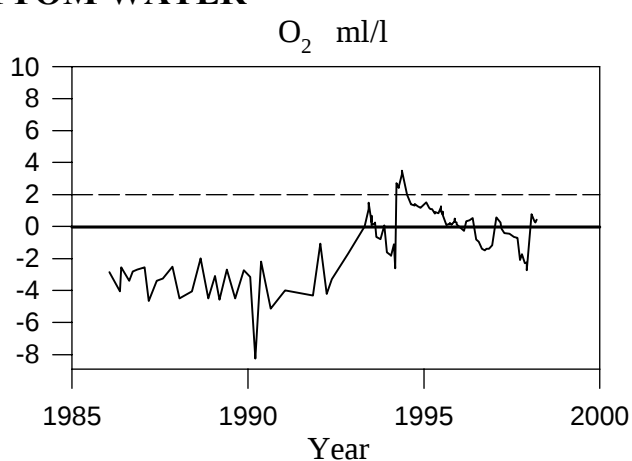
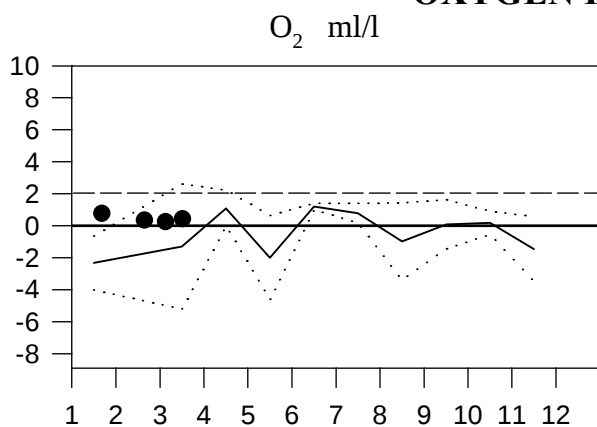
STATION BY15 SURFACE WATER (0-15 m)

Annual Cycles

— Mean 1986-1995 St.Dev. ● 1998



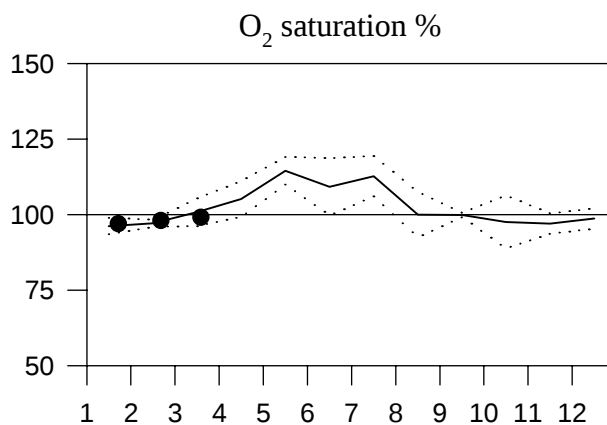
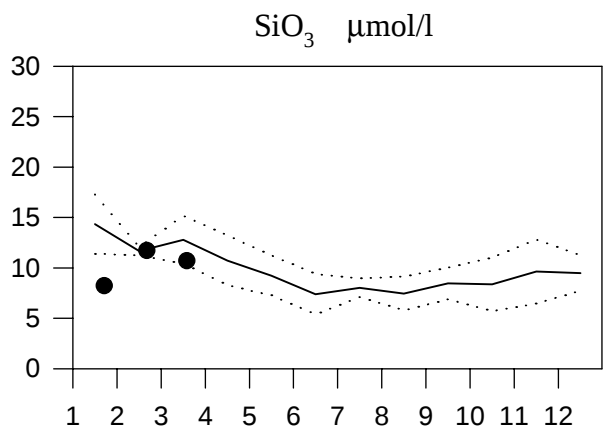
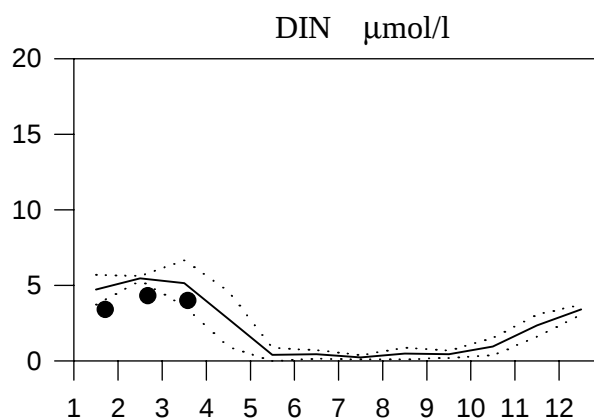
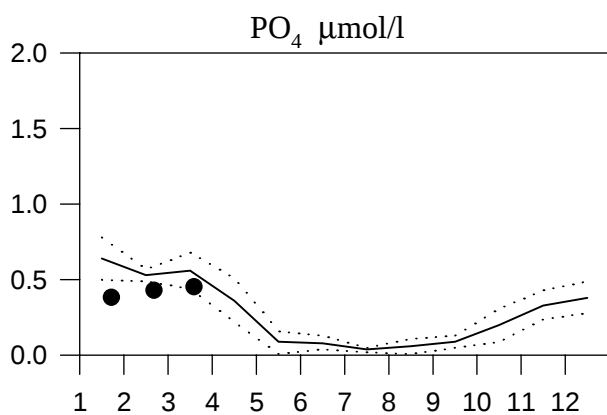
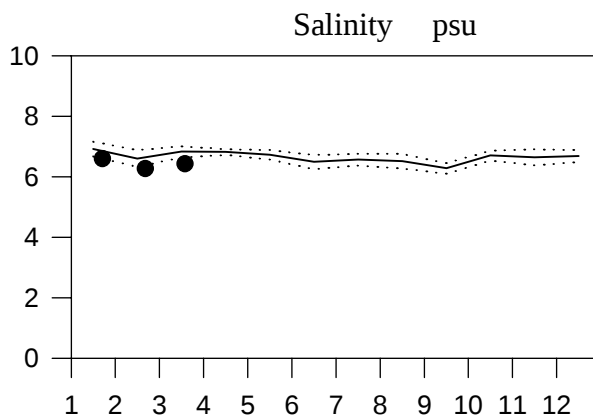
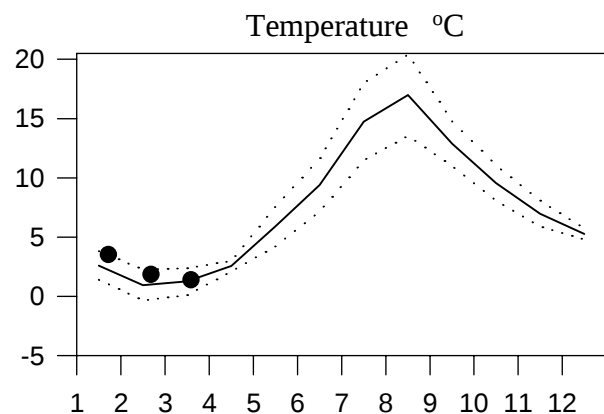
OXYGEN IN BOTTOM WATER



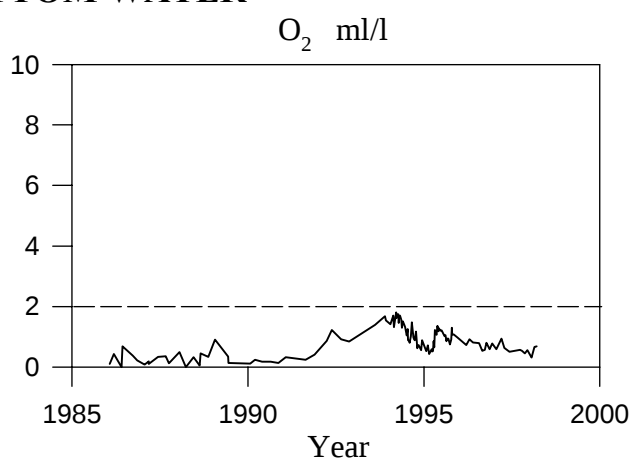
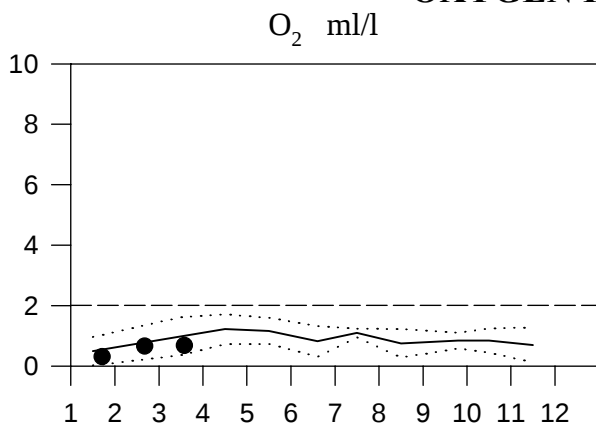
STATION BY31 SURFACE WATER (0-15 m)

Annual Cycles

— Mean 1986-1995 St.Dev. ● 1998



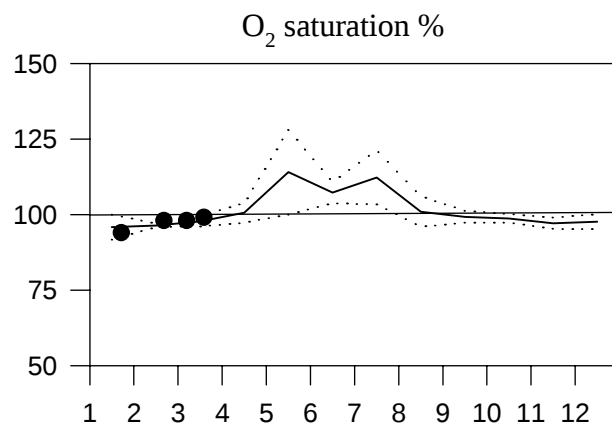
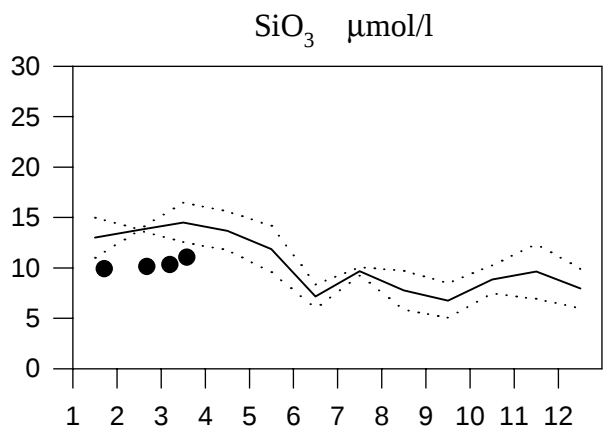
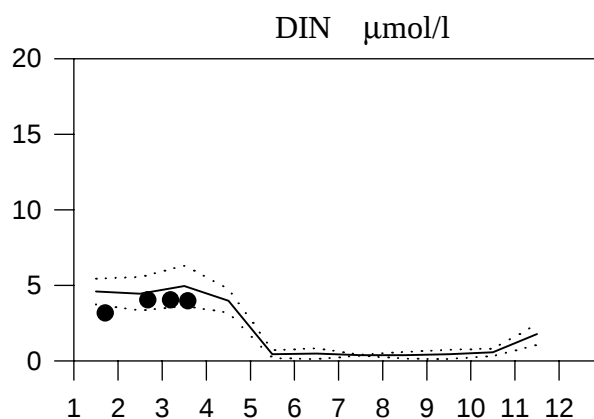
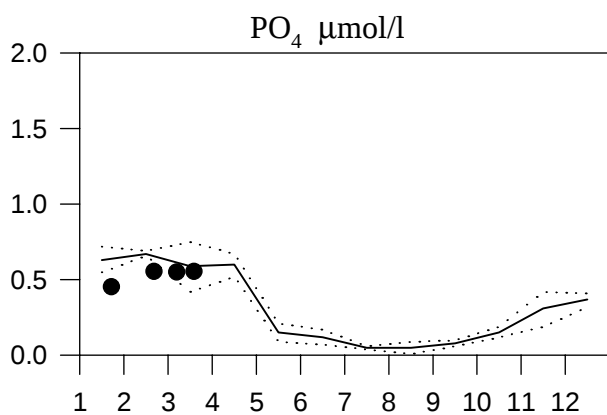
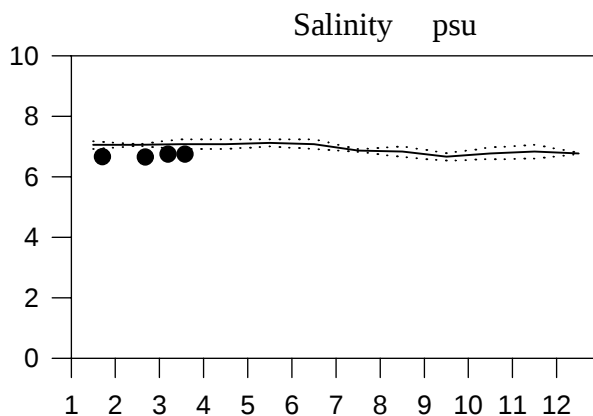
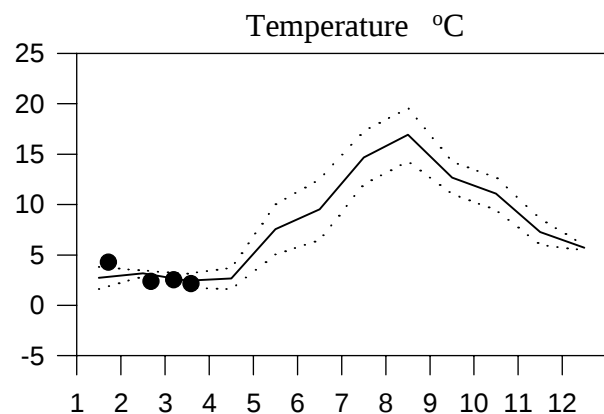
OXYGEN IN BOTTOM WATER



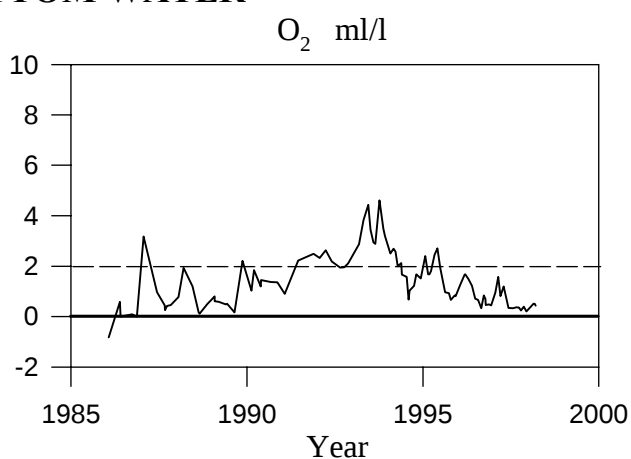
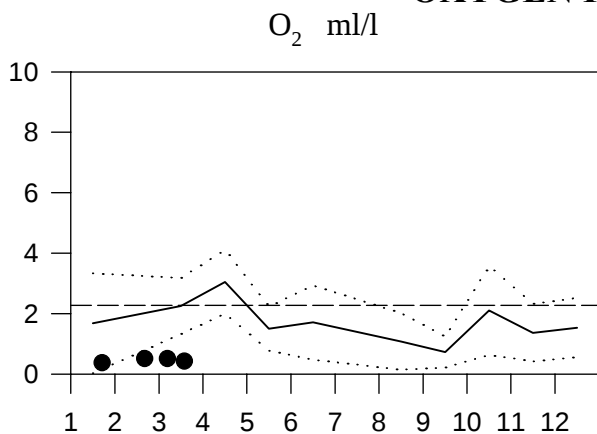
STATION BY38 SURFACE WATER (0-15 m)

Annual Cycles

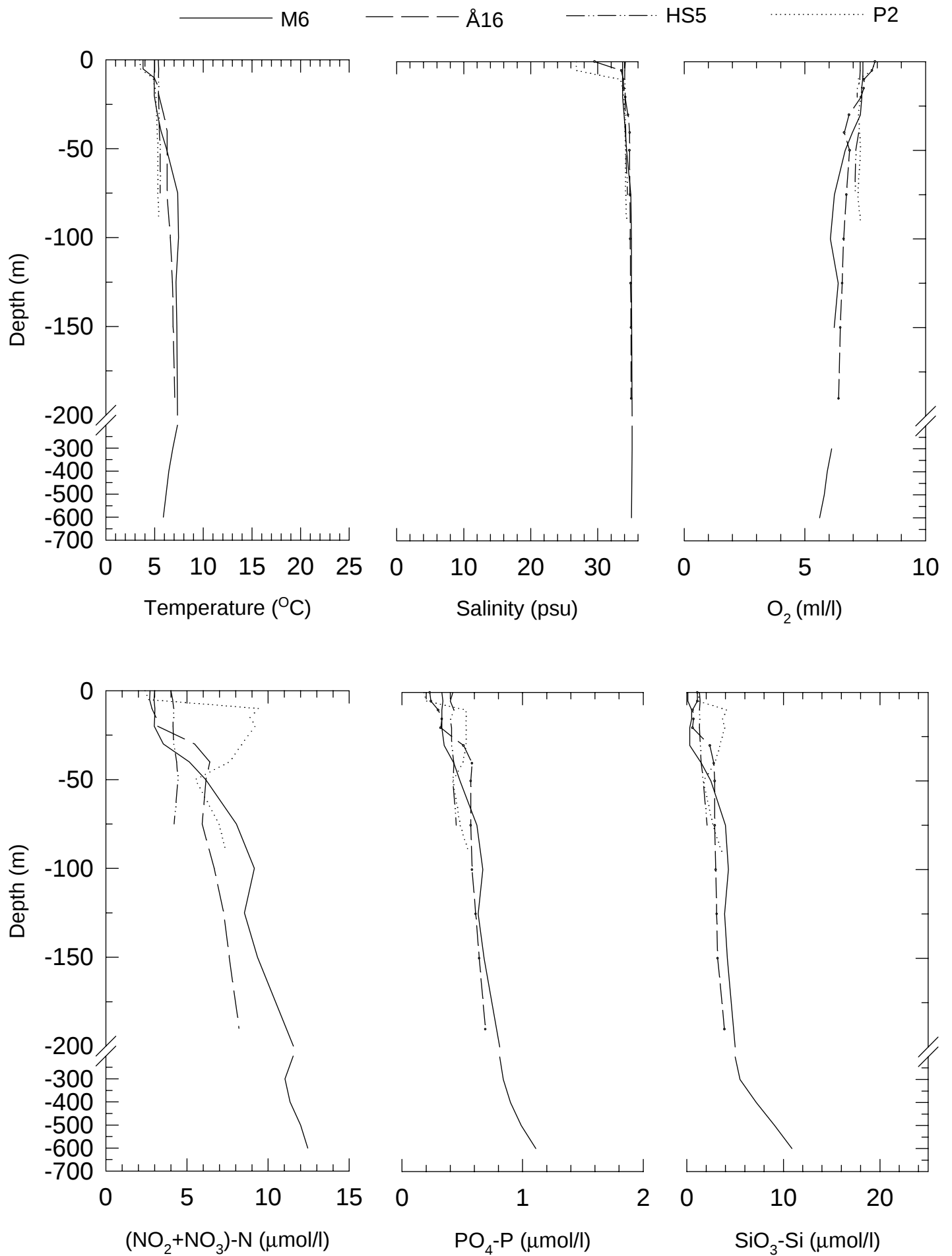
— Mean 1986-1995 St.Dev. ● 1998



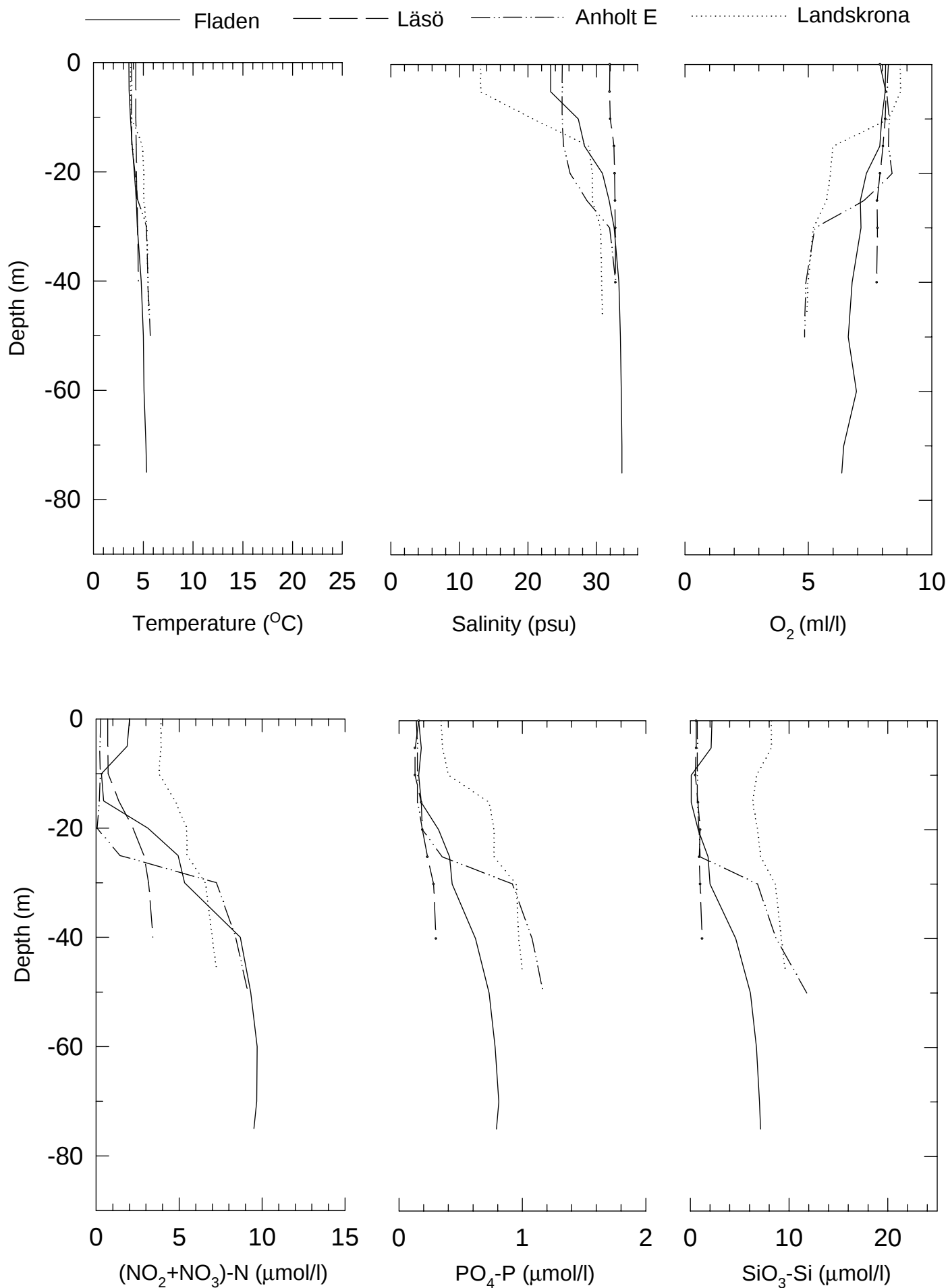
OXYGEN IN BOTTOM WATER



SKAGERRAK 980315-980320

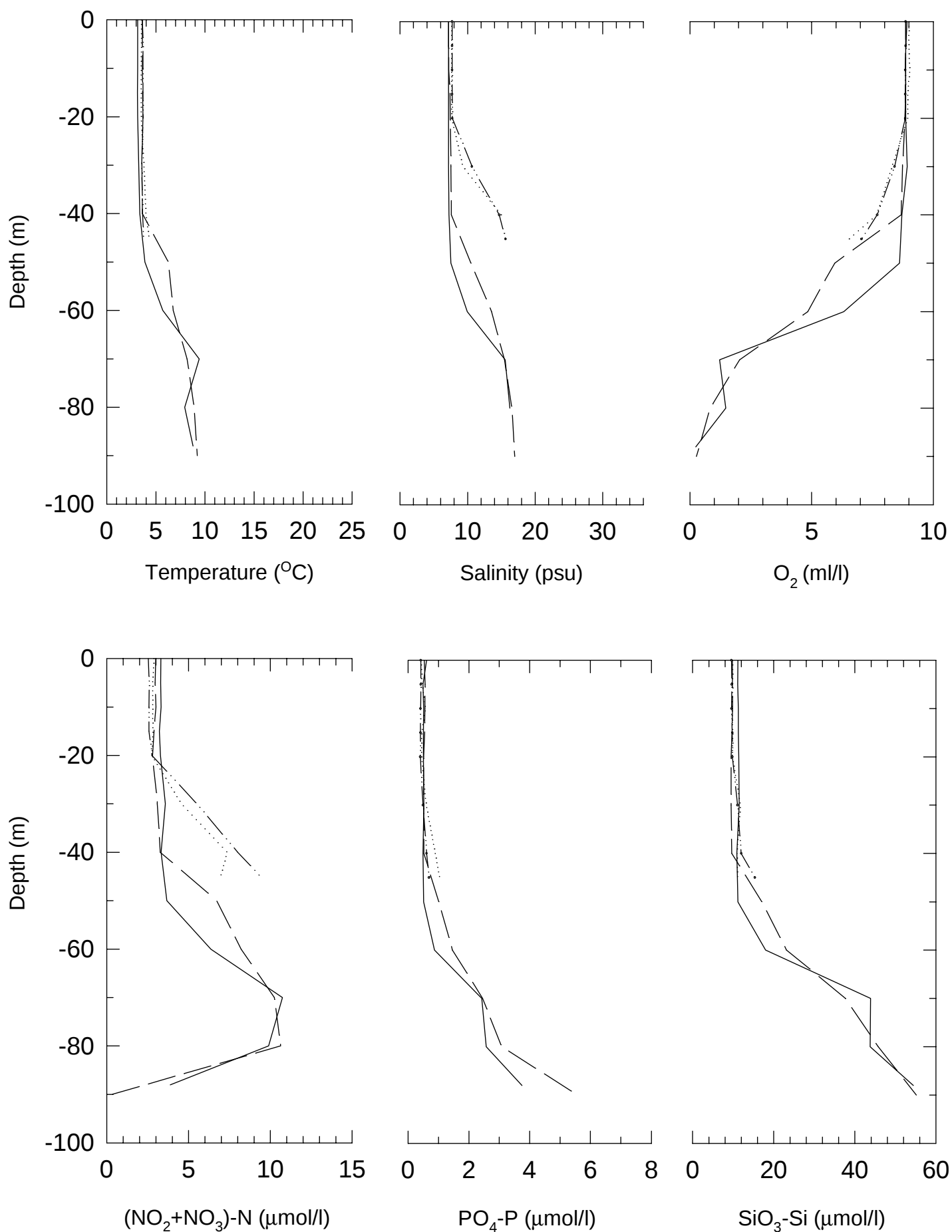


KATTEGAT and THE SOUND 980315-980320

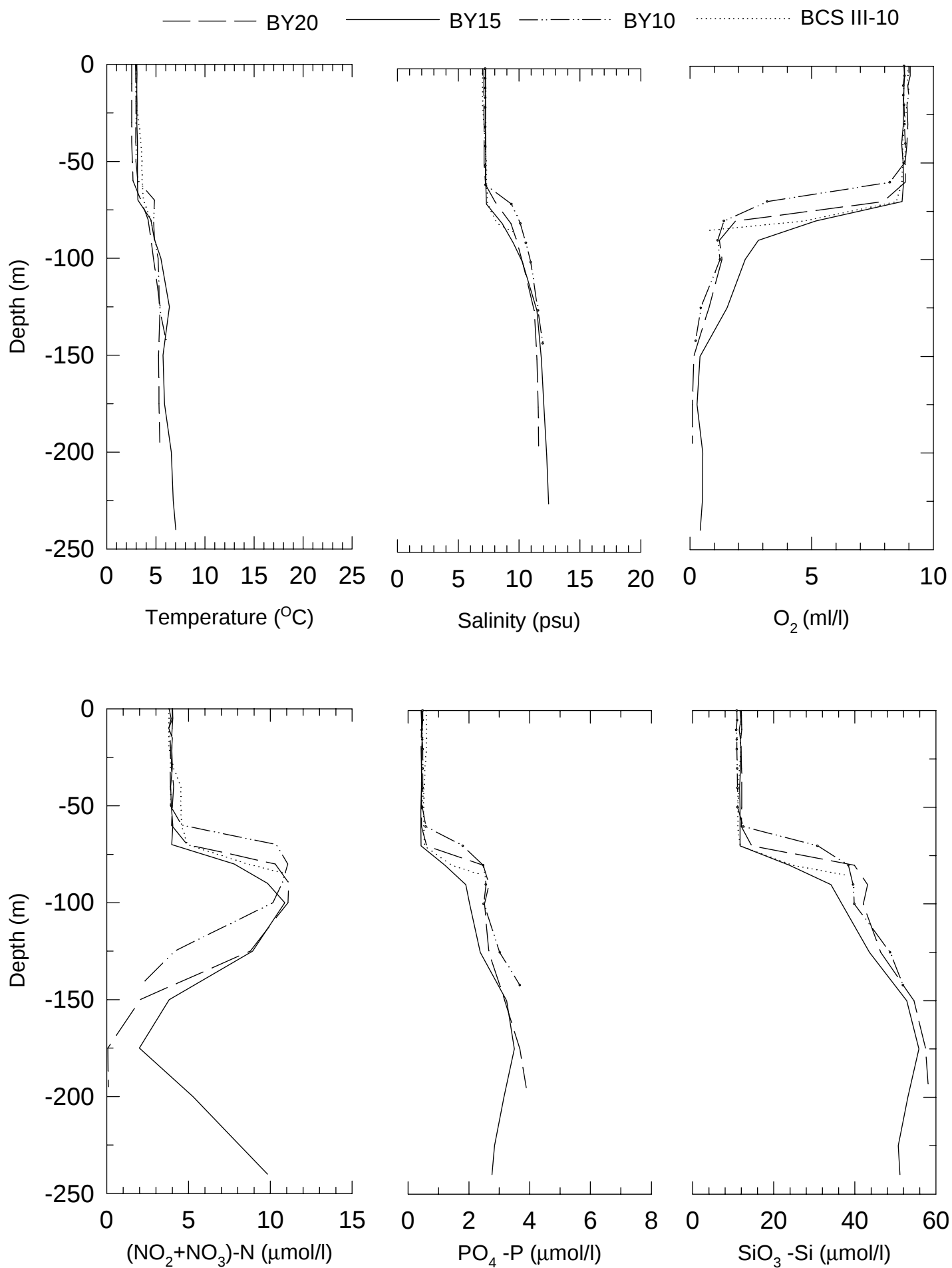


SOUTH BALTIC 980315-980320

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



EAST BALTIC 980315-980320



WEST BALTIC 980315-980320

— BY31 - - - BY32 BY38

