

## Rapport från SMHIs utsjöexpedition med R/V Svea

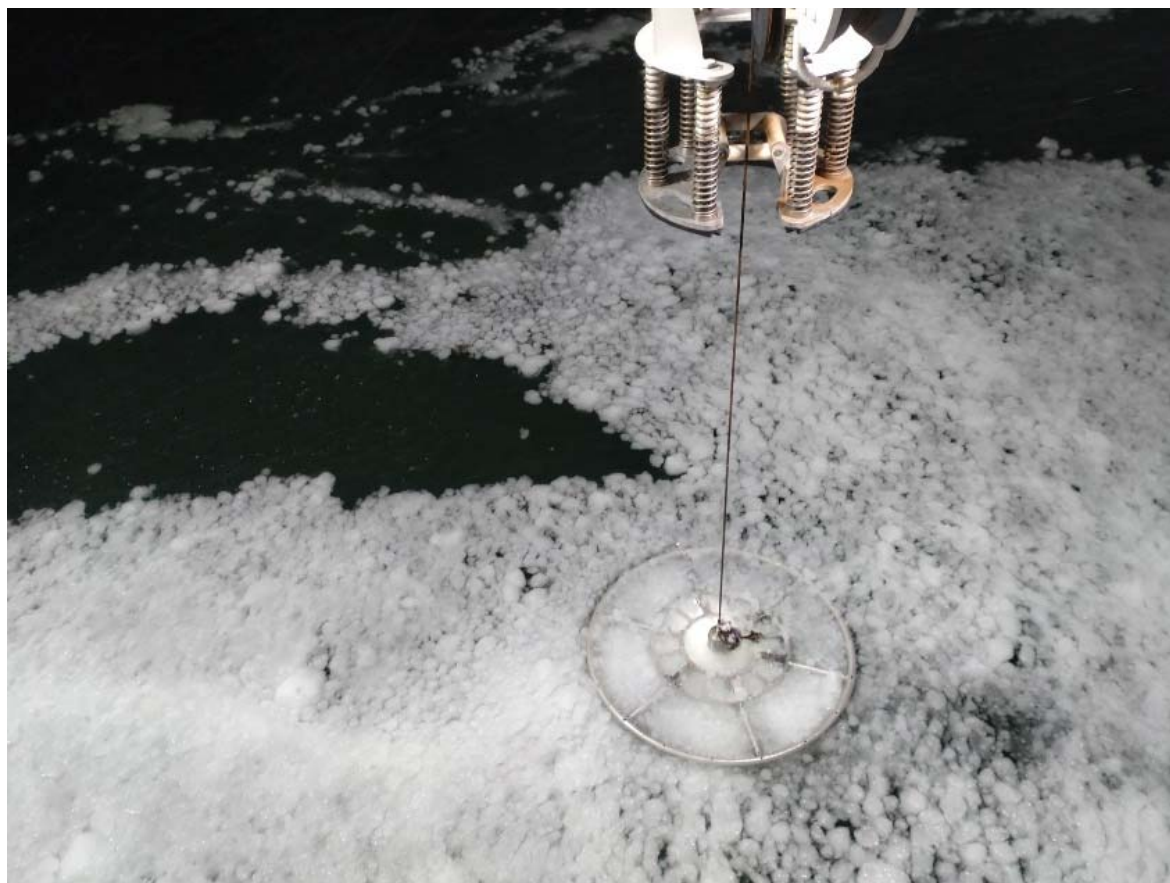


Foto: Anna-Kerstin Thell

**Expeditionens varaktighet:** 2026-02-04 till 2026-02-11

**Uppdragsgivare:** Sveriges Meteorologiska och Hydrologiska Institut (SMHI),  
Havs- och Vattenmyndigheten (HaV)

**Samarbetspartners:** Sveriges Lantbruksuniversitet (SLU), Sjöfartsverket (SjöV)

## **SAMMANFATTNING**

Under expeditionen, som ingår i det svenska pelagiala övervakningsprogrammet, besöktes Skagerrak, Kattegatt, Öresund och Egentliga Östersjön. I Egentliga Östersjön genomfördes kartering av näringsämnen.

Temperaturen i ytvattnet var under det normala i Västerhavet och varierade från  $-0,5$ – $1^{\circ}\text{C}$  medan de för årstiden var normala i Östersjön och låg runt  $1$ – $3,5^{\circ}\text{C}$ .

I Skagerrak hade salthalten minskat till runt 22 psu p.g.a. de kraftiga ostliga vindarna som varat under en längre period. Koncentrationen av lösta oorganiska näringsämnen hade minskat i ytvattnet och de låg under det normala för månaden. Även i Kattegatt var halterna av DIN (löst oorganiskt kväve) under det normala och hade minskat sedan januari, medan silikat och fosfathalterna var ungefär de samma.

Syresituationen var god vid samtliga stationer i Skagerrak, Kattegatt och Öresund, ingen syrebrist noterades.

I Egentliga Östersjön hade koncentrationen av näringsämnen ökat vid de flesta stationerna sedan januari. Koncentrationen av DIN var normal medan fosfat och silikat var över det normala i hela Egentliga Östersjön.

I Arkonabassängen var syresituationen god i bottenvattnet och koncentrationen av syre hade ökat något sedan januari. I Bornholmsbassängen var det akut syrebrist med halter under 1 ml/l. I Östra Gotlandsbassängen var det syrefritt och svavelväte uppmättes från 90 m och det var akut syrebrist från 75 m. I norra Egentliga Östersjön var det syrefritt från 80–90 m och akut syrebrist från 75 m. I Västra Gotlandsbassängen varierade djupet för akut syrebrist och helt syrefritt från 70 respektive 80 m vid BY31 till 90 respektive 100 m vid BY38.

SMHI:s nästa ordinarie expedition med R/V Svea är planerad till 8:e–14:e mars, med start i Kalmar och avslut i Göteborg.

## EXPEDITIONSÖVERSIKT

Expeditionen genomfördes ombord på R/V Svea och startade i Lysekil den 4:e februari och avslutades i Kalmar på morgonen den 11:e februari. Vädret under expeditionen var mestadels mulet med kraftiga vindar från ost, och även snöfall i Kattgatt i början av expeditionen. Lufttemperaturen låg mellan -5 och +1 °C hela veckan.

Alla 42 planerade stationer provtogs, och den årliga vinterkarteringen av näringsämnen i Egentliga Östersjön genomfördes. Vid passage plockades vågbojen vid Knolls grund upp pga. risken för nedisning.

Sveas instrument för att mäta profiler under gång, MVP, kördes inte under expeditionen på grund av frysrisk. Ferryboxsystemet kördes under större delen, men vattensystemet var tvunget att stängas av tidvis pga. kraftiga vågor. ADCPn kördes kontinuerligt under hela expeditionen.

Rapporten är baserad på data som genomgått en första kvalitetskontroll och som är jämförd mot månadsmedelvärde för perioden 1991–2020. När ytterligare kvalitetsgranskning genomförts kan vissa värden komma att ändras. Värden som anges i rapporten har avrundats till närmaste tiondel och kan därför skilja sig från publicerade värden. Data publiceras så fort som möjligt på datavärdens hemsida, normalt inom ca en vecka efter avslutad expedition. Vissa analyser utförs efter expeditionen och publiceras därför senare.

Mer information om vårt datavärdskap och för att ladda ner data se denna länk:

<https://www.smhi.se/data/oceanografi/datavardskap-oceanografi-och-marinbiologi>

Mer information om algsituationen finns att läsa i Algaware-rapporten:

<https://www.smhi.se/publikationer/publikationer/algrapporter>

## RESULTAT

### Skagerrak

Temperaturen i ytvattnet var under det normala och varierade från -0,5 till 1 °C. Salthalten i ytvattnet låg runt 22 psu och var under det normala på samtliga stationer i Skagerrak. Vid stationerna Å13 till Å17 var det välblandat ner till 10–15 meter där termoklin och haloklin sammanföll. Närmare kusten, vid Släggö och P2 låg denna skiktning lite längre ner, kring 20 meter.

En blomning kunde observeras i hela Skagerrak och på de kustnära stationerna Släggö och Å13 hade koncentrationen av lösta oorganiska näringsämnen i ytvattnet minskat nu i februari jämfört med förra mättillfället. DIN (löst oorganiskt kväve) låg runt 0,1–0,3 µmol/l, fosfat 0,3–0,4 µmol/l och silikat 2,2–5,4 µmol/l. Längre ut på stationerna Å15, Å17 och P2 var halterna av DIN lägre än normalt (0,8–1,8 µmol/l), halterna av fosfat var normala (0,5 µmol/l), medan silikat låg högre än normalt (8 µmol/l).

Syresituationen i bottenvattnet var god vid samtliga stationer i Skagerrak, normala värden för årstiden uppmättes med koncentrationer runt 5,5 ml/l.

Klorofyllfluorescens är ett mått på planktonaktivitet som mäts med en sensor monterad på CTDn<sup>1</sup>. Förhöjda värden av klorofyllfluorescens uppmättes i ytlagret på samtliga stationer i Skagerrak, vilket är ett tecken på att en algblomning pågår.

### **Kattegatt och Öresund**

Temperaturen i ytvattnet hade minskat sedan januari och låg kring -0,4–1,2 °C, vilket är under det normala för årstiden. Salthalten i ytvattnet låg runt 22 psu på samtliga stationer i Kattegatt, medan den i Öresund låg runt 10 psu. Termoklin och haloklin sammanföll kring 20 meter i Kattegatt medan den vid stationen W Landskrona i Öresund låg runt 10 meter.

Koncentrationen av DIN i ytvattnet var under det normala i Kattegatt, 0,2–1,9 µmol/l och normala i Öresund, 6 µmol/l, medan halterna av fosfat och silikat var normala i hela Kattegatt, 0,4–0,5 µmol/l och 5,9–8,9 µmol/l respektive. I Öresund var fosfat och silikat mycket över det normala. Halterna av silikat hade ökat till 20,7 µmol/l och fosfat låg på 0,95 µmol/l.

Syrehalterna i Kattegatts bottenvattnet var normala för årstiden, kring 6 ml/l vid samtliga stationer.

Klorofyllfluorescensen var hög i ytvattnet även i Kattegatt, vilket indikerar att en algblomning pågår, medan fluorescensen var låg i Öresund.

### **Egentliga Östersjön**

Temperaturen i ytlagret var normal för månaden vid samtliga stationer i Egentliga Östersjön och varierade mellan 1 och 3,5°C. Salthalten i ytlagret varierade från som lägst 7 psu i Västra Gotlandsbassängen till som högst 8,4 psu i Arkonabassängen. Salthalten var normal i större delen av Egentliga Östersjön, men över det normala i den södra delen av Östra Gotlandsbassängen.

I Arkonabassängen var vattnet välblandat ner till 35 m där termoklin och haloklin sammanföll. I Bornholmsbassängen såväl som i övriga södra delen av Östersjön sträckte sig det välblandade ytlagret ner till 50–60 m. I Östra- och Västra Gotlandsbassängen var det välblandat ner till 65–80 m.

Vid de flesta stationerna hade koncentrationen av näringsämnen ökat något i ytvattnet sedan januari. Koncentrationen av löst oorganiskt kväve var normal i ytlagret och varierade kring 2,8–5,3 µmol/l. Koncentrationen av fosfat och silikat var över det normala i hela Egentliga Östersjön, och låg mellan 0,72–0,93 µmol/l och 17,7–22,5 µmol/l respektive.

I Arkonabassängen var syresituationen god i bottenvattnet och koncentrationen av syre hade ökat något sedan januari. Vid stationerna BY4 och Hanöbukten var syrekoncentrationerna ungefär samma som i januari men vid BY5 hade mängden syre i bottenvattnet minskat jämfört med förra mätningen, och låg nu runt 0,6 ml/l. I Östra Gotlandsbassängen var det syrefritt och svavelväte uppmättes från ungefär 90–100 m och

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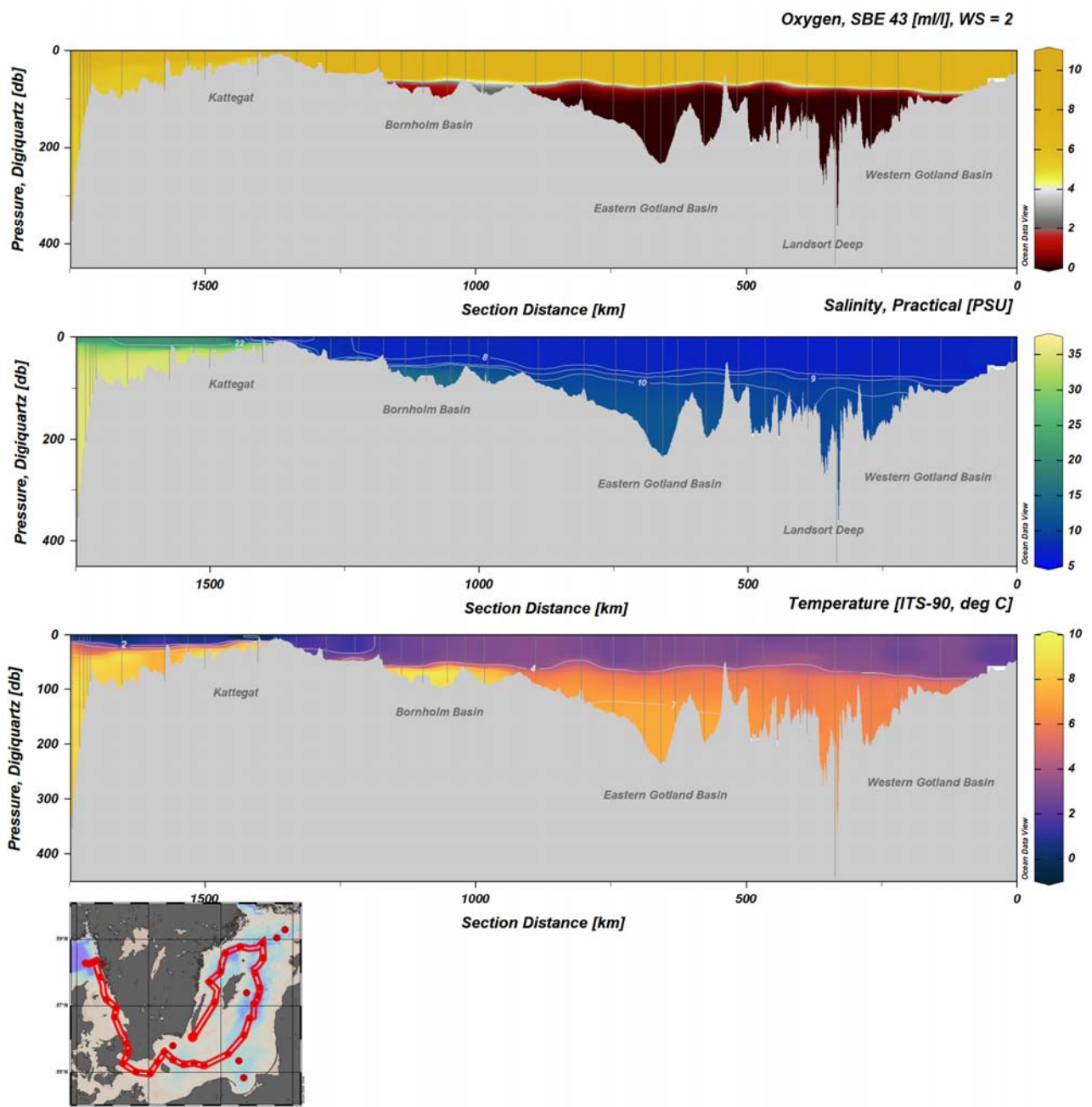
<sup>1</sup> CTD är ett profilerande mätinstrument och står för Conductivity, Temperature, Depth. SMHI:s CTD är även bestyckad med sensorer som mäter syre och fluorescens bland annat.

det var akut syrebrist från 75 m. I norra Egentliga Östersjön låg denna gränsen något högre upp i vattenmassan och där var det syrefritt från 80–90 m och akut syrebrist från 75 m. I Västra Gotlandsbassängen varierade djupnivån för syrefritt vatten och akut syrebrist från 80 respektive 70 m vid BY31, till 90 respektive 100 m vid BY38.

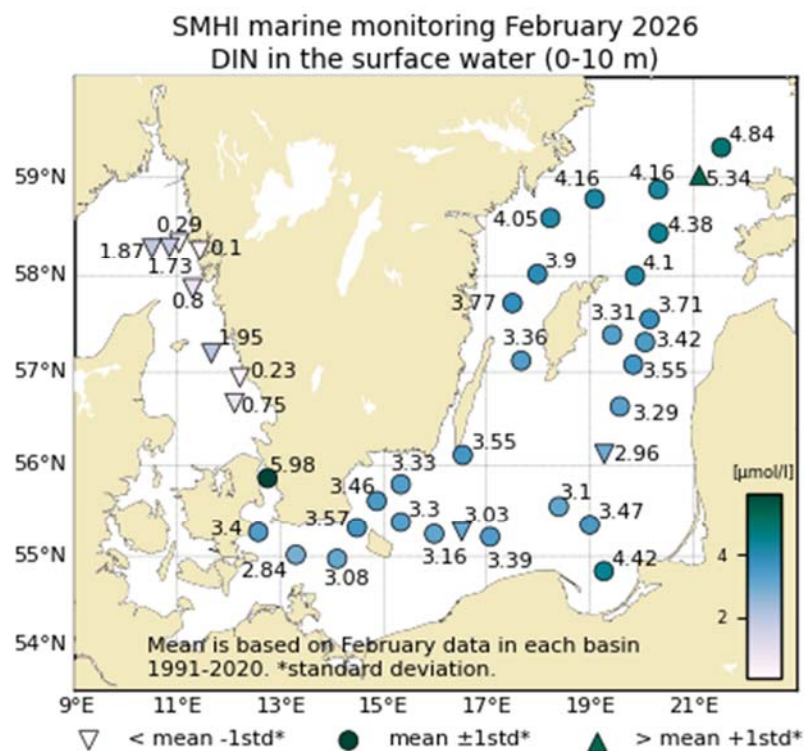
Fluorescensmätningar från CTDn visade inte på någon pågående algbloomning i Östersjön.

Mer information om algsituationen finns att läsa i Algaware-rapporten för februari:

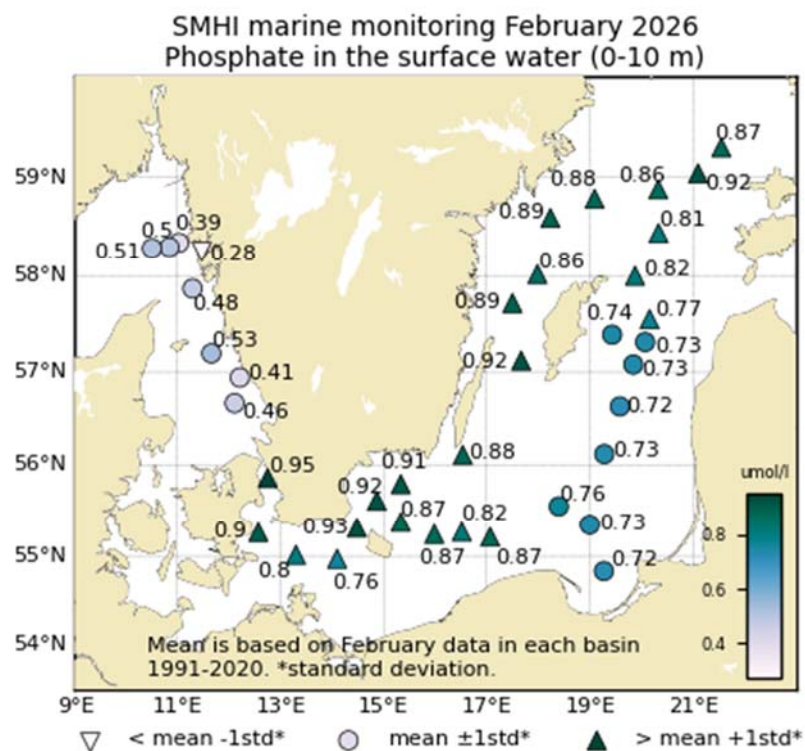
<https://www.smhi.se/publikationer/publikationer/algrapporter>.



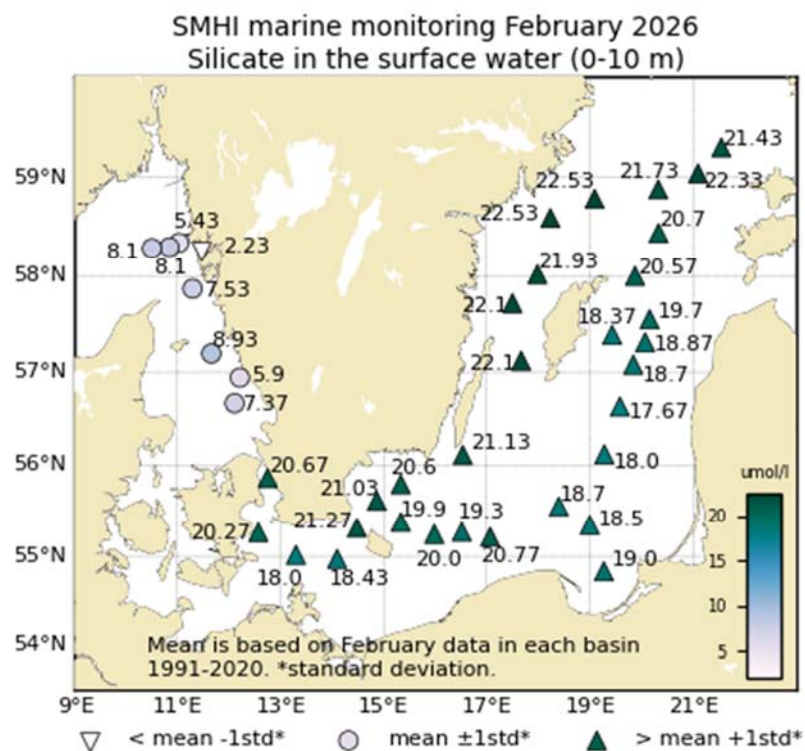
Figur 1. Snitt som visar syrekonzentration, salthalt och temperatur från mätningar med CTD och MVP, från Skagerrak till Östra Gotlandsbassängen och vidare in i Västra Gotlandsbassängen.



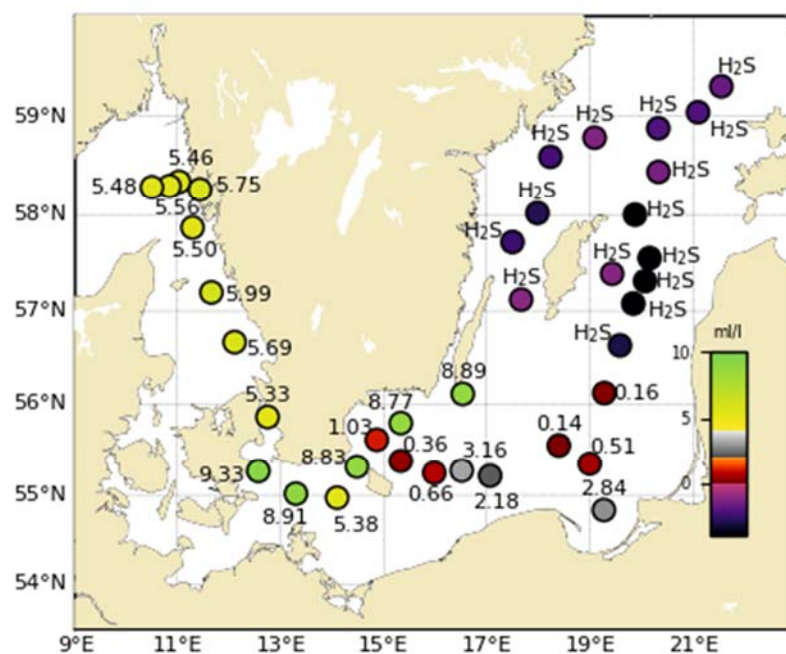
Figur 2. Koncentrationen ( $\mu\text{mol/l}$ ) av oorganiskt kväve i ytvattnet (0-10m).



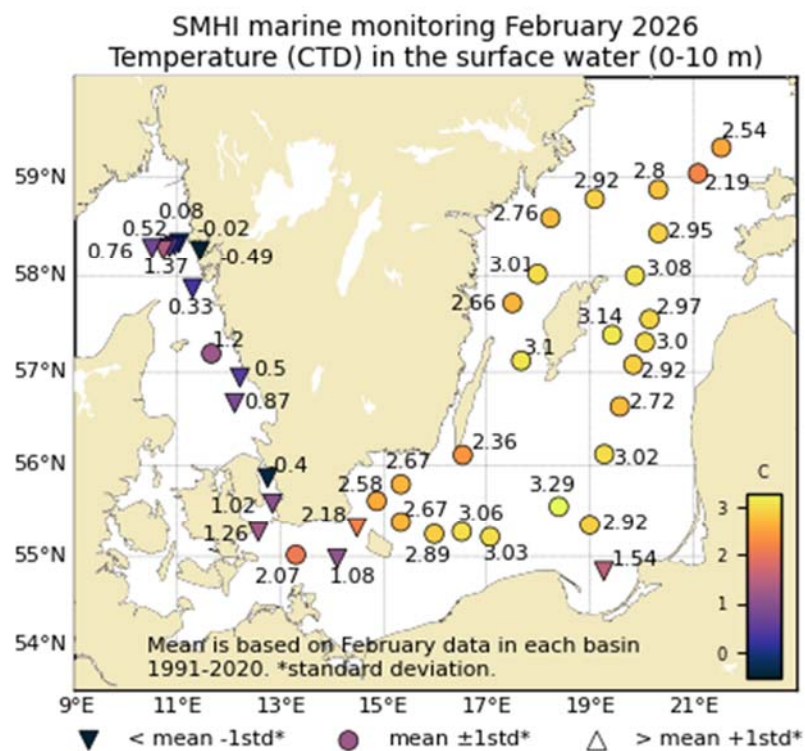
Figur 3. Koncentrationen ( $\mu\text{mol/l}$ ) av fosfat i ytvattnet (0-10m).



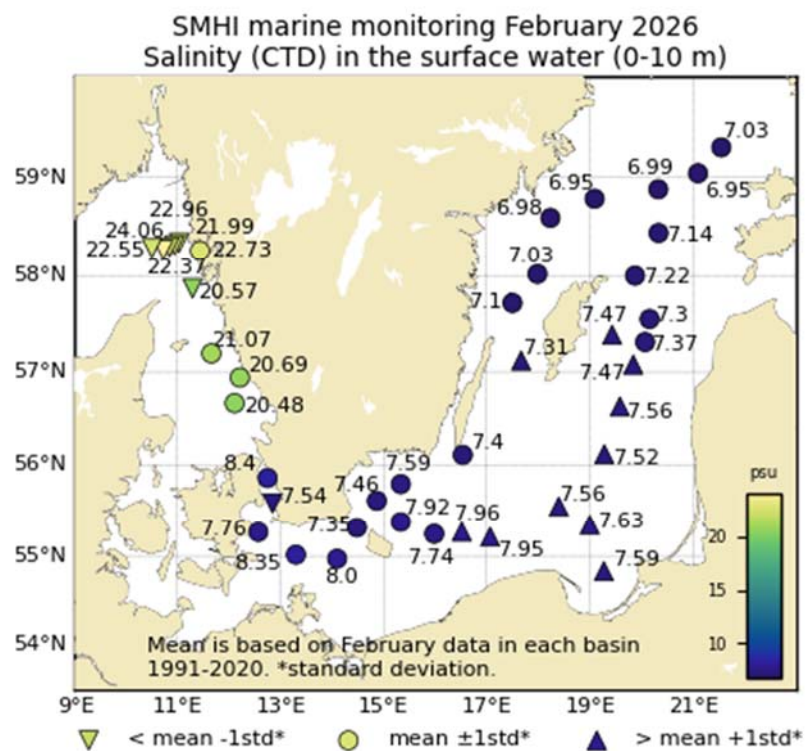
Figur 4. Koncentrationen ( $\mu\text{mol/l}$ ) av silikat i ytvattnet (0-10m).



Figur 5. Syrekoncentrationen (ml/l) i bottenvattnet.



Figur 6. Temperaturen i ytvattnet (0-10m).



Figur 7. Salthalten i ytvattnet (0-10m).

## DELTAGARE

Namn	Roll	Från
Sara Johansson	Expeditionsledare, Kemist	SMHI
Ann-Turi Skjevik	Marinbiolog	SMHI
Sari Sipilä	Kemist	SMHI
Anna-Kerstin Thell	Kemist	SMHI
Amanda Nylund	Marinvetare	SMHI
Johan Håkansson	Kemist	SMHI

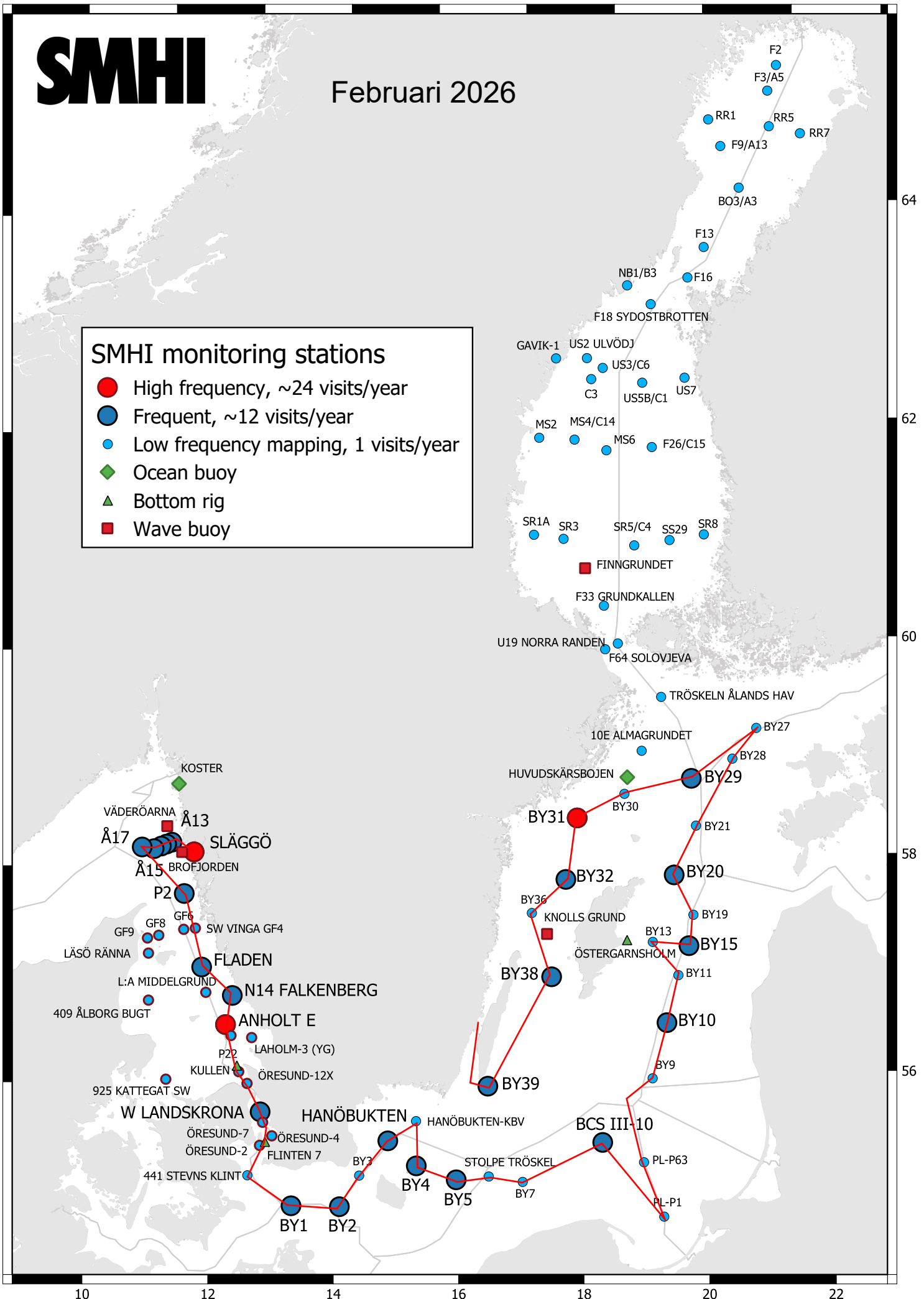
## BILAGOR

- Färdkarta
- Tabell över stationer, analyserade parametrar och antal provtagningsdjup
- Figurer över månadsmedelvärden
- Vertikalprofiler



### SMHI monitoring stations

- High frequency, ~24 visits/year
- Frequent, ~12 visits/year
- Low frequency mapping, 1 visits/year
- ◆ Ocean buoy
- ▲ Bottom rig
- Wave buoy



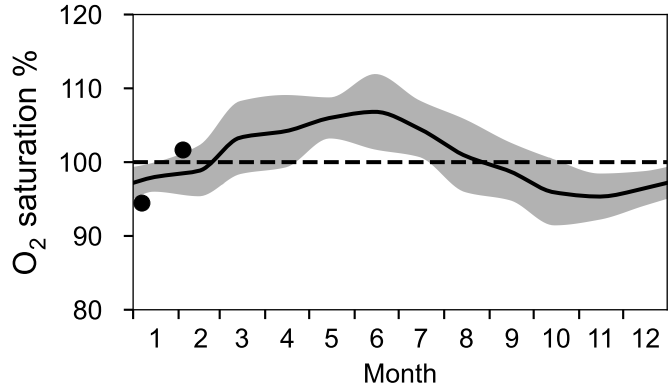
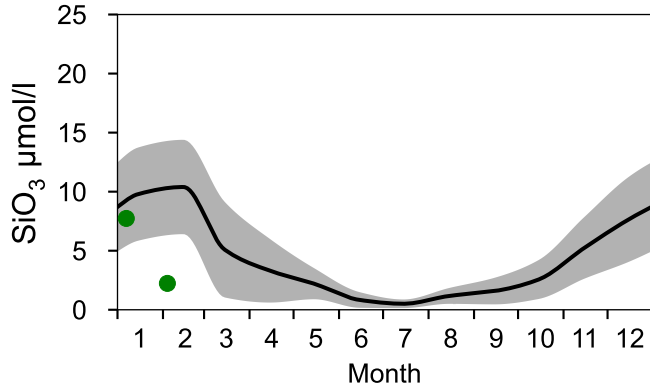
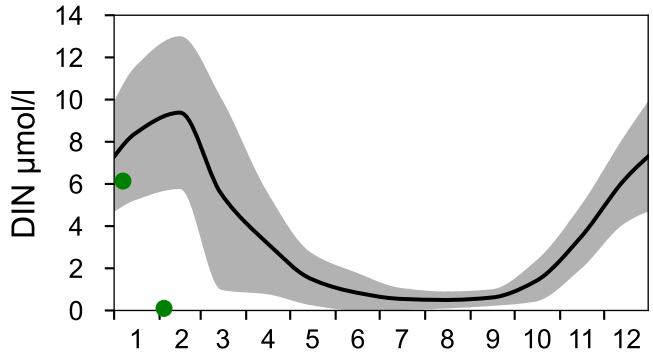
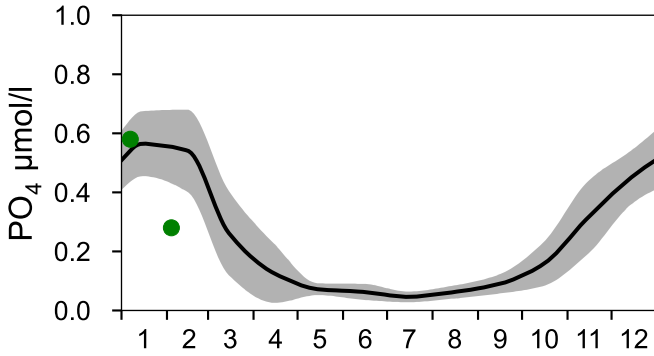
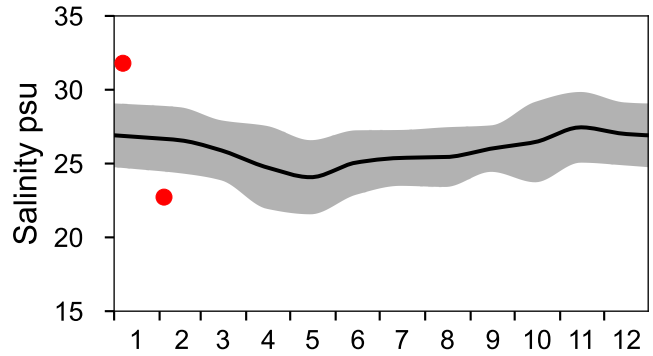
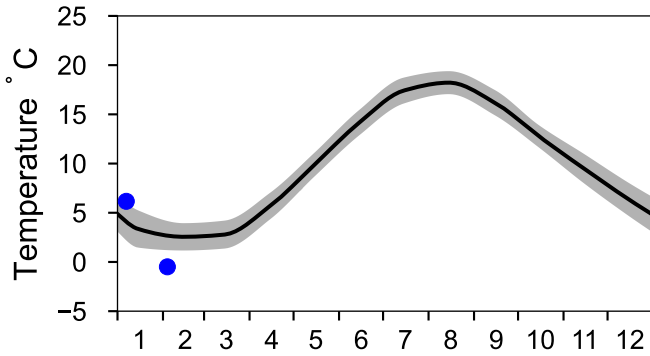




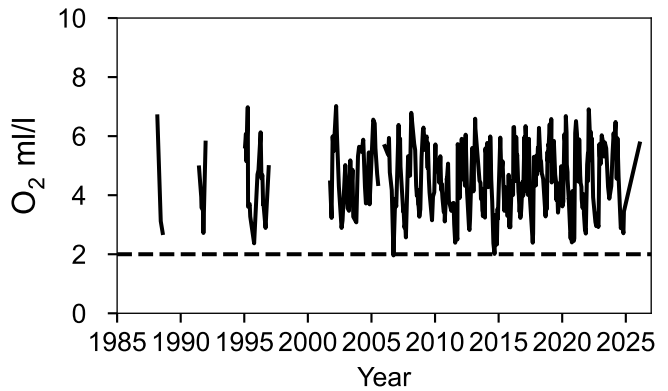
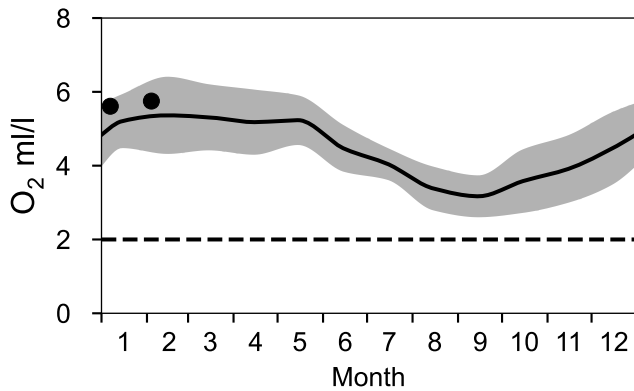
# STATION SLÄGGÖ SURFACE WATER (0-10 m)

Annual Cycles

— Mean 1991-2020    St.Dev.    ● 2026

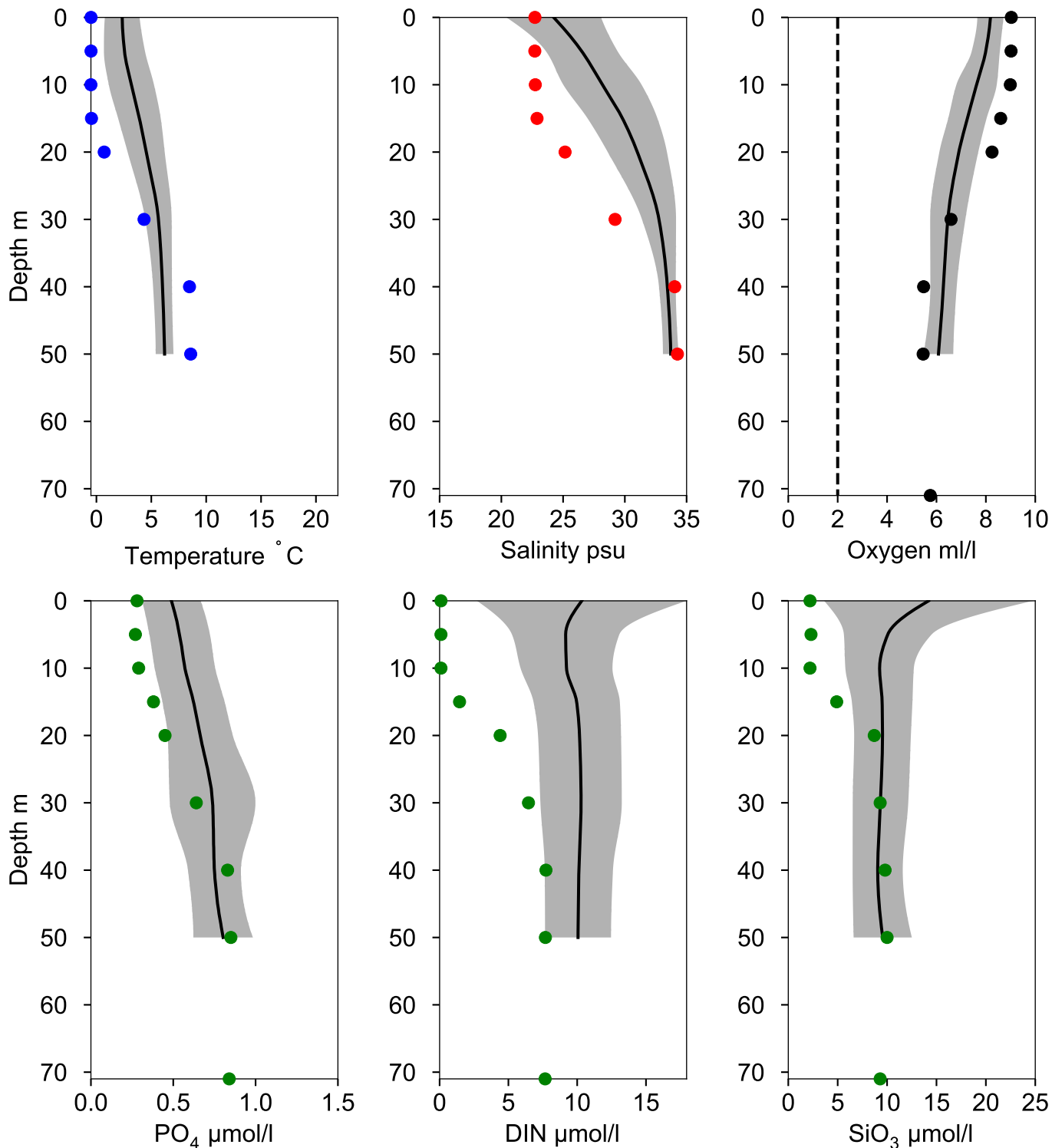


## OXYGEN IN BOTTOM WATER (depth >= 64 m)



# Vertical profiles SLÄGGÖ February

— Mean 1991-2020    St.Dev.    ● 2026-02-04



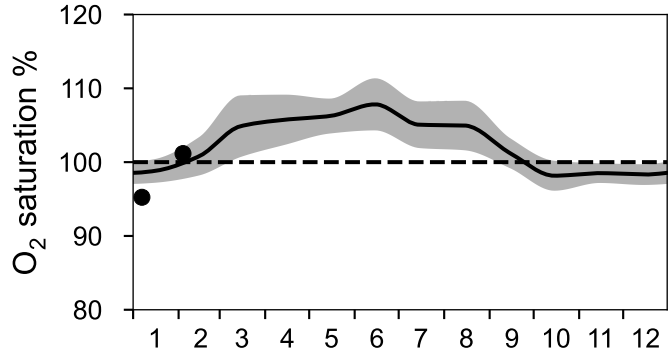
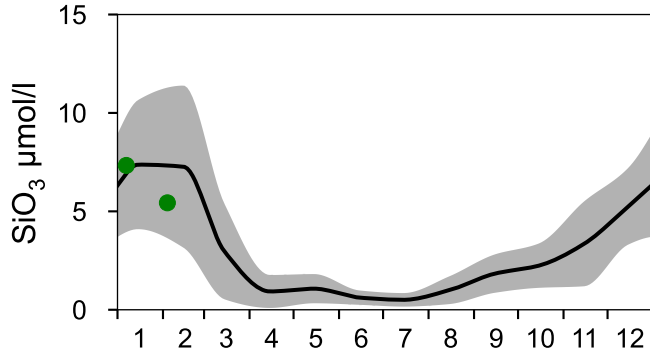
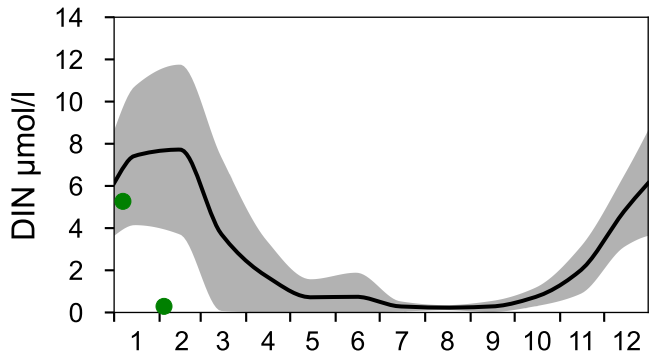
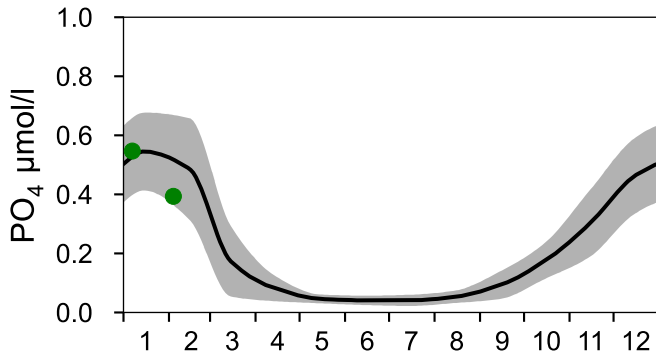
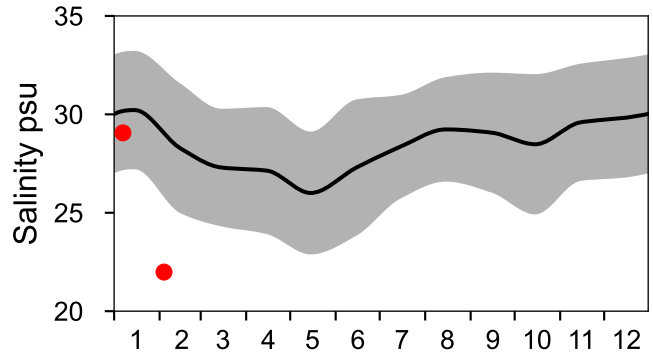
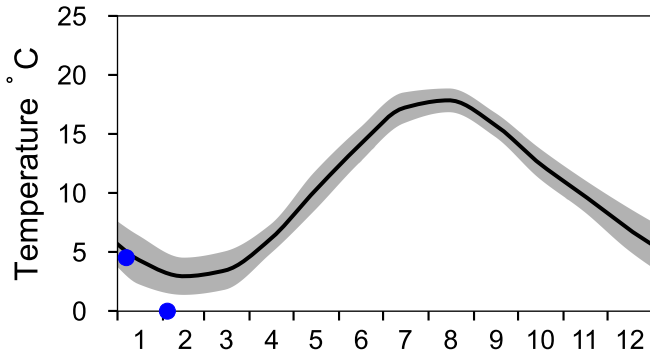
# STATION Å13 SURFACE WATER (0-10 m)

Annual Cycles

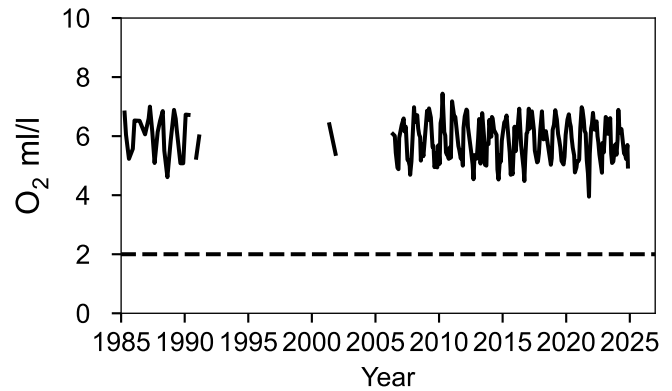
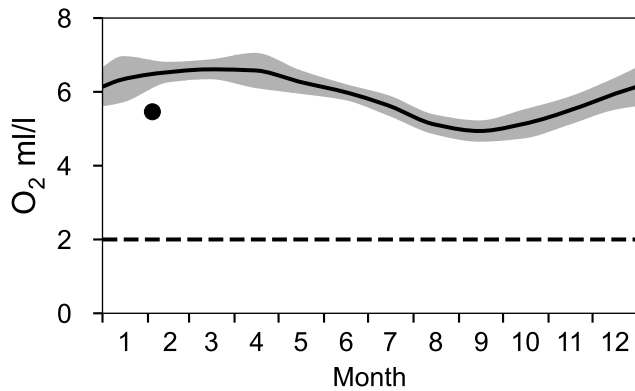
— Mean 1991-2020

■ St.Dev.

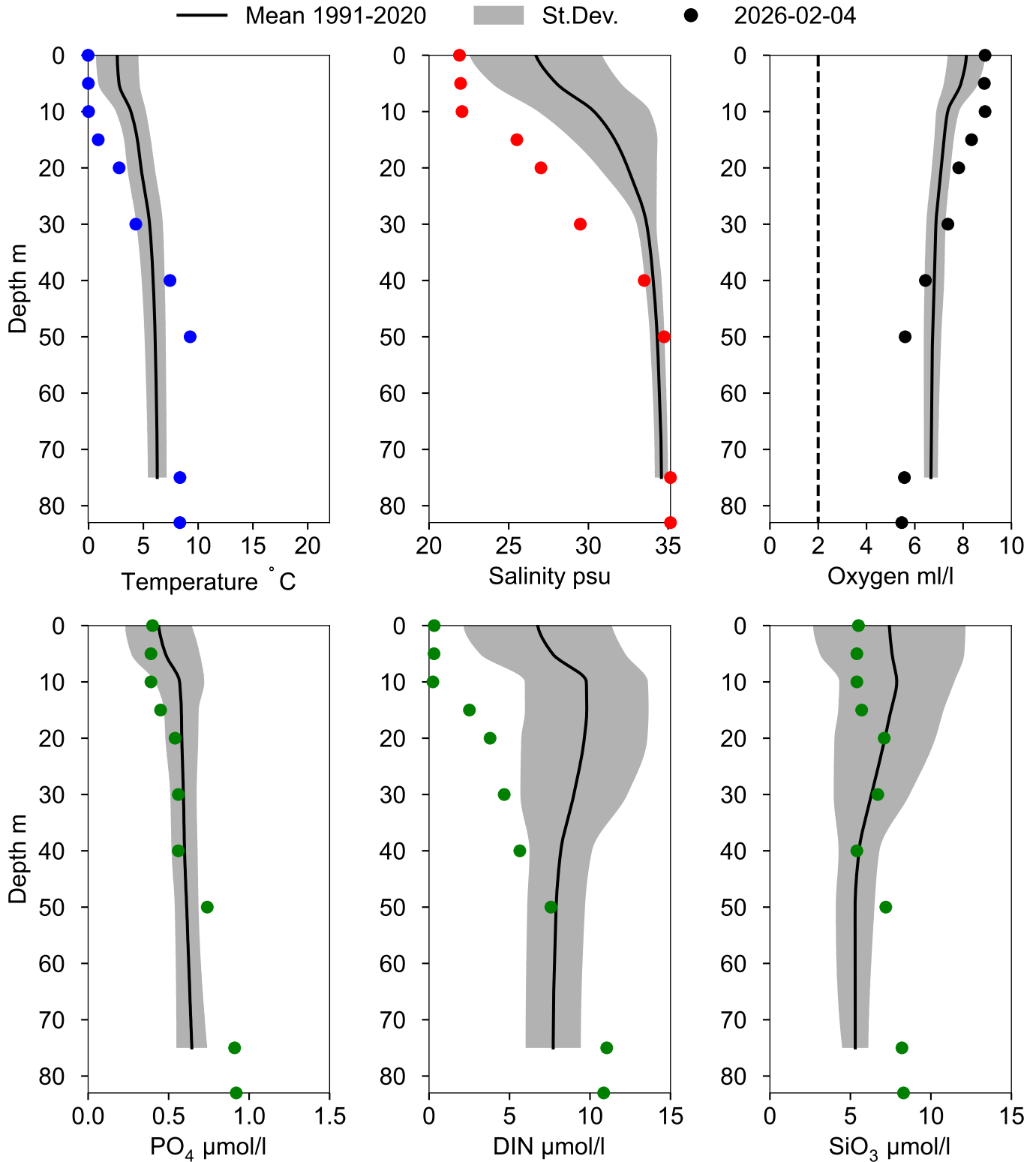
● 2026



## OXYGEN IN BOTTOM WATER (depth >= 82 m)



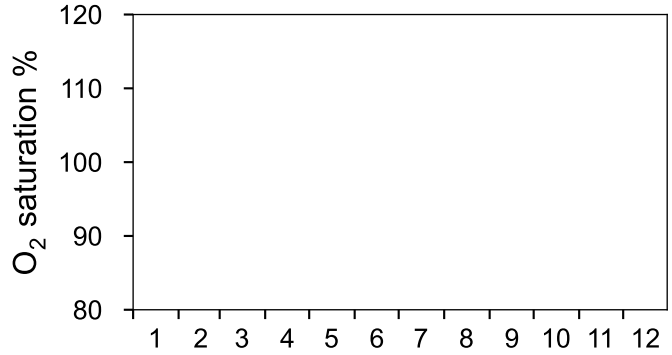
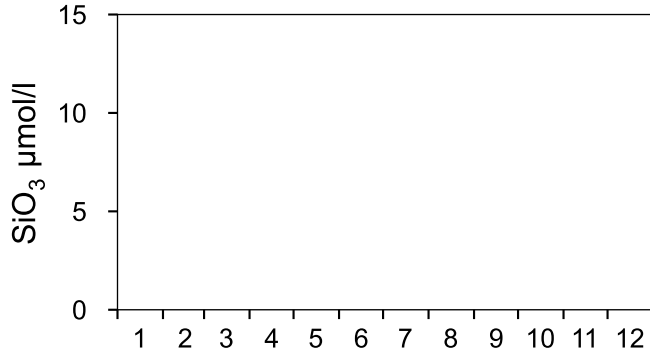
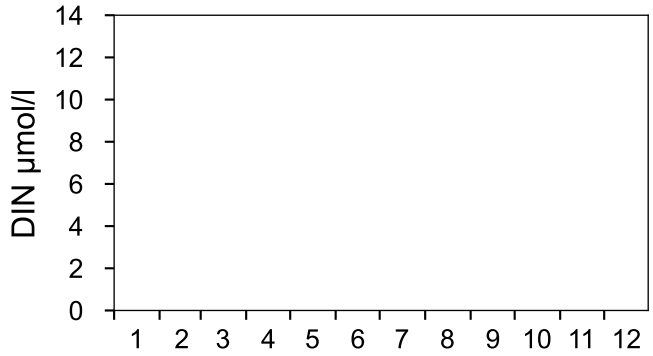
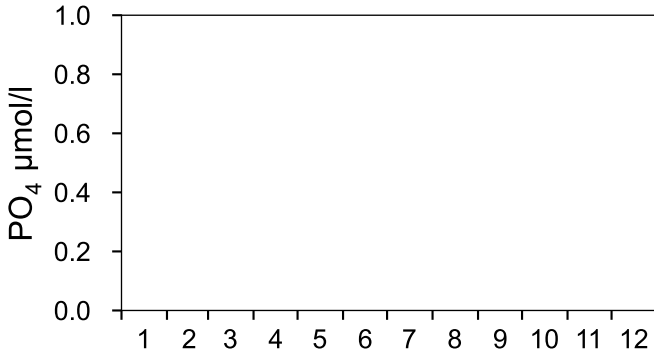
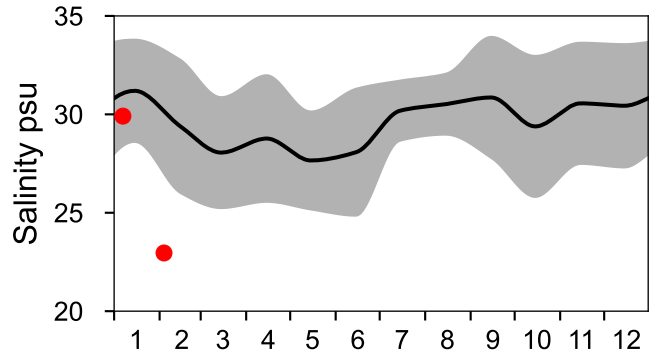
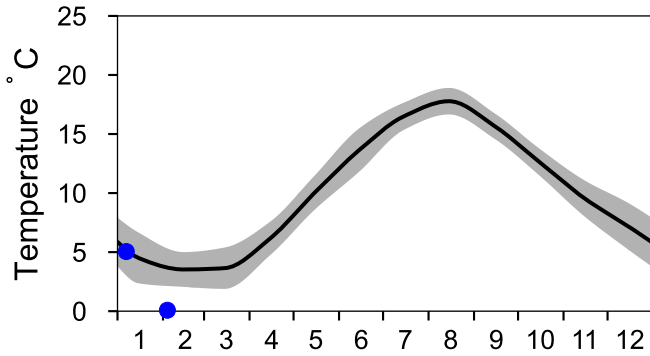
# Vertical profiles A13 February



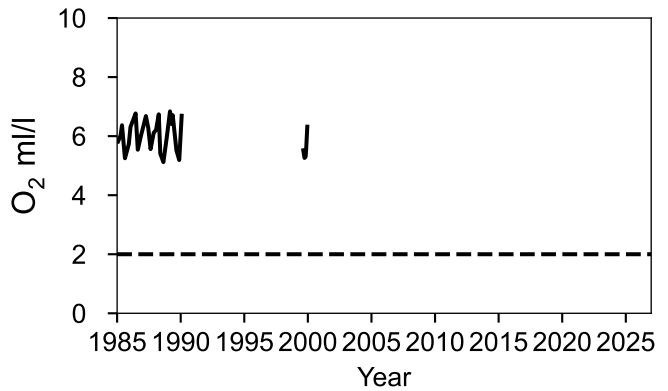
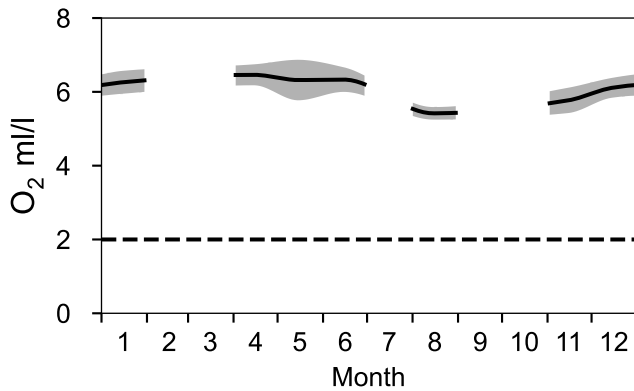
# STATION Å14 SURFACE WATER (0-10 m)

Annual Cycles

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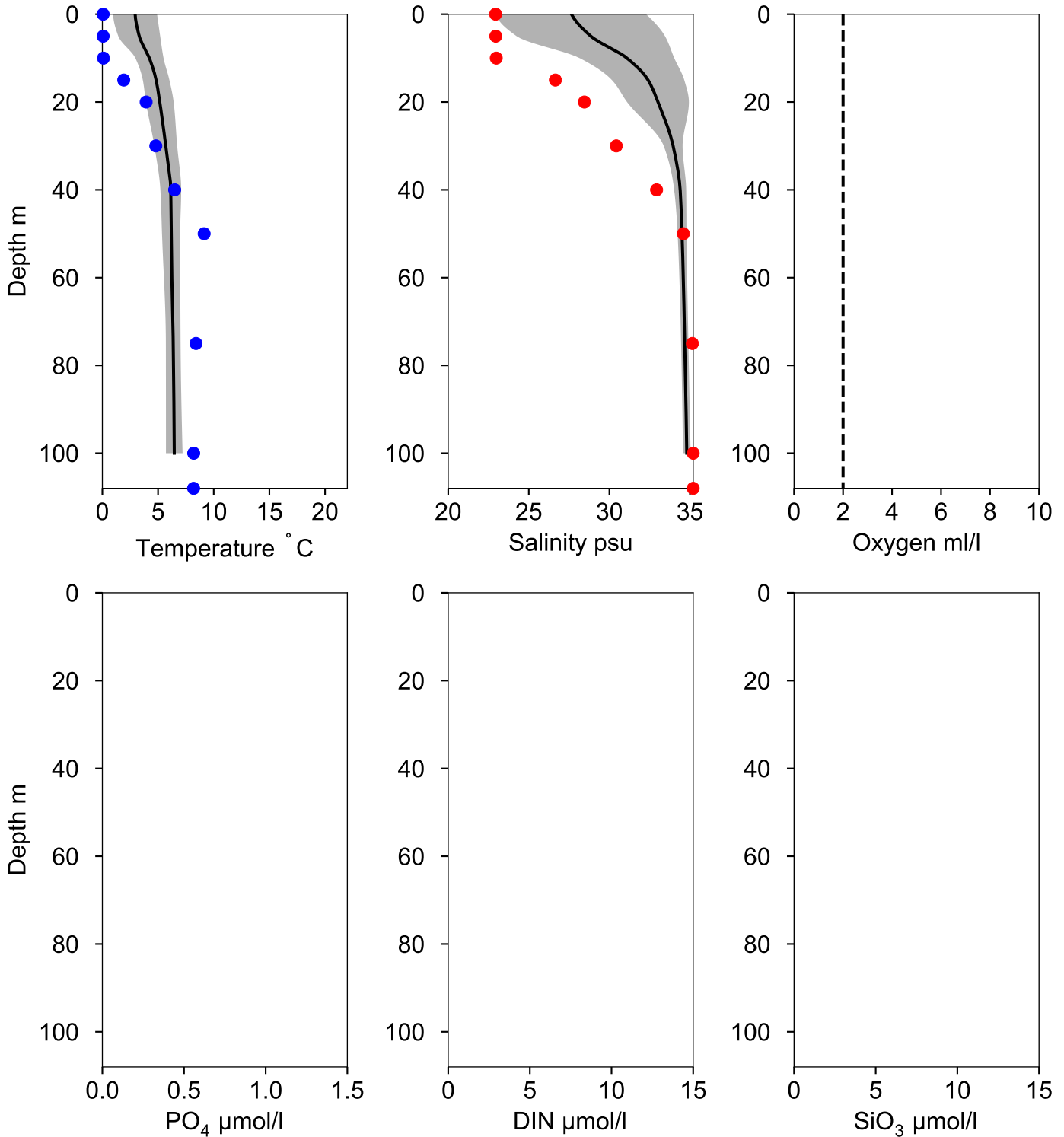


## OXYGEN IN BOTTOM WATER (depth >= 100 m)



# Vertical profiles A14 February

— Mean 1991-2020    St.Dev.    ● 2026-02-04



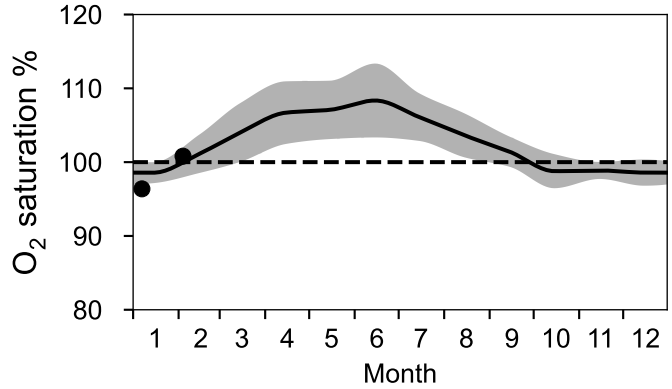
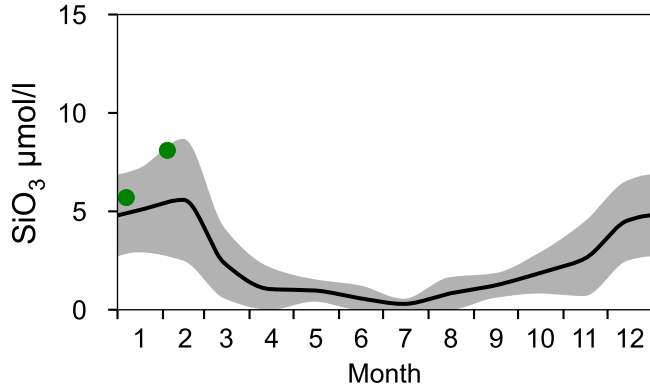
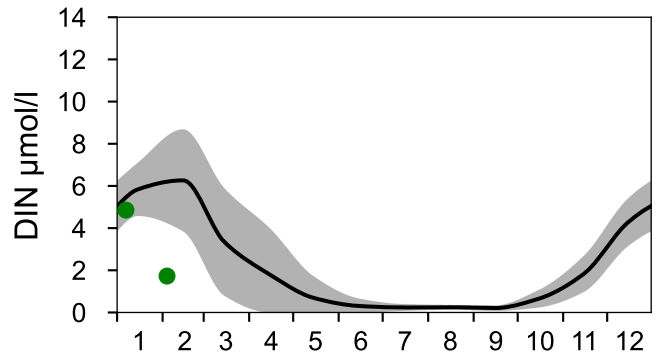
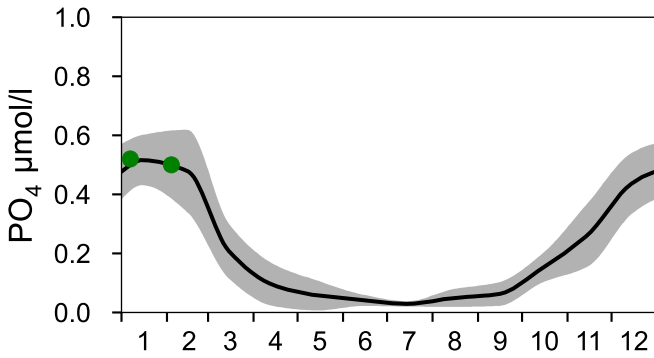
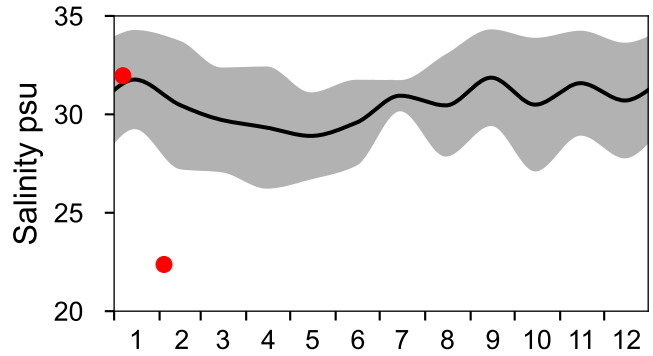
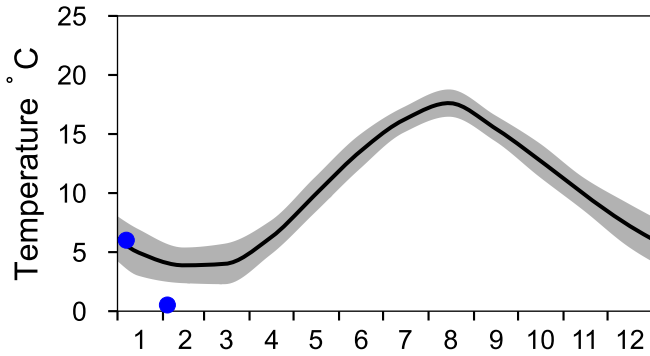
# STATION Å15 SURFACE WATER (0-10 m)

Annual Cycles

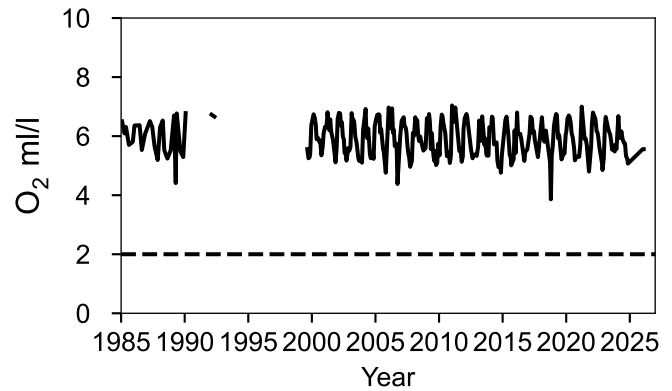
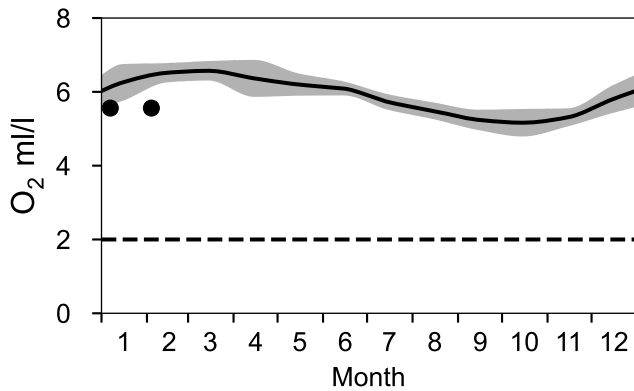
— Mean 1991-2020

■ St.Dev.

● 2026

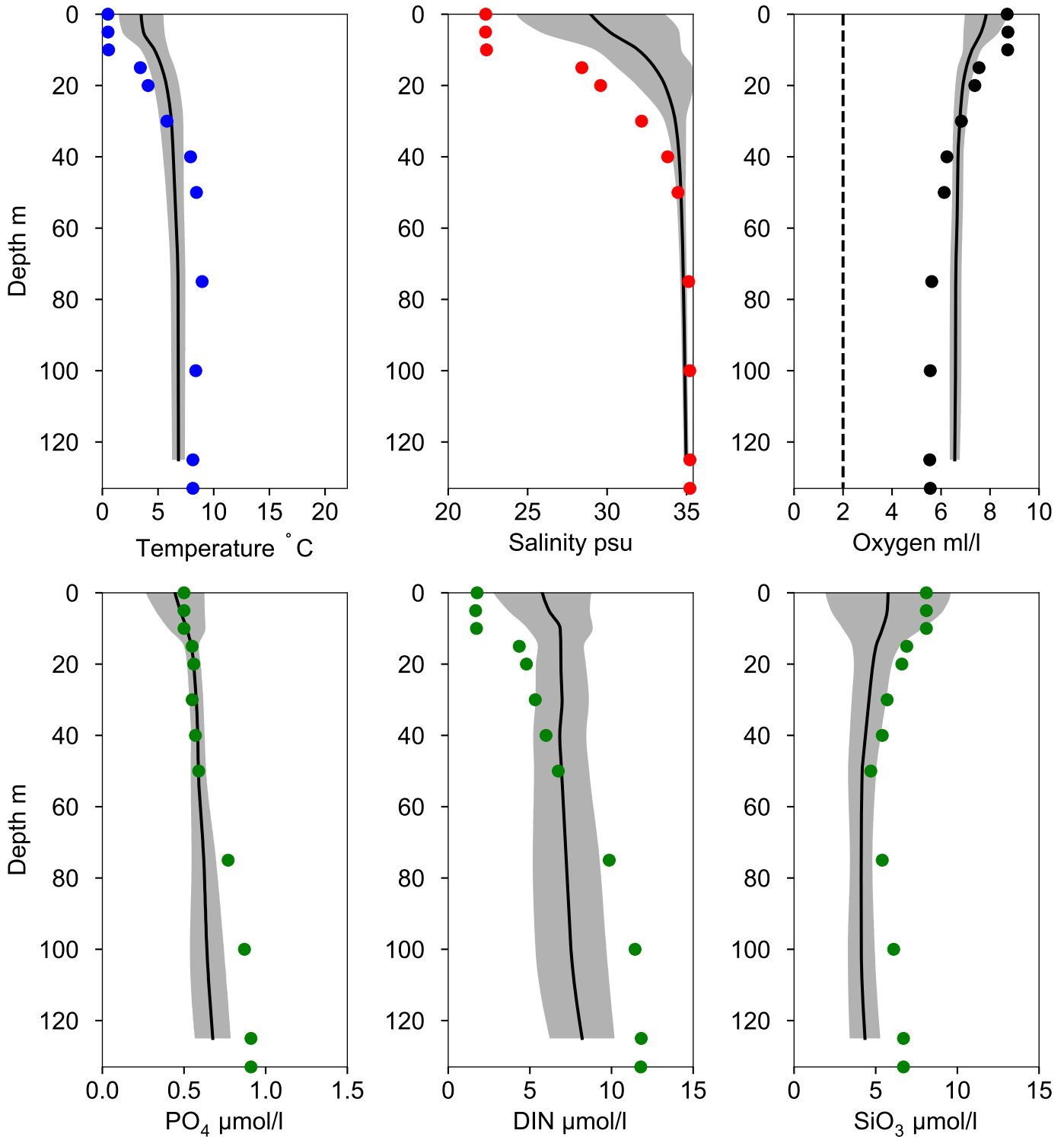


## OXYGEN IN BOTTOM WATER (depth >= 125 m)



# Vertical profiles A15 February

— Mean 1991-2020    ■ St.Dev.    ● 2026-02-04



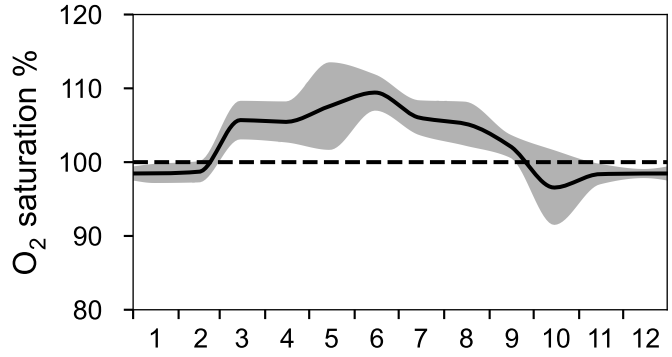
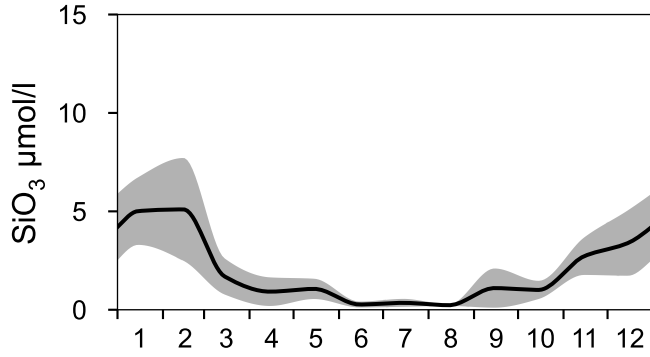
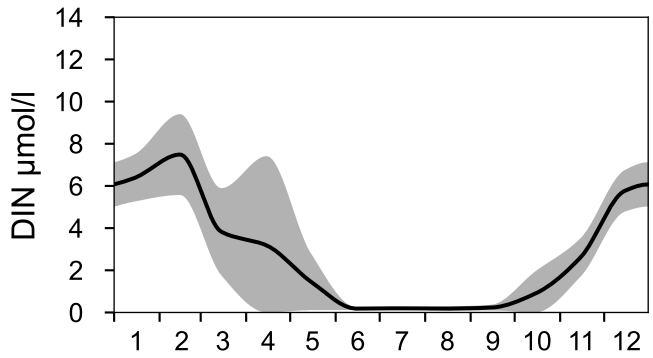
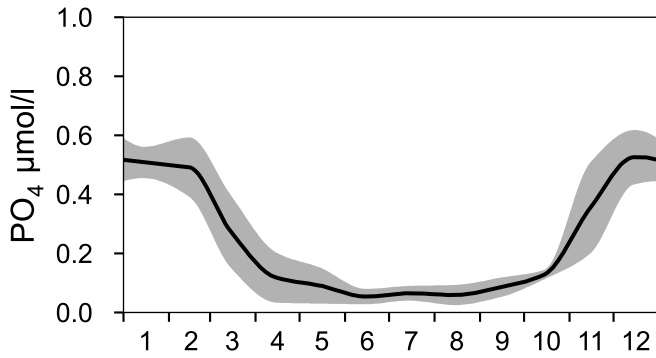
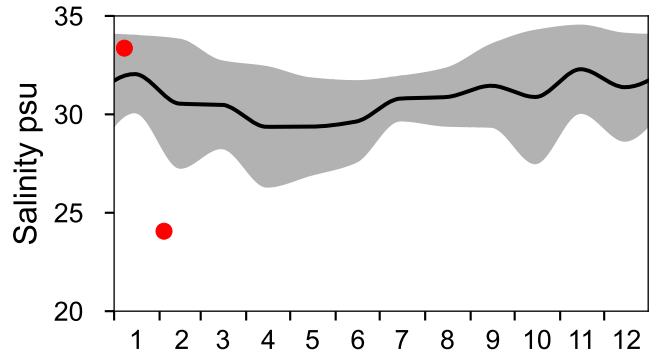
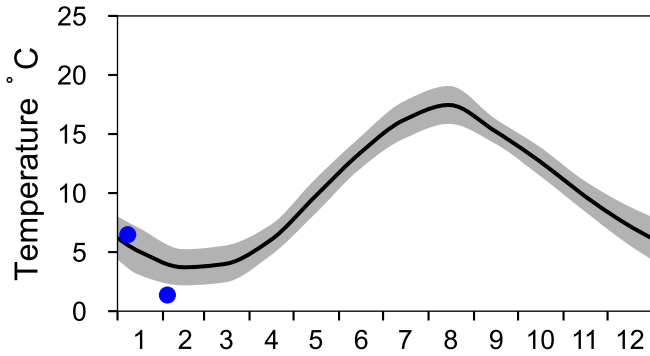
# STATION Å16 SURFACE WATER (0-10 m)

Annual Cycles

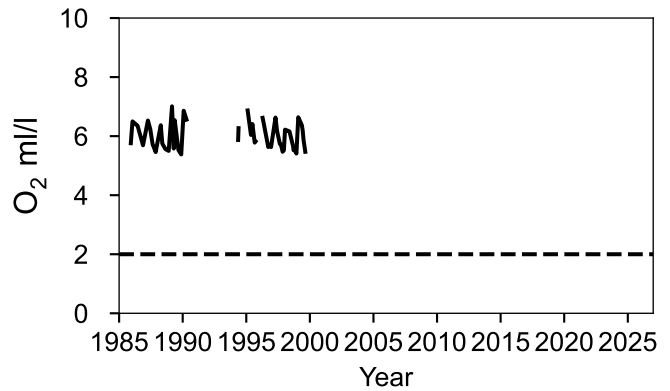
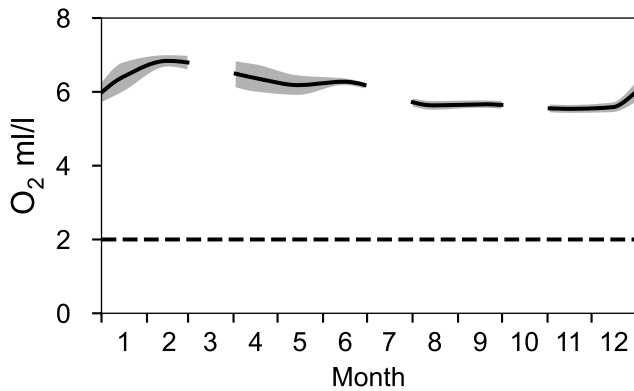
— Mean 1991-2020

■ St.Dev.

● 2026

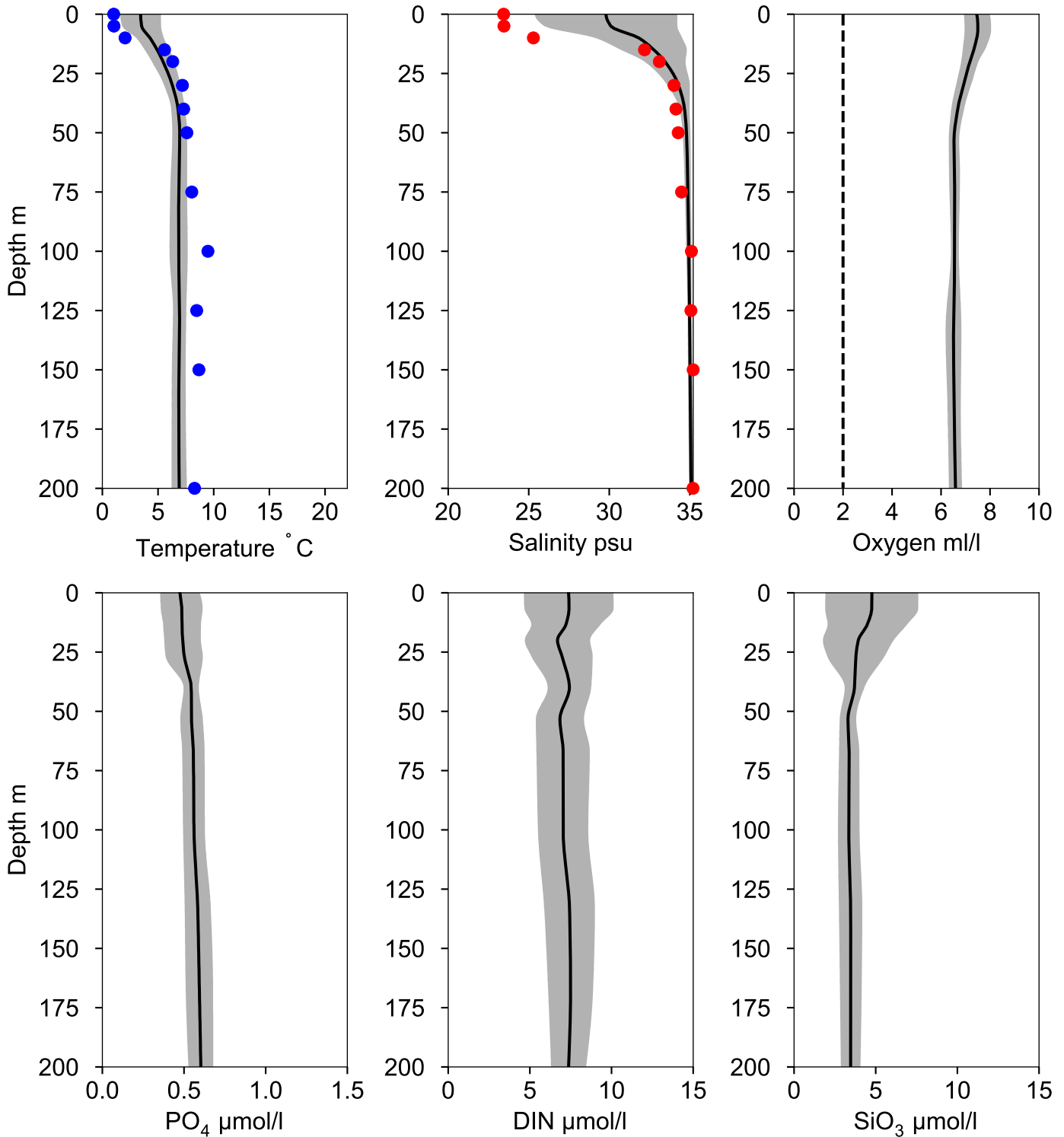


## OXYGEN IN BOTTOM WATER (depth >= 193 m)



# Vertical profiles Å16 February

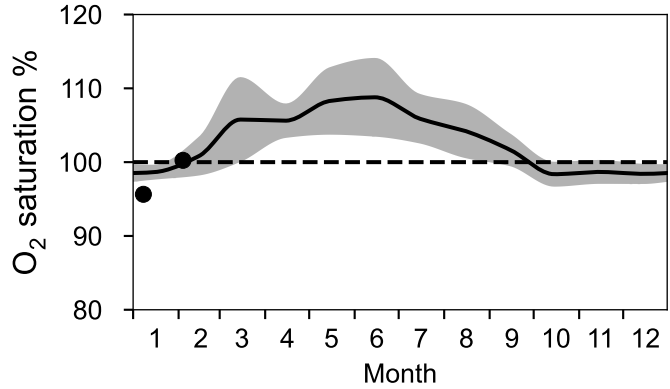
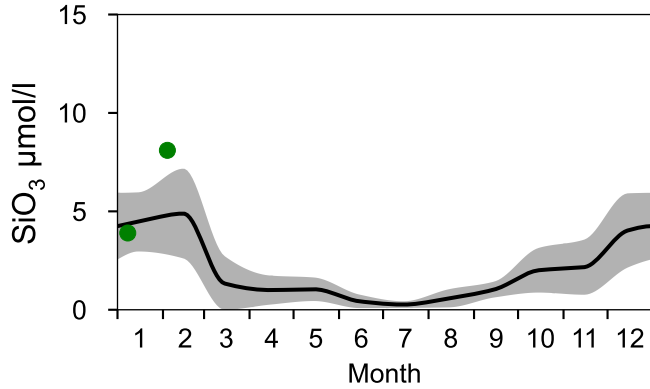
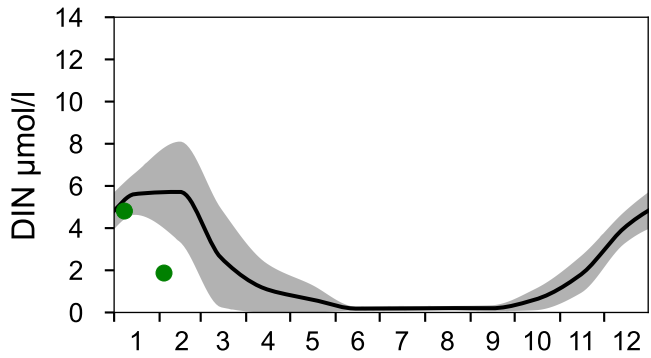
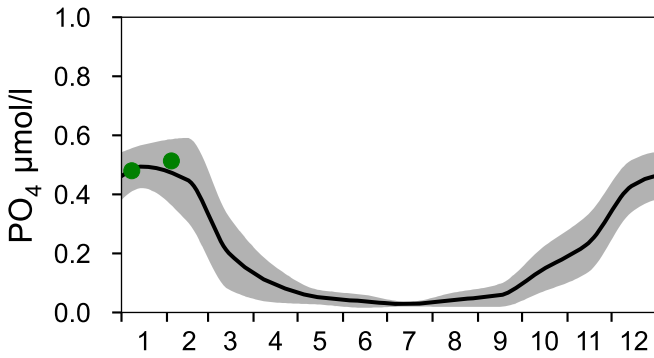
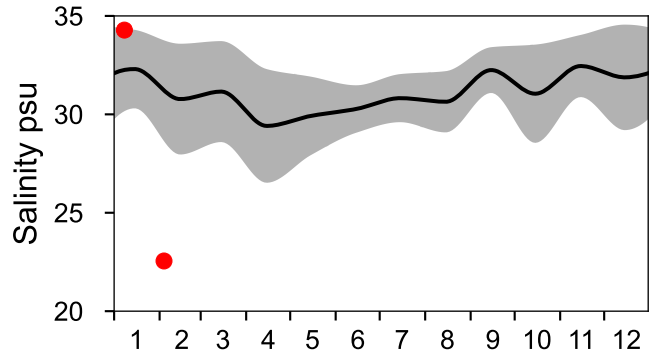
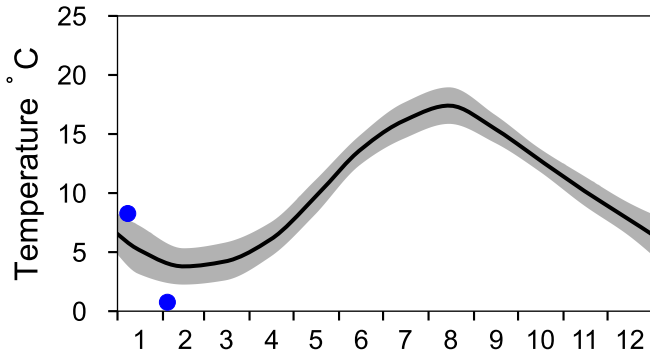
— Mean 1991-2020    ■ St.Dev.    ● 2026-02-04



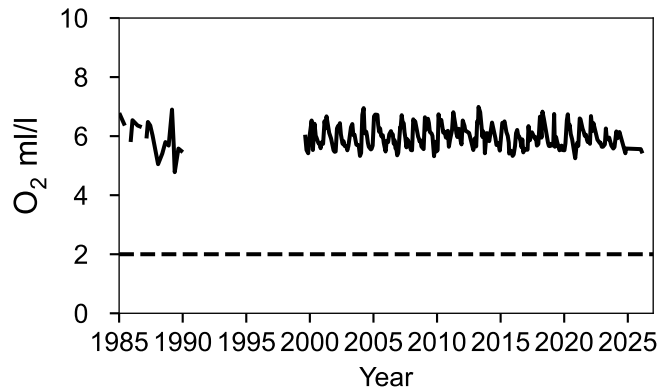
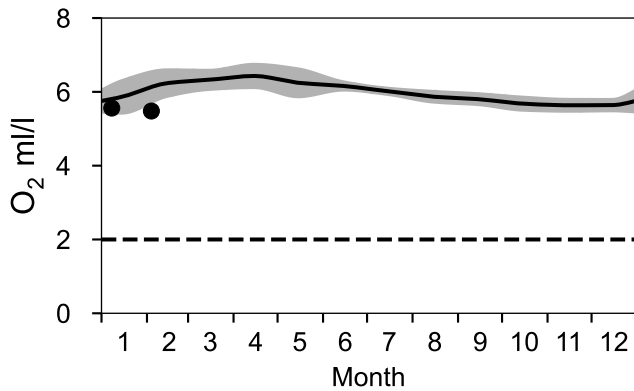
# STATION Å17 SURFACE WATER (0-10 m)

Annual Cycles

— Mean 1991-2020    St.Dev.    ● 2026

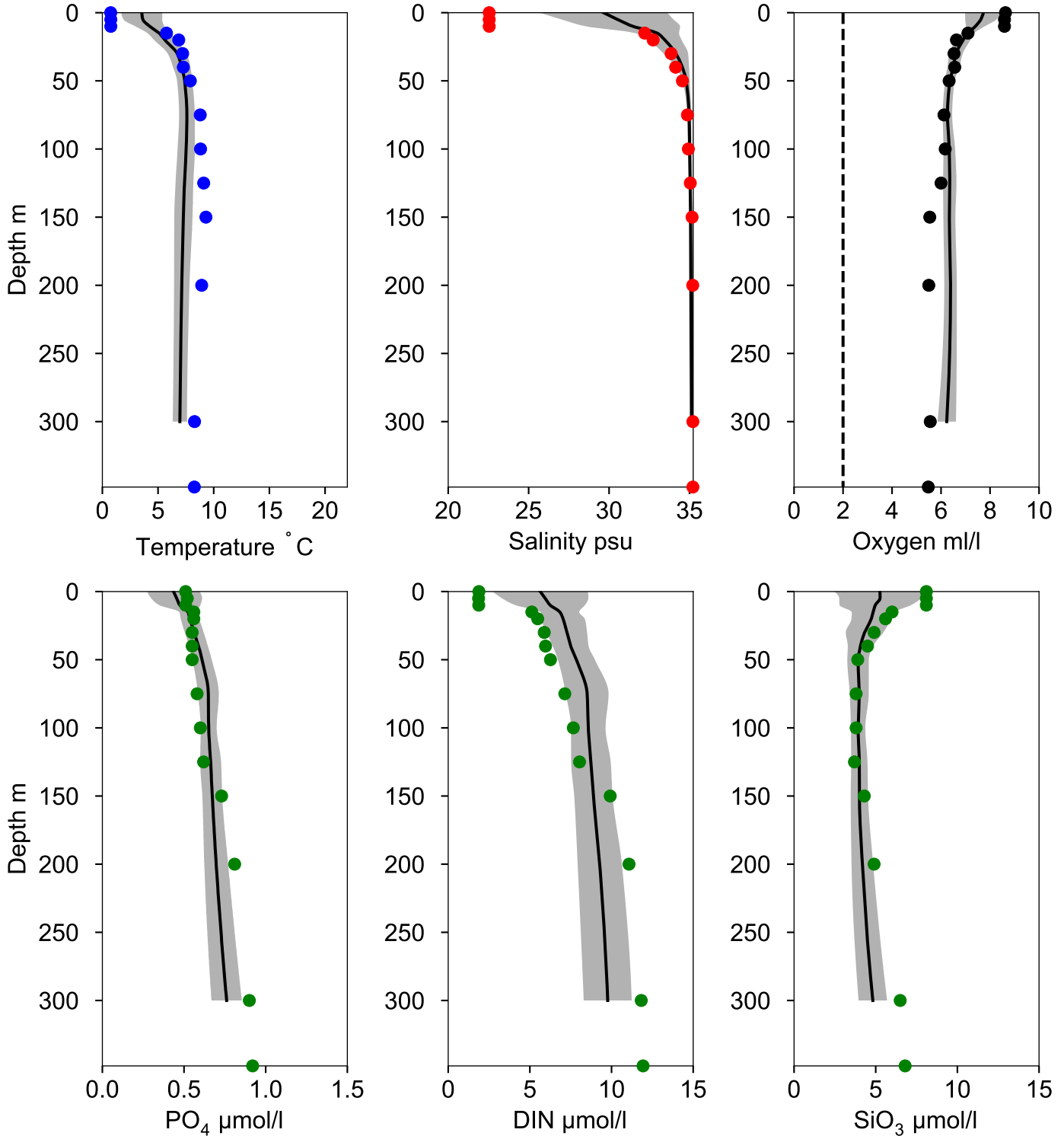


## OXYGEN IN BOTTOM WATER (depth >= 300 m)



# Vertical profiles A17 February

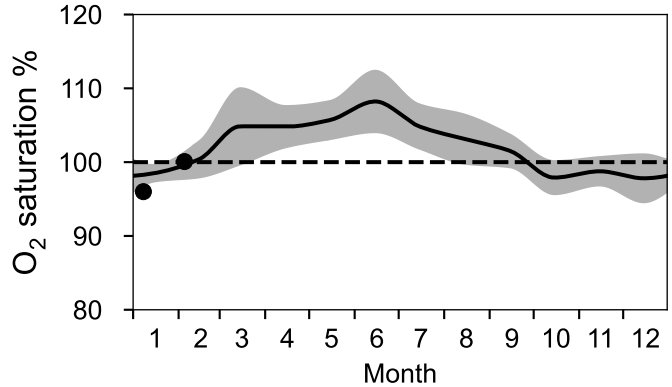
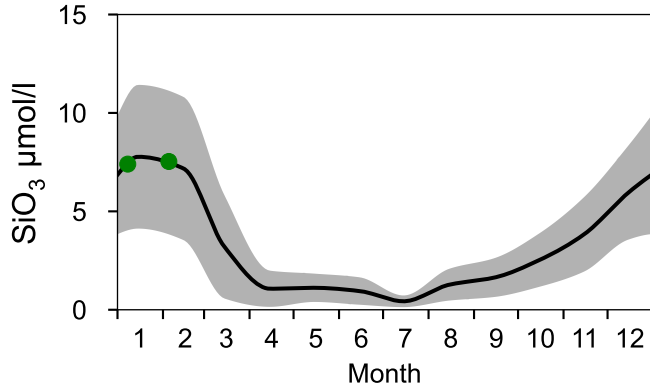
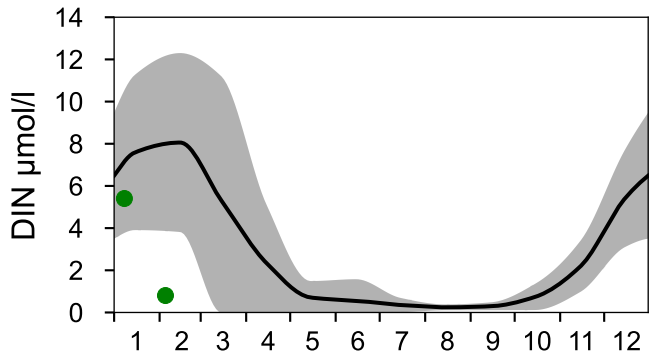
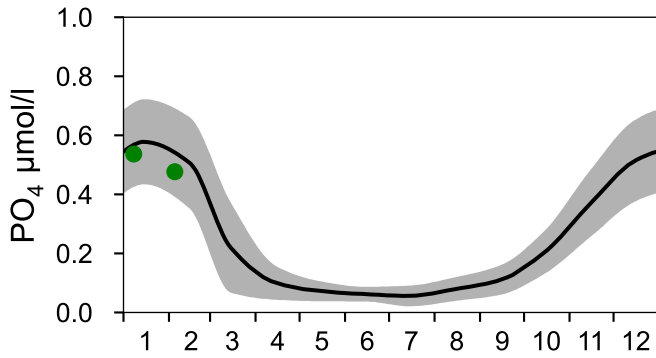
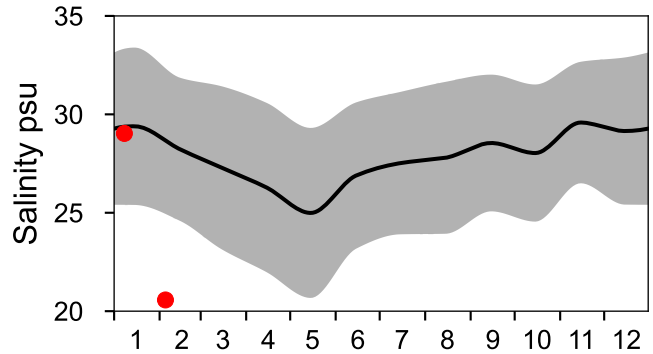
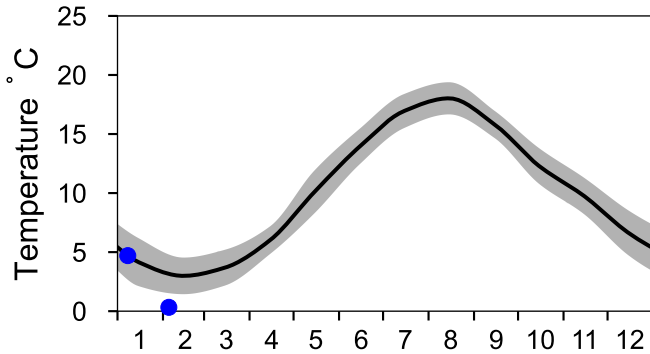
— Mean 1991-2020    ■ St.Dev.    ● 2026-02-04



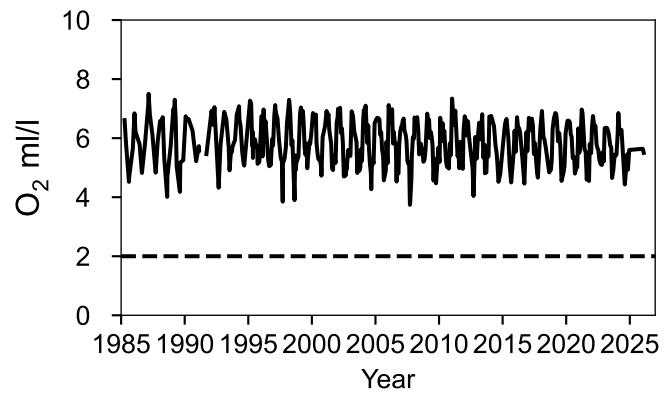
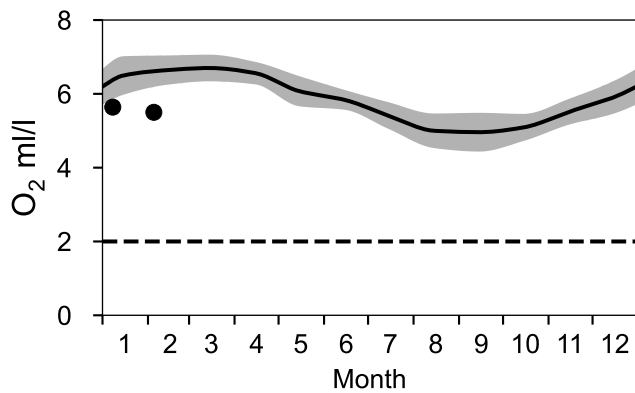
# STATION P2 SURFACE WATER (0-10 m)

Annual Cycles

— Mean 1991-2020    St.Dev.    ● 2026

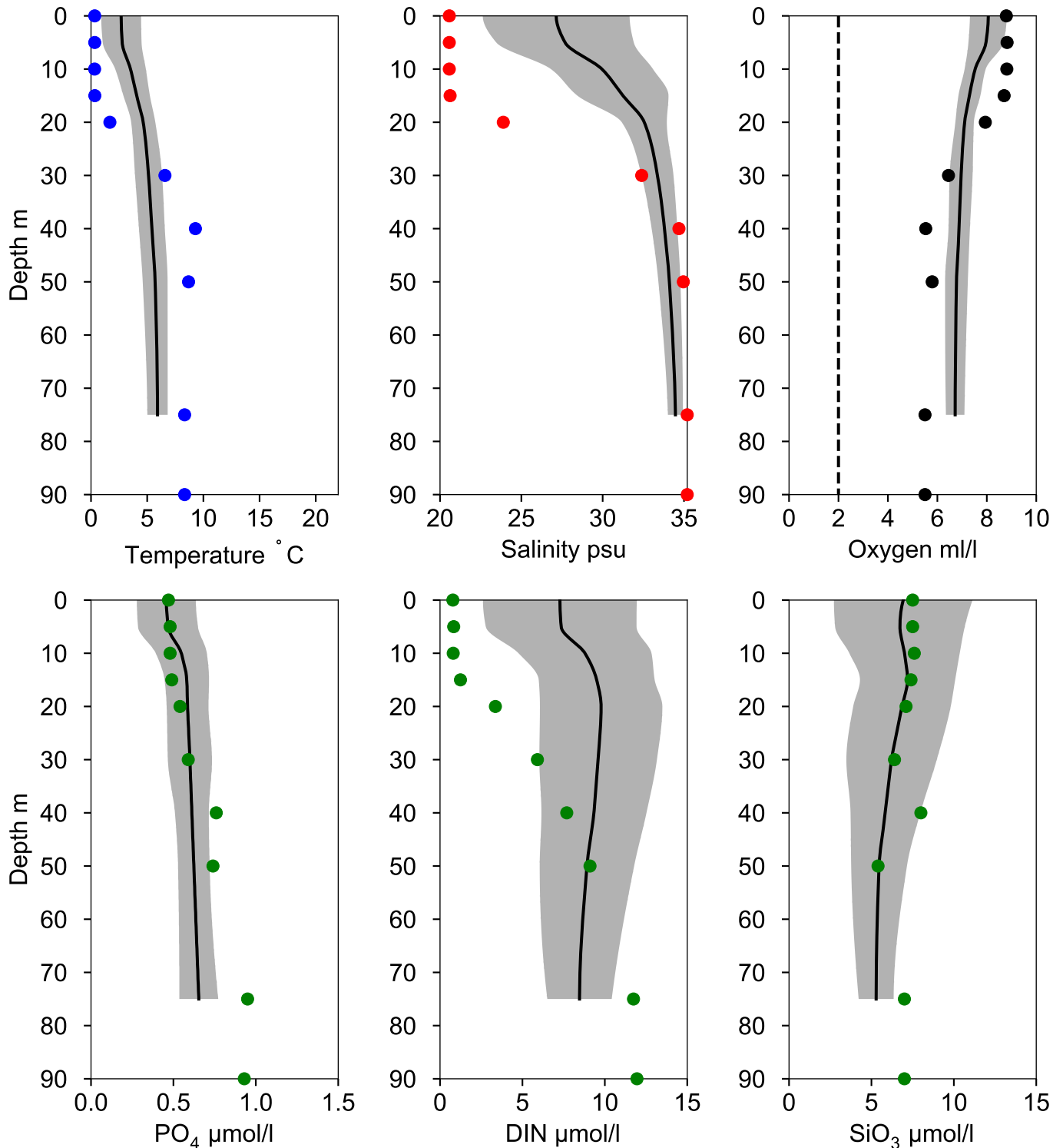


## OXYGEN IN BOTTOM WATER (depth >= 75 m)



# Vertical profiles P2 February

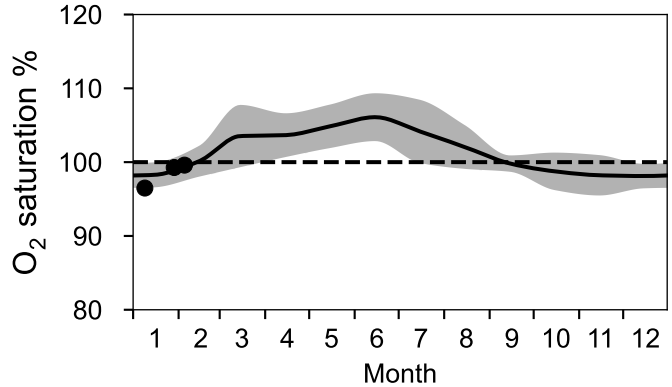
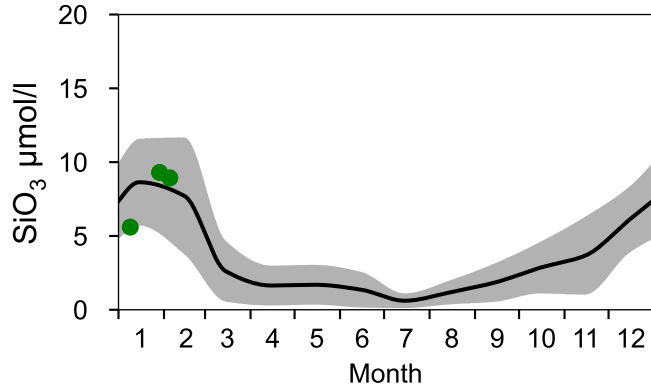
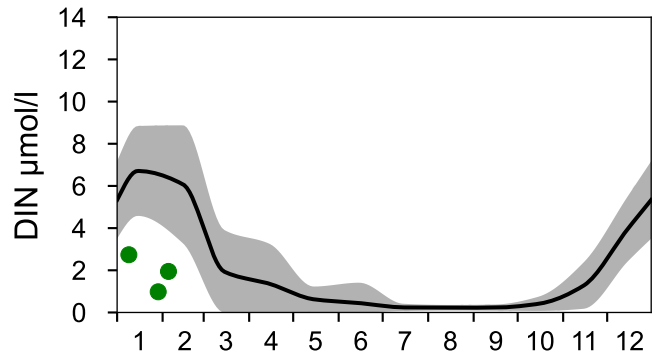
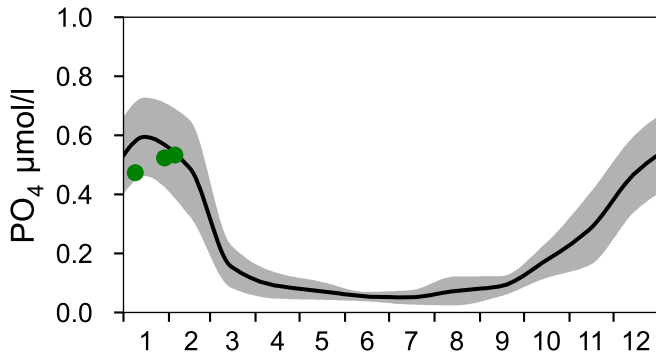
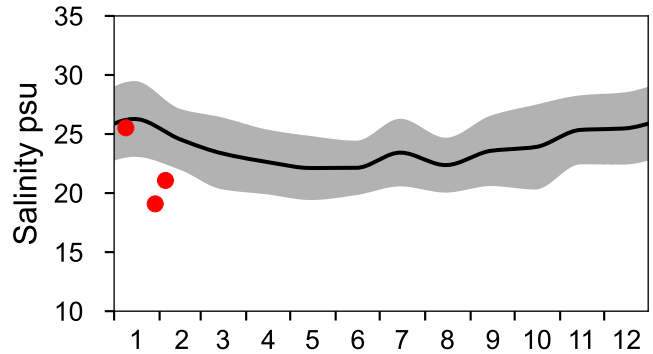
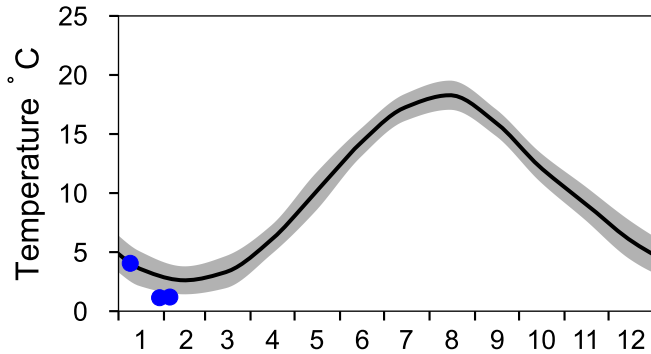
— Mean 1991-2020    St.Dev.    ● 2026-02-05



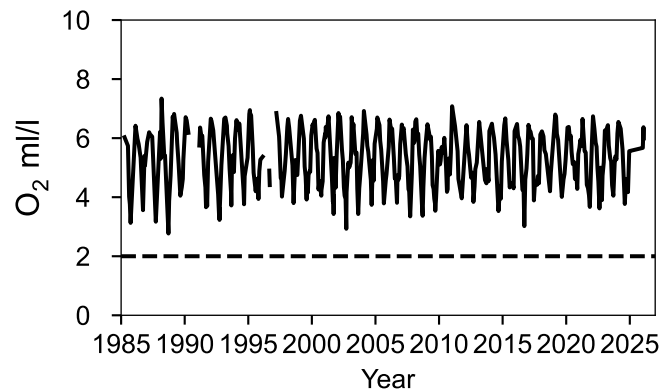
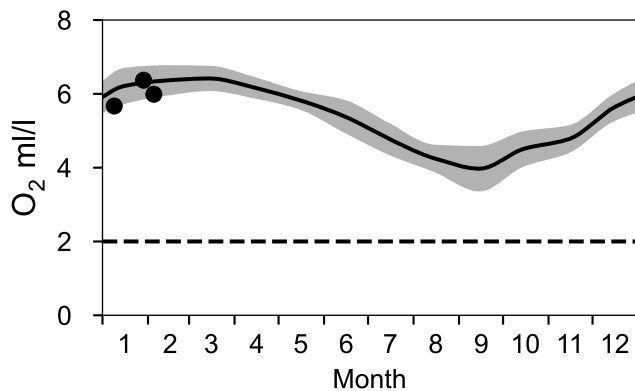
# STATION FLADEN SURFACE WATER (0-10 m)

Annual Cycles

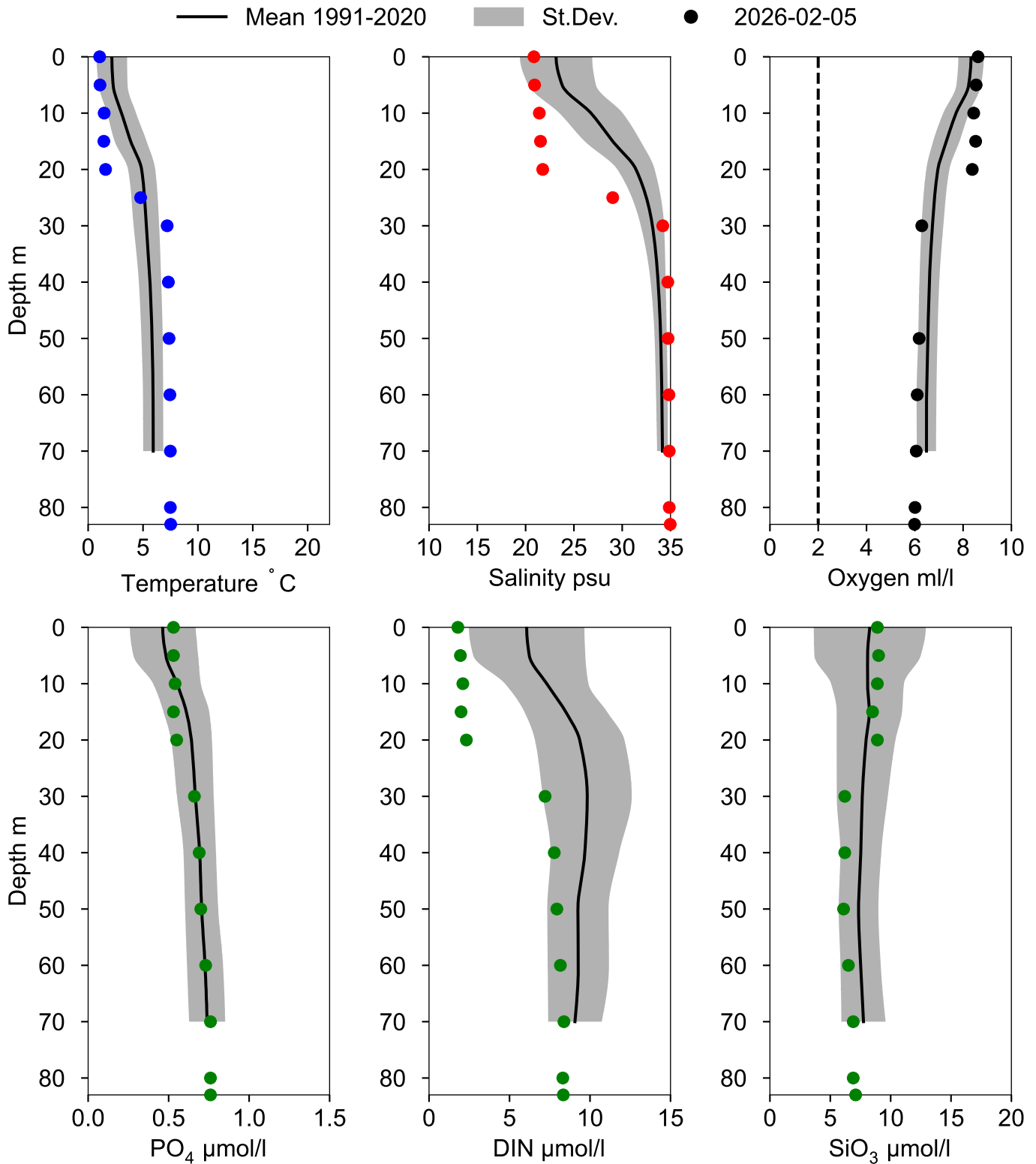
— Mean 1991-2020    St.Dev.    ● 2026



## OXYGEN IN BOTTOM WATER (depth >= 74 m)



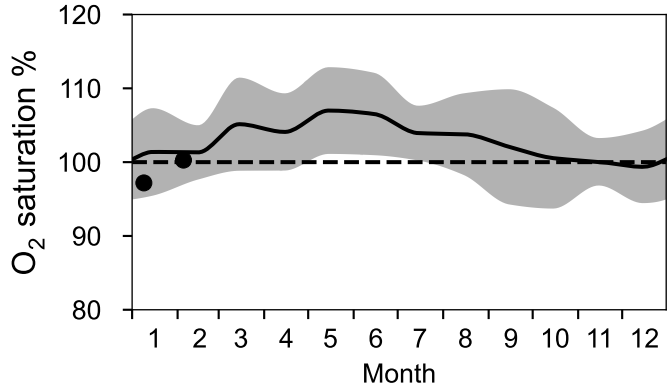
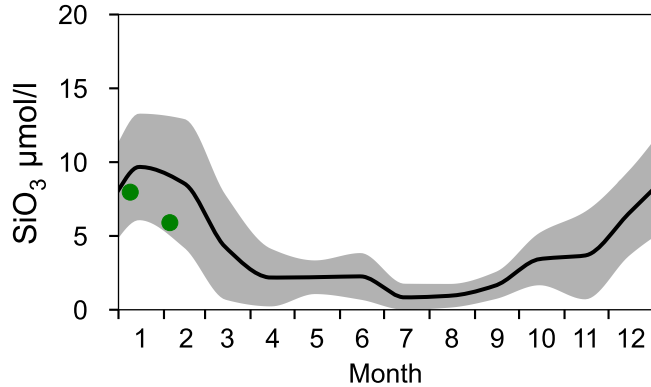
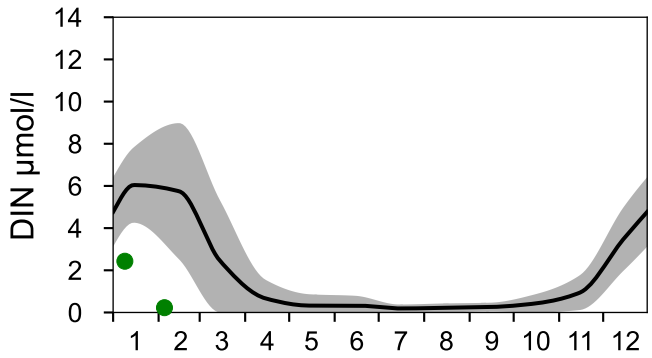
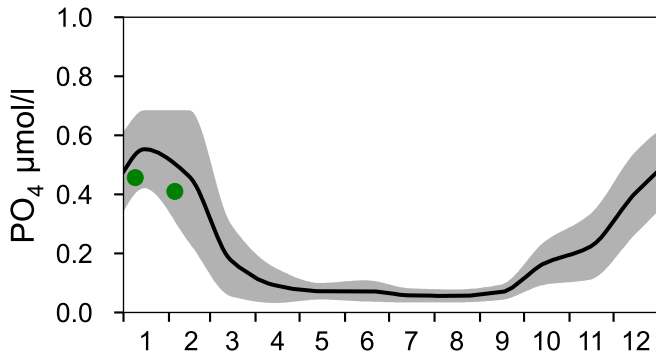
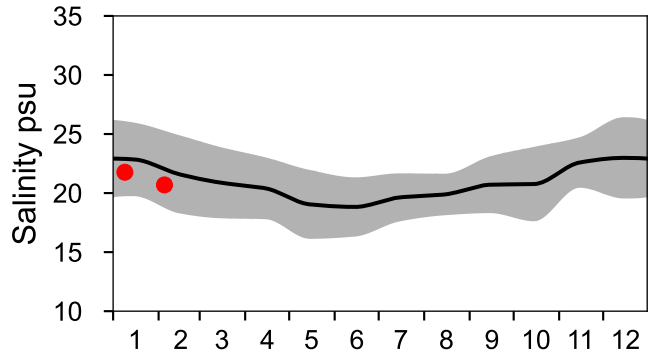
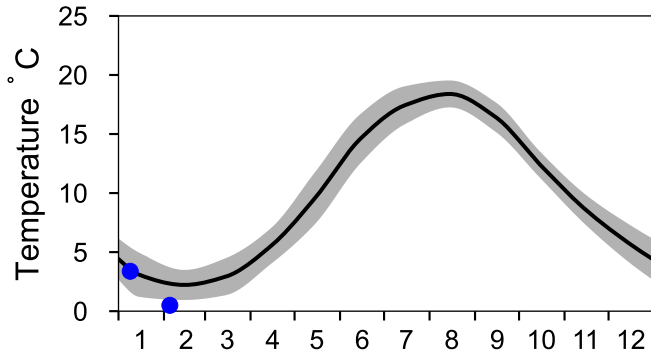
# Vertical profiles FLADEN February



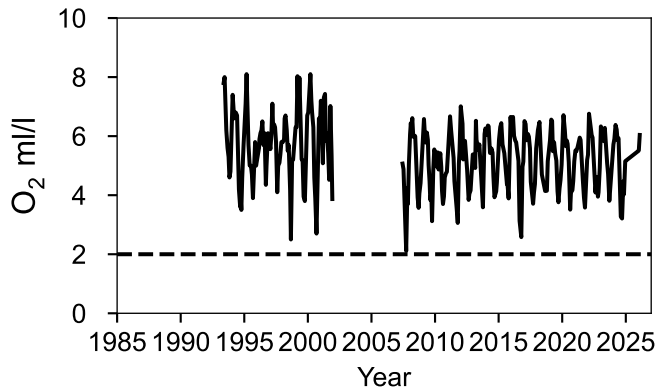
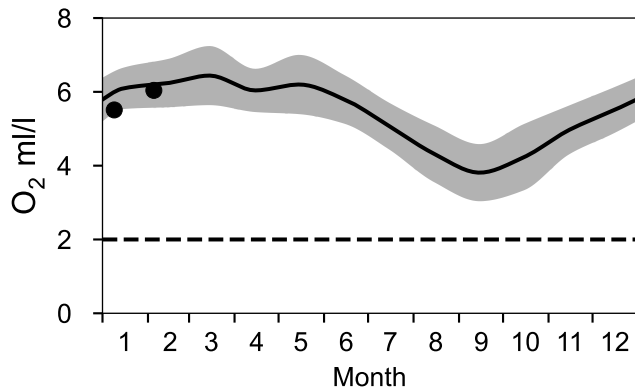
# STATION N14 FALKENBERG SURFACE WATER (0-10 m)

Annual Cycles

— Mean 1991-2020    St.Dev.    ● 2026

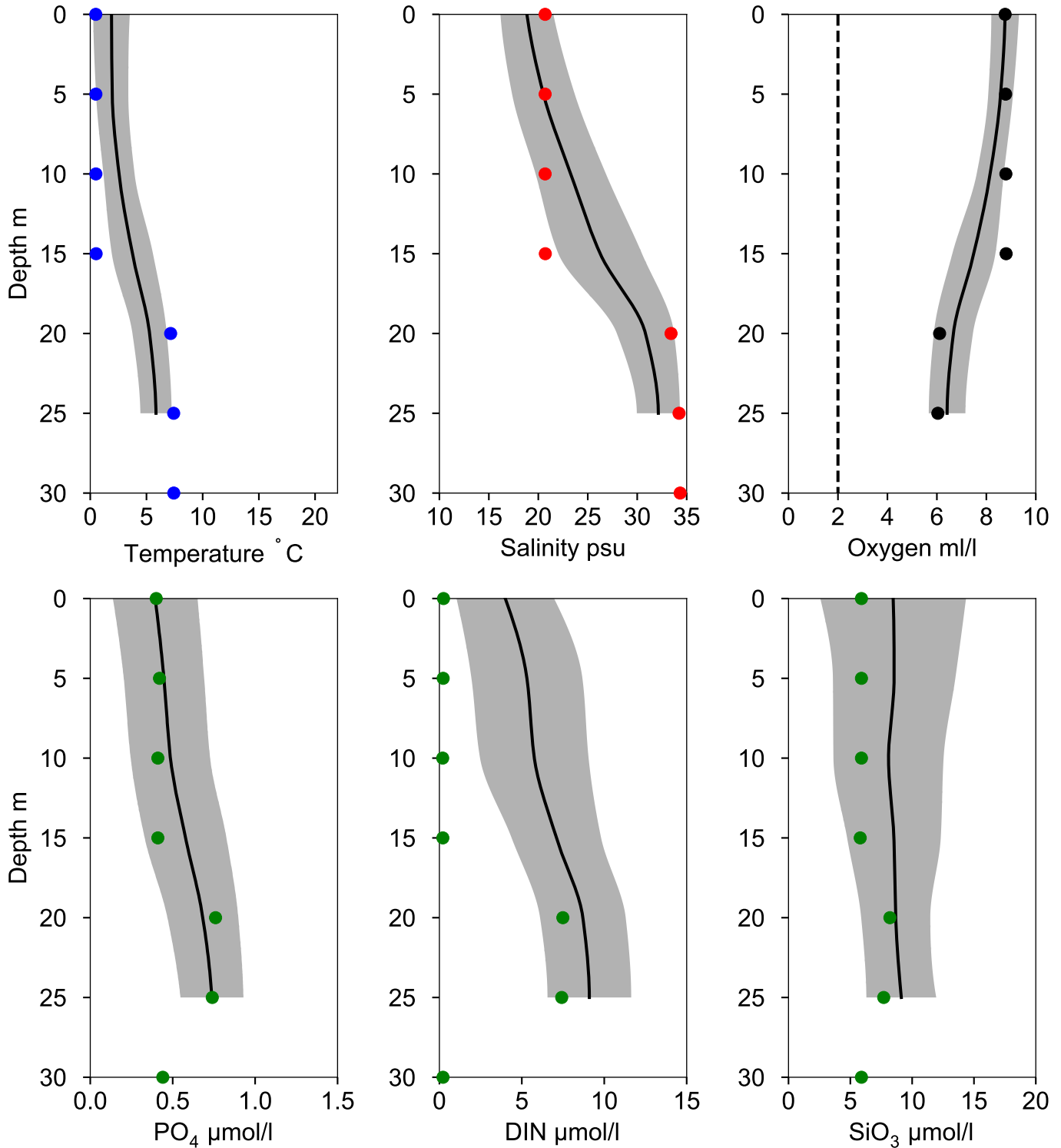


## OXYGEN IN BOTTOM WATER (depth >= 25 m)



# Vertical profiles N14 FALKENBERG February

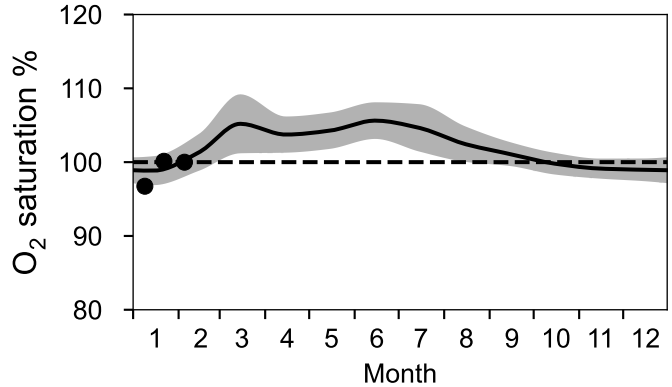
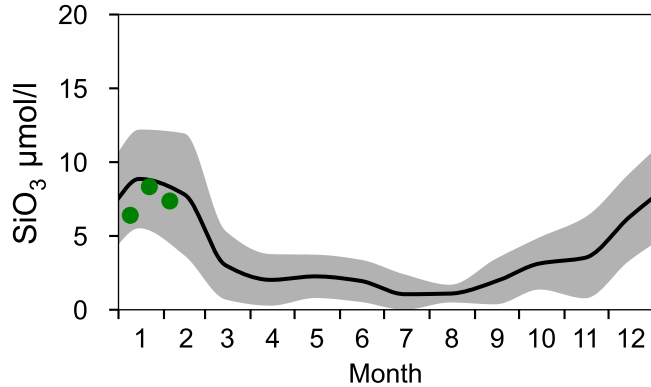
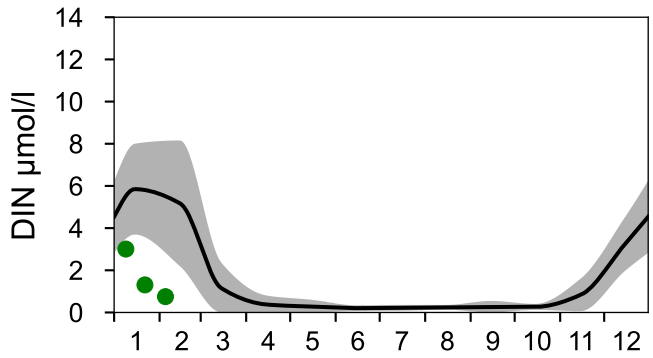
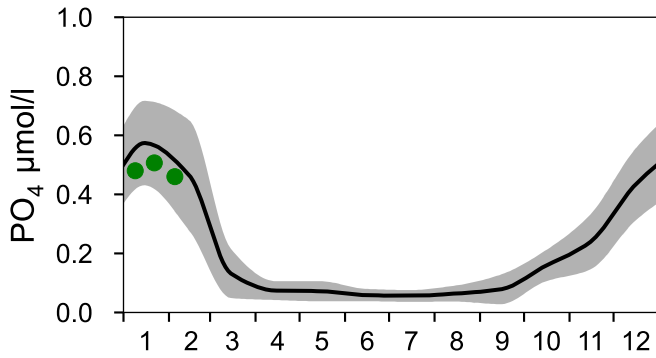
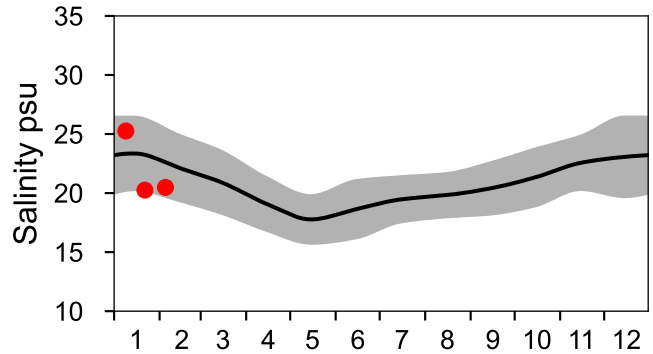
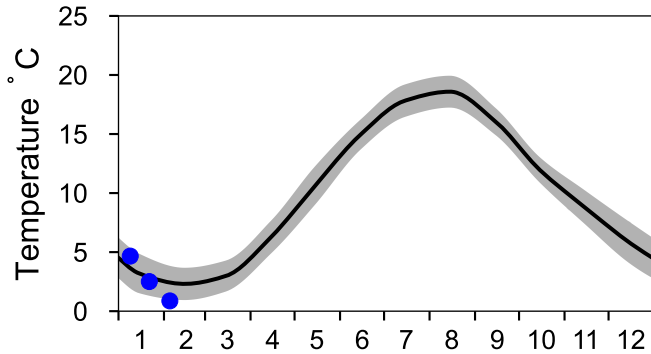
— Mean 1991-2020    St.Dev.    ● 2026-02-05



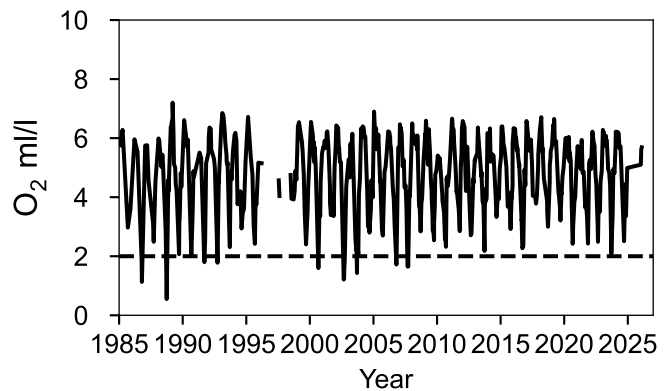
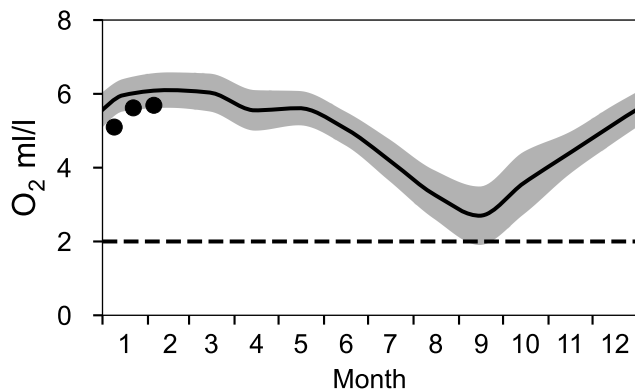
# STATION ANHOLT E SURFACE WATER (0-10 m)

Annual Cycles

— Mean 1991-2020    St.Dev.    ● 2026

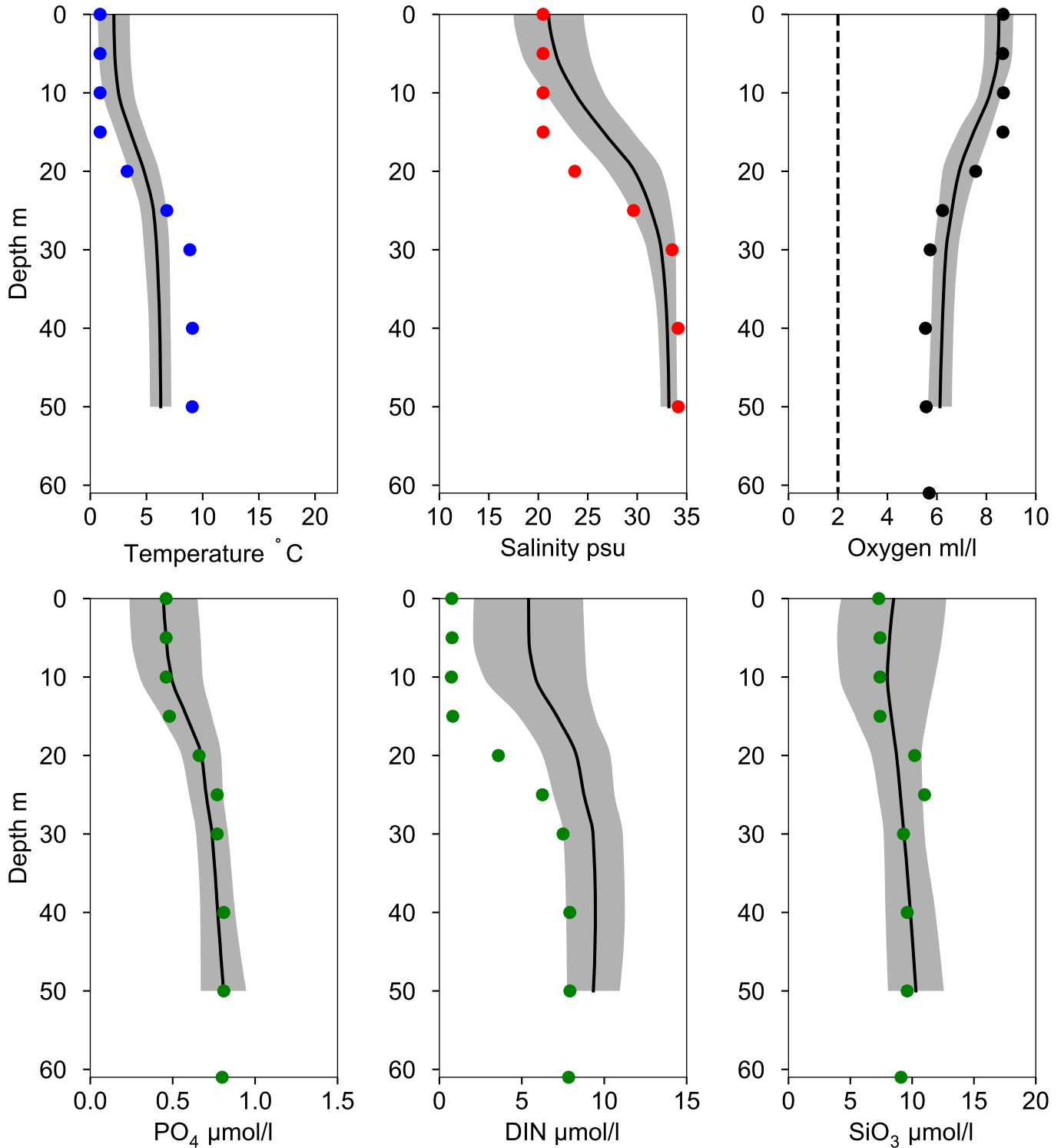


## OXYGEN IN BOTTOM WATER (depth >= 52 m)



# Vertical profiles ANHOLT E February

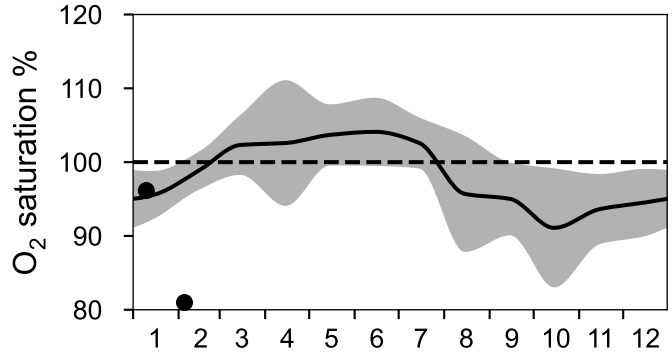
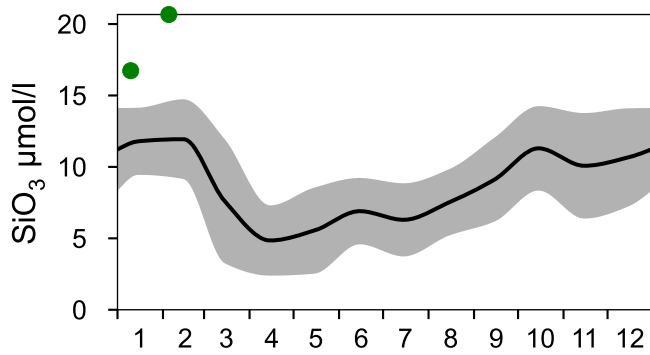
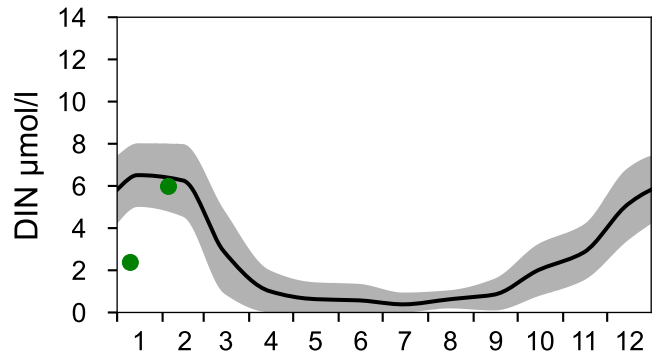
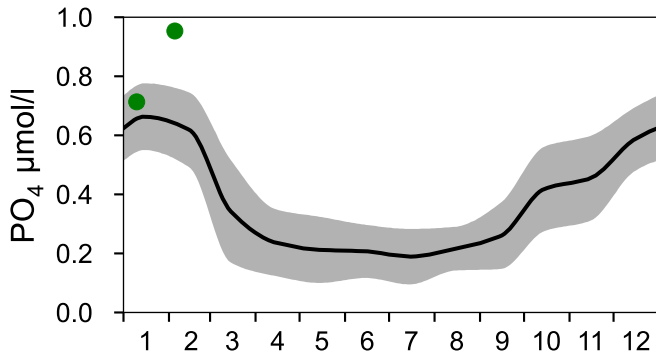
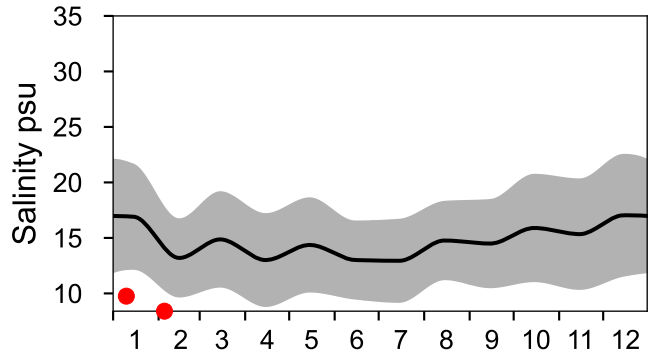
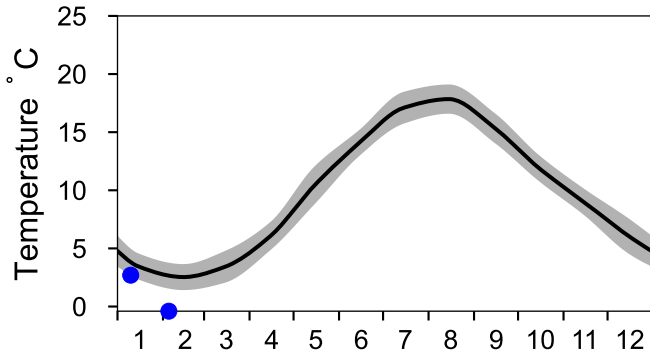
— Mean 1991-2020    St.Dev.    ● 2026-02-05



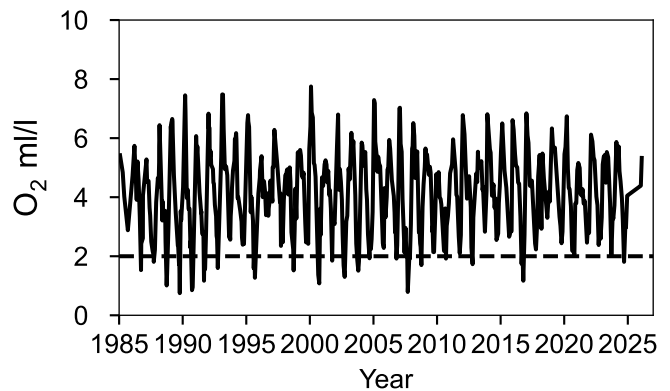
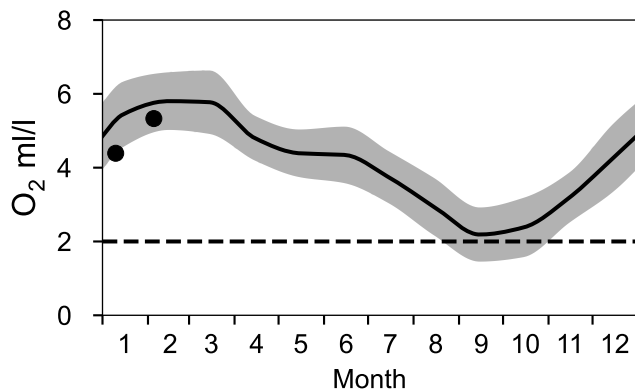
# STATION W LANDSKRONA SURFACE WATER (0-10 m)

Annual Cycles

— Mean 1991-2020    St.Dev.    ● 2026

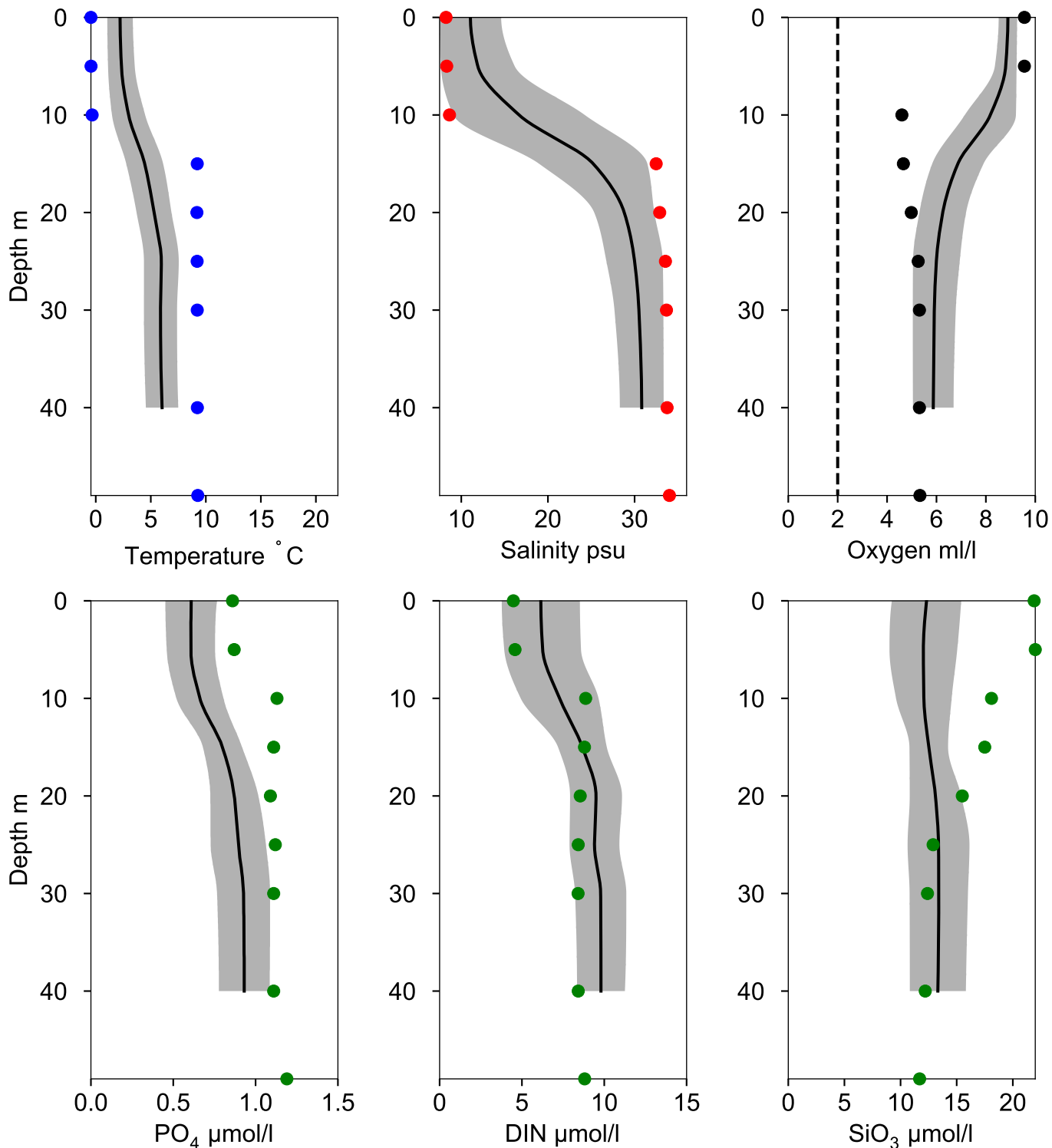


## OXYGEN IN BOTTOM WATER (depth >= 40 m)



# Vertical profiles W LANDSKRONA February

— Mean 1991-2020    St.Dev.    ● 2026-02-05

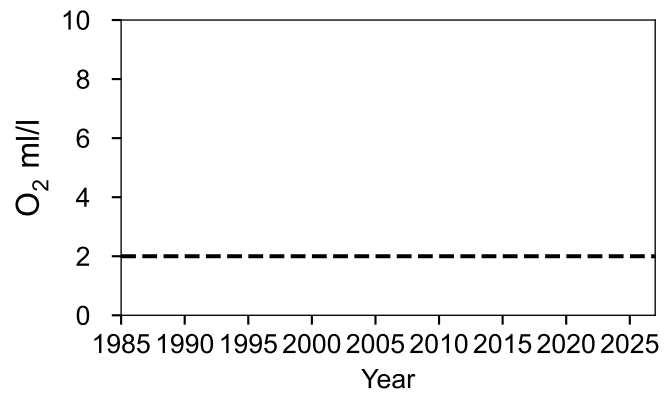
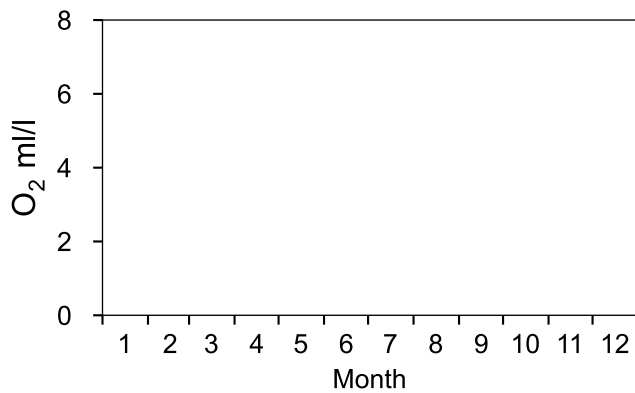
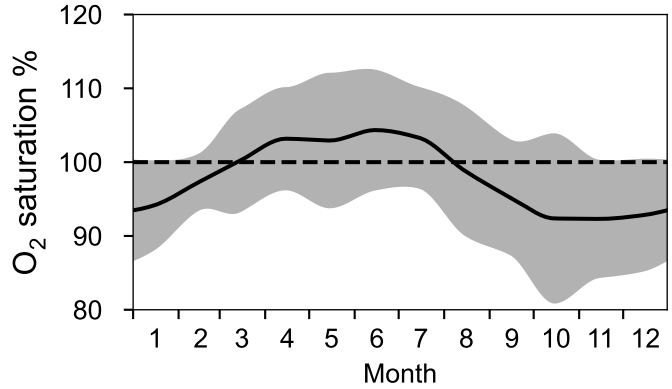
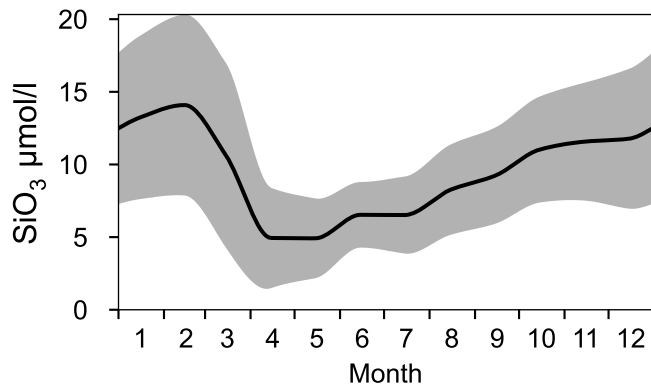
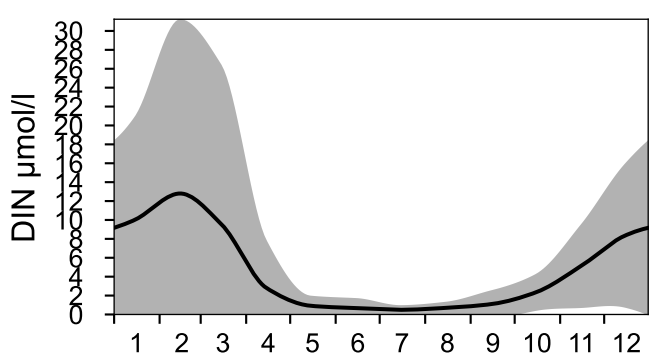
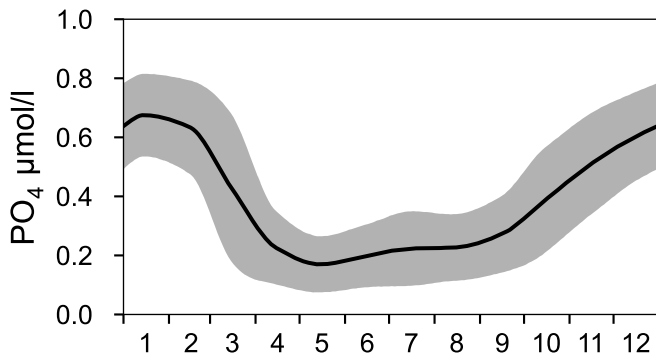
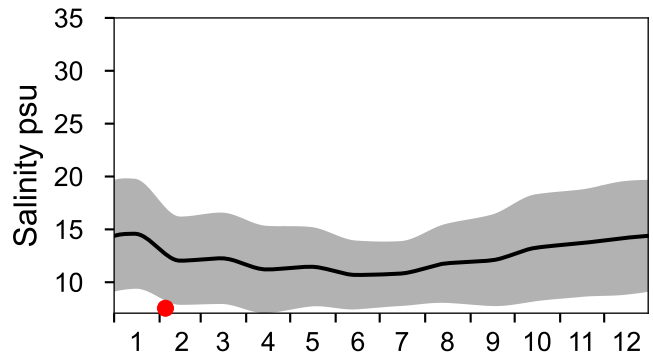
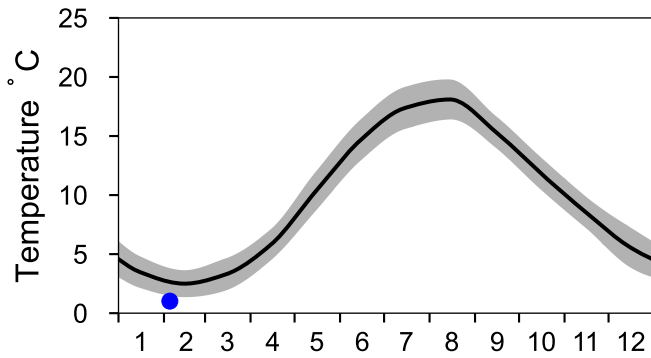


# STATION FLINTEN-7 SURFACE WATER (0-10 m)

## Annual Cycles

Statistics based on data from: Öresund

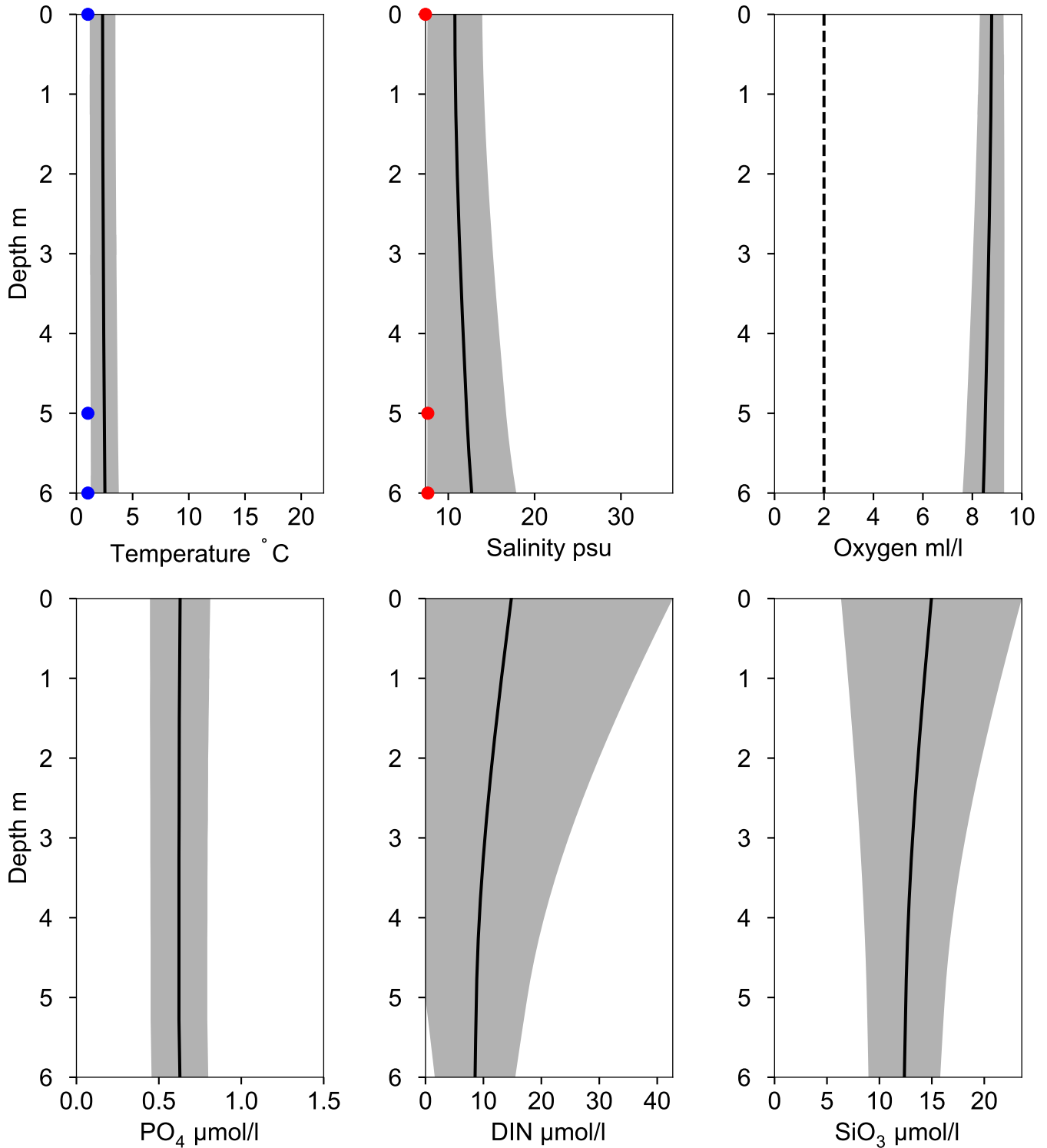
— Mean 1991-2020    St.Dev.    ● 2026



# Vertical profiles FLINTEN-7 February

Statistics based on data from: Öresund

— Mean 1991-2020    ■ St.Dev.    ● 2026-02-05

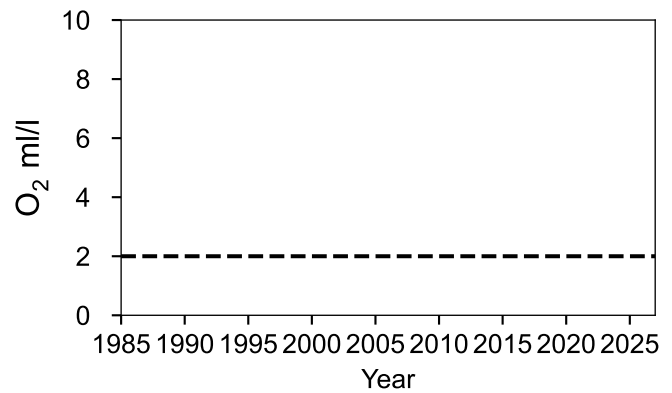
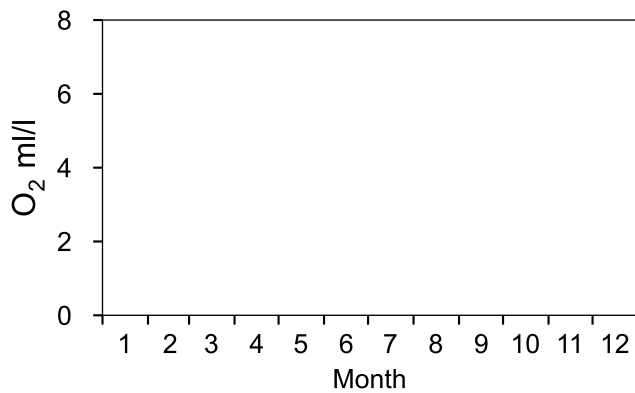
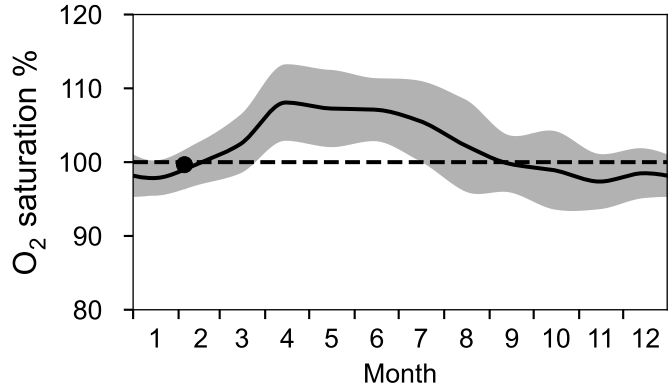
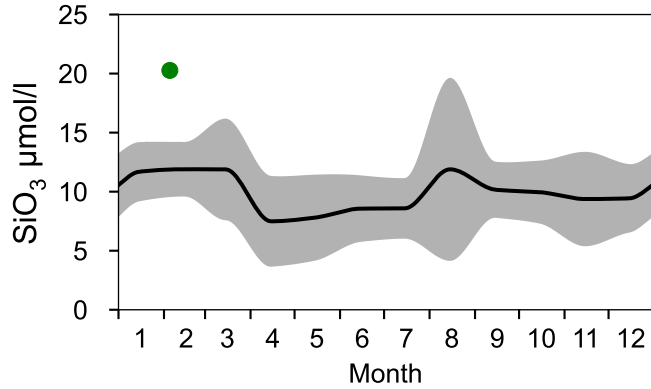
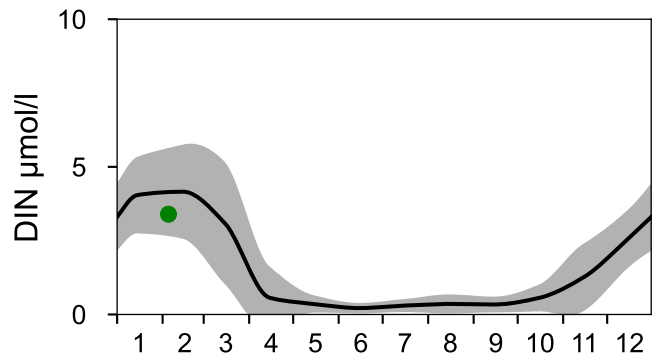
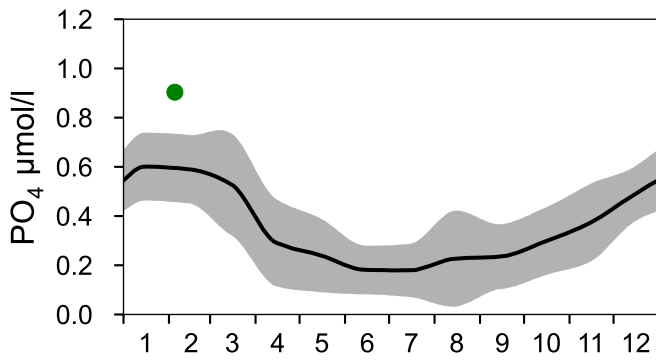
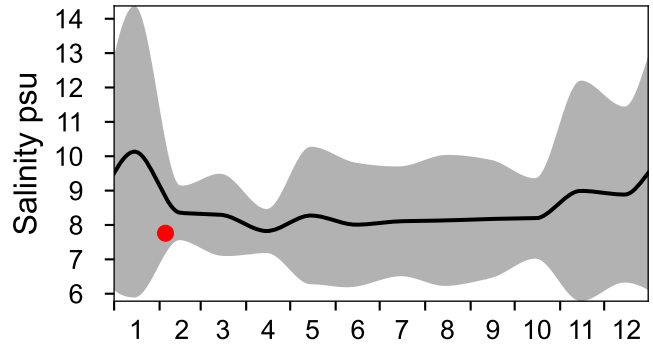
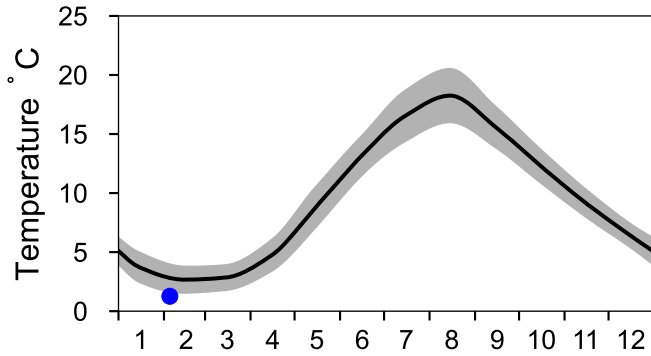


# STATION 441 STEVNS KLINT SURFACE WATER (0-10 m)

## Annual Cycles

Statistics based on data from: Arkonahavet

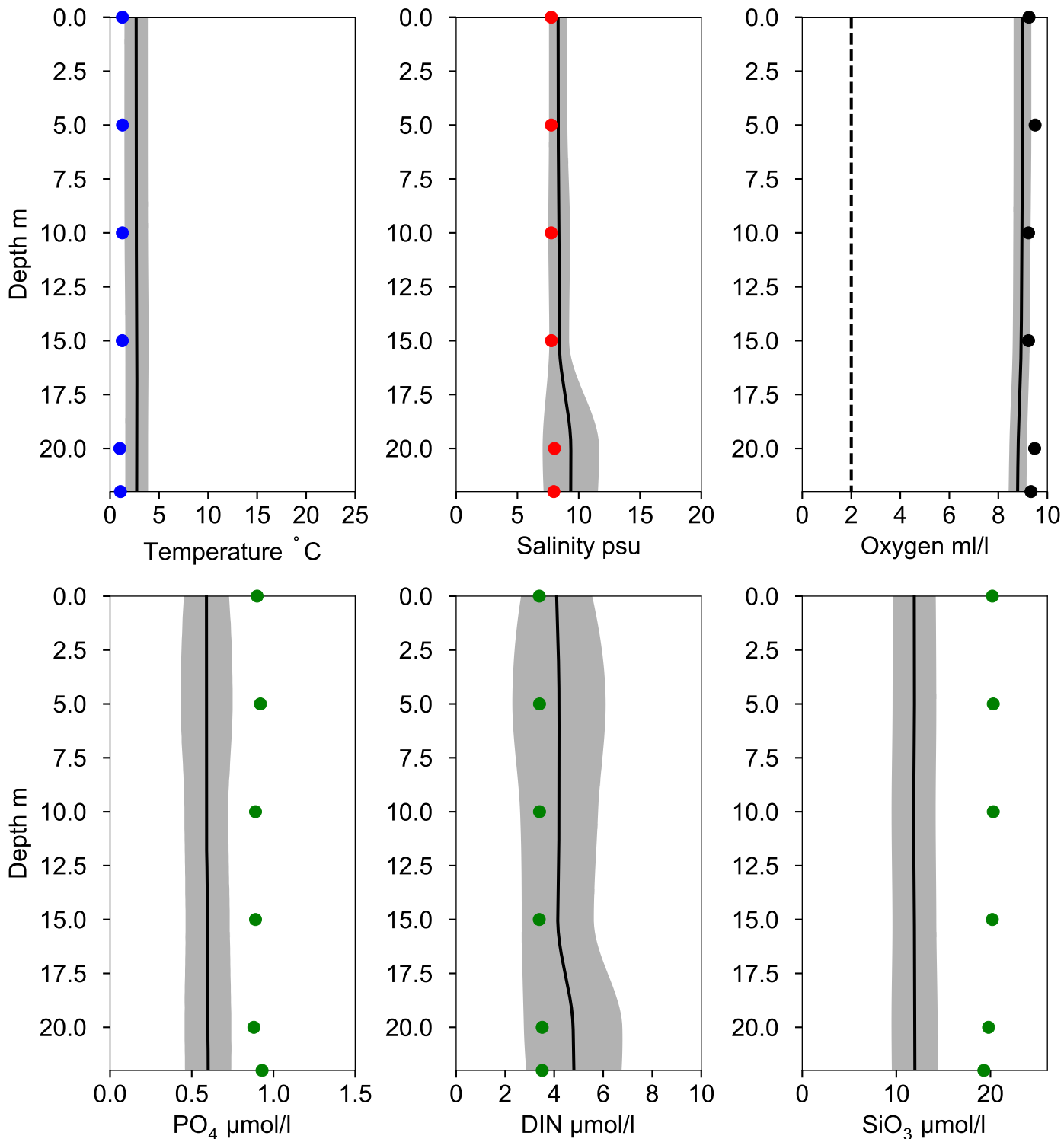
— Mean 1991-2020    St.Dev.    ● 2026



# Vertical profiles 441 STEVNS KLINT February

Statistics based on data from: Arkonahavet

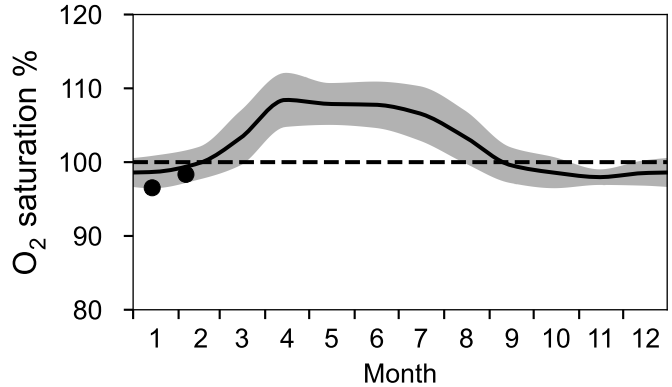
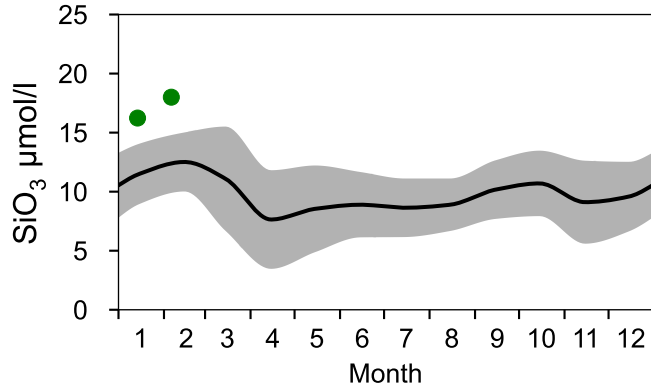
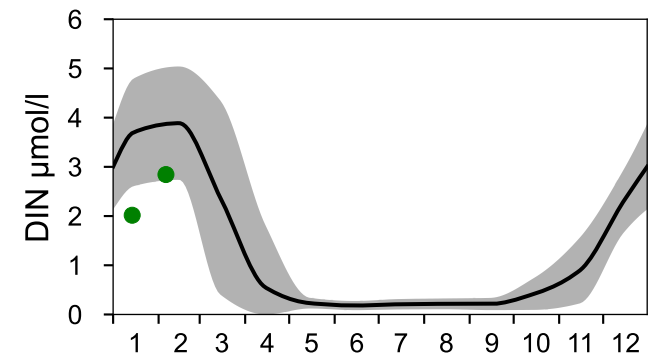
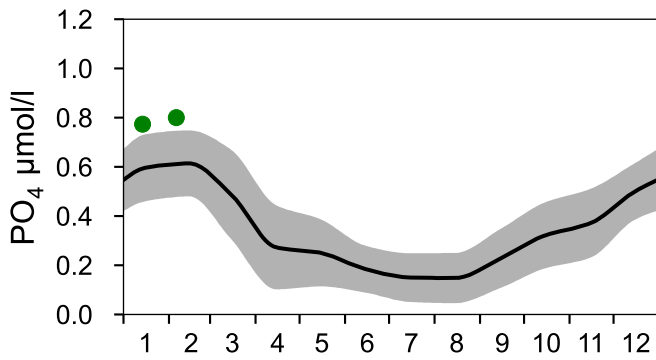
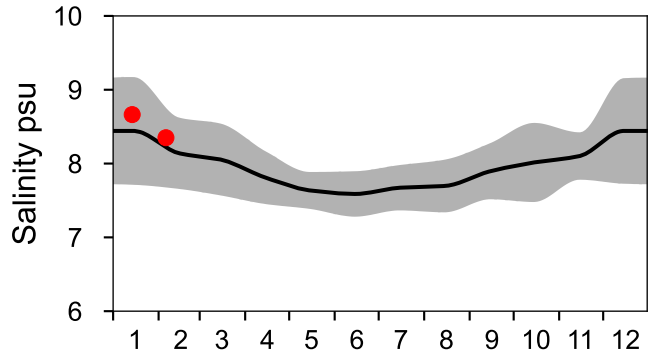
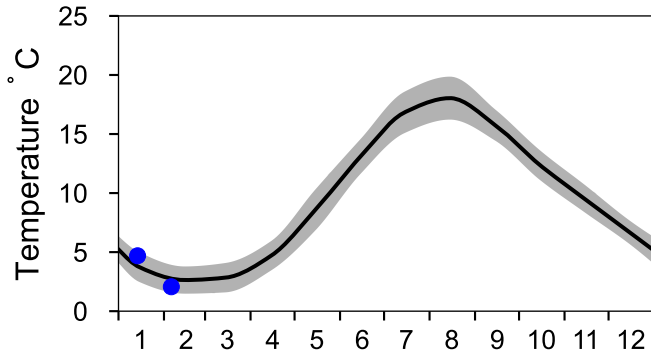
— Mean 1991-2020    St.Dev.    ● 2026-02-05



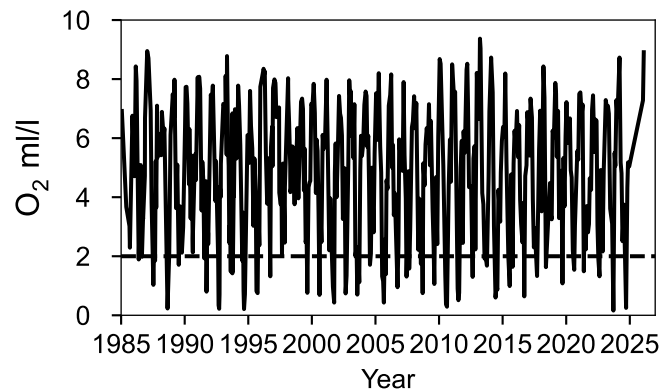
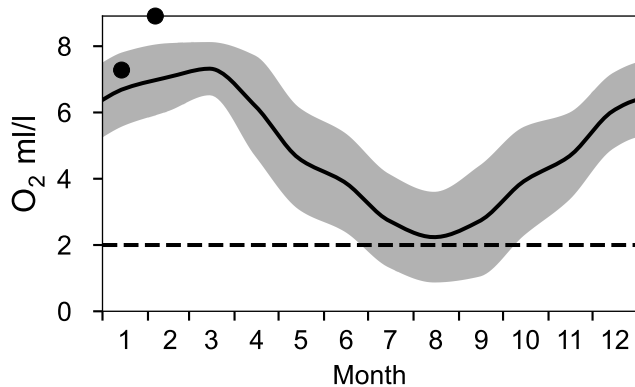
# STATION BY1 SURFACE WATER (0-10 m)

Annual Cycles

— Mean 1991-2020    St.Dev.    ● 2026

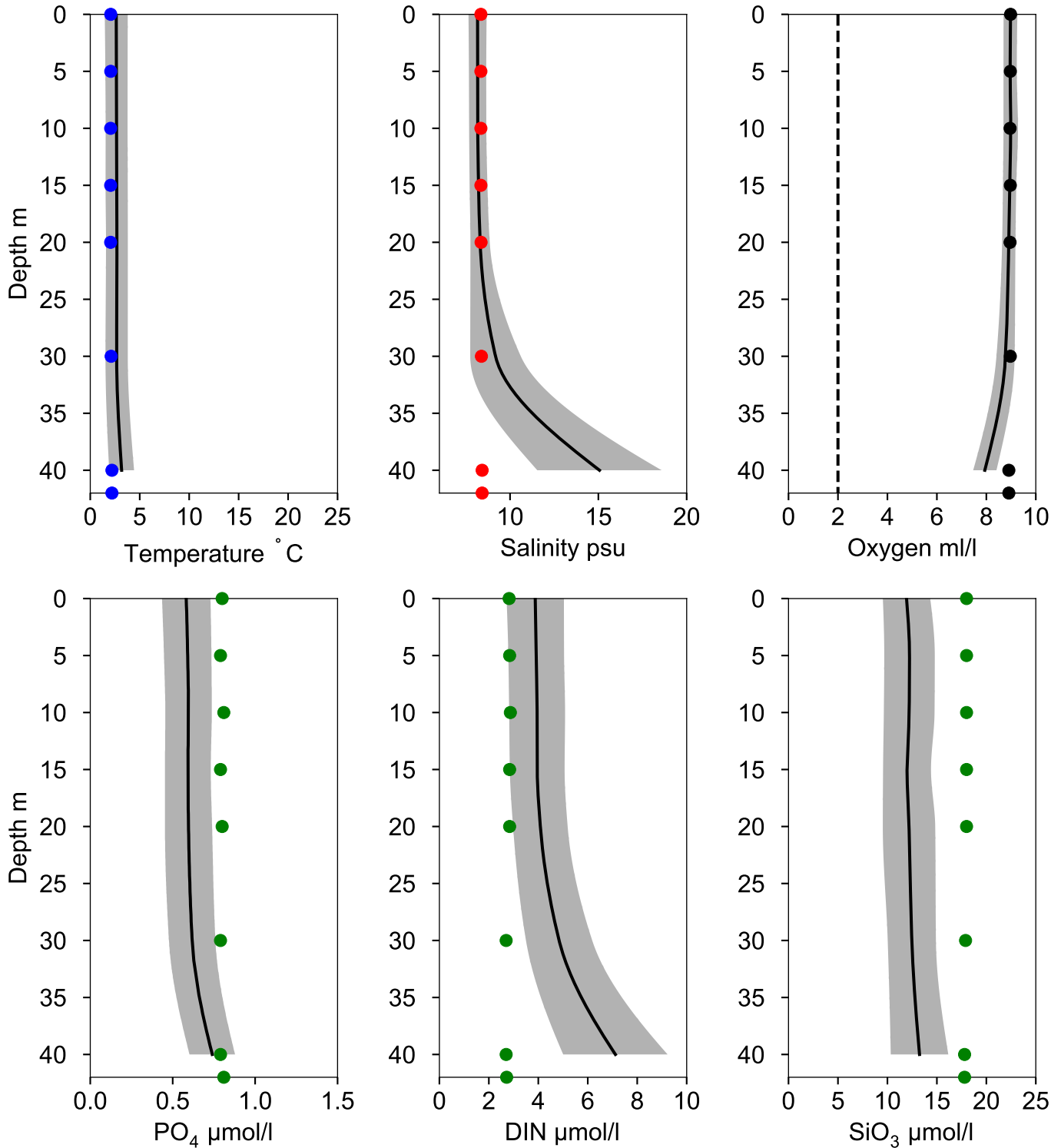


## OXYGEN IN BOTTOM WATER (depth >= 39 m)



# Vertical profiles BY1 February

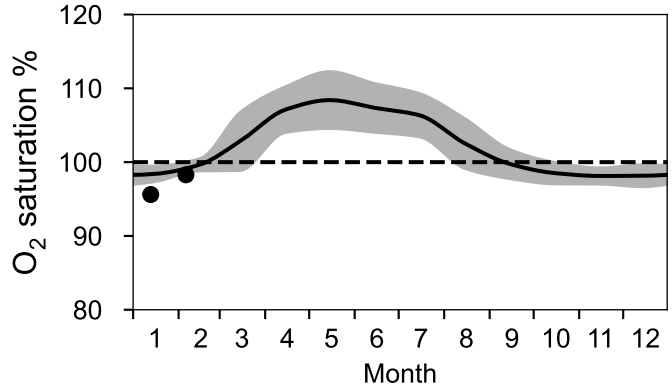
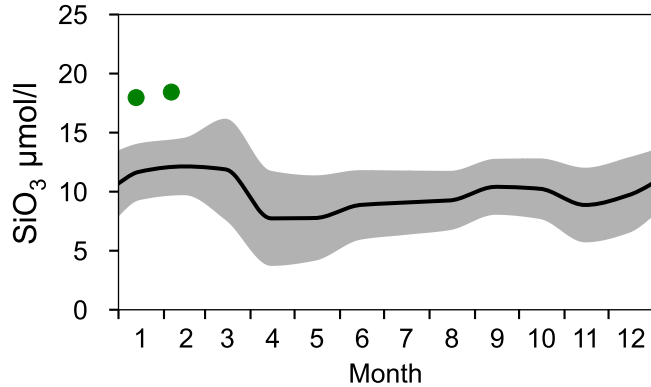
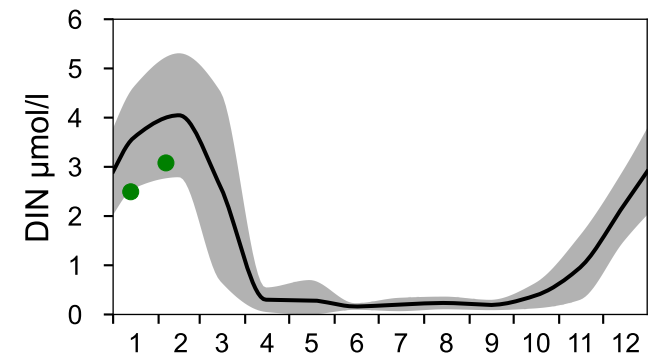
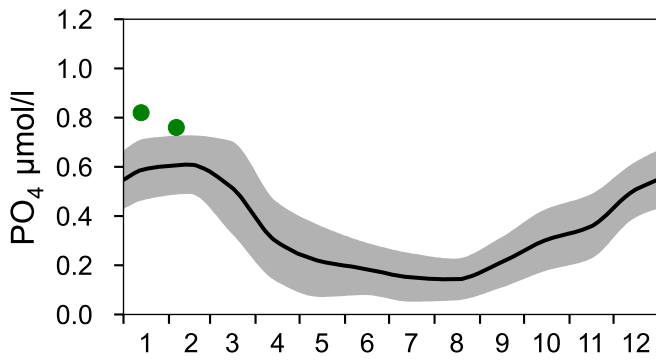
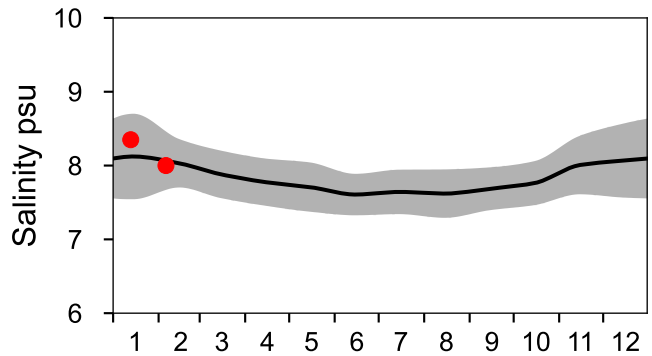
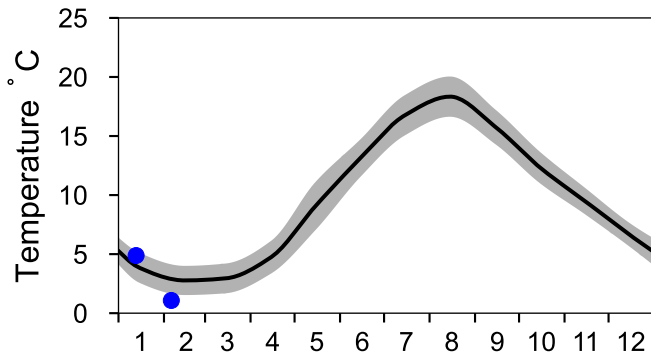
— Mean 1991-2020    St.Dev.    ● 2026-02-06



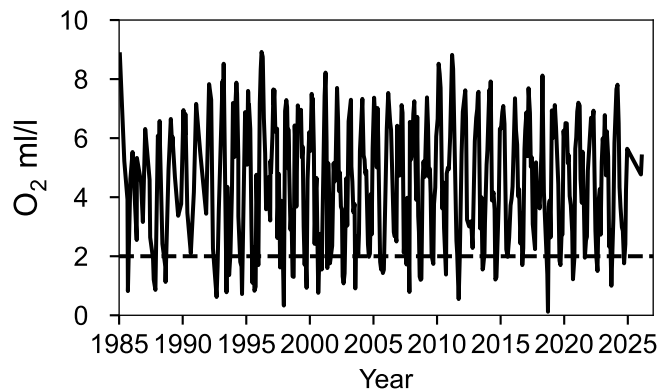
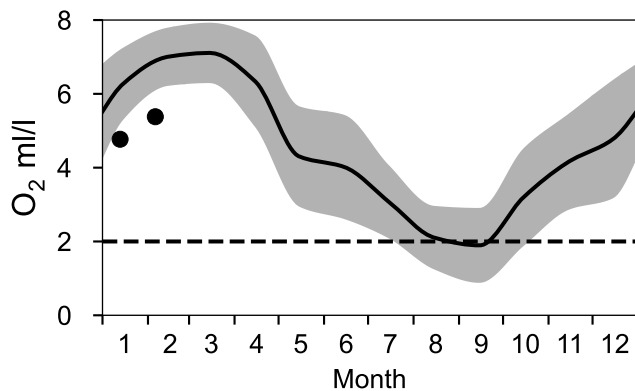
# STATION BY2 ARKONA SURFACE WATER (0-10 m)

Annual Cycles

— Mean 1991-2020    St.Dev.    ● 2026

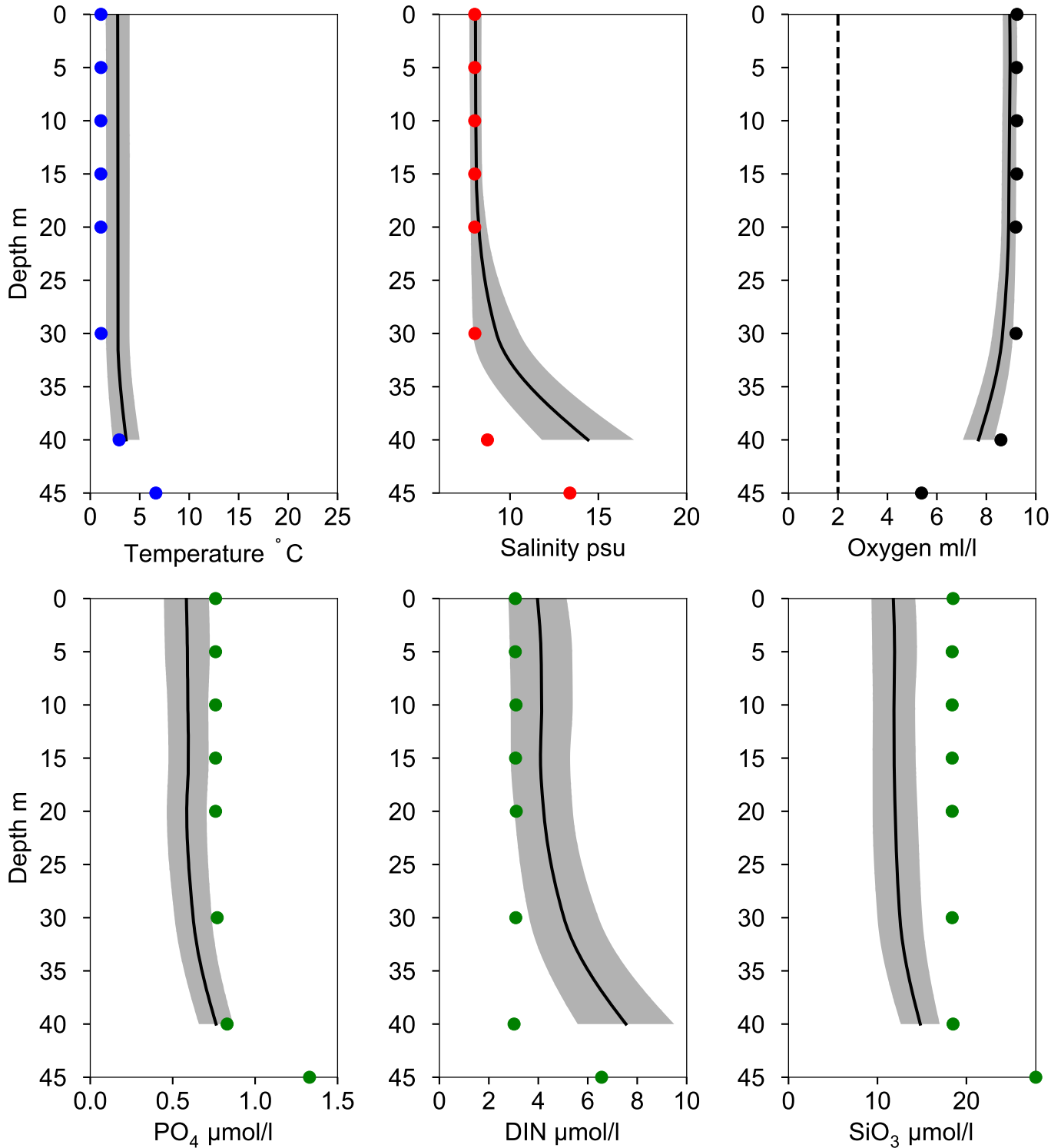


## OXYGEN IN BOTTOM WATER (depth >= 40 m)



# Vertical profiles BY2 ARKONA February

— Mean 1991-2020    ■ St.Dev.    ● 2026-02-06

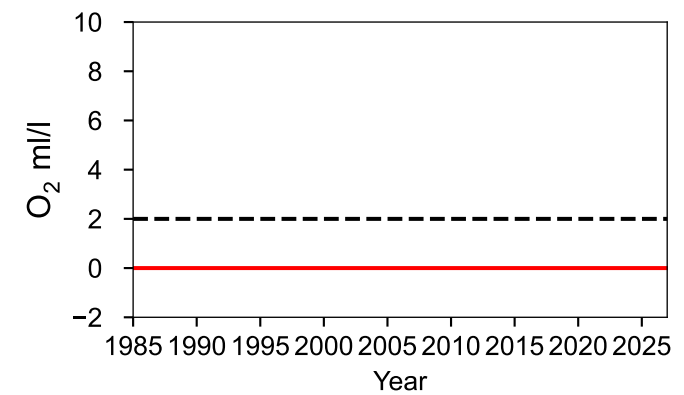
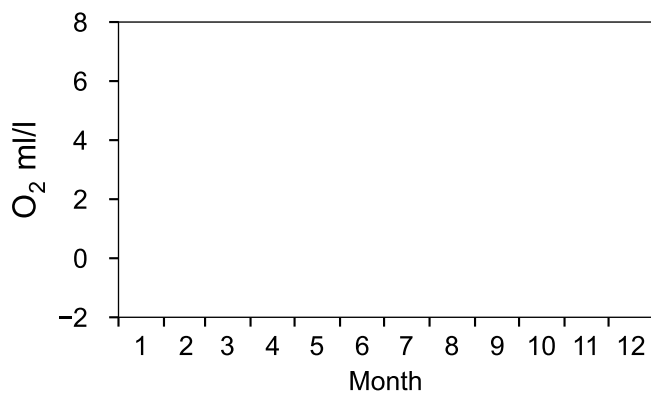
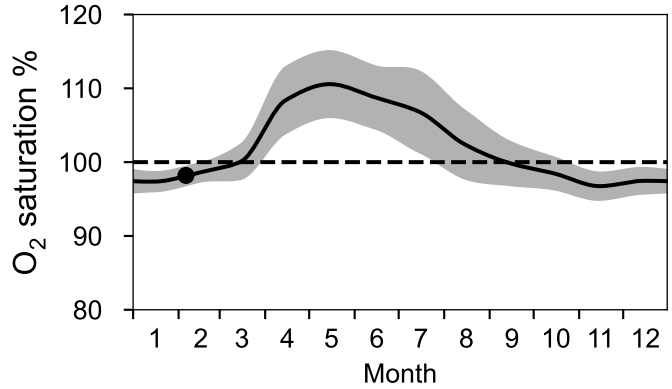
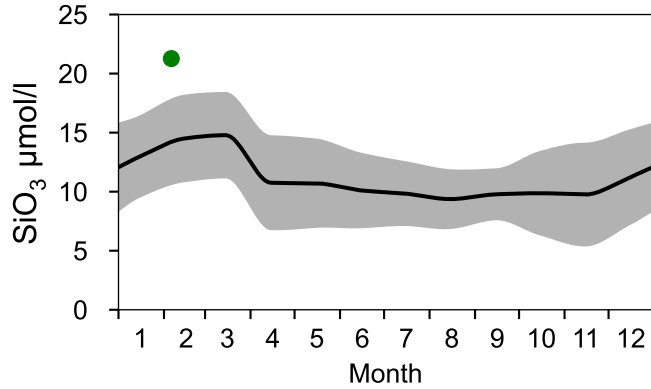
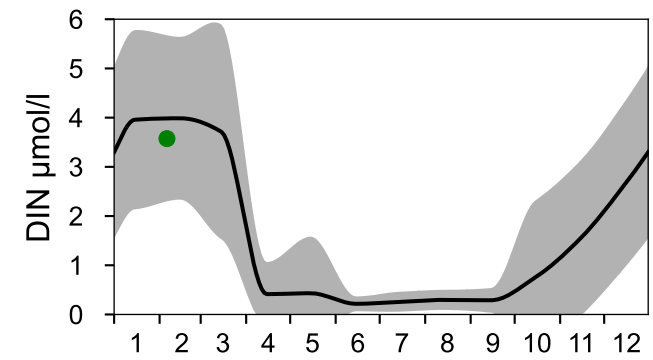
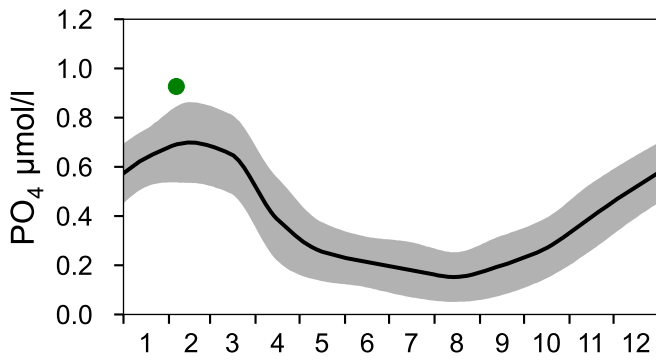
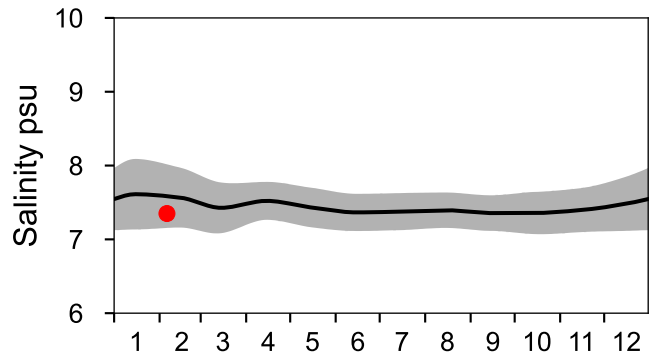
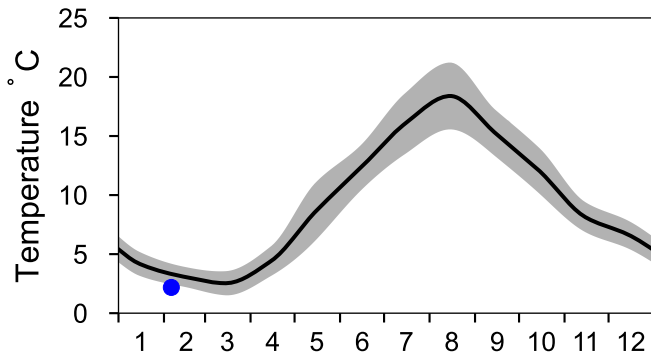


# STATION BY3 HAMRARNE SUND SURFACE WATER (0-10 m)

## Annual Cycles

Statistics based on data from: Bornholmshavet

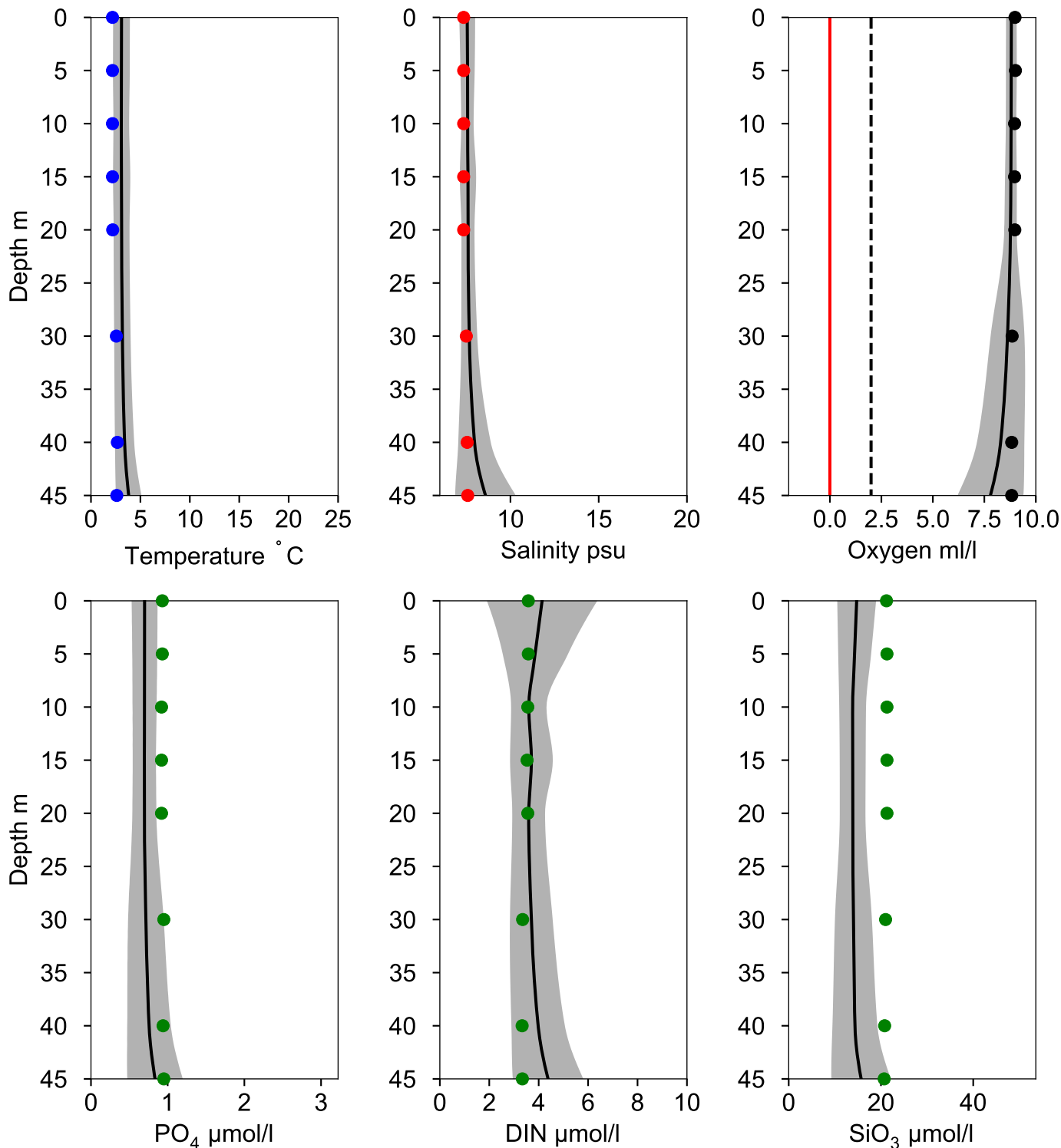
— Mean 1991-2020    St.Dev.    ● 2026



# Vertical profiles BY3 HAMRARNE SUND February

Statistics based on data from: Bornholmshavet

— Mean 1991-2020    ■ St.Dev.    ● 2026-02-06



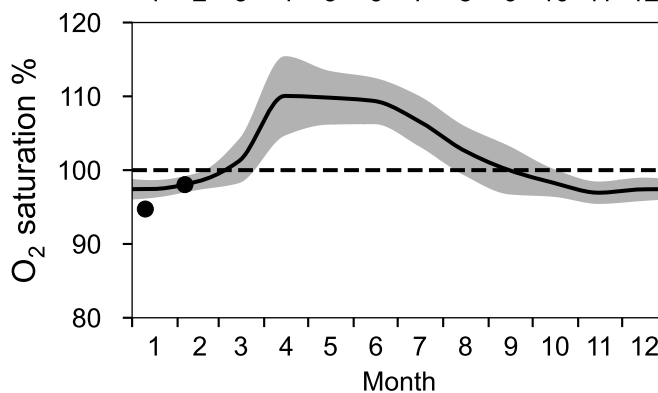
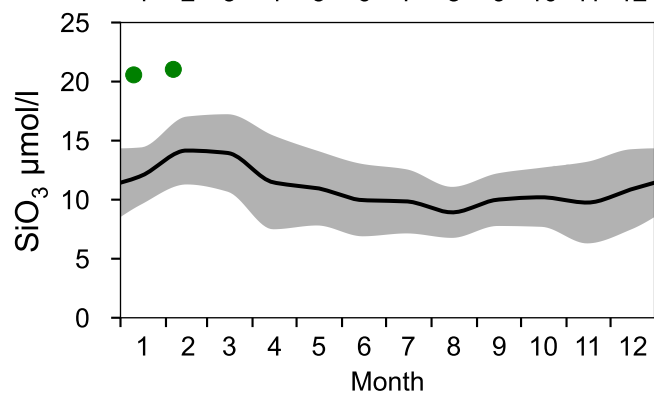
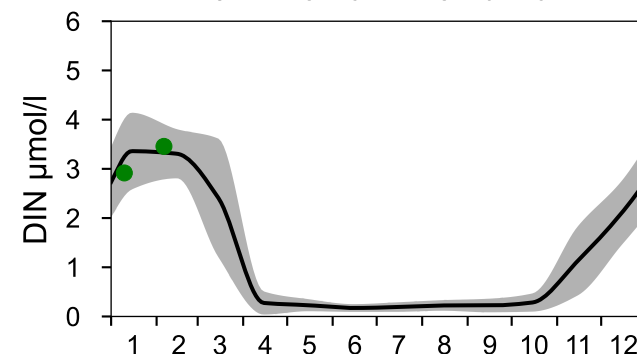
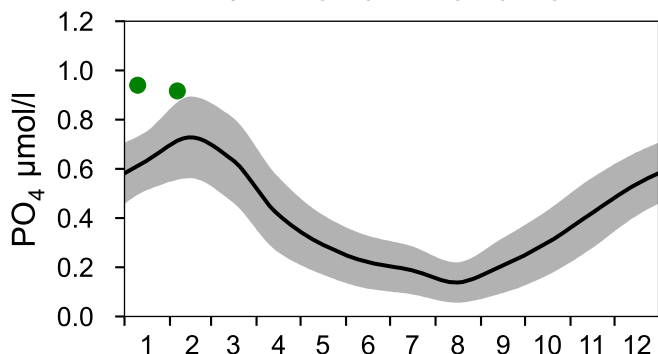
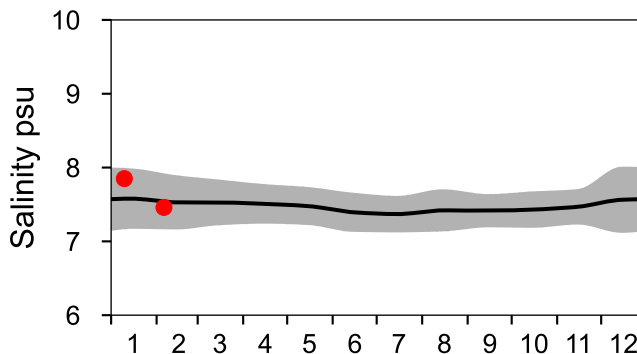
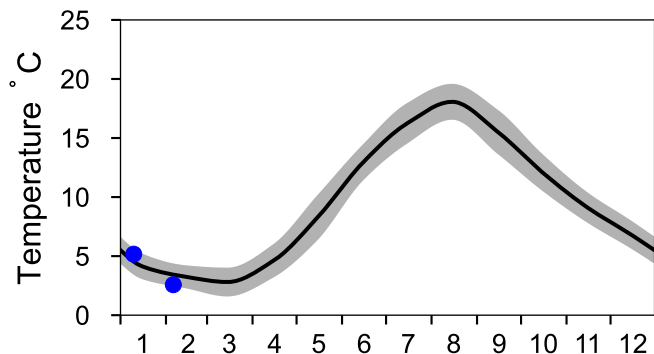
# STATION HANÖBUKTEN SURFACE WATER (0-10 m)

Annual Cycles

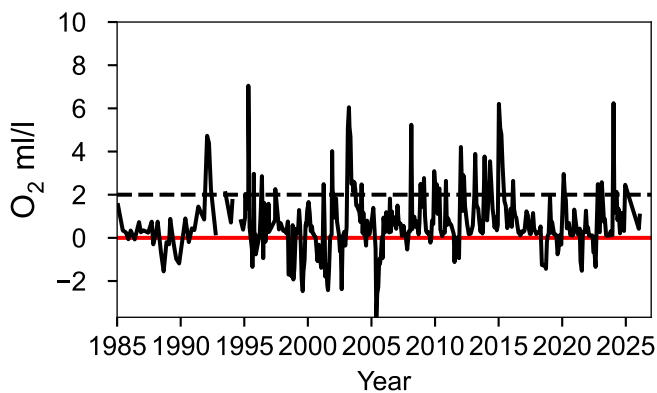
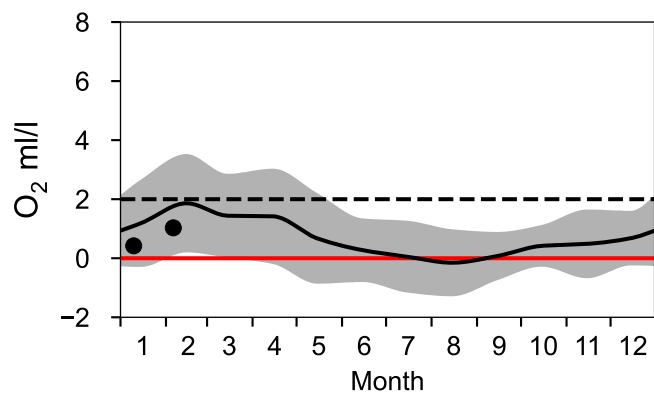
— Mean 1991-2020

■ St.Dev.

● 2026

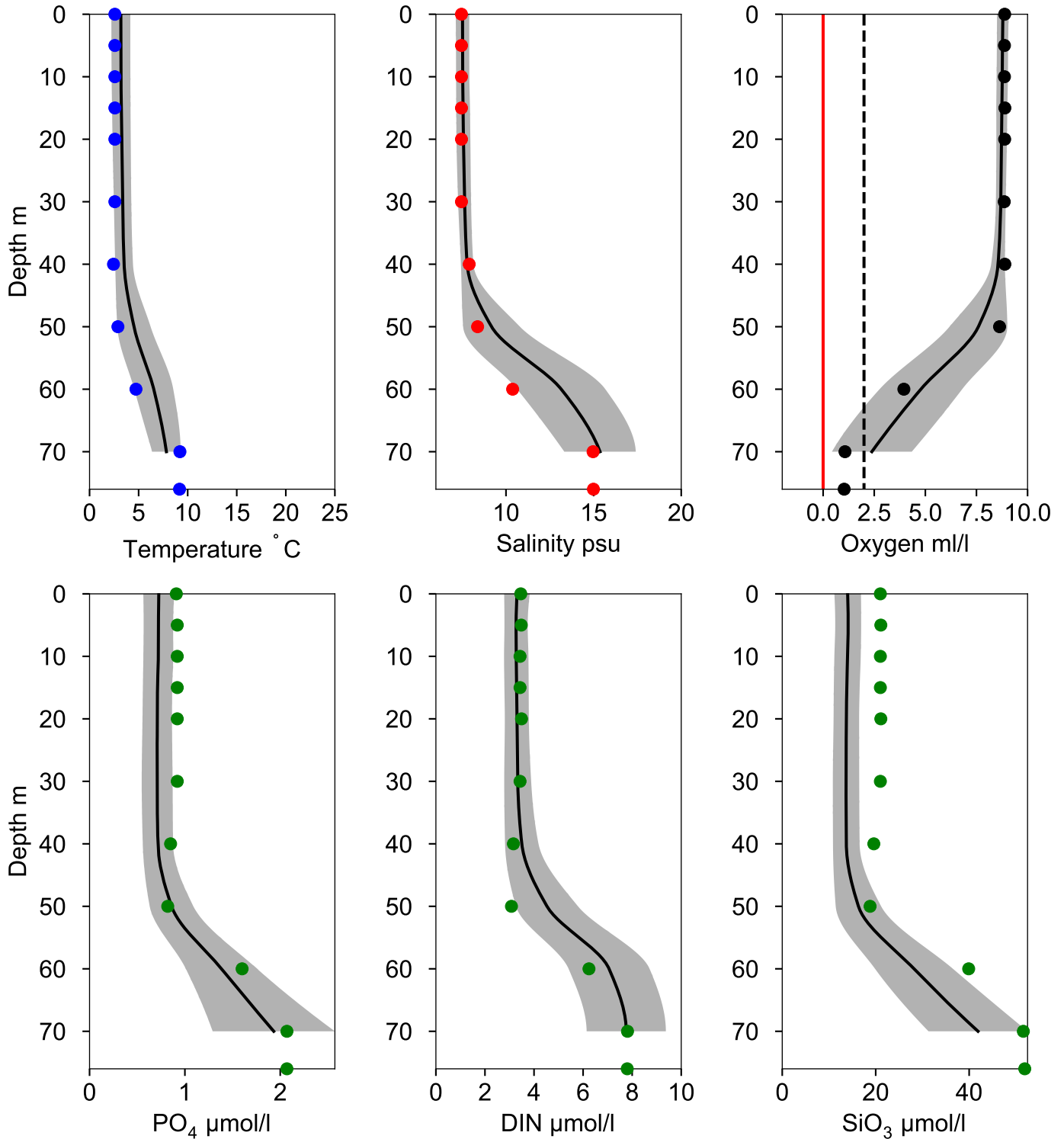


## OXYGEN IN BOTTOM WATER (depth >= 70 m)



# Vertical profiles HANÖBUKTEN February

— Mean 1991-2020    St.Dev.    ● 2026-02-06

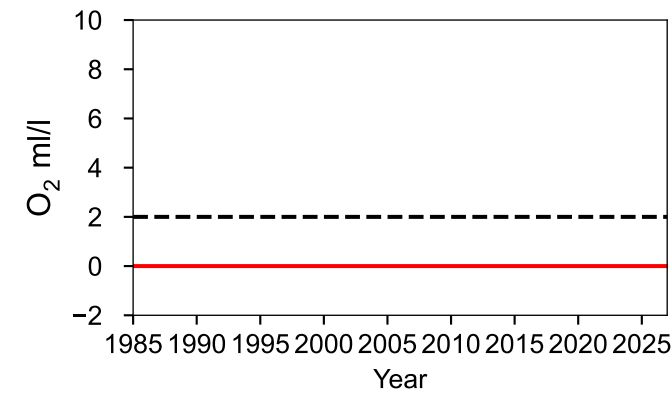
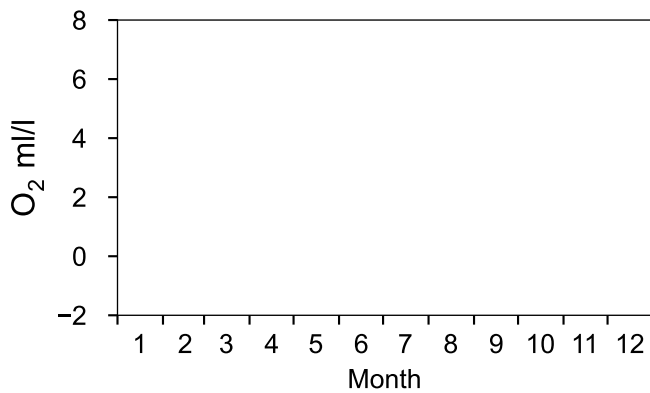
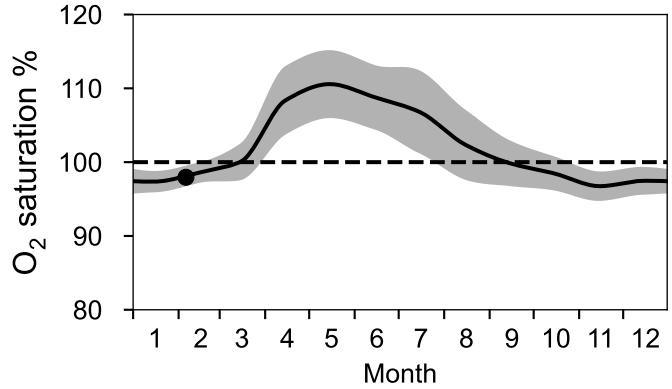
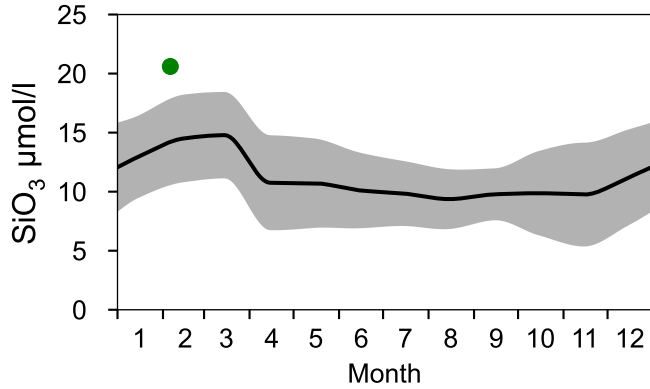
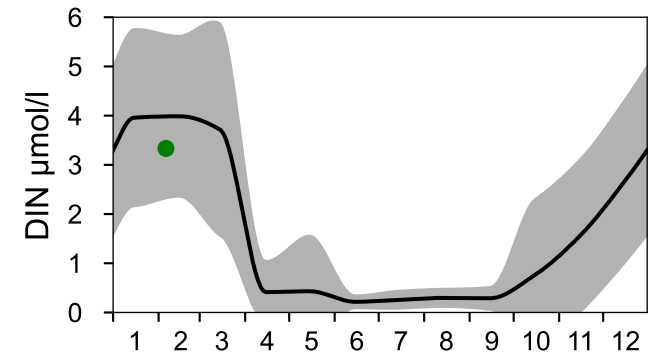
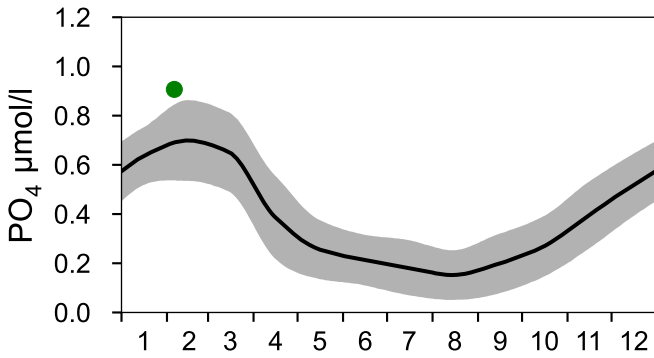
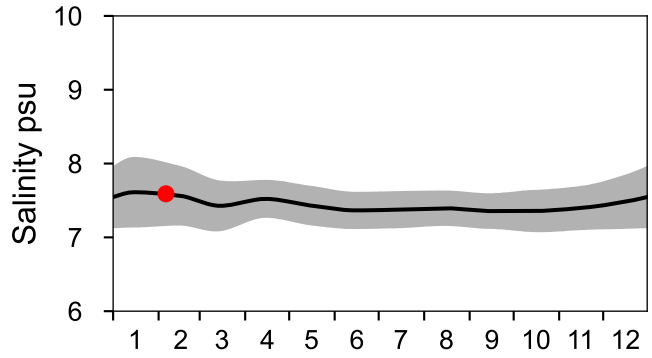
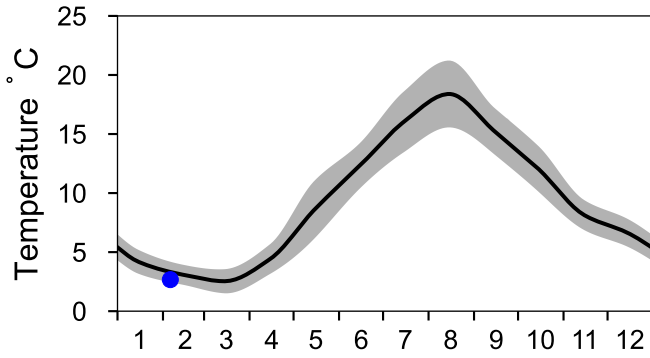


# STATION HANÖBUKTEN-KBV SURFACE WATER (0-10 m)

## Annual Cycles

Statistics based on data from: Bornholmshavet

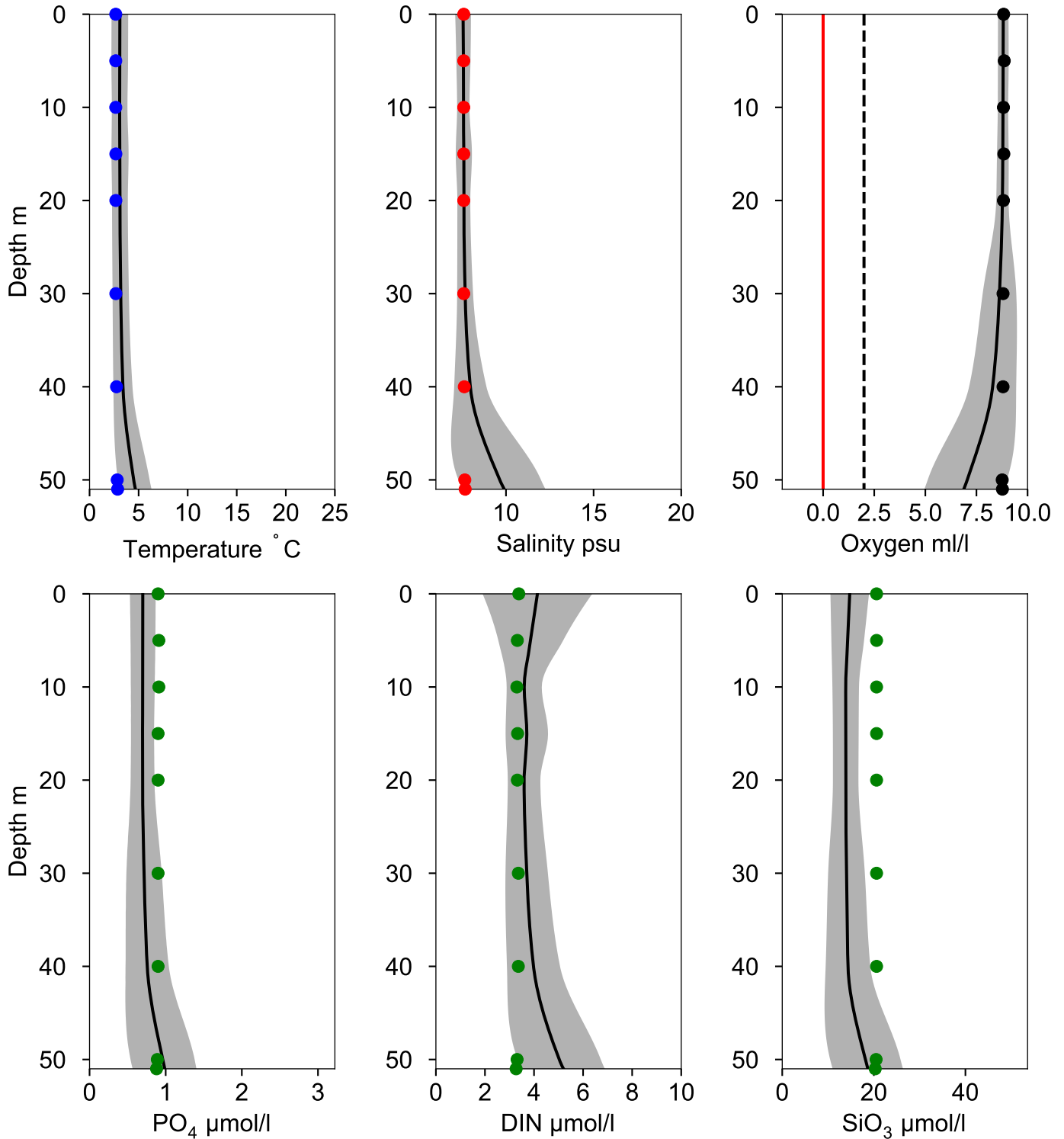
— Mean 1991-2020    St.Dev.    ● 2026



# Vertical profiles HANÖBUKTEN-KBV February

Statistics based on data from: Bornholmshavet

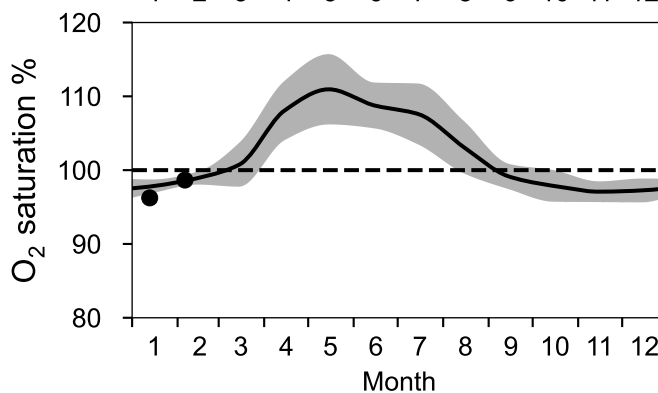
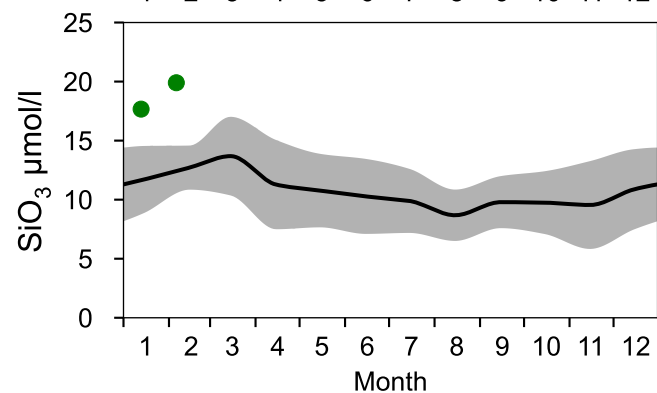
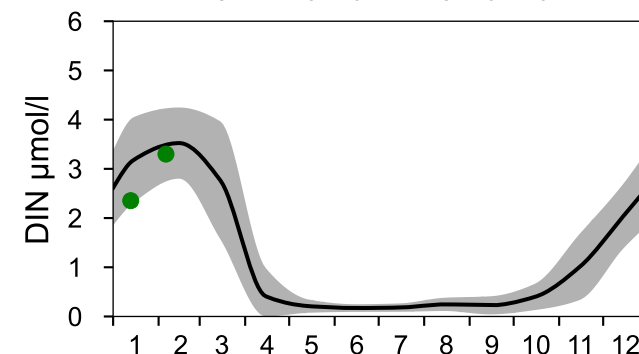
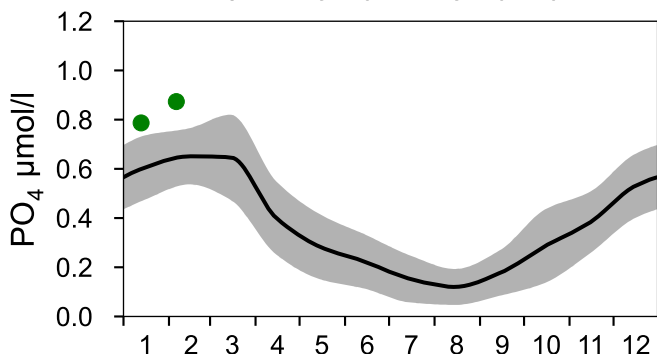
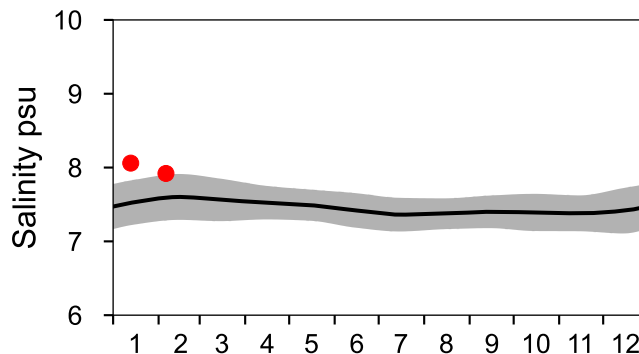
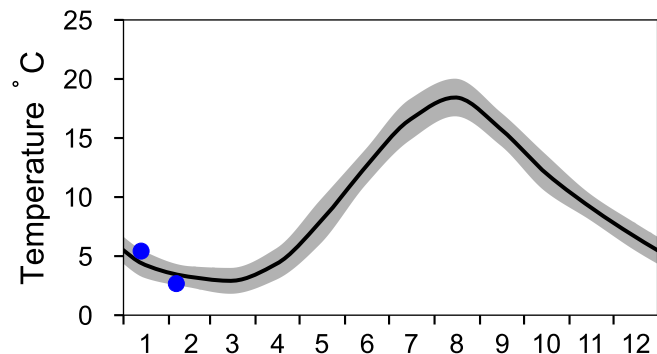
— Mean 1991-2020    ■ St.Dev.    ● 2026-02-06



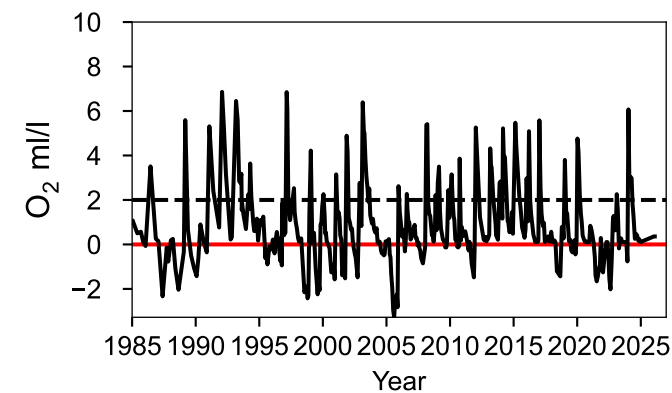
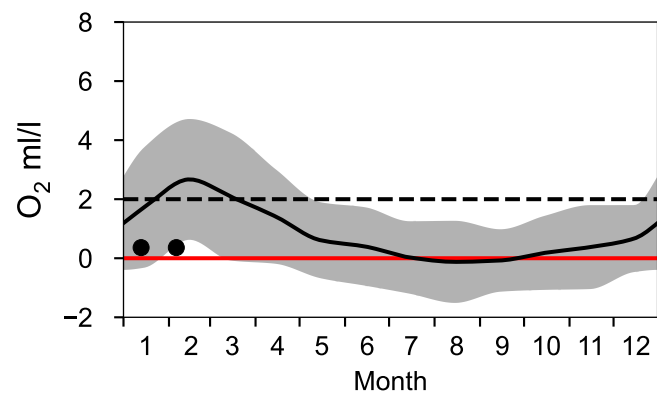
# STATION BY4 CHRISTIANSÖ SURFACE WATER (0-10 m)

Annual Cycles

— Mean 1991-2020    St.Dev.    ● 2026

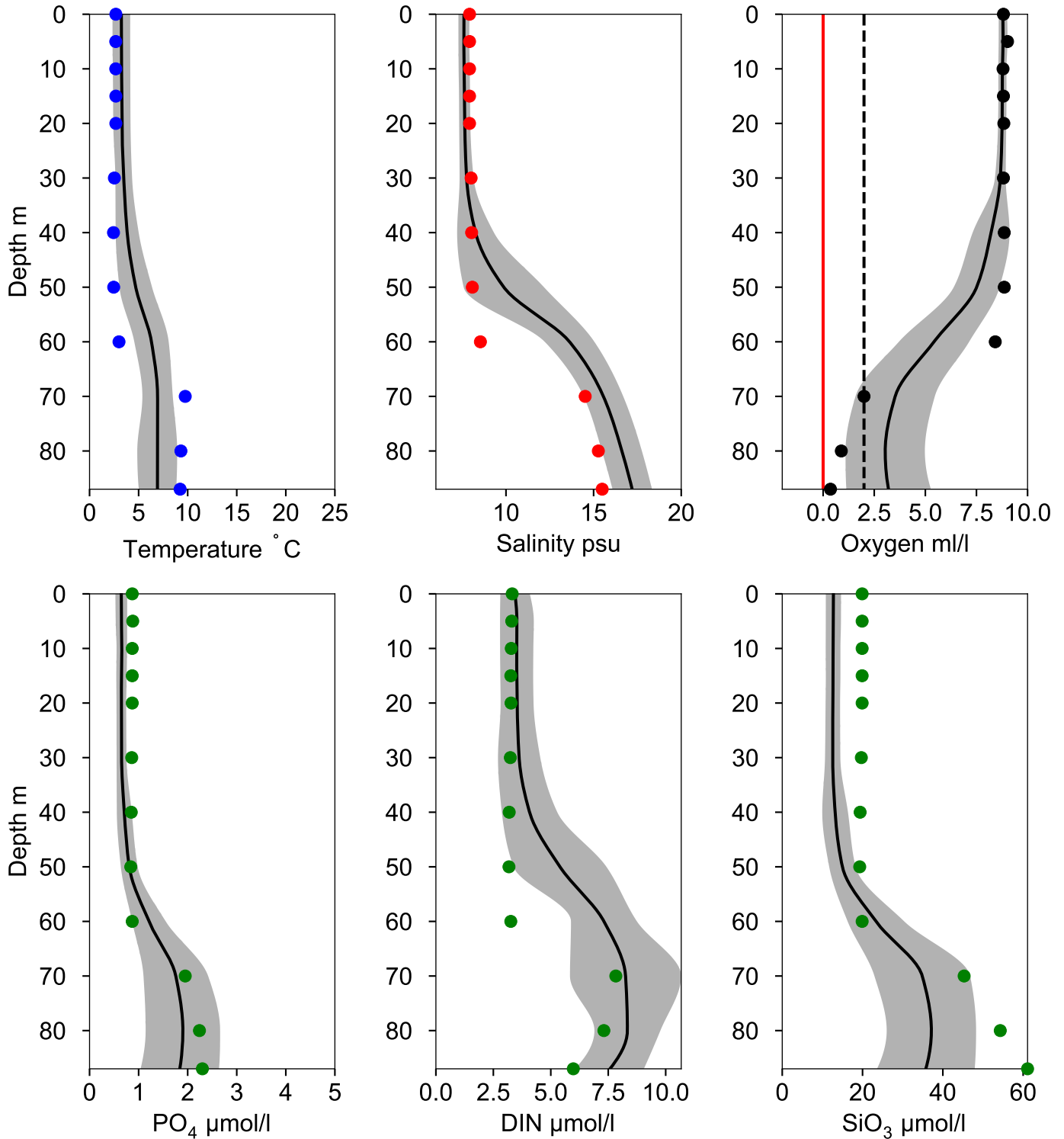


## OXYGEN IN BOTTOM WATER (depth >= 80 m)



# Vertical profiles BY4 CHRISTIANSÖ February

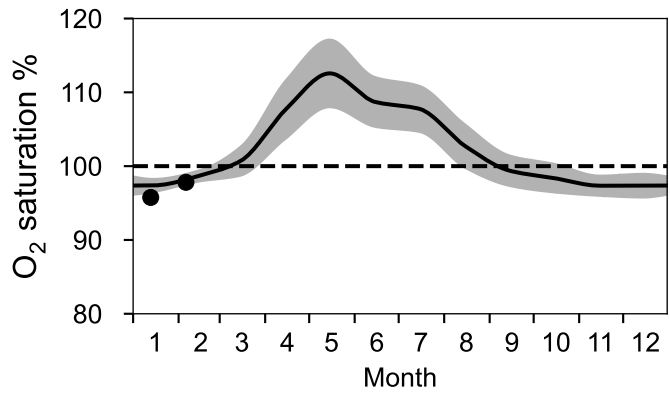
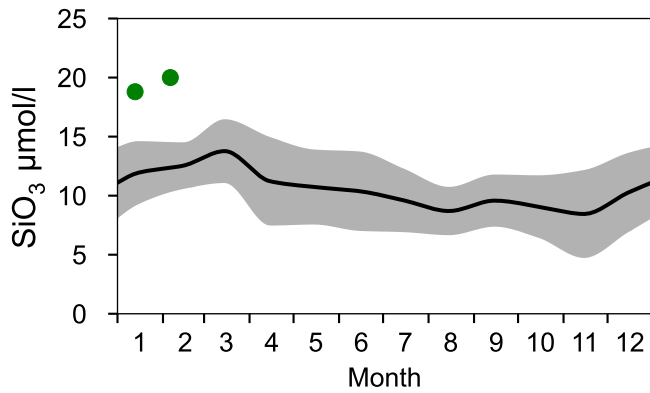
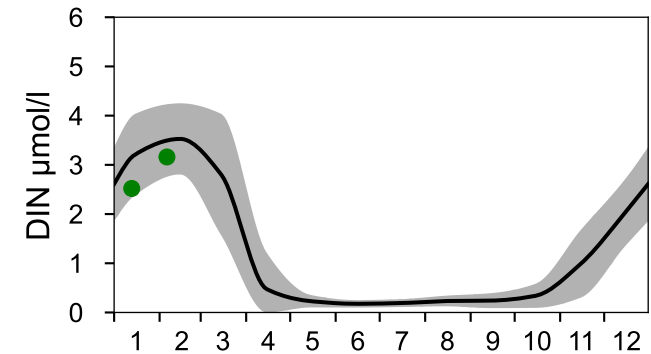
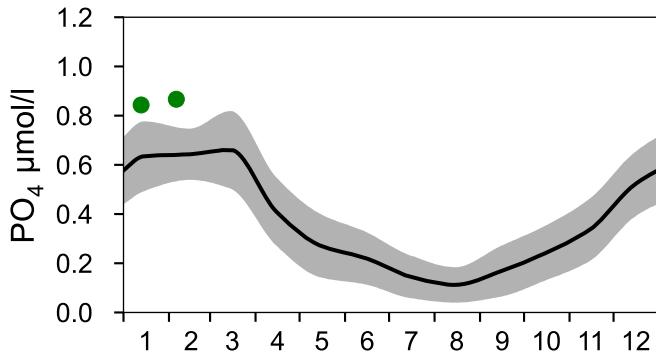
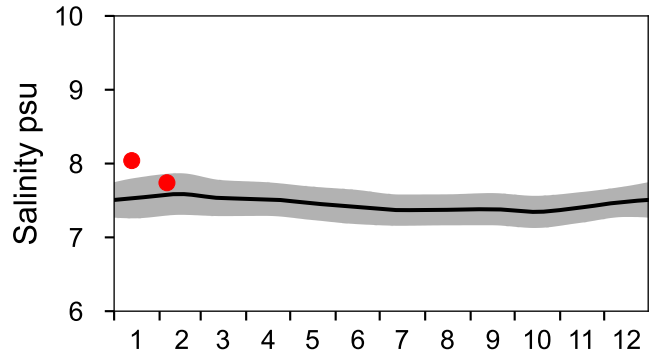
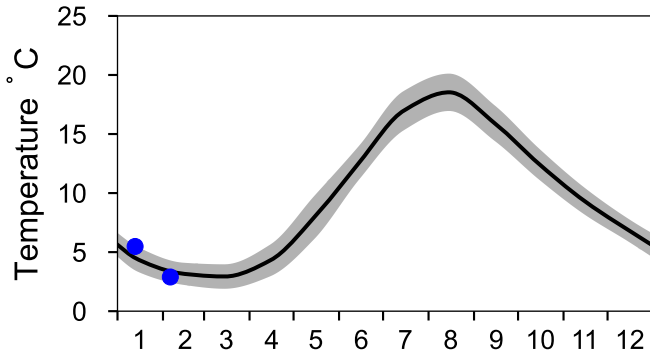
— Mean 1991-2020    St.Dev.    ● 2026-02-06



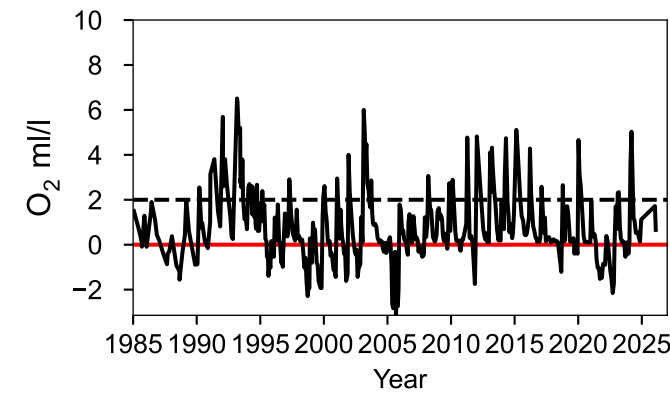
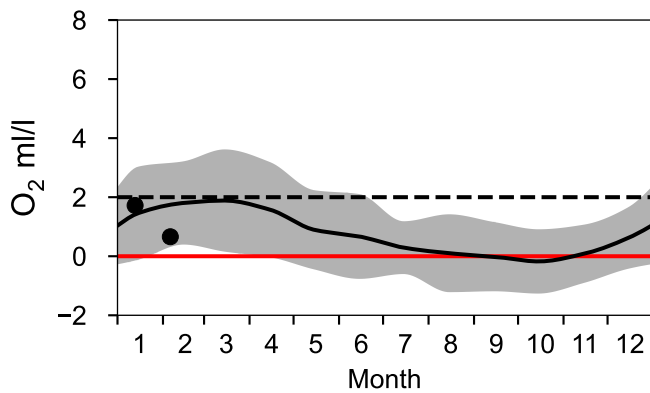
# STATION BY5 BORNHOLMSDJ SURFACE WATER (0-10 m)

Annual Cycles

— Mean 1991-2020    St.Dev.    ● 2026

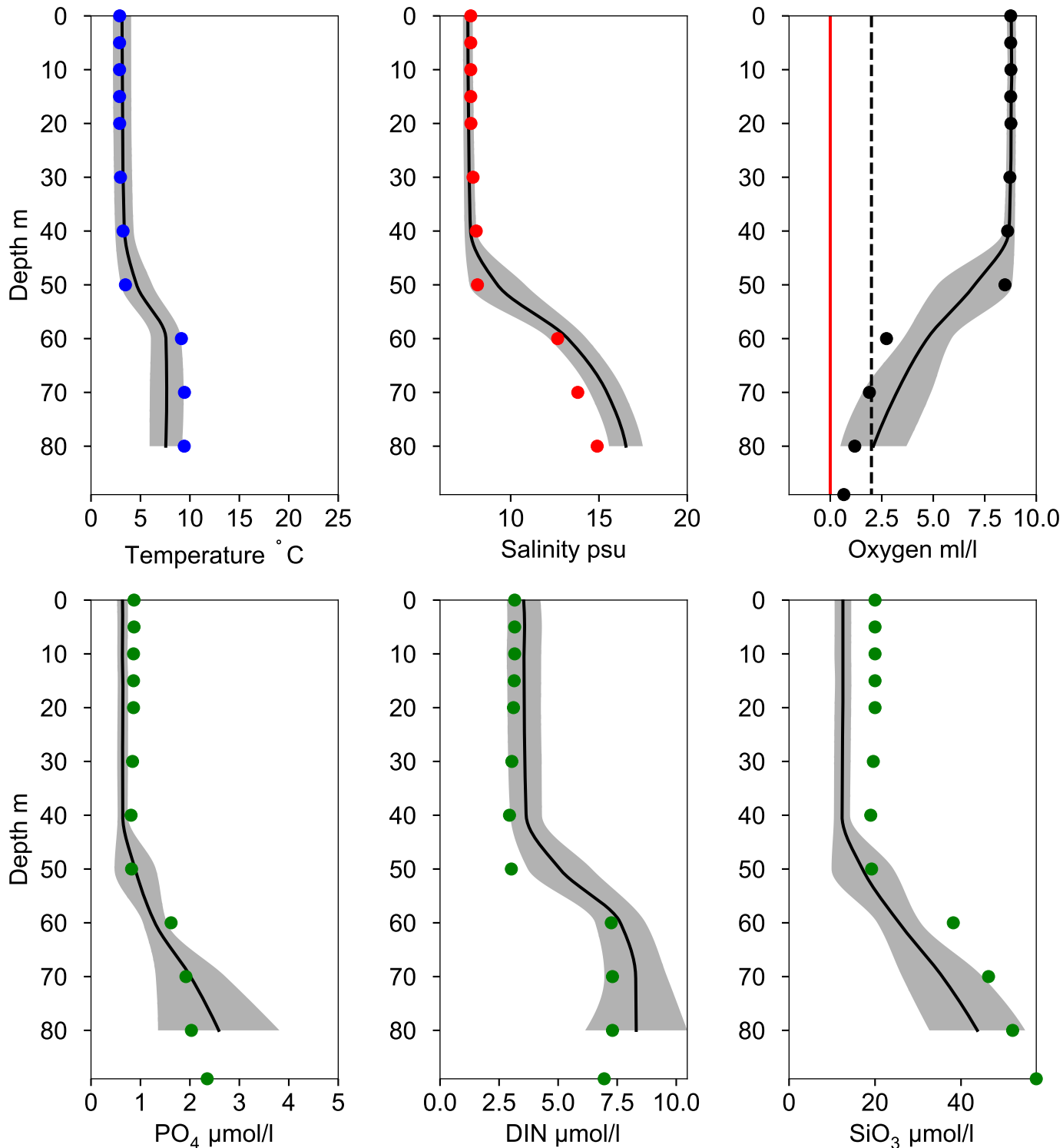


## OXYGEN IN BOTTOM WATER (depth >= 80 m)



# Vertical profiles BY5 BORNHOLMSDJ February

— Mean 1919-2020    St.Dev.    ● 2026-02-06

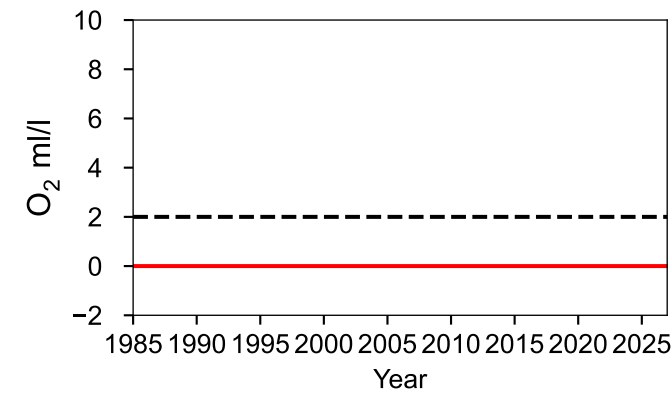
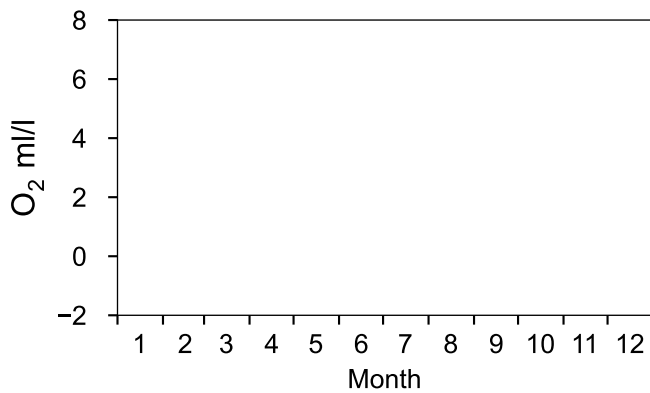
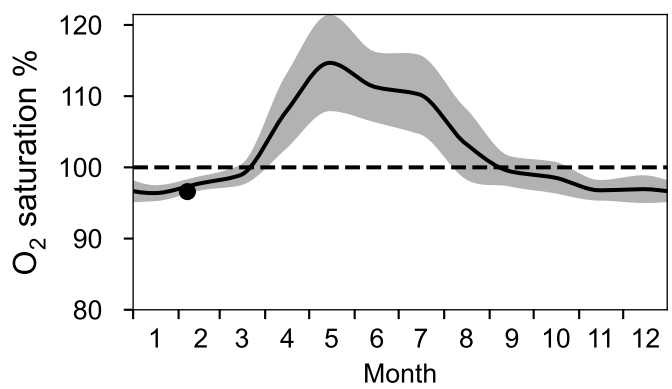
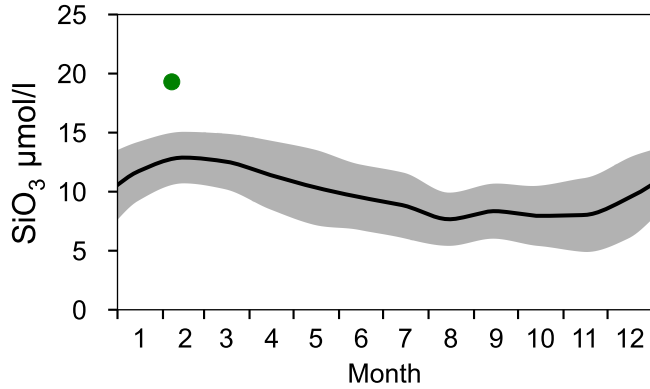
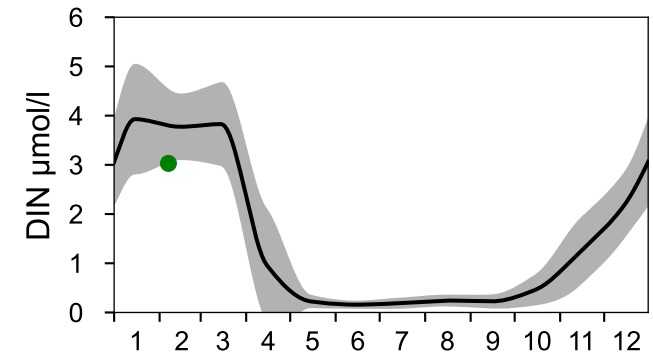
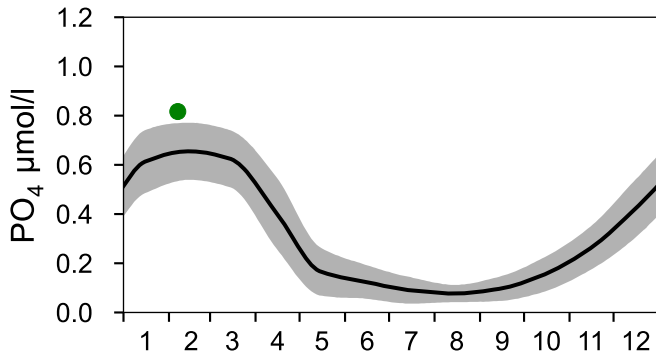
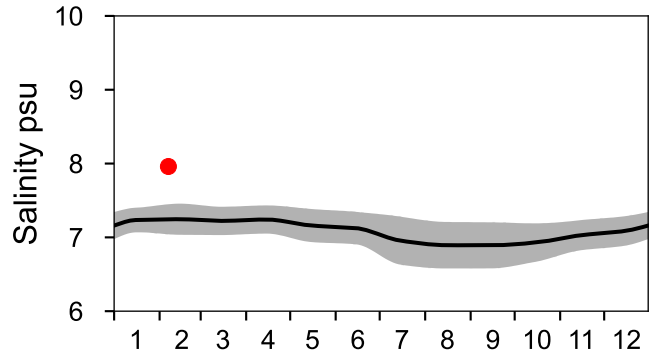
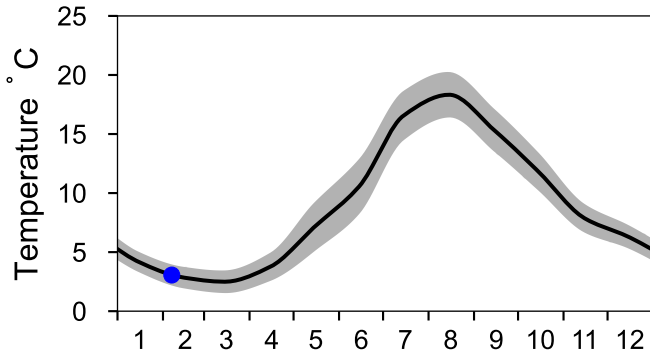


# STATION STOLPE TRÖSKEL SURFACE WATER (0-10 m)

## Annual Cycles

Statistics based on data from: Östra Gotlandshavet

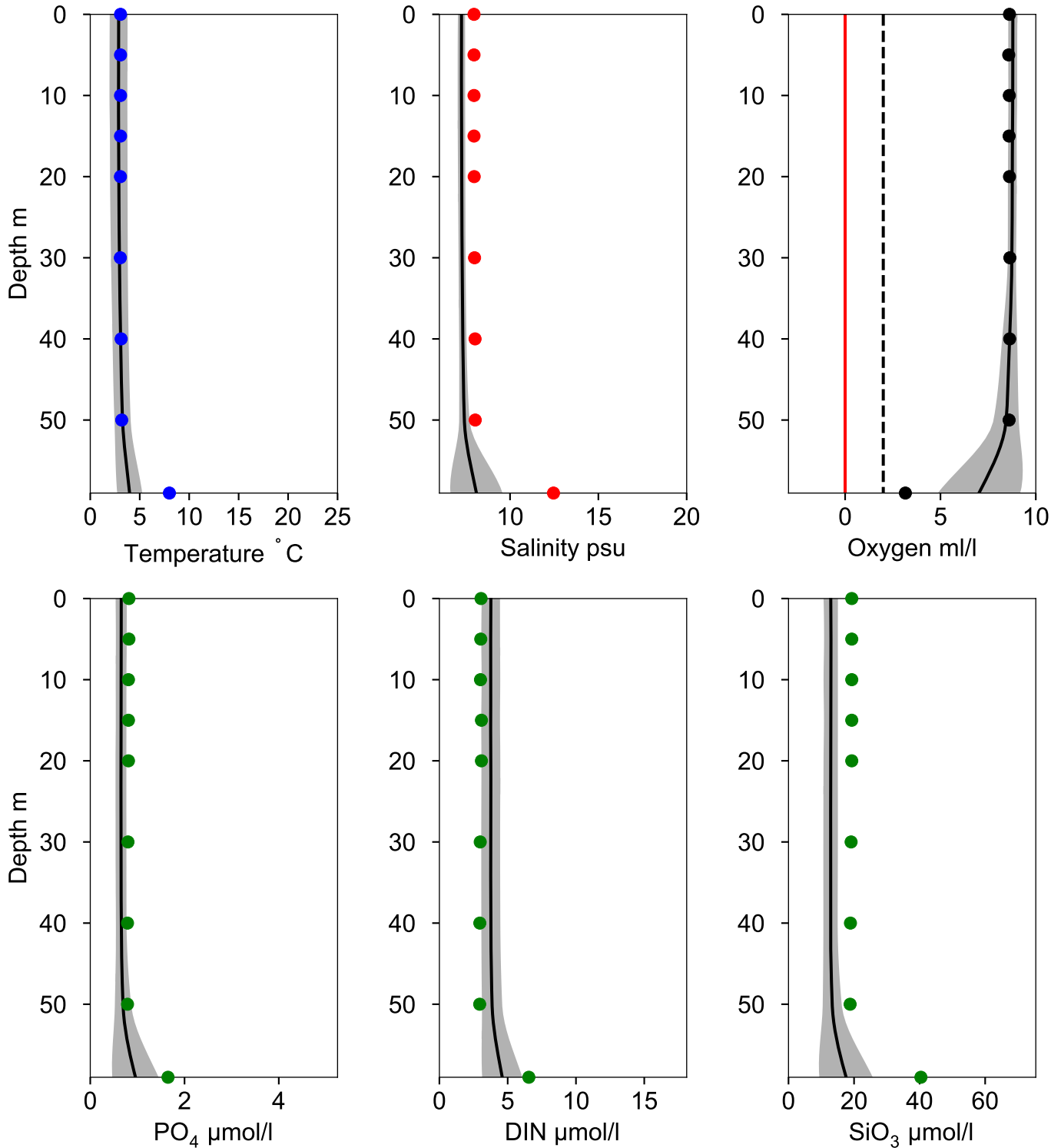
— Mean 1991-2020    St.Dev.    ● 2026



# Vertical profiles STOLPE TRÖSKEL February

Statistics based on data from: Östra Gotlandshavet

— Mean 1991-2020    ■ St.Dev.    ● 2026-02-07

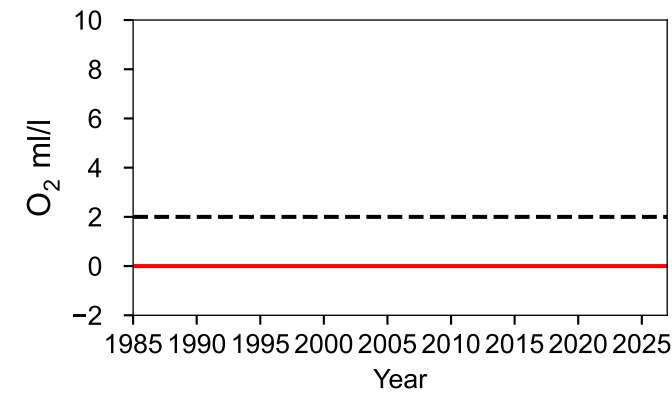
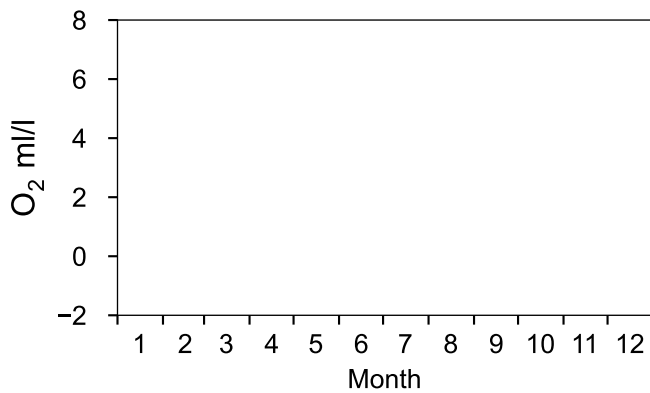
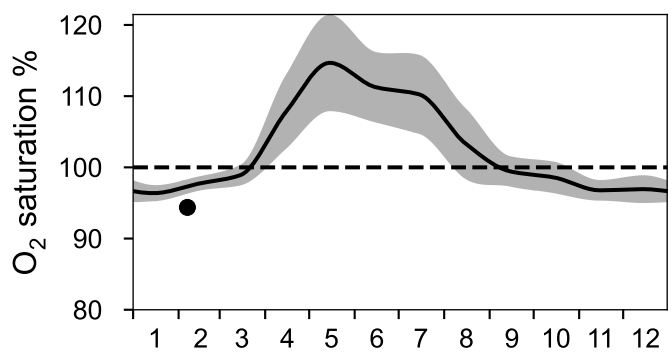
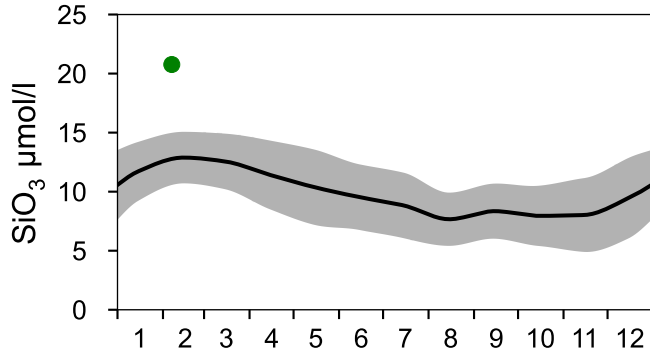
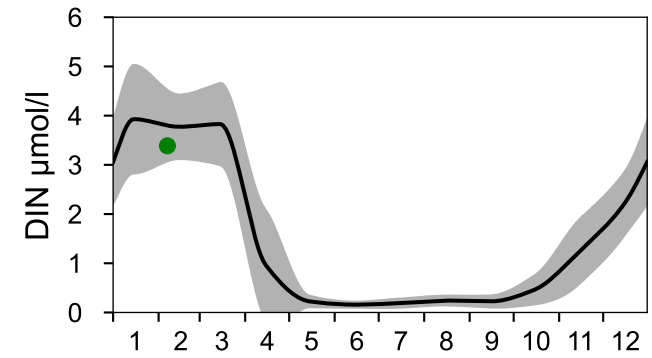
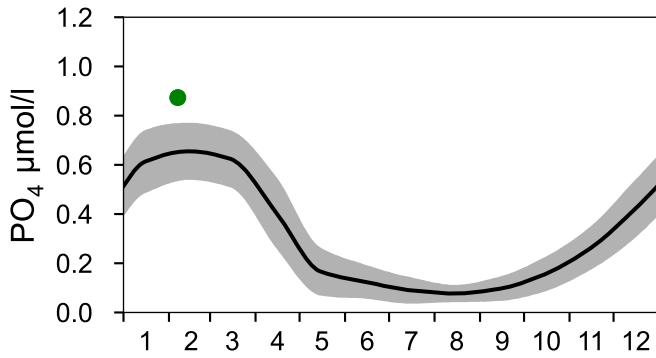
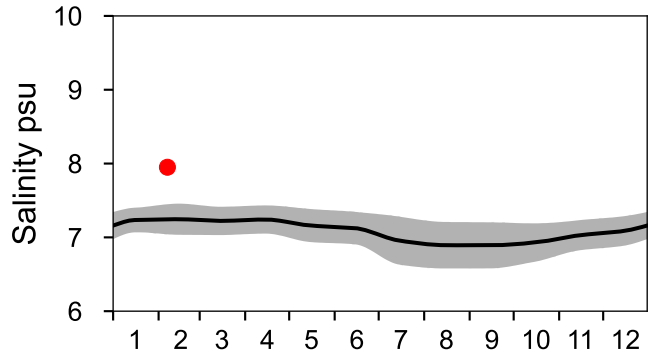
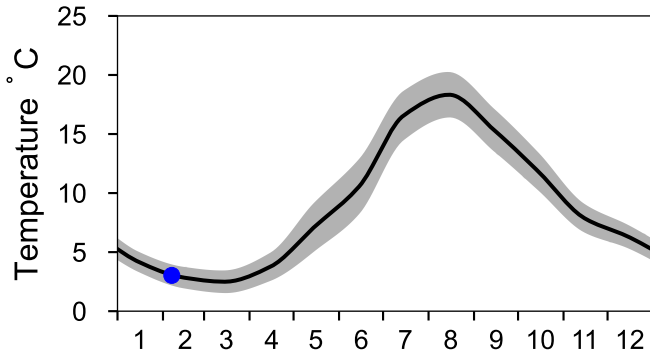


# STATION BY7 STOLPE RÄNNA SURFACE WATER (0-10 m)

## Annual Cycles

Statistics based on data from: Östra Gotlandshavet

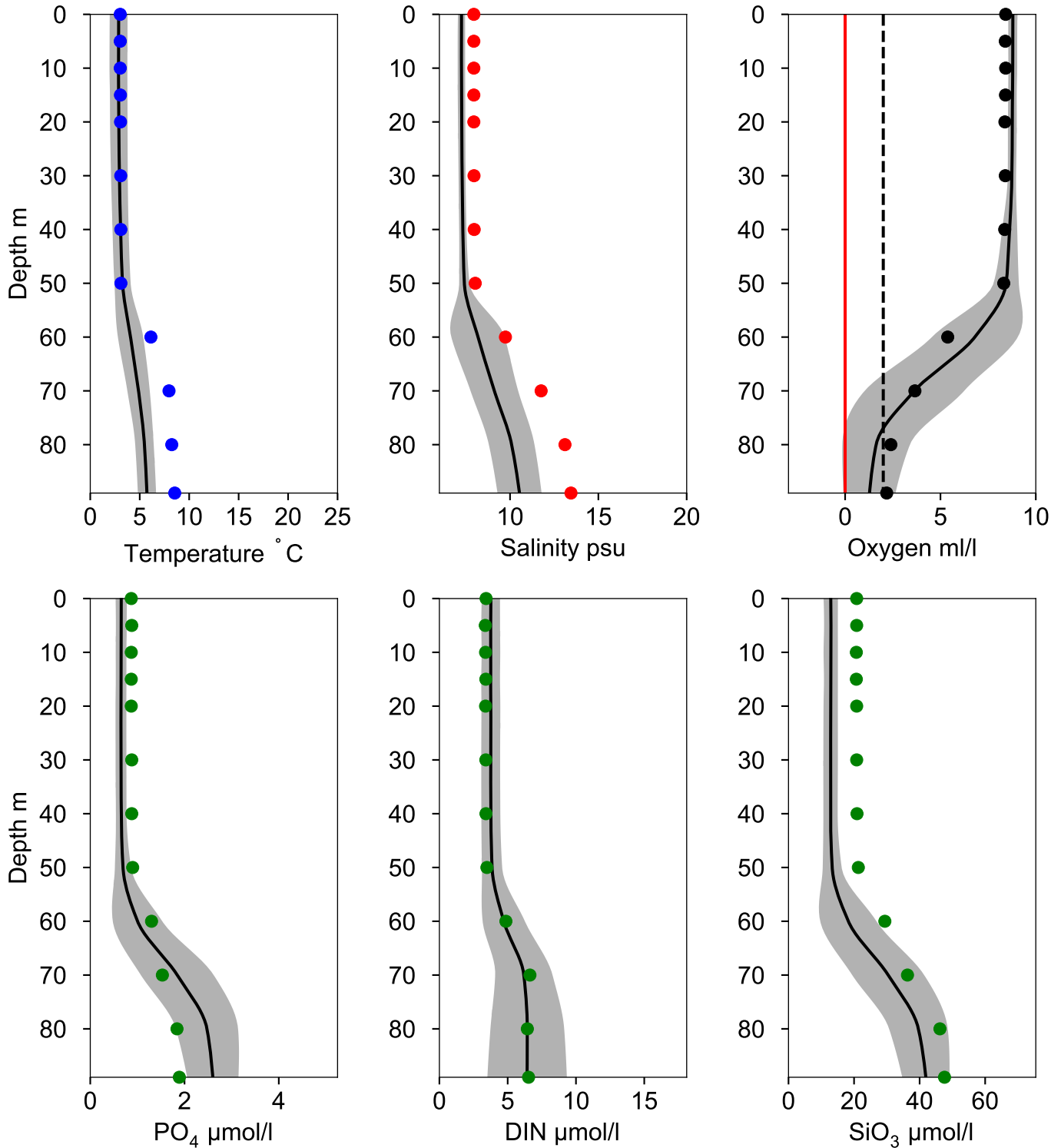
— Mean 1991-2020    St.Dev.    ● 2026



# Vertical profiles BY7 STOLPE RÄNNA February

Statistics based on data from: Östra Gotlandshavet

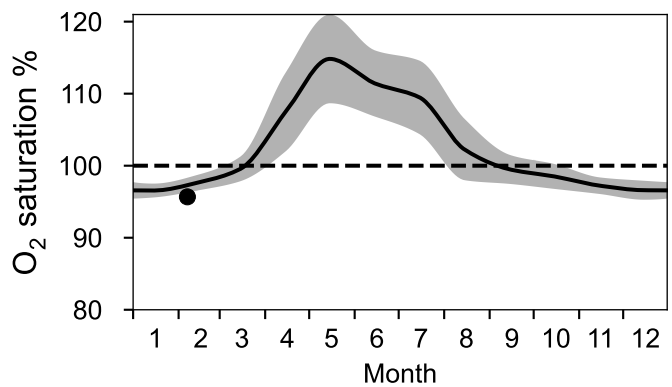
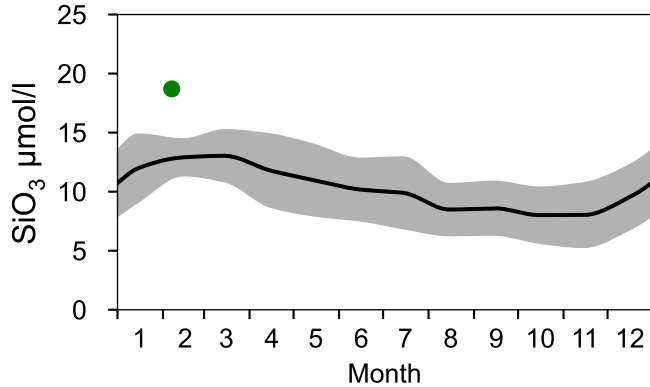
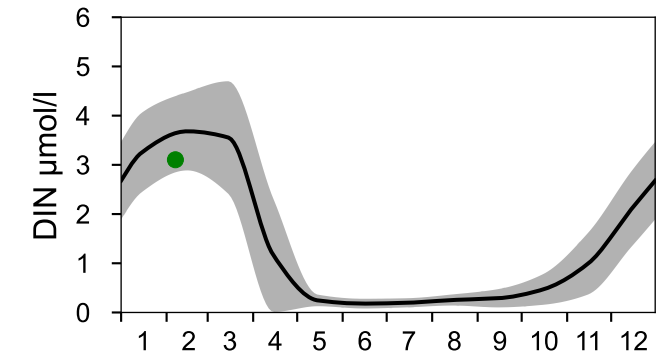
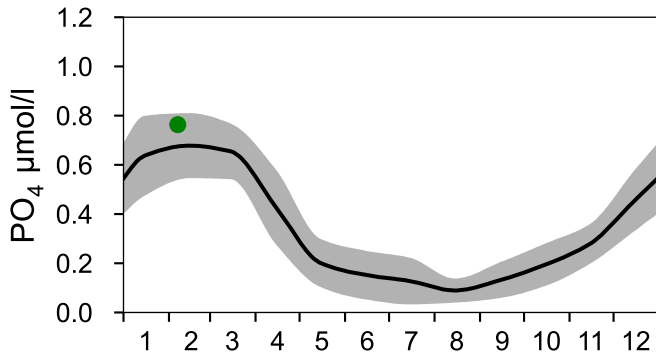
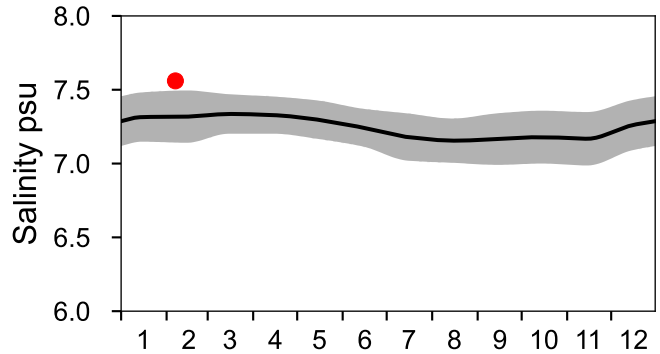
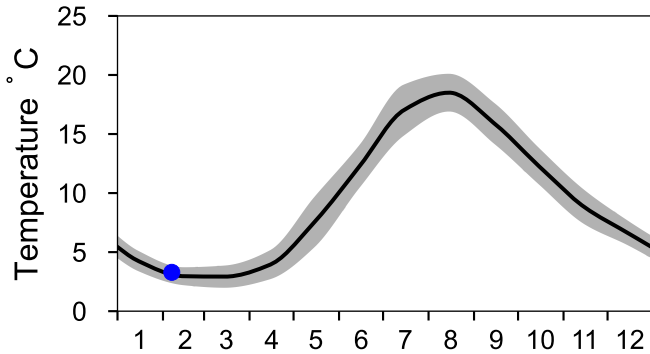
— Mean 1991-2020    ■ St.Dev.    ● 2026-02-07



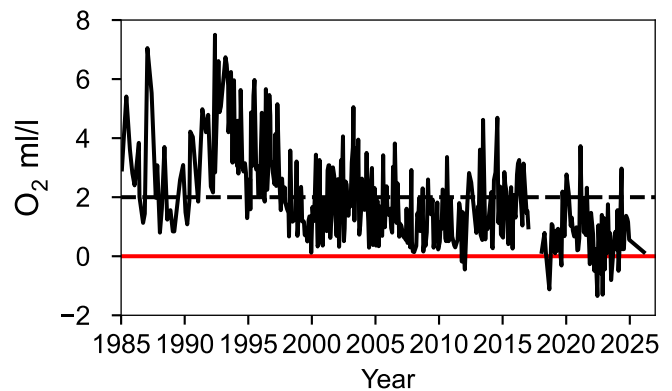
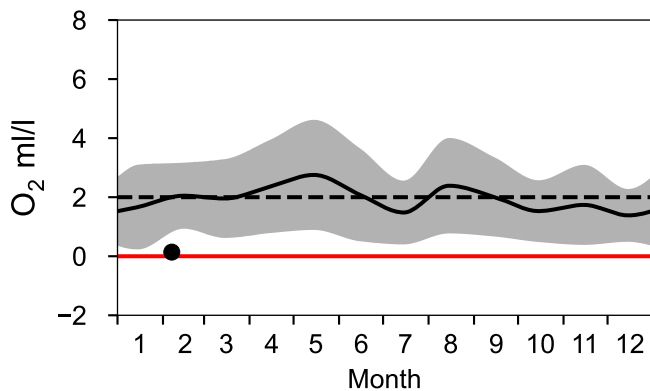
# STATION BCS III-10 SURFACE WATER (0-10 m)

Annual Cycles

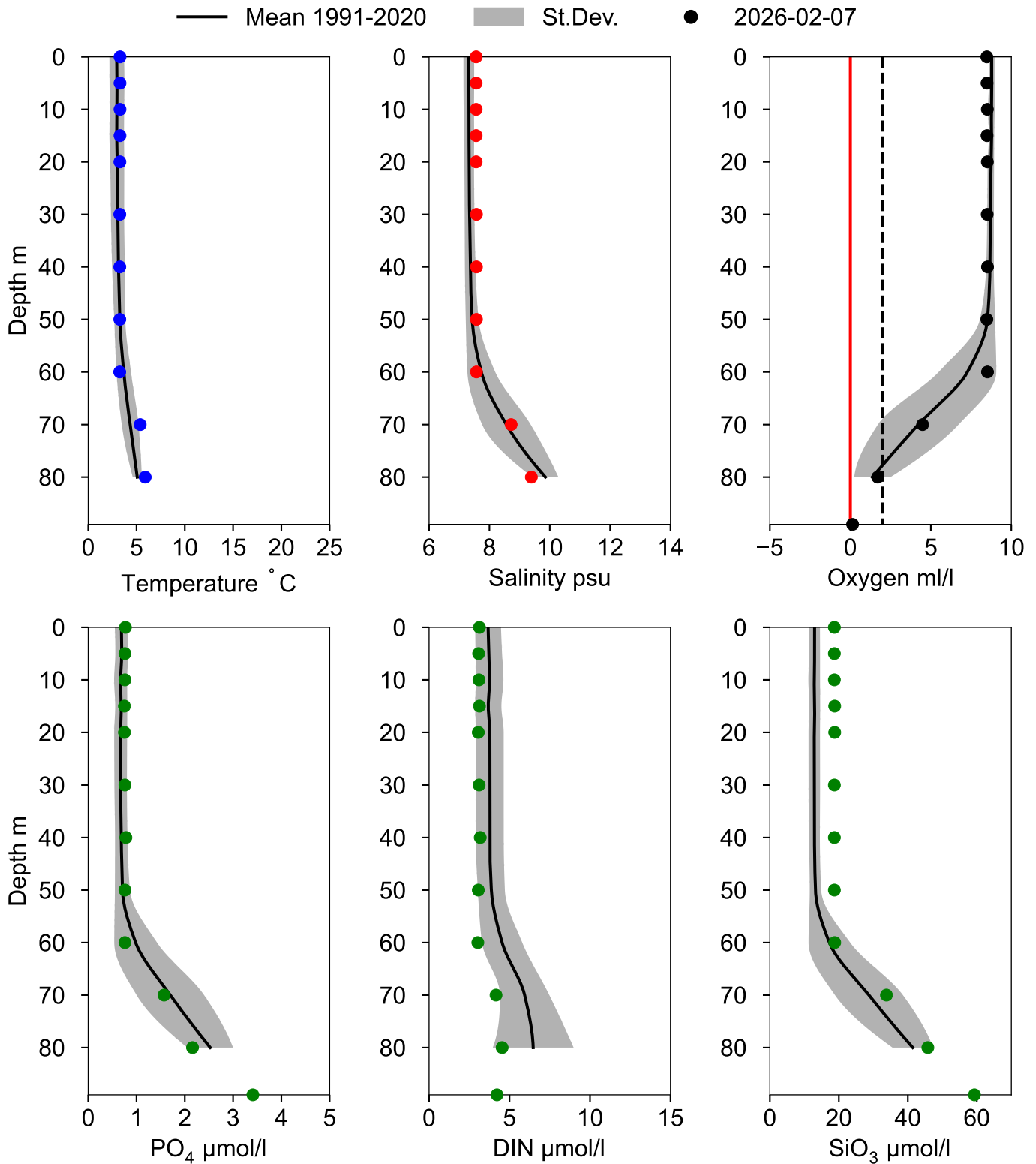
— Mean 1991-2020    St.Dev.    ● 2026



## OXYGEN IN BOTTOM WATER (depth >= 80 m)



# Vertical profiles BCS III-10 February

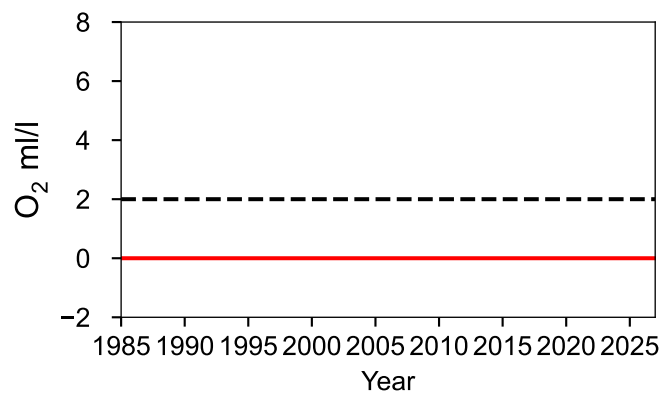
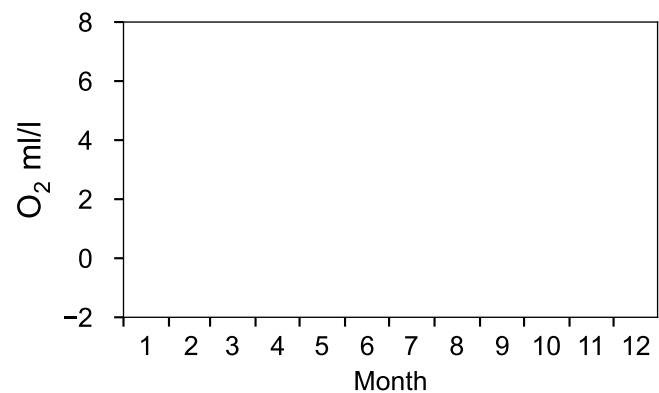
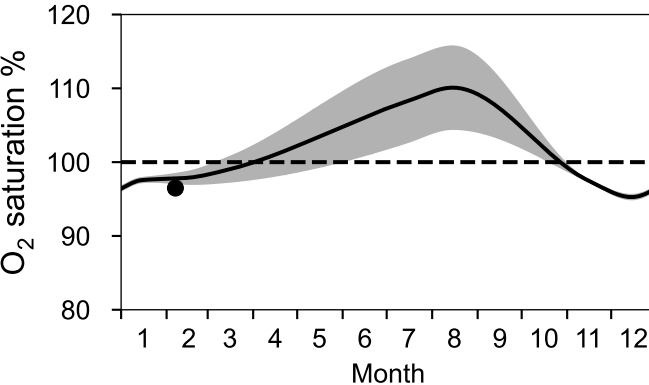
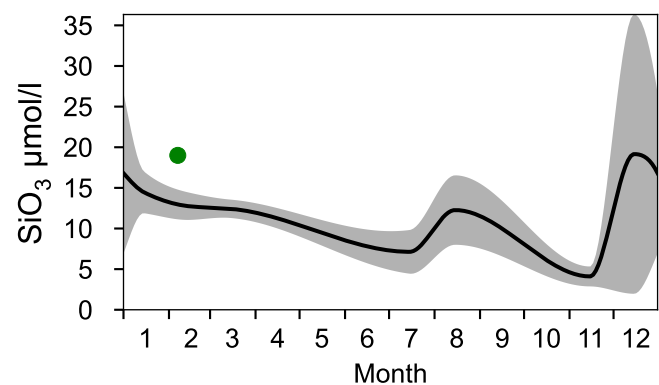
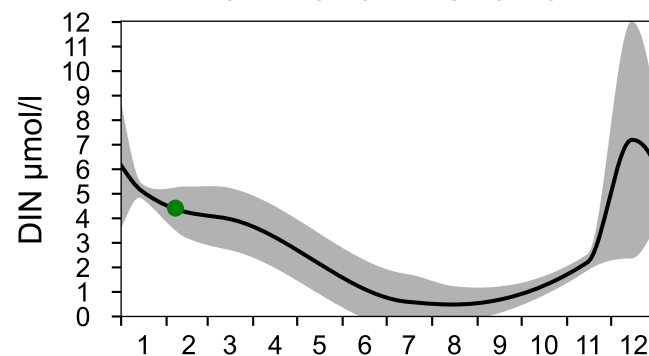
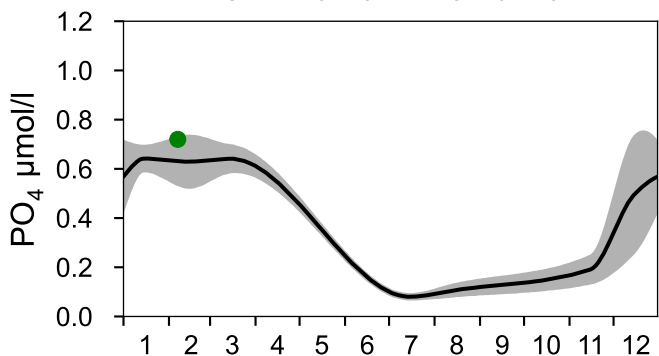
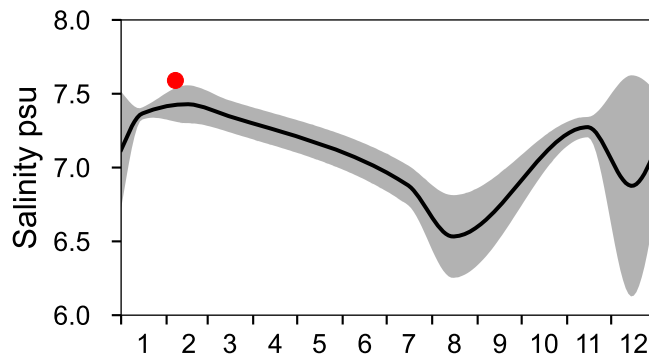
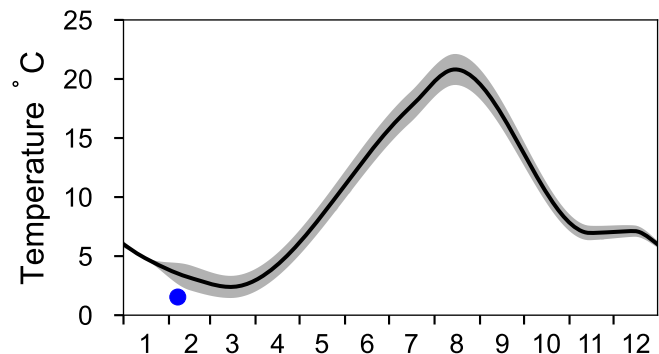


# STATION PL-P1 SURFACE WATER (0-10 m)

## Annual Cycles

Statistics based on data from: Gdanskbukten

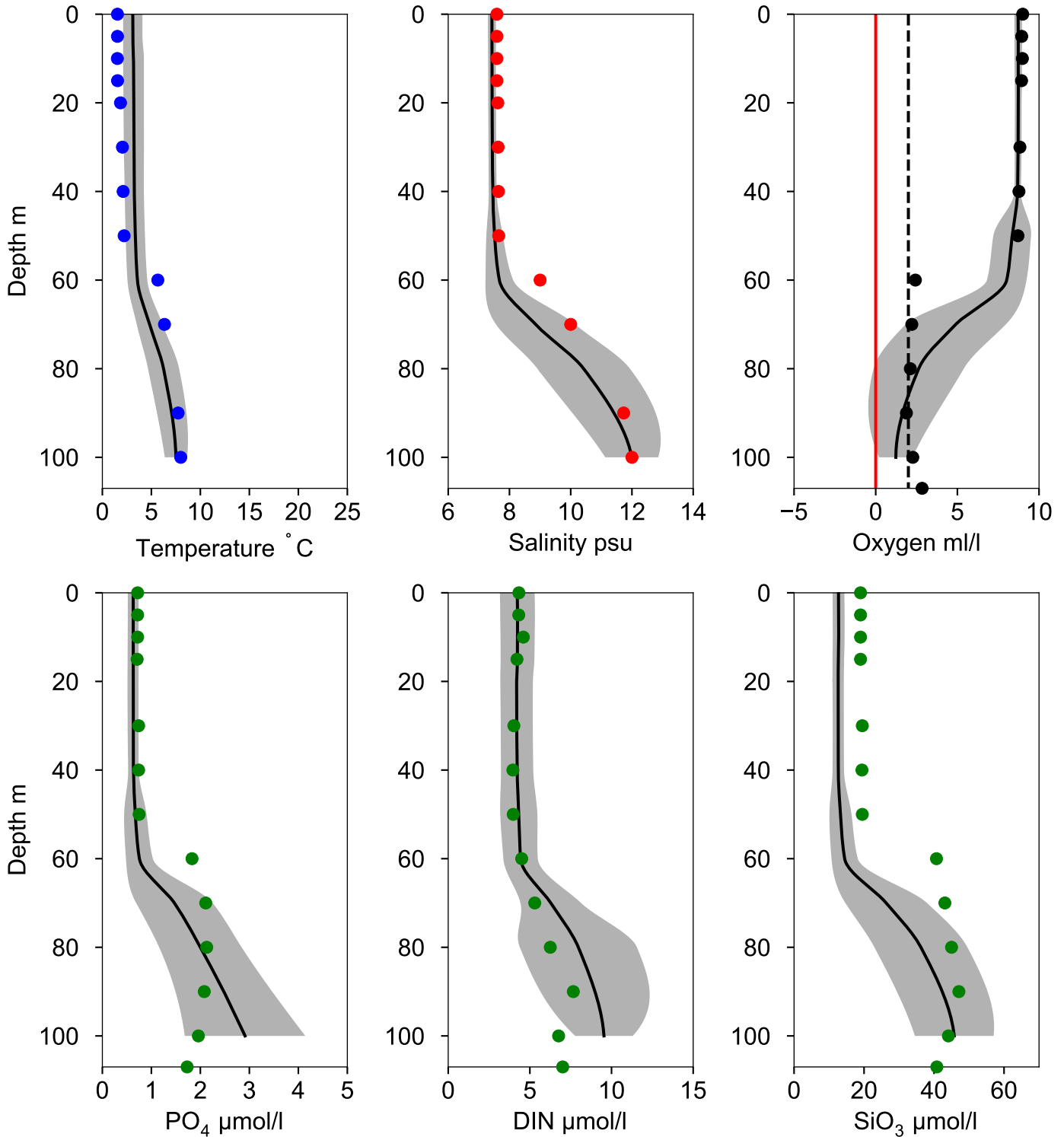
— Mean 1991-2020    St.Dev.    ● 2026



# Vertical profiles PL-P1 February

Statistics based on data from: Gdanskbukten

— Mean 1991-2020    ■ St.Dev.    ● 2026-02-07

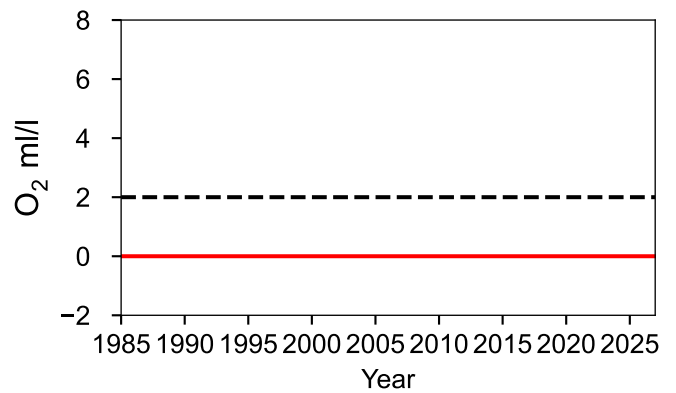
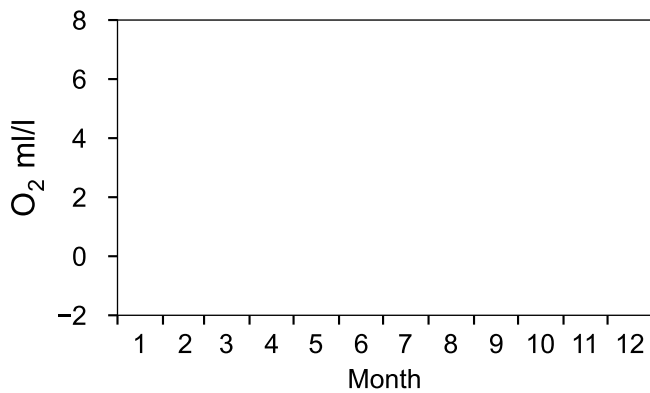
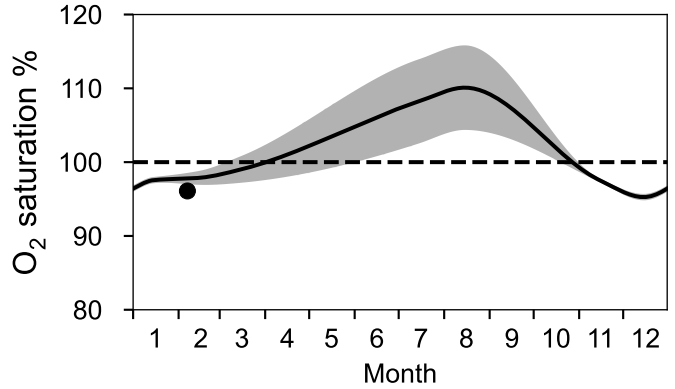
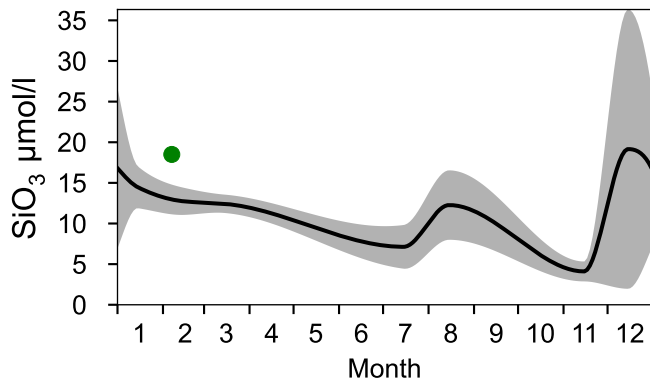
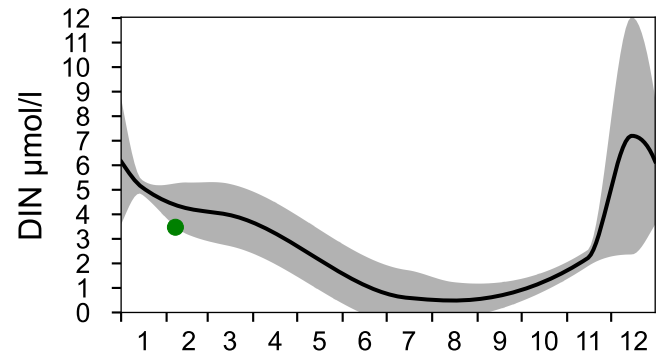
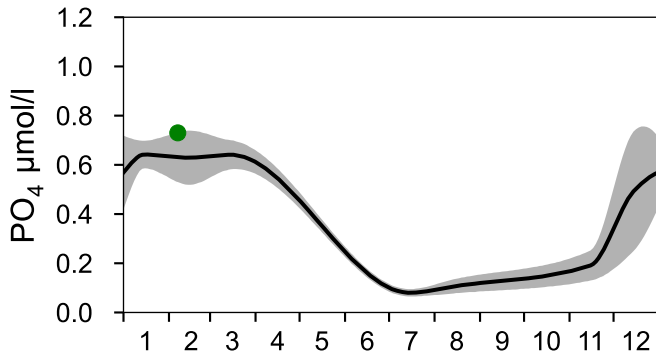
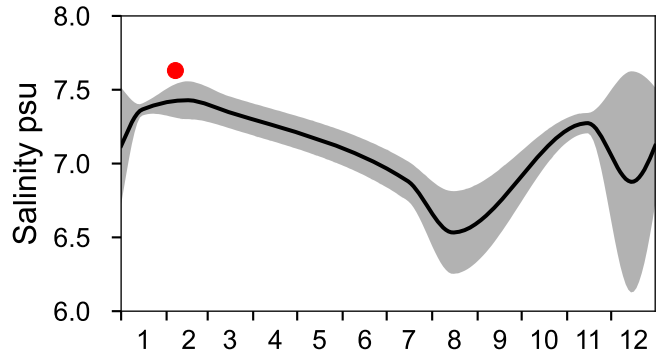
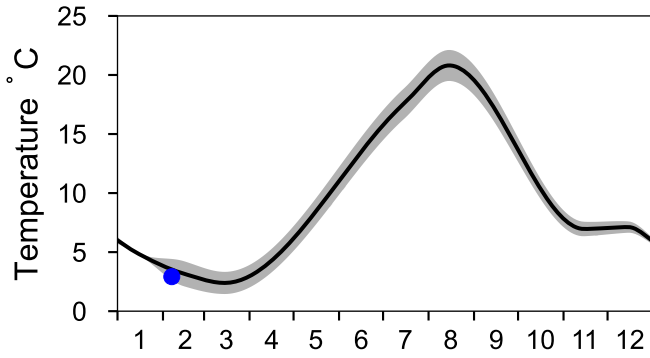


# STATION PL-P63 SURFACE WATER (0-10 m)

## Annual Cycles

Statistics based on data from: Gdanskbukten

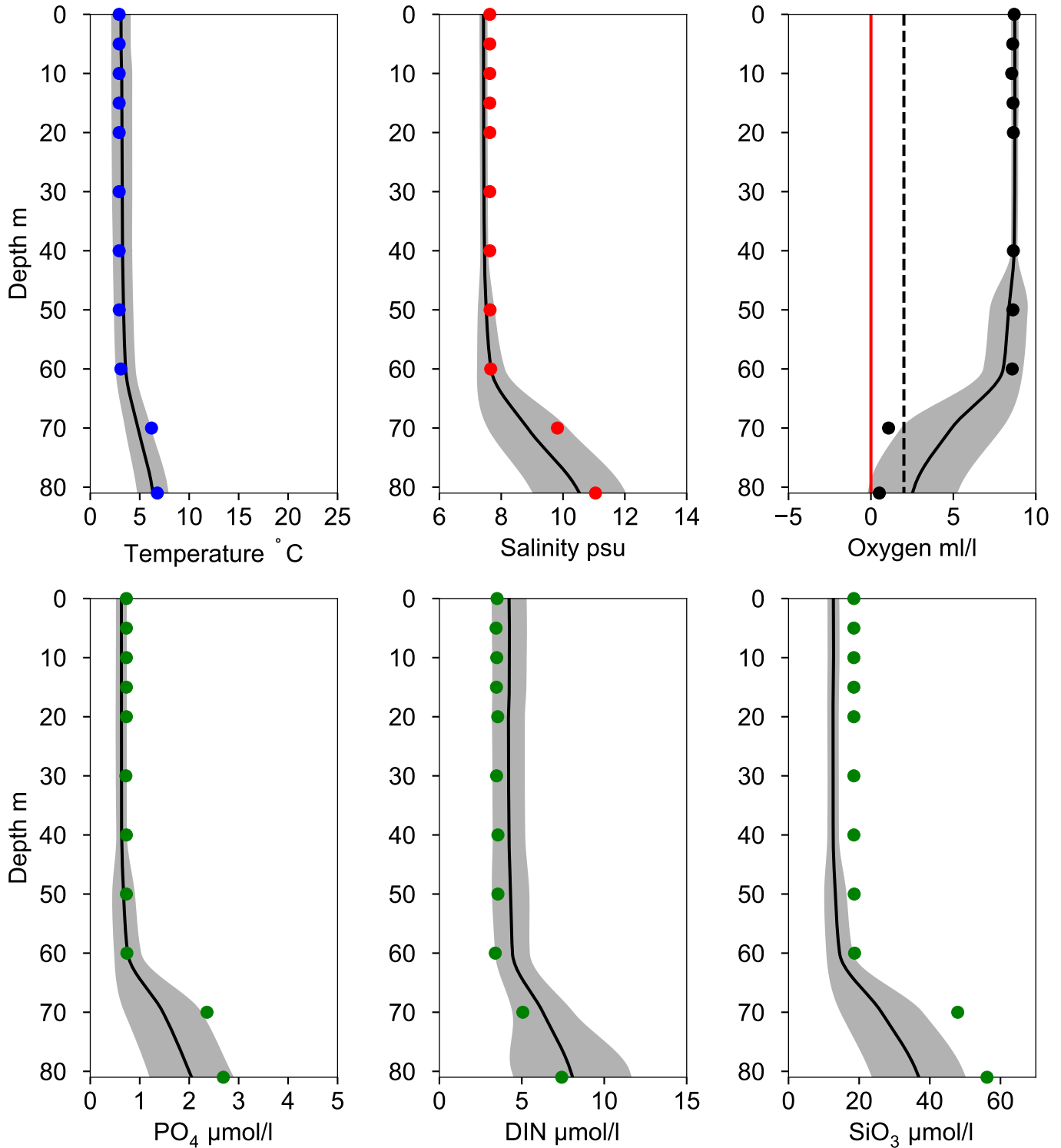
— Mean 1991-2020    St.Dev.    ● 2026



# Vertical profiles PL-P63 February

Statistics based on data from: Gdanskbukten

— Mean 1991-2020    ■ St.Dev.    ● 2026-02-07

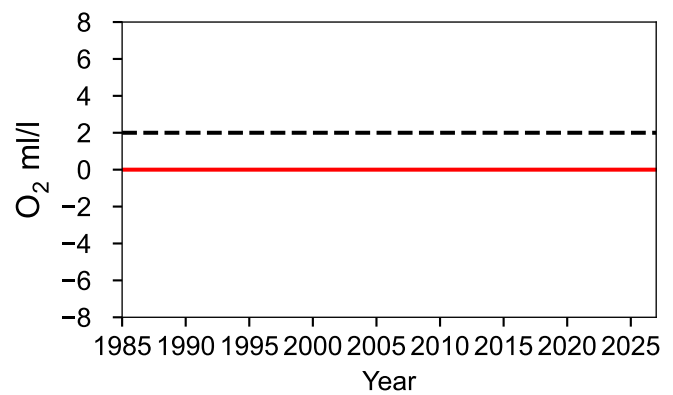
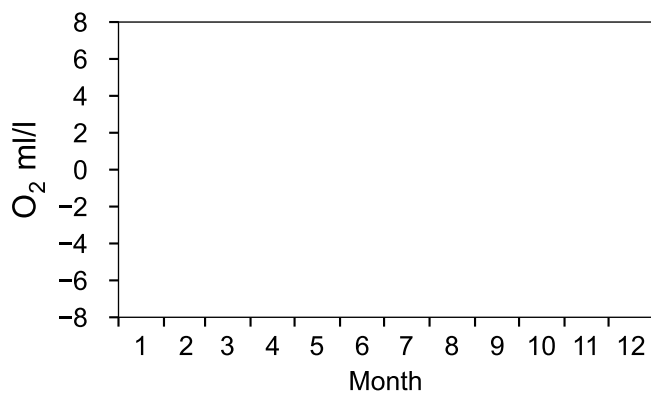
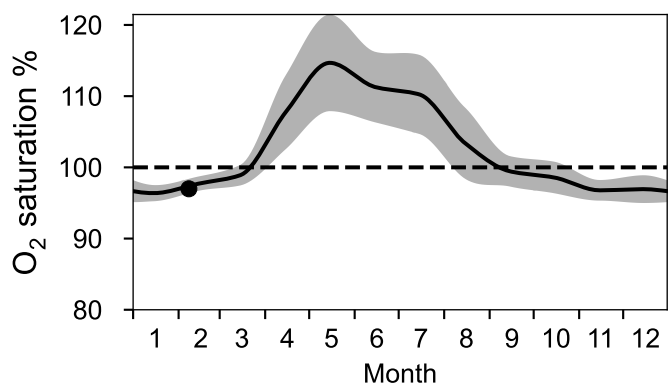
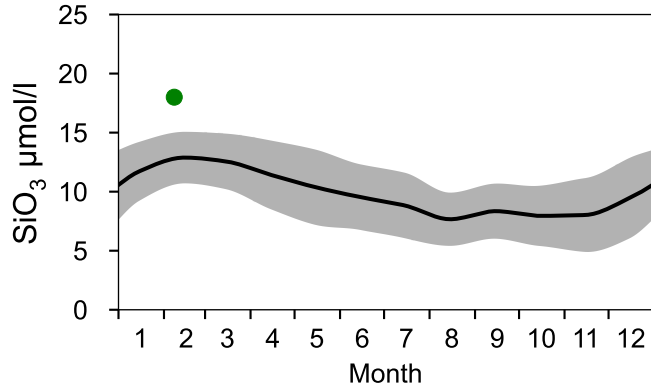
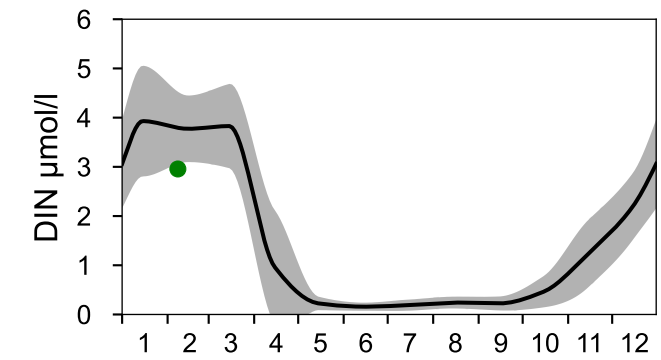
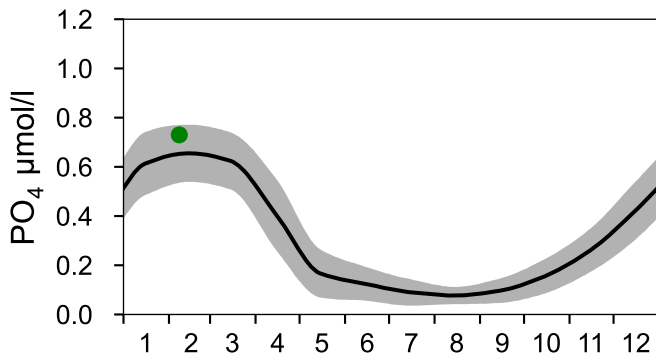
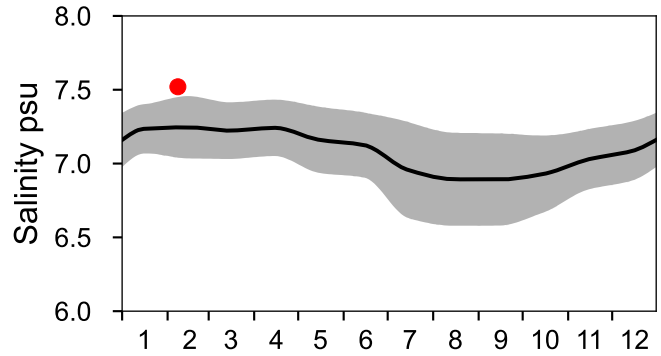
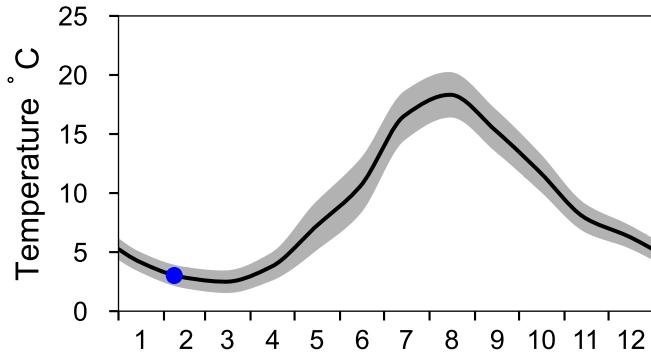


# STATION BY9 KLAIPEDA SURFACE WATER (0-10 m)

## Annual Cycles

Statistics based on data from: Östra Gotlandshavet

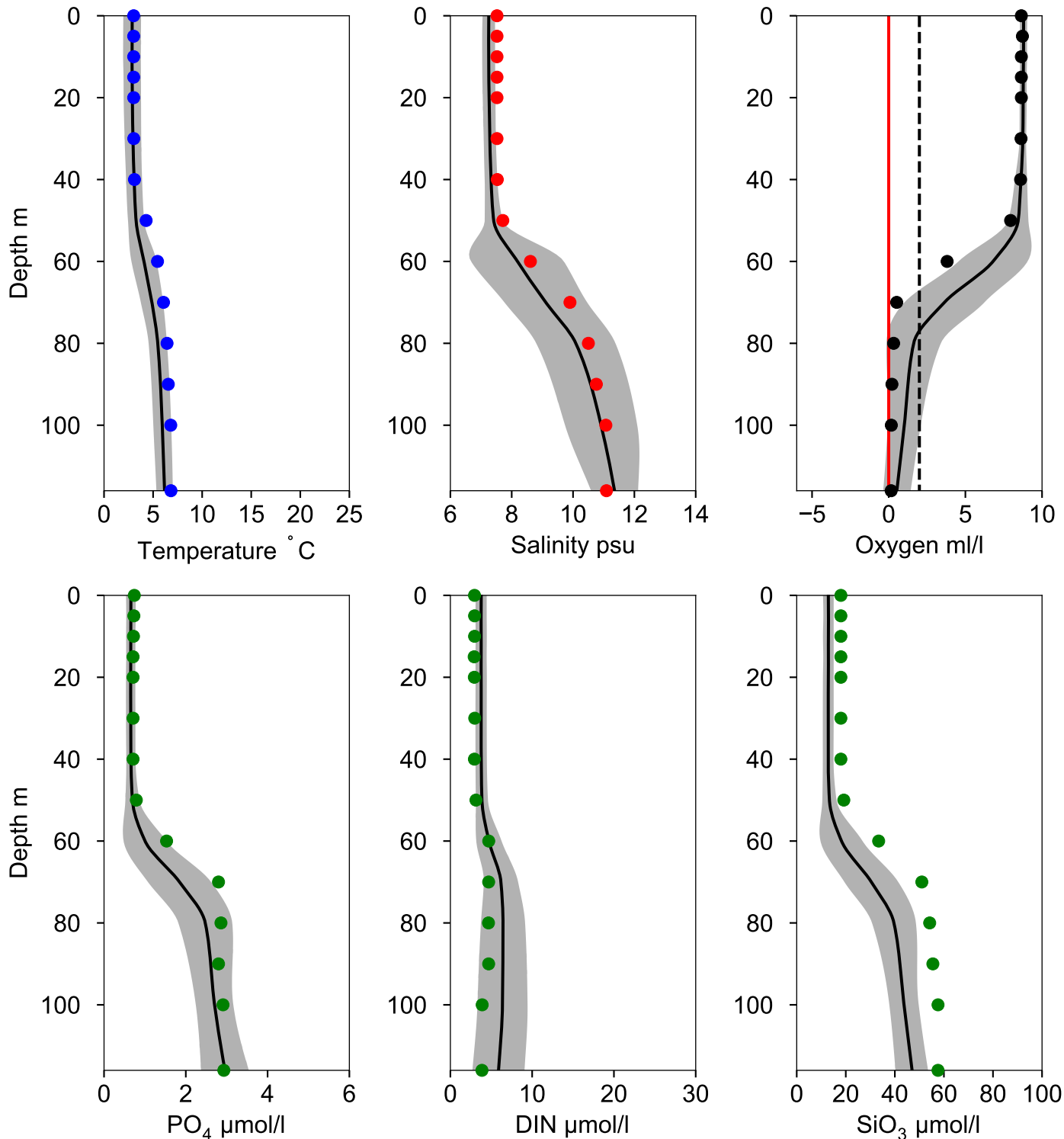
— Mean 1991-2020    St.Dev.    ● 2026



# Vertical profiles BY9 KLAIPEDA February

Statistics based on data from: Östra Gotlandshavet

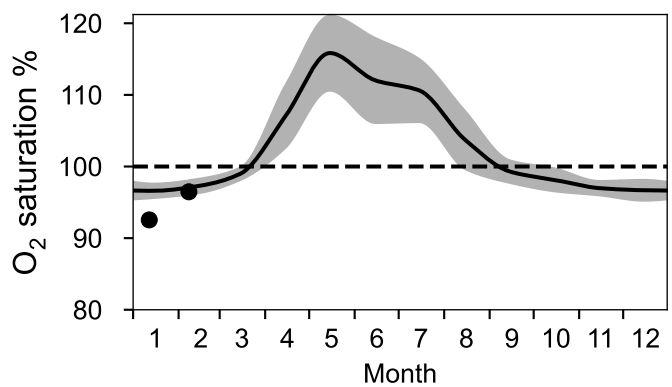
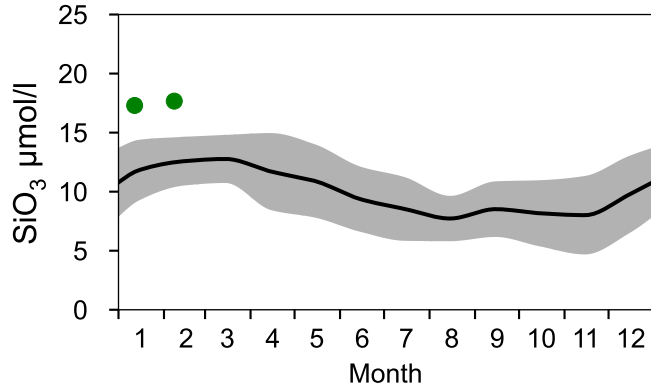
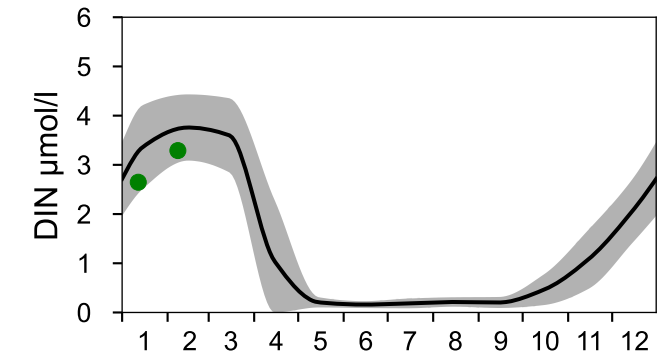
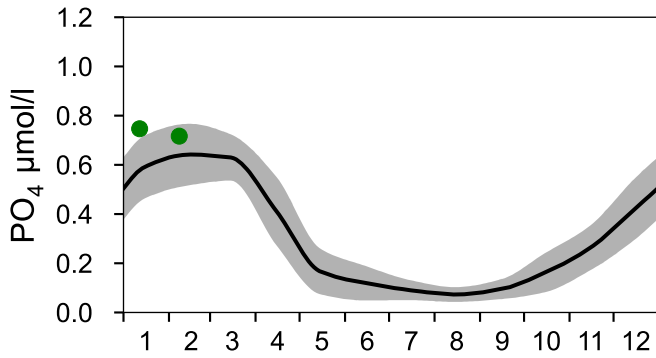
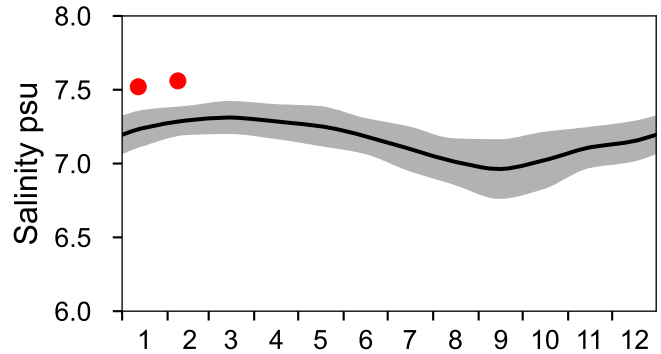
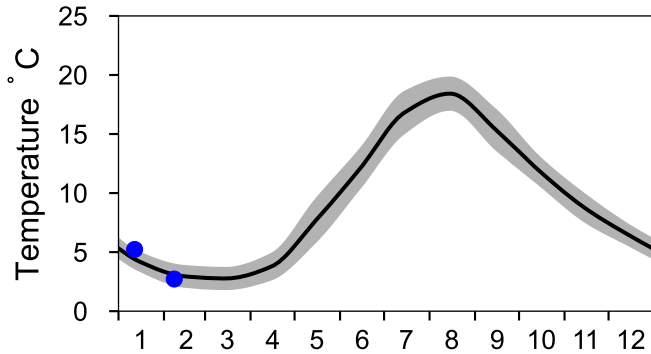
— Mean 1991-2020    ■ St.Dev.    ● 2026-02-08



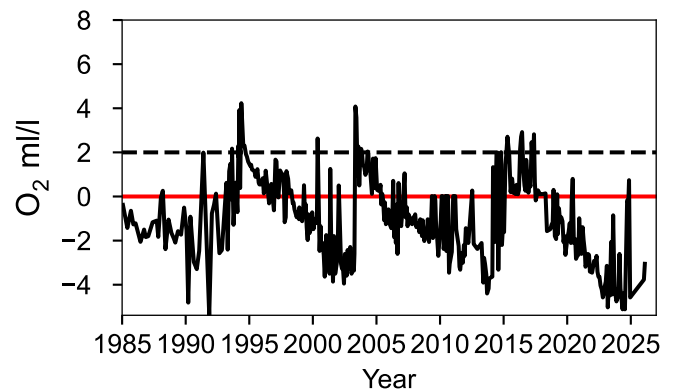
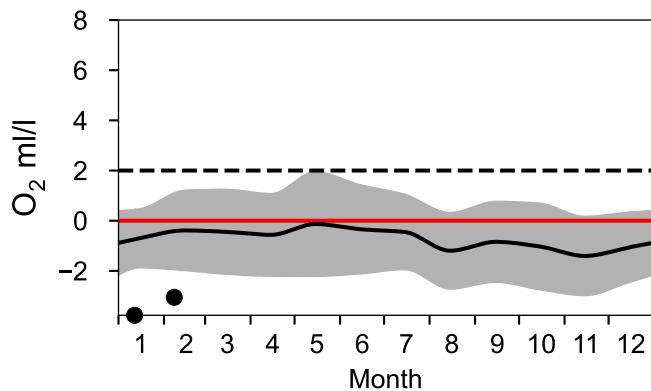
# STATION BY10 SURFACE WATER (0-10 m)

Annual Cycles

— Mean 1991-2020    St.Dev.    ● 2026

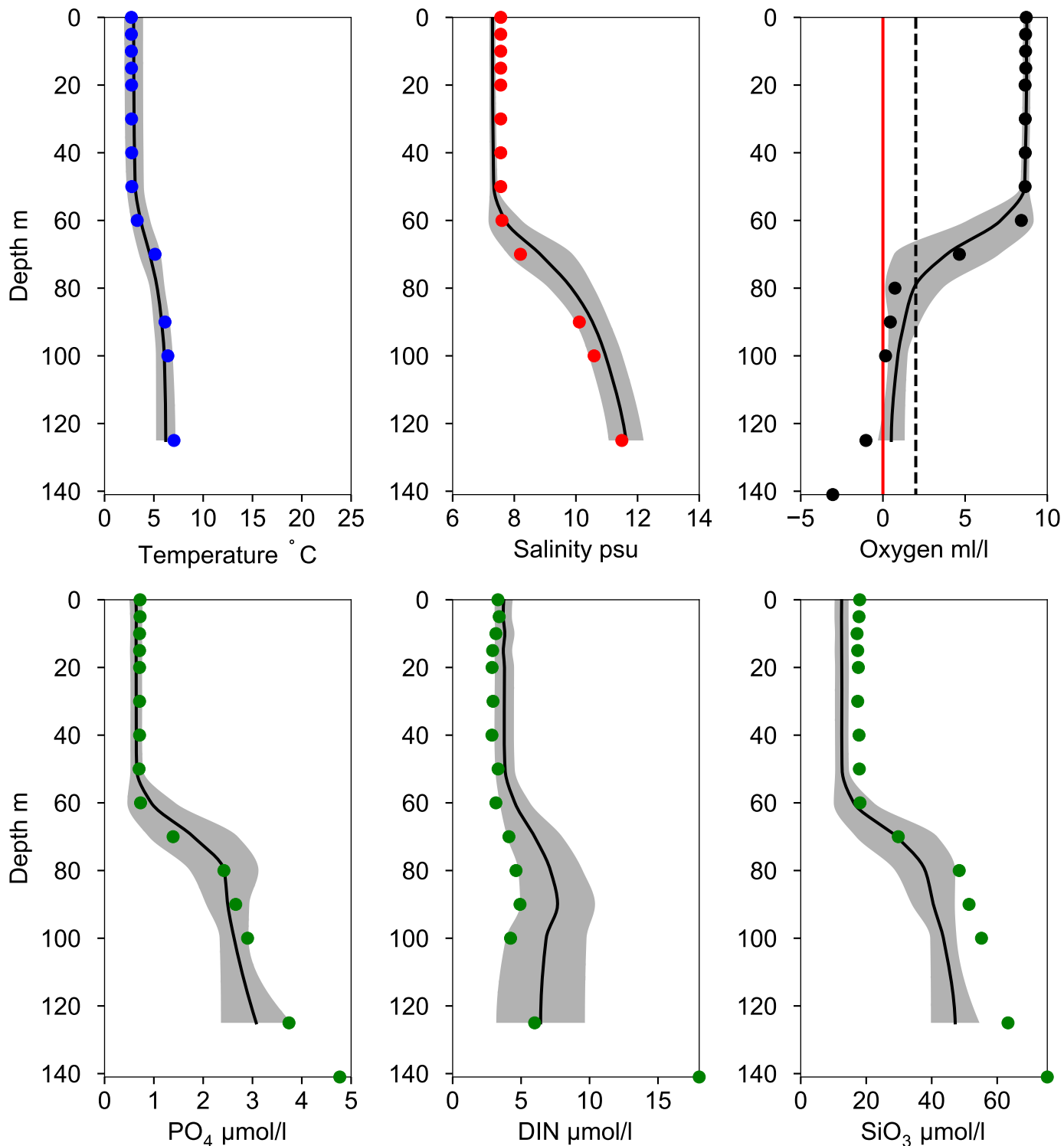


## OXYGEN IN BOTTOM WATER (depth >= 125 m)



# Vertical profiles BY10 February

— Mean 1991-2020    St.Dev.    ● 2026-02-08

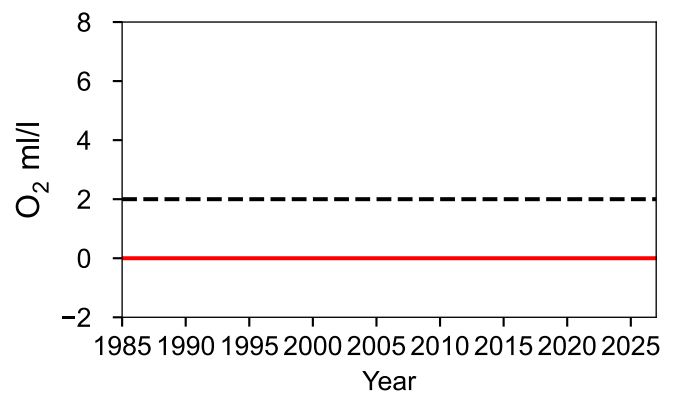
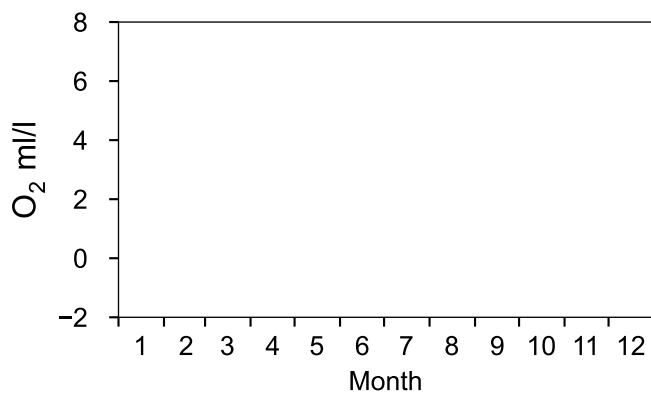
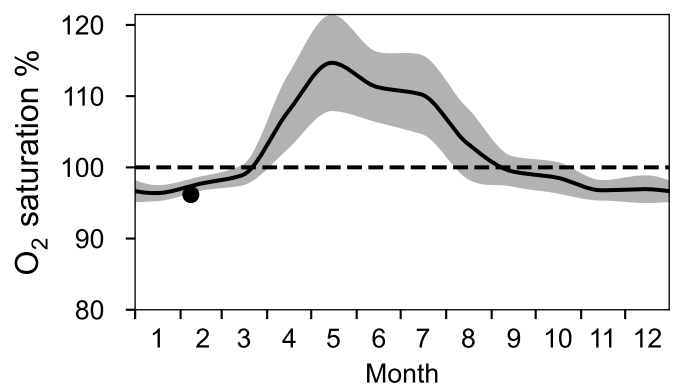
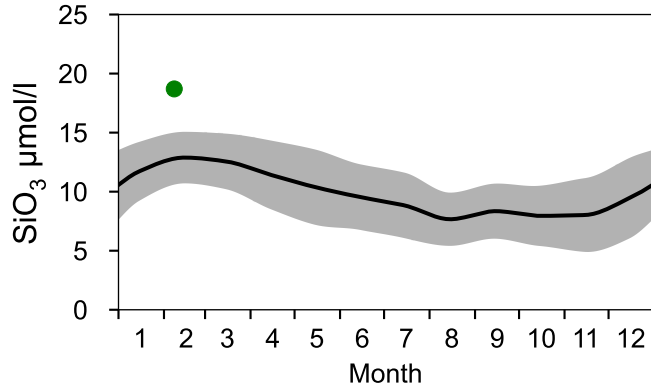
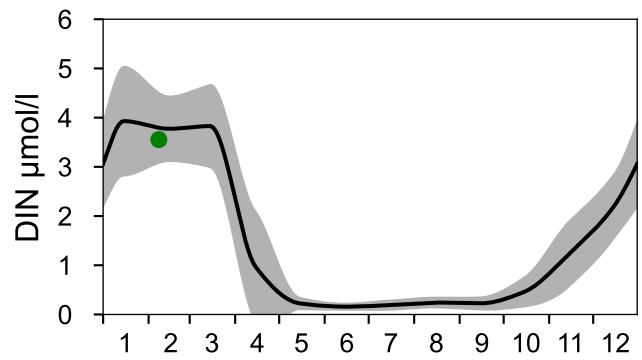
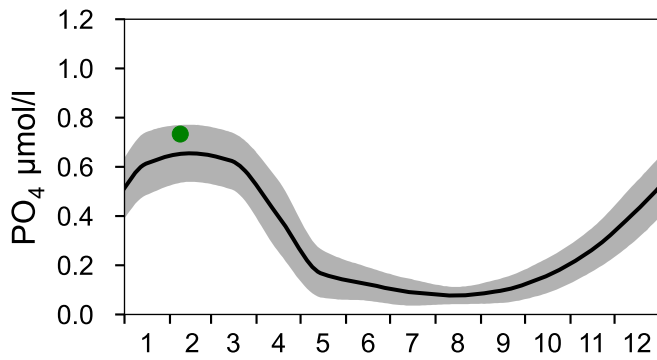
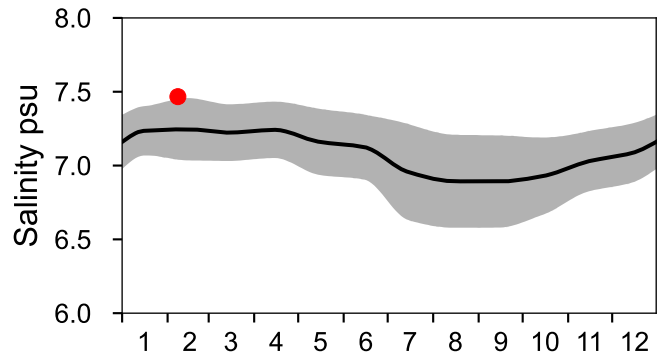
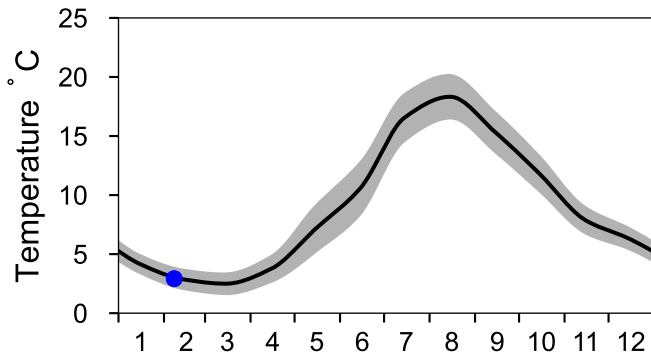


# STATION BY11 SURFACE WATER (0-10 m)

## Annual Cycles

Statistics based on data from: Östra Gotlandshavet

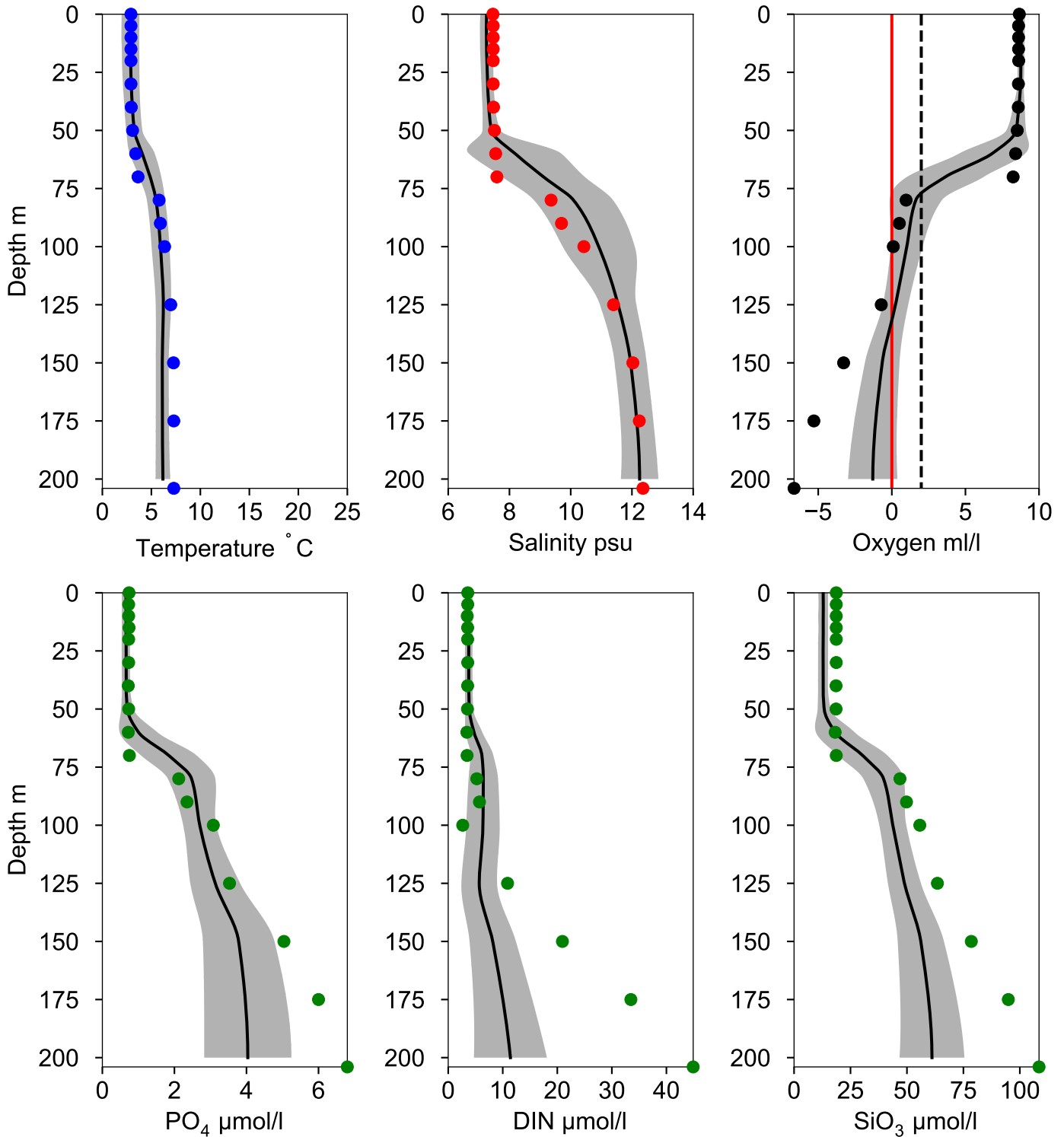
— Mean 1991-2020    St.Dev.    ● 2026



# Vertical profiles BY11 February

Statistics based on data from: Östra Gotlandshavet

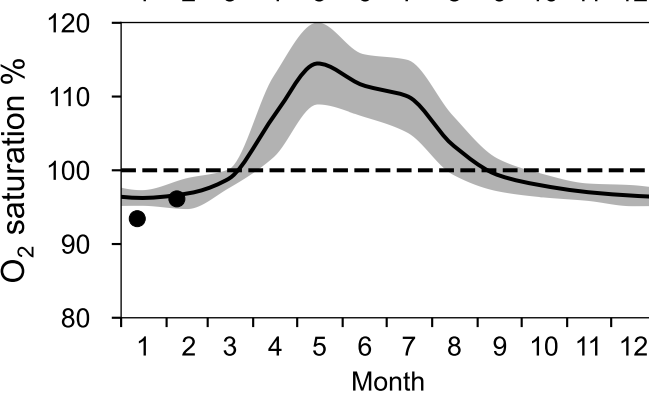
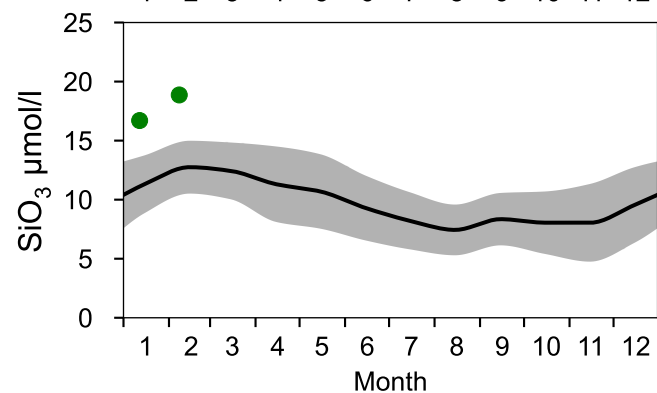
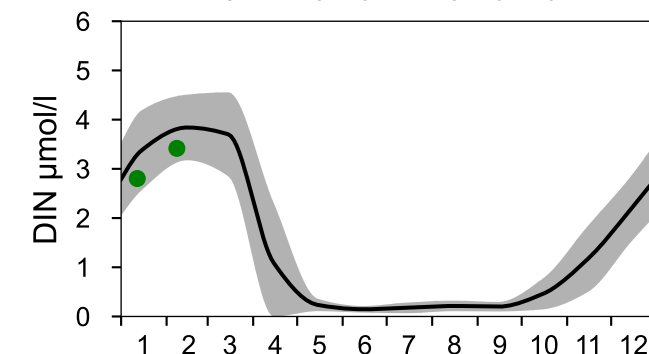
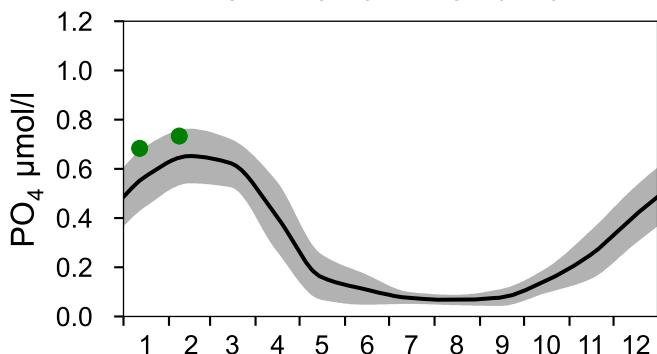
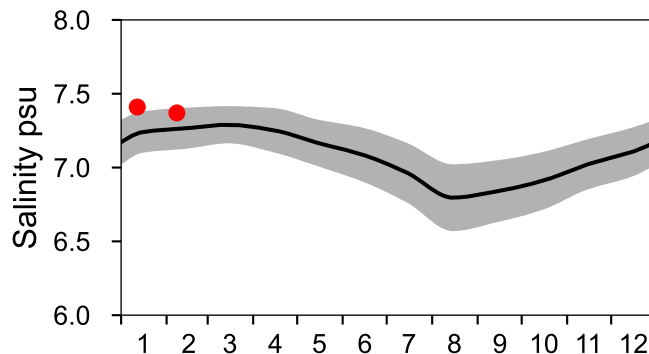
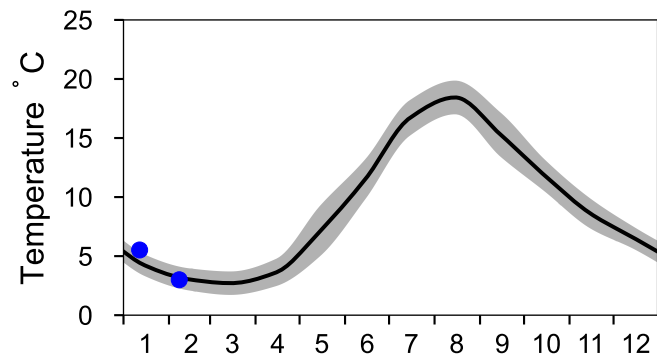
— Mean 1991-2020    ■ St.Dev.    ● 2026-02-08



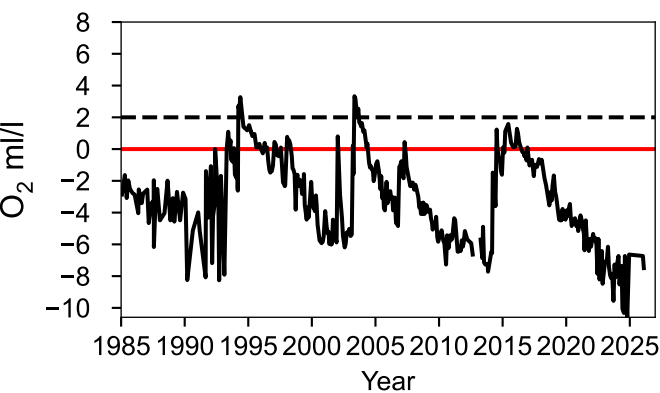
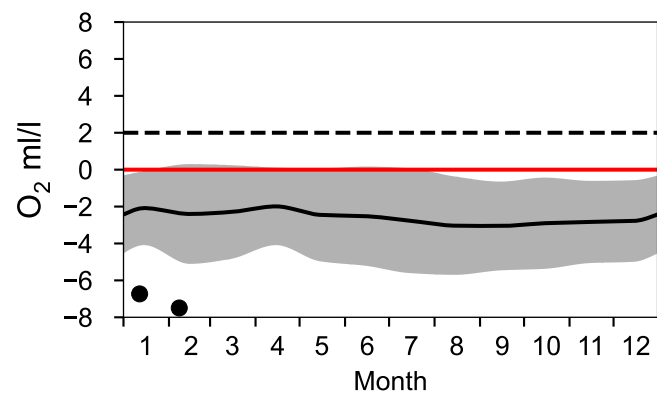
# STATION BY15 GOTLANDSDJ SURFACE WATER (0-10 m)

Annual Cycles

— Mean 1991-2020    St.Dev.    ● 2026

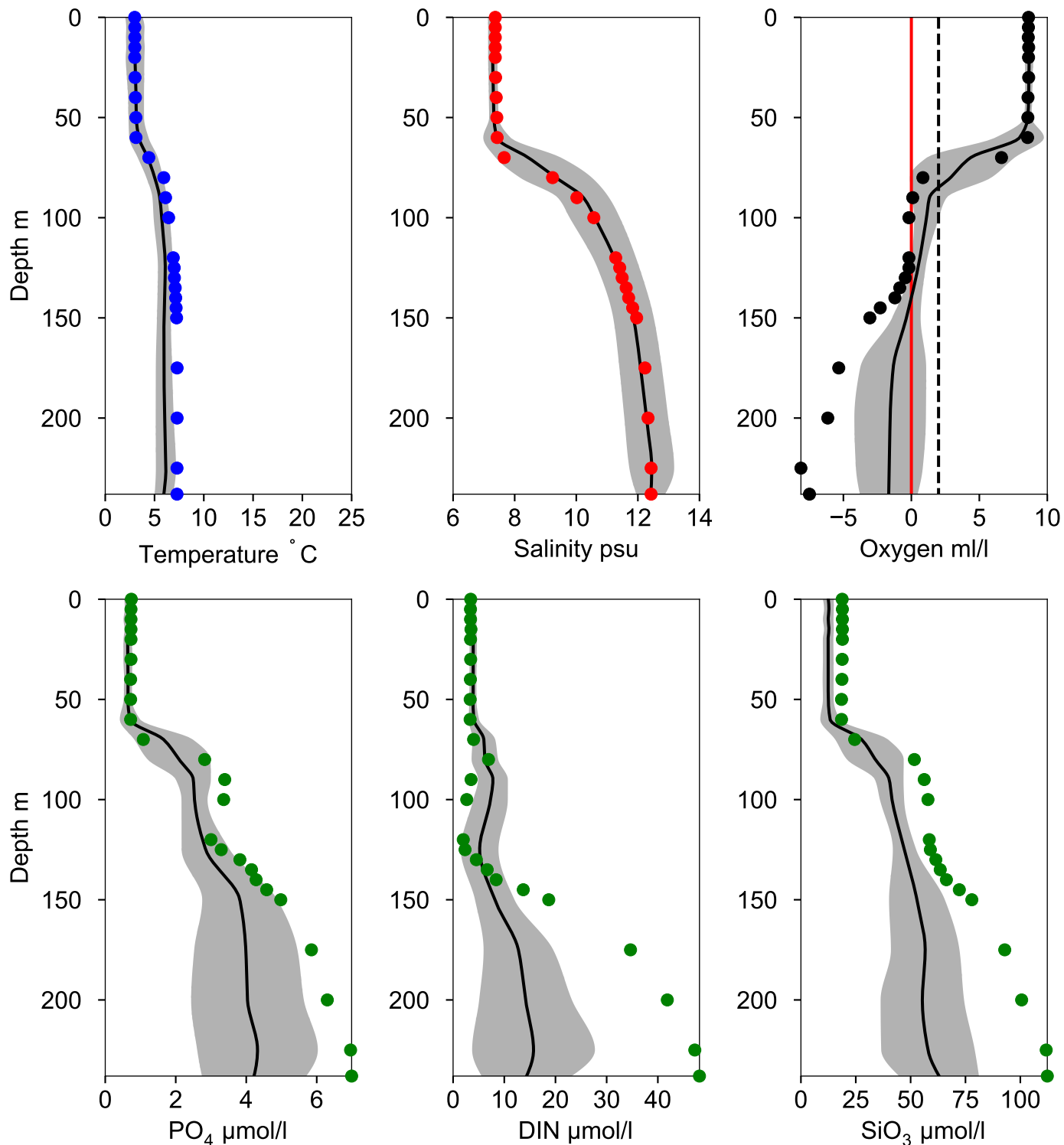


## OXYGEN IN BOTTOM WATER (depth >= 225 m)



# Vertical profiles BY15 GOTLANDSDJ February

— Mean 1991-2020    St.Dev.    ● 2026-02-08

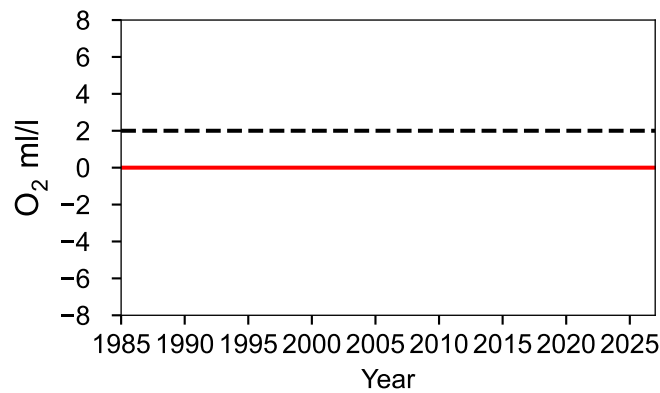
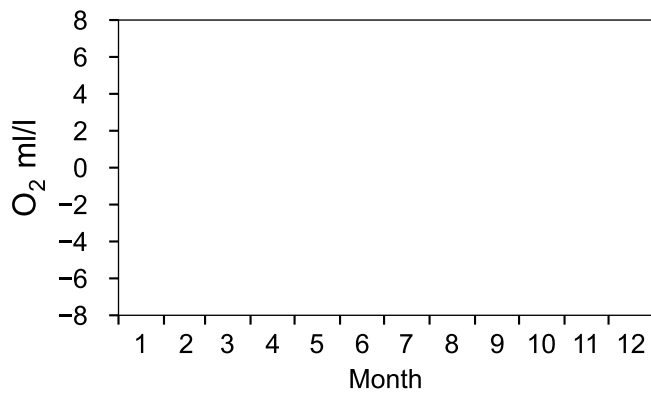
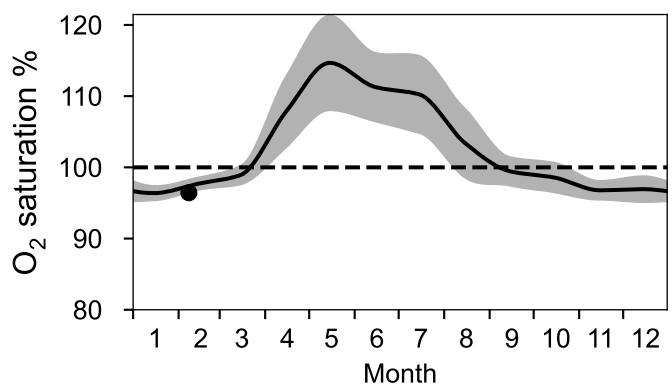
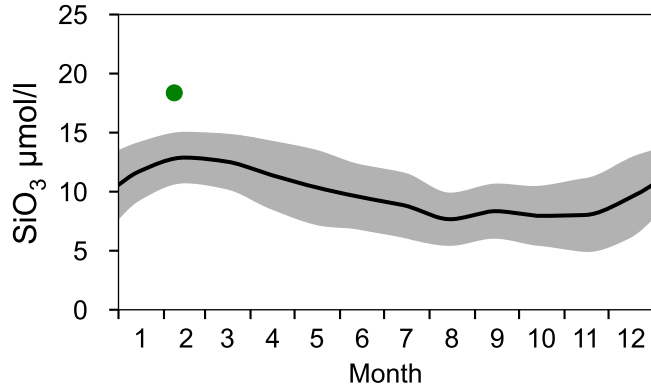
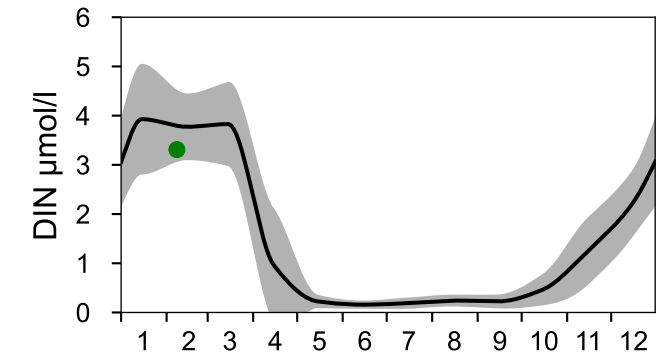
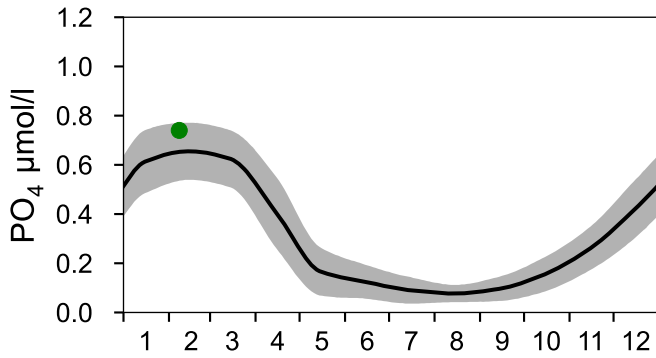
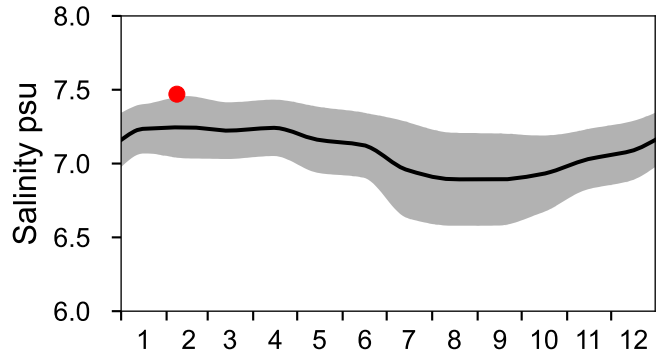
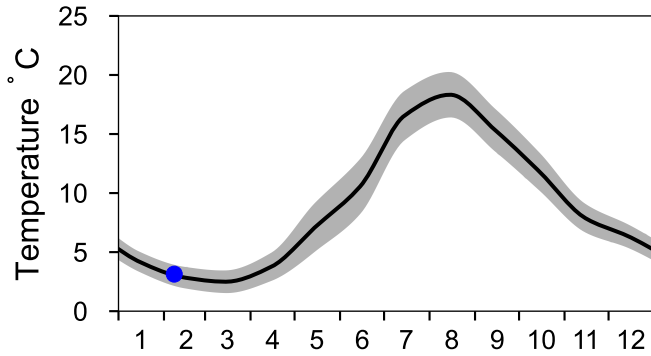


# STATION BY13 SURFACE WATER (0-10 m)

## Annual Cycles

Statistics based on data from: Östra Gotlandshavet

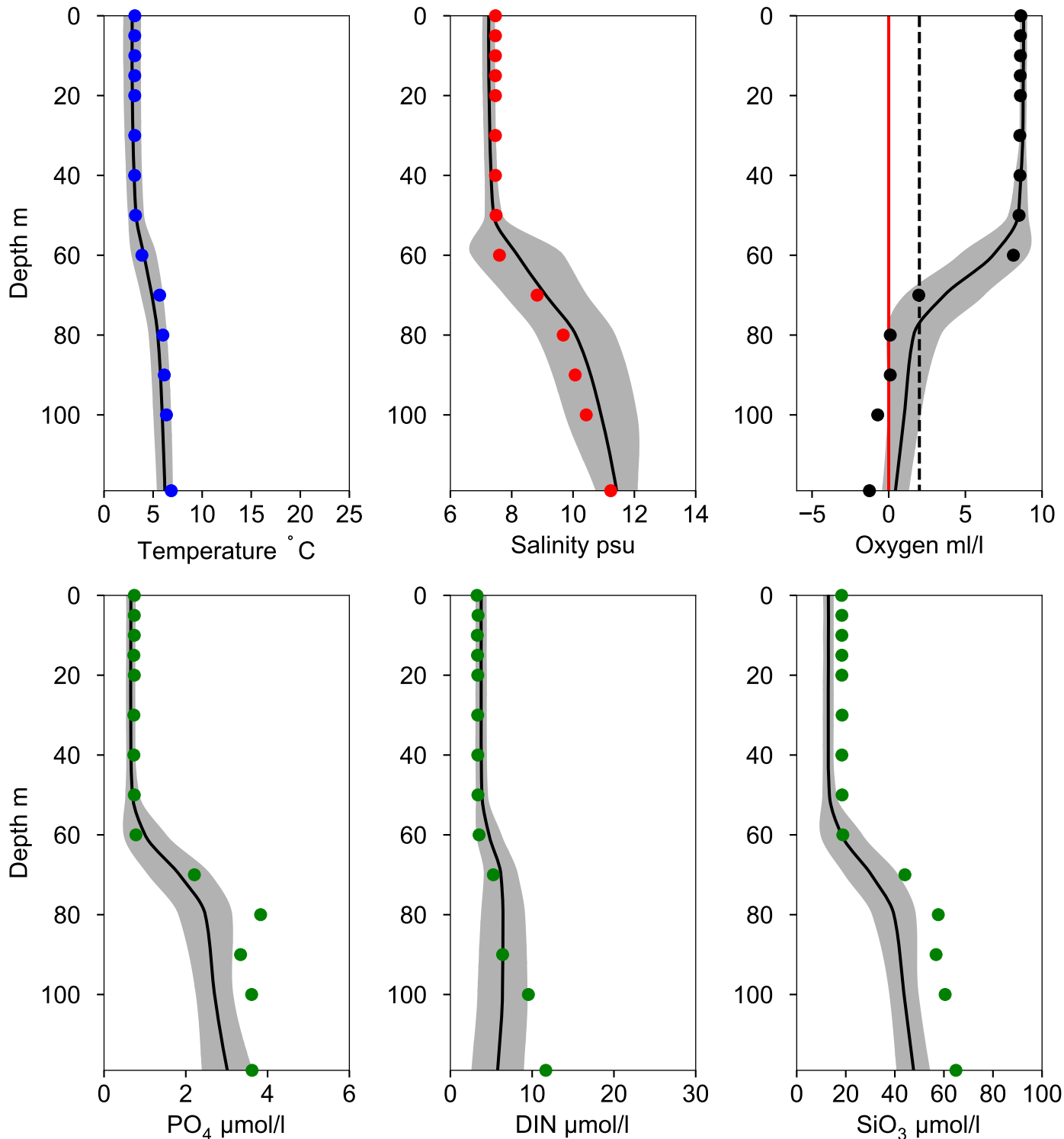
— Mean 1991-2020    St.Dev.    ● 2026



# Vertical profiles BY13 February

Statistics based on data from: Östra Gotlandshavet

— Mean 1991-2020    St.Dev.    ● 2026-02-08

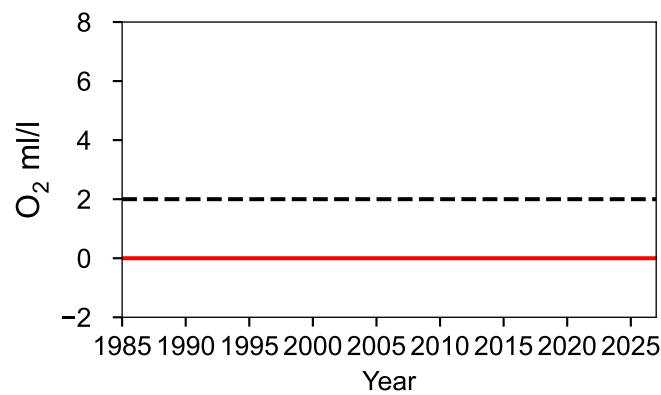
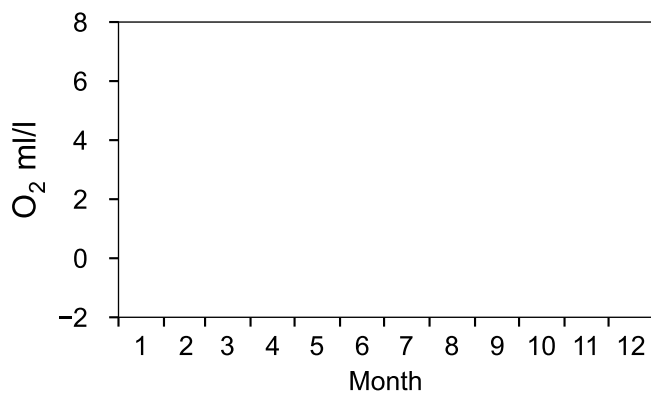
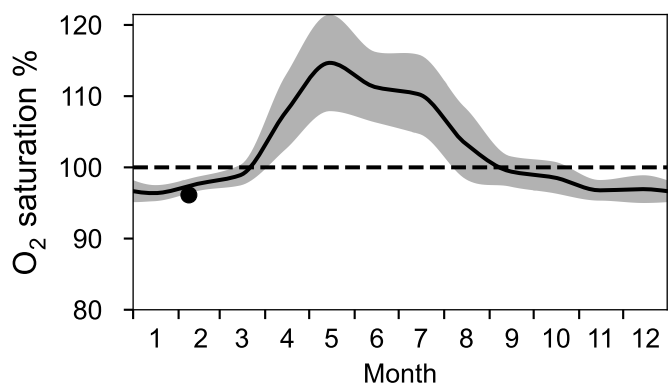
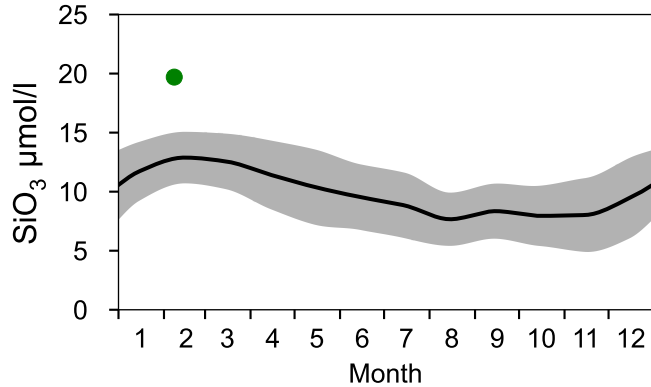
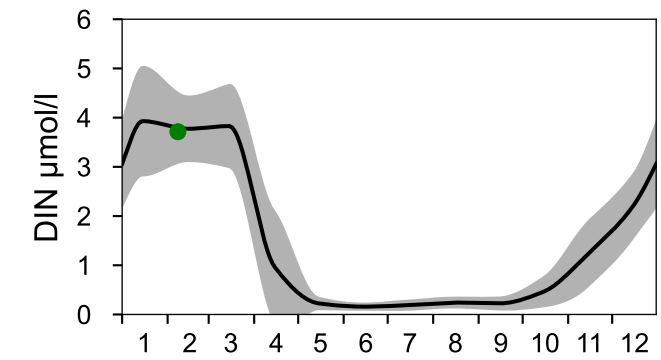
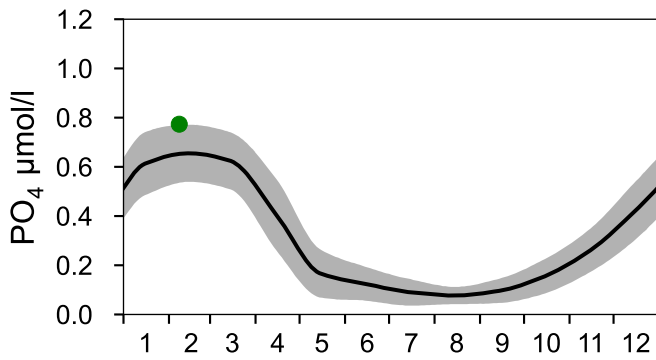
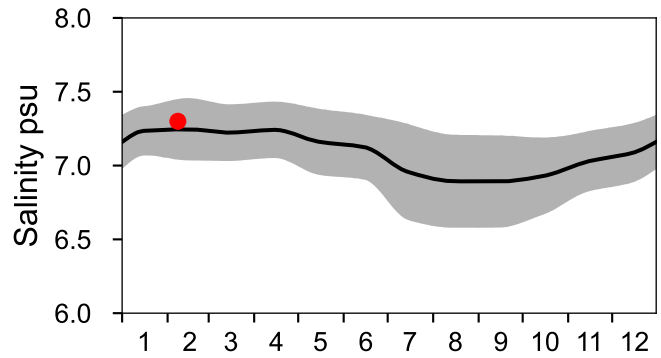
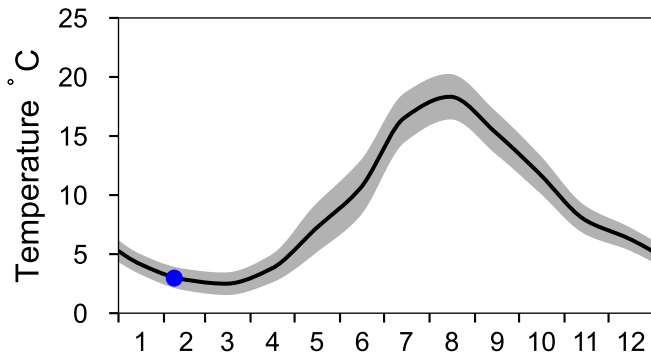


# STATION BY19 SURFACE WATER (0-10 m)

## Annual Cycles

Statistics based on data from: Östra Gotlandshavet

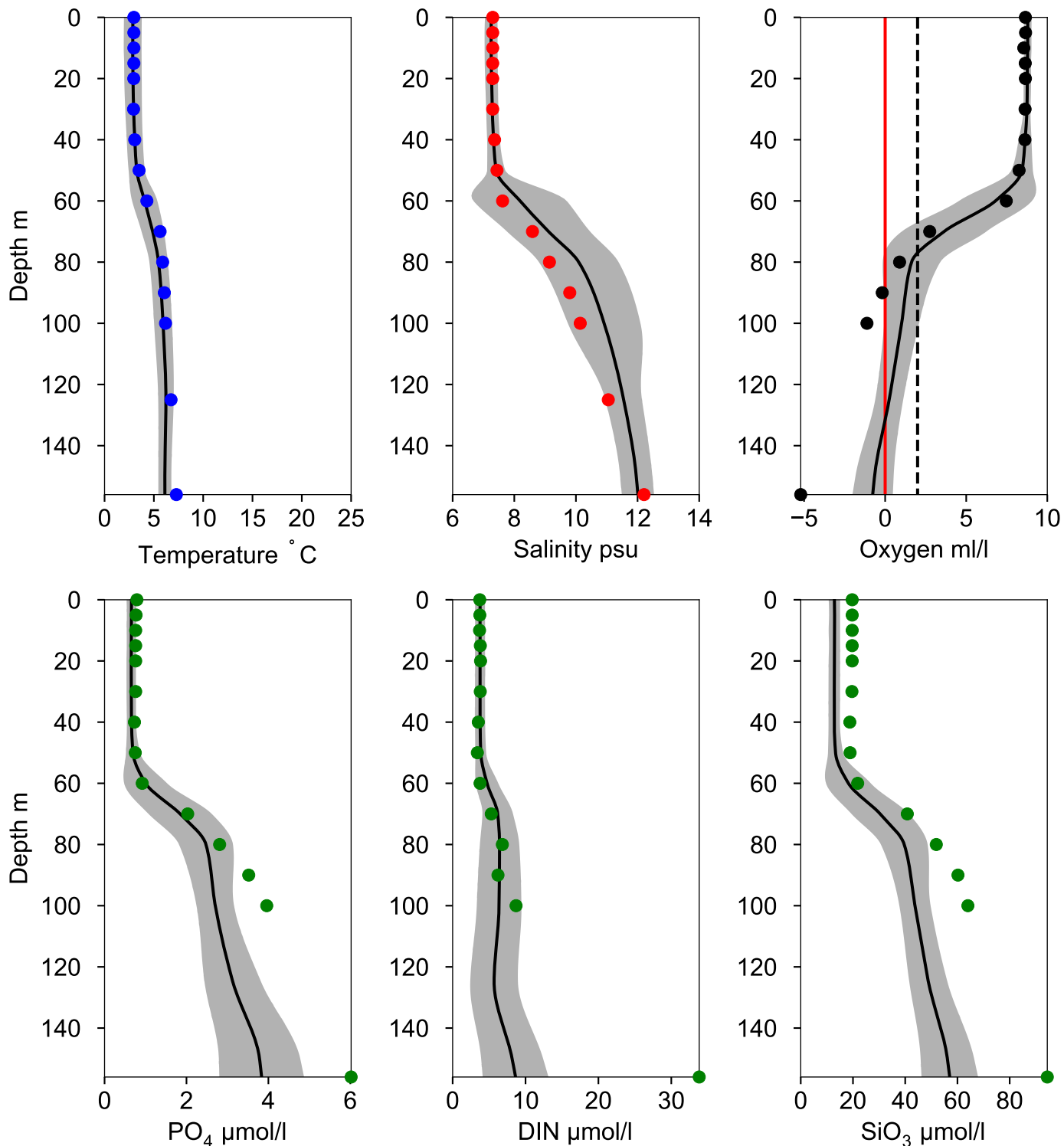
— Mean 1991-2020    St.Dev.    ● 2026



# Vertical profiles BY19 February

Statistics based on data from: Östra Gotlandshavet

— Mean 1991-2020    St.Dev.    ● 2026-02-08



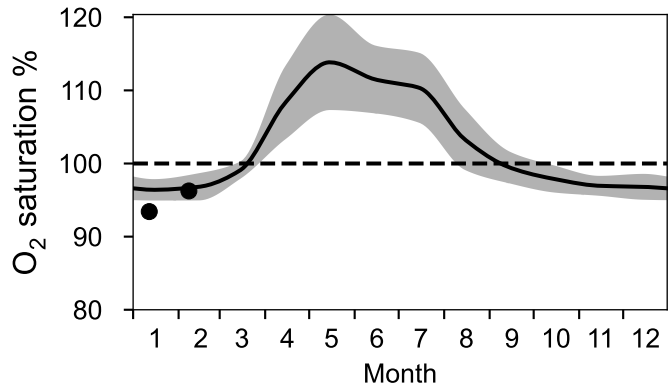
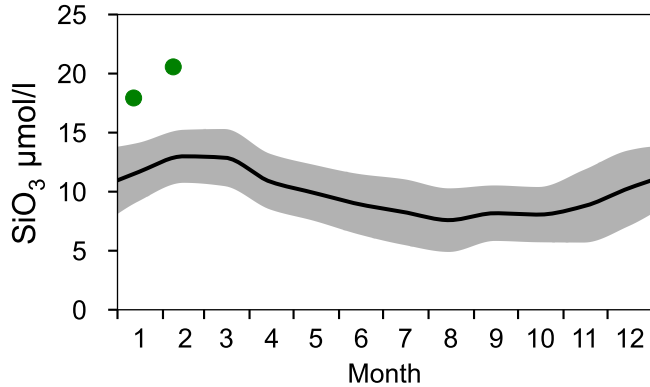
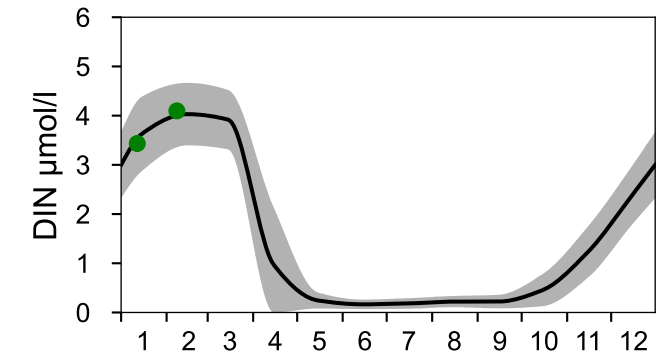
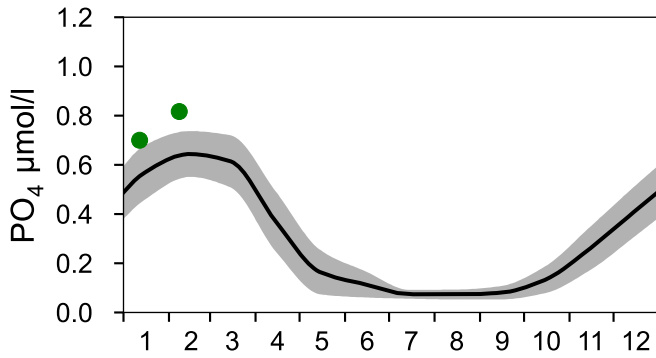
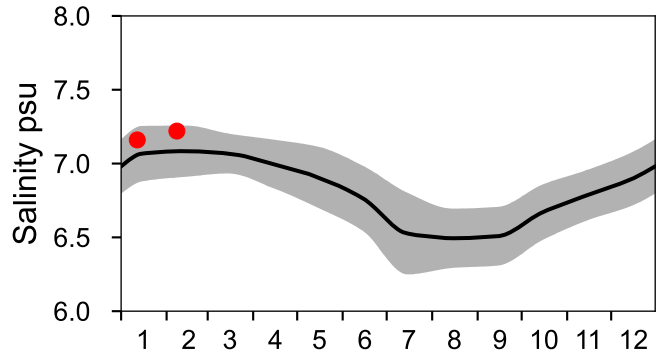
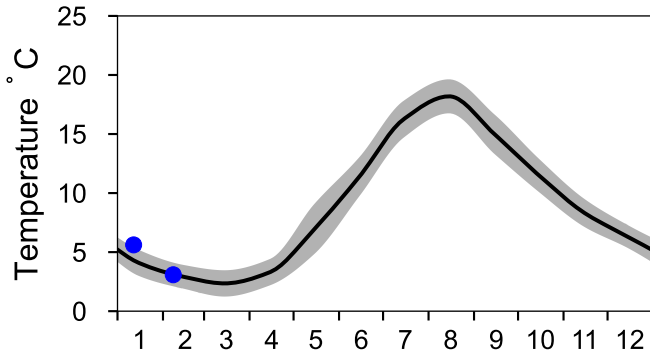
# STATION BY20 FÄRÖDJ SURFACE WATER (0-10 m)

Annual Cycles

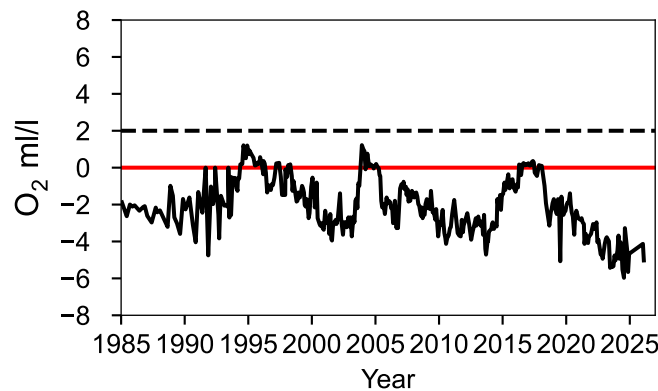
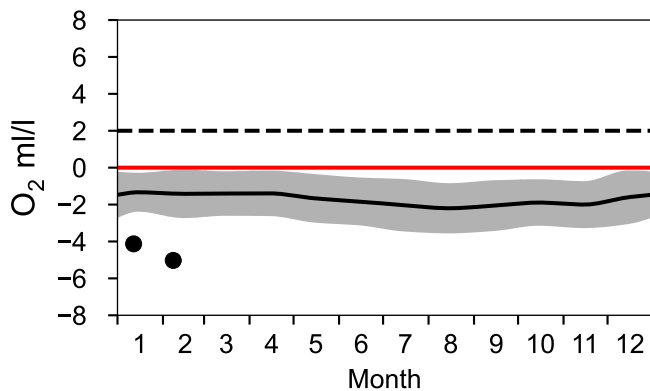
— Mean 1991-2020

■ St.Dev.

● 2026

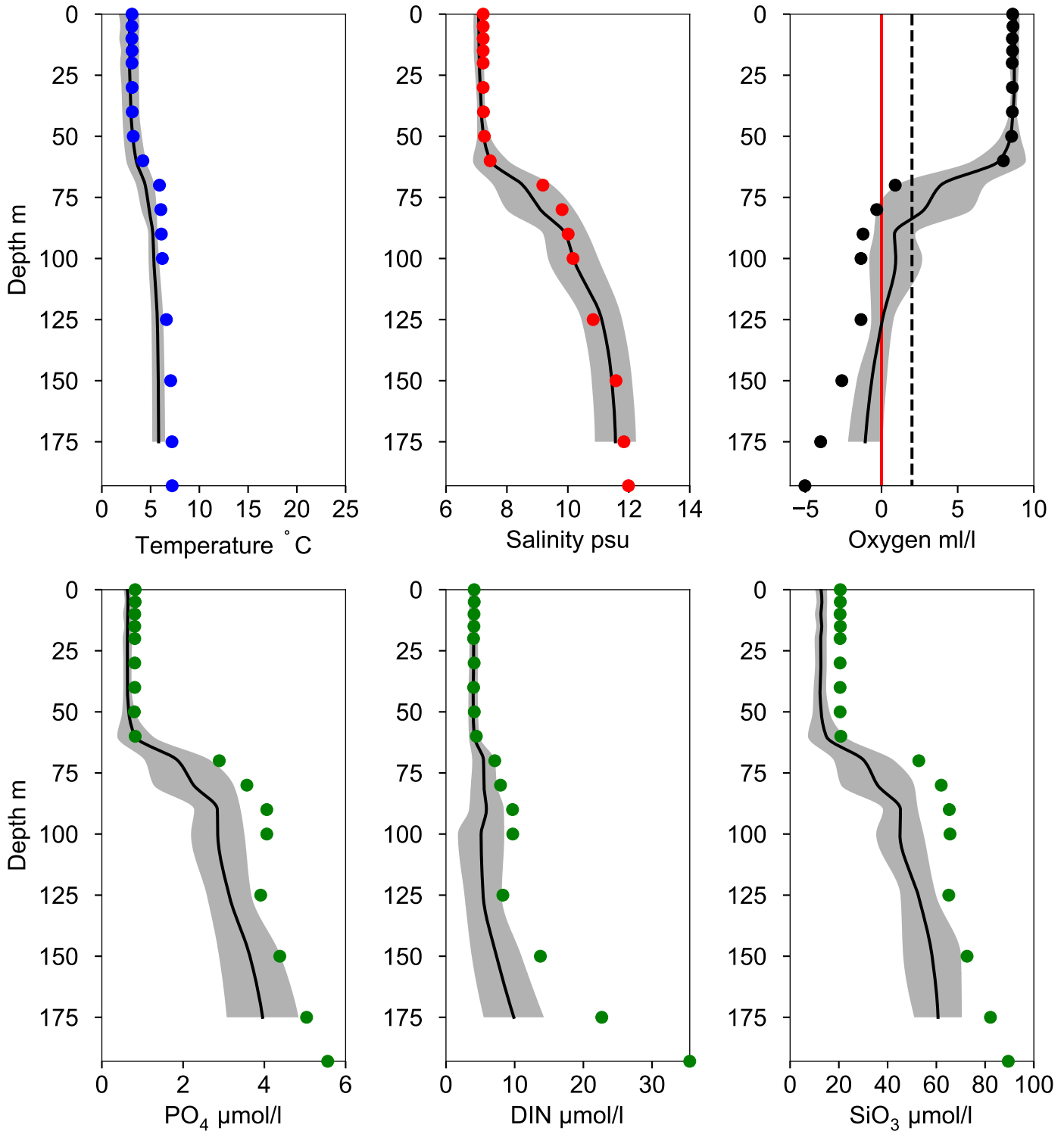


## OXYGEN IN BOTTOM WATER (depth >= 175 m)



# Vertical profiles BY20 FÅRÖDJ February

— Mean 1991-2020    ■ St.Dev.    ● 2026-02-08

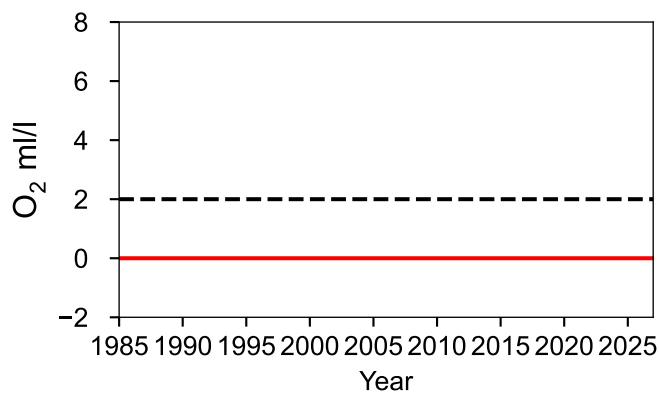
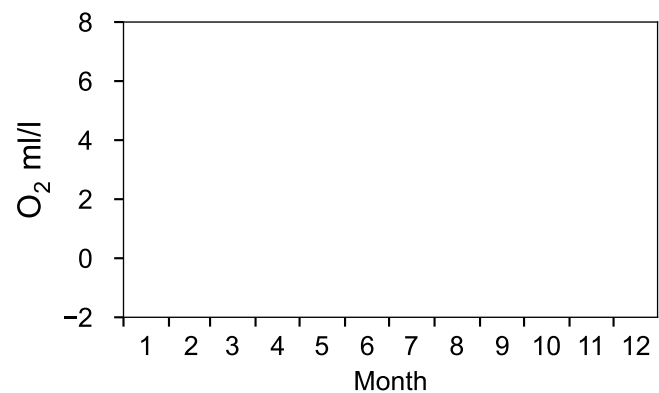
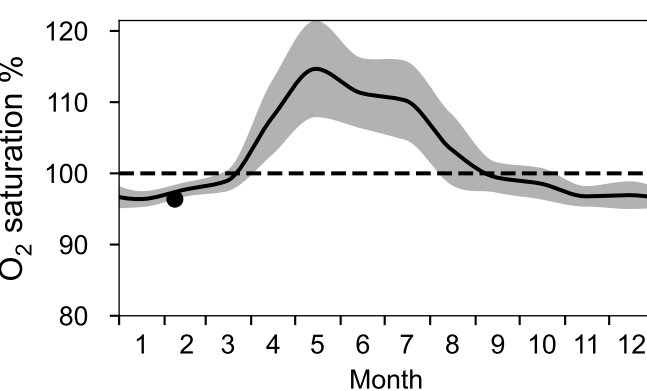
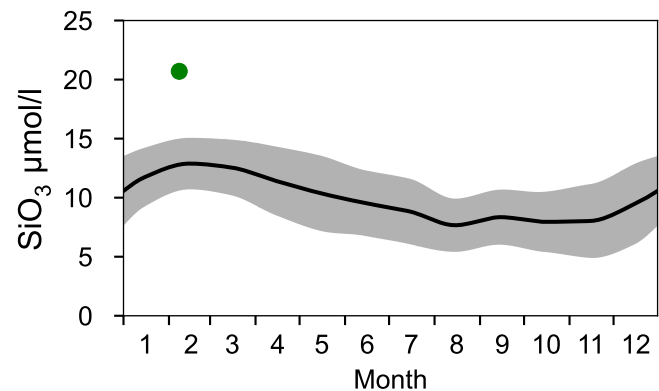
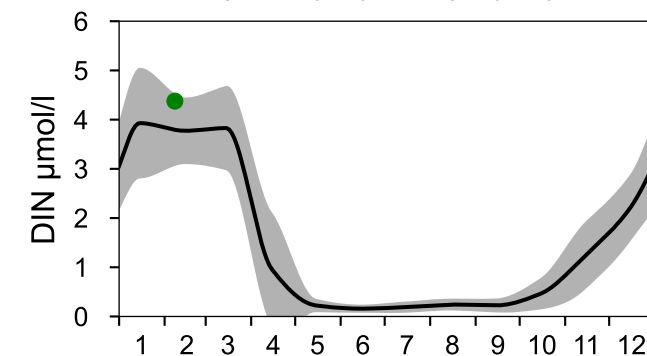
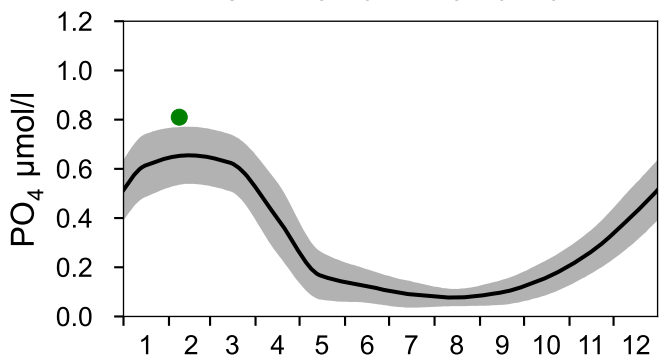
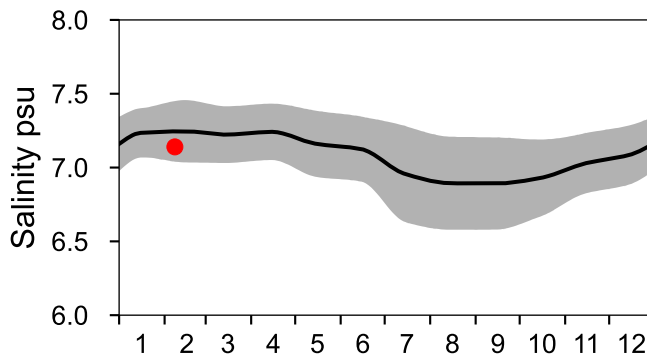
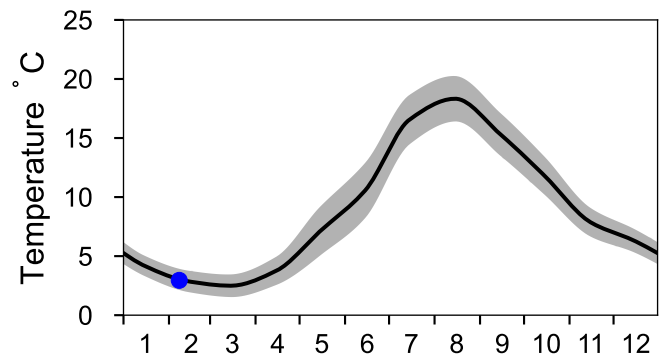


# STATION BY21 SURFACE WATER (0-10 m)

## Annual Cycles

Statistics based on data from: Östra Gotlandshavet

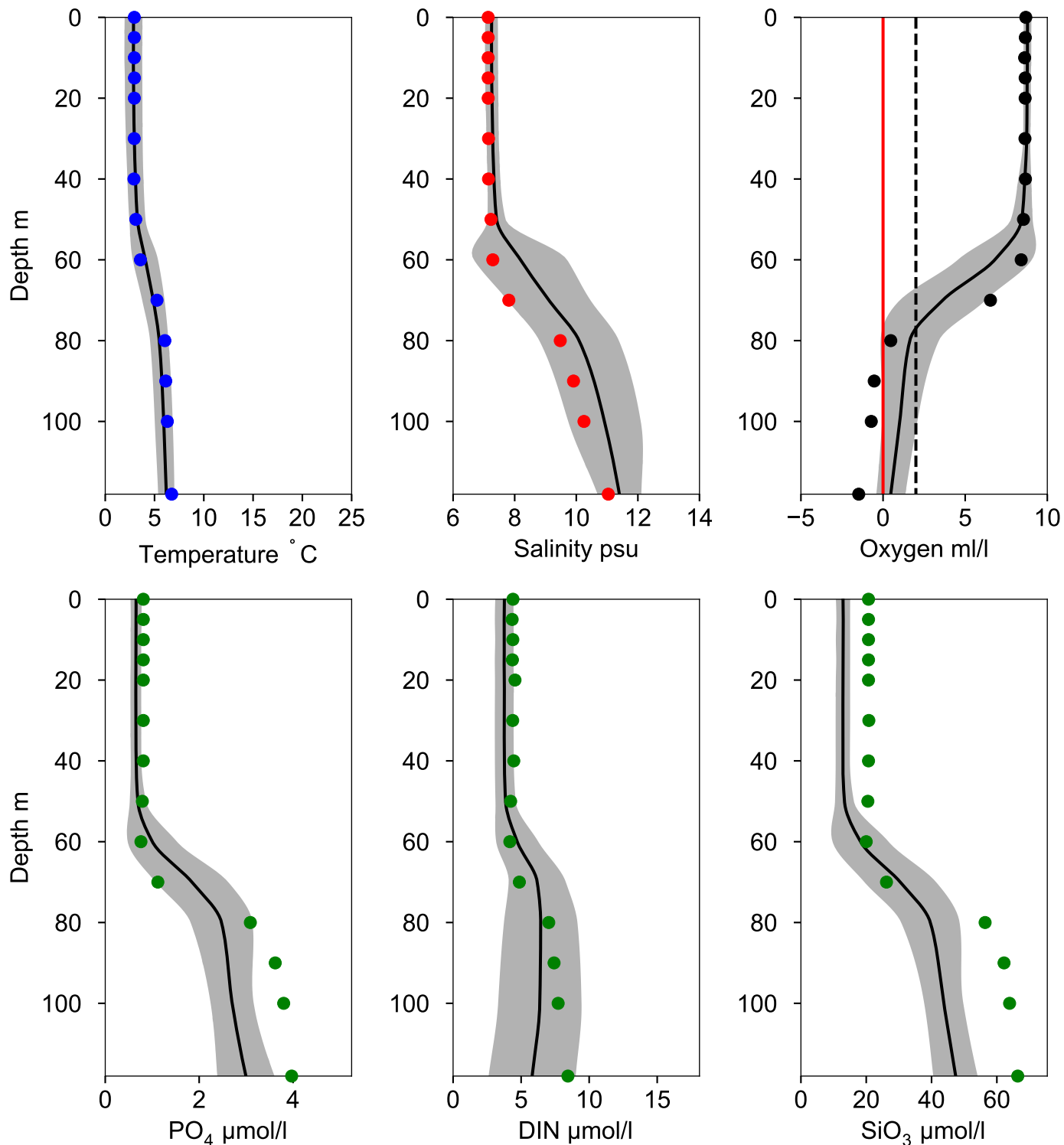
— Mean 1991-2020    St.Dev.    ● 2026



# Vertical profiles BY21 February

Statistics based on data from: Östra Gotlandshavet

— Mean 1991-2020    St.Dev.    ● 2026-02-08

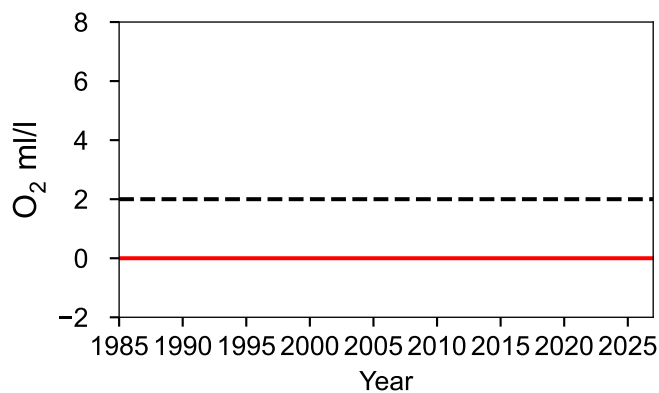
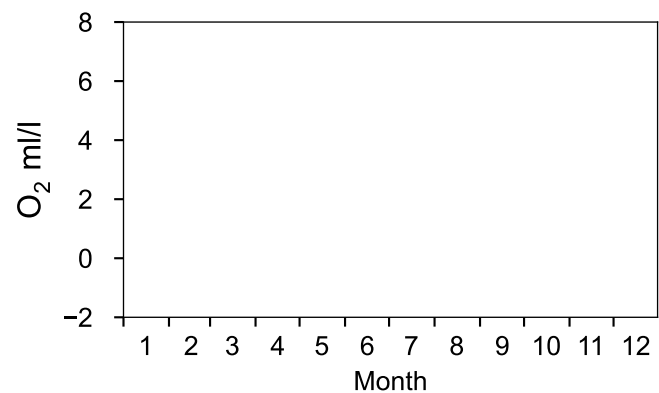
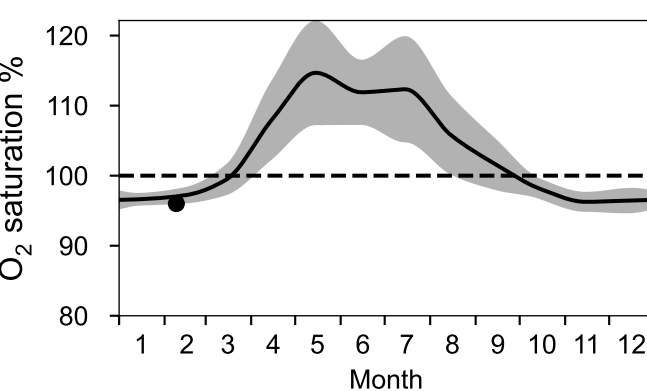
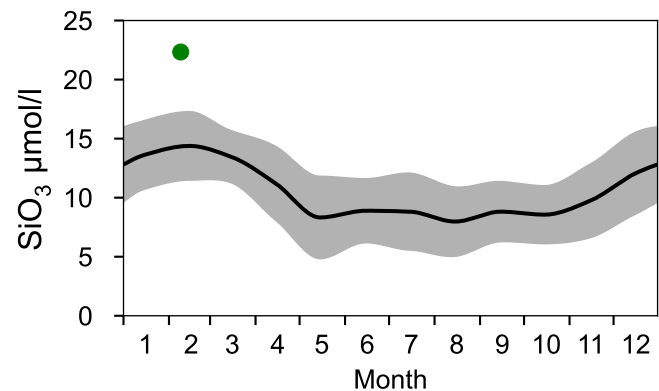
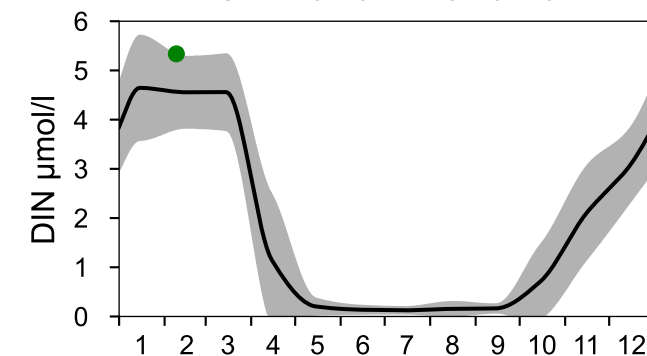
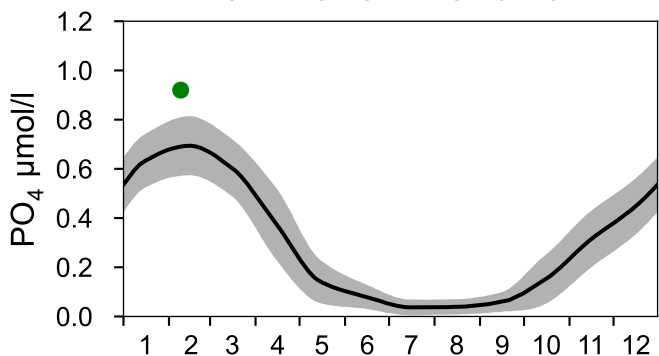
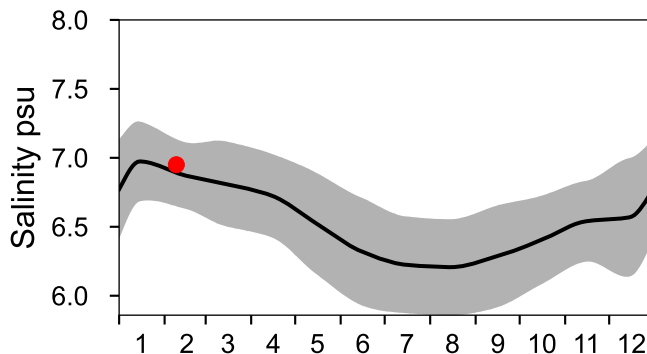
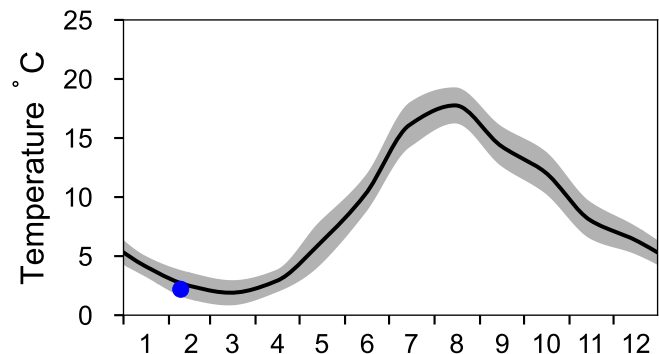


# STATION BY28 SURFACE WATER (0-10 m)

## Annual Cycles

Statistics based on data from: Norra Egentliga Östersjön

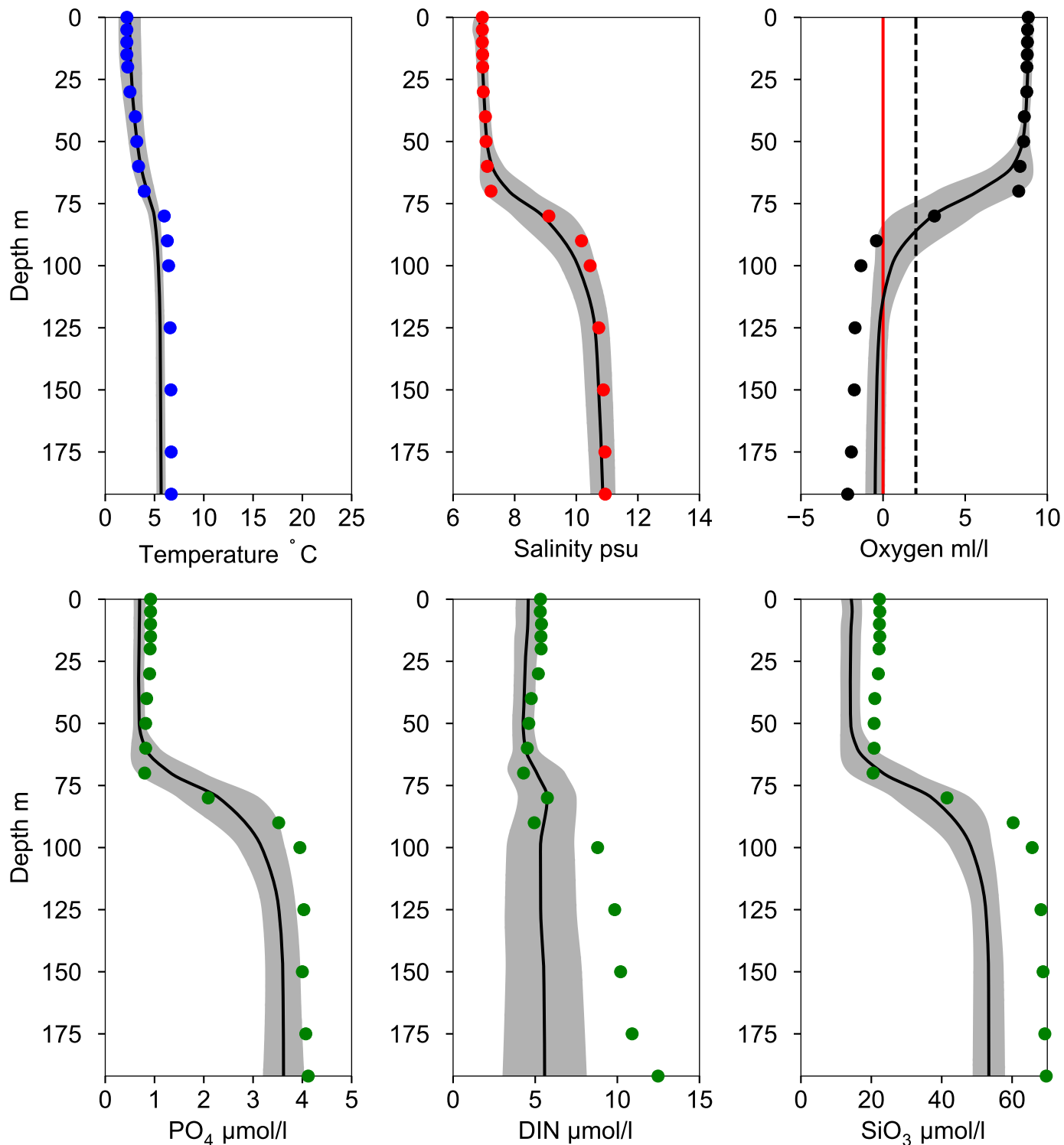
— Mean 1991-2020    St.Dev.    ● 2026



# Vertical profiles BY28 February

Statistics based on data from: Norra Egentliga Östersjön

— Mean 1991-2020    St.Dev.    ● 2026-02-09

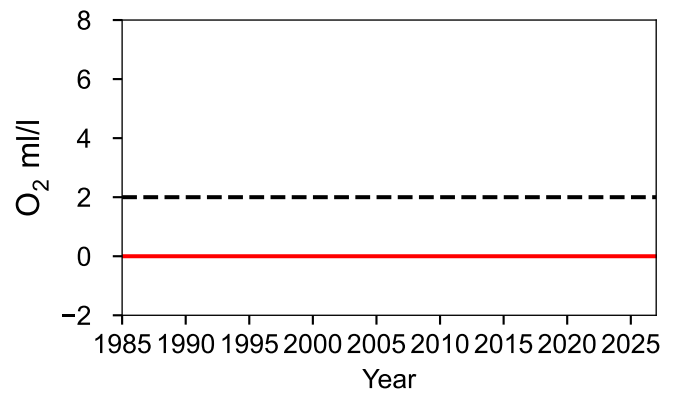
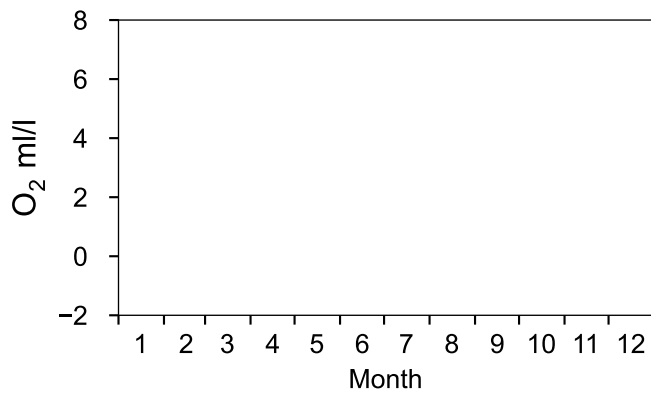
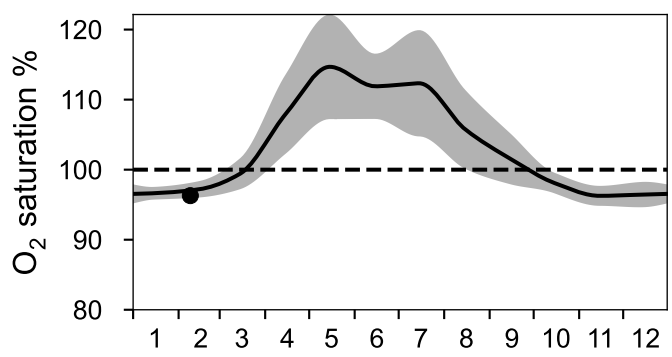
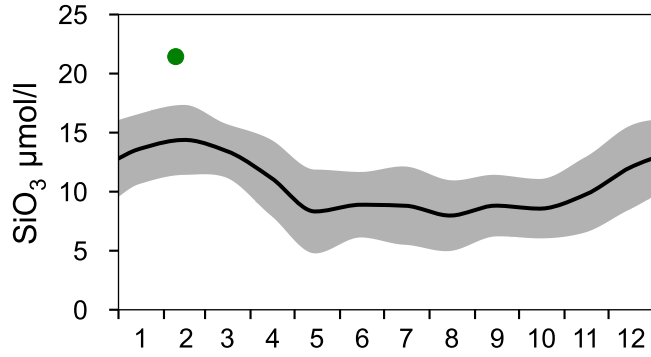
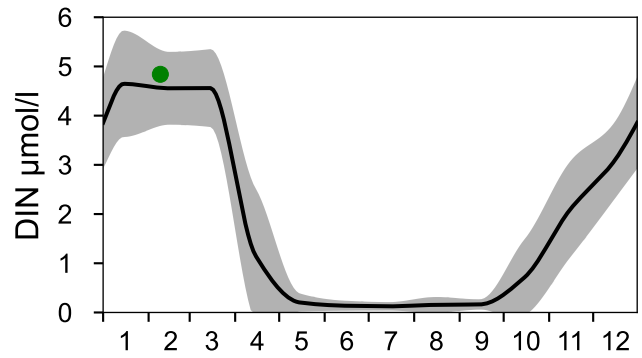
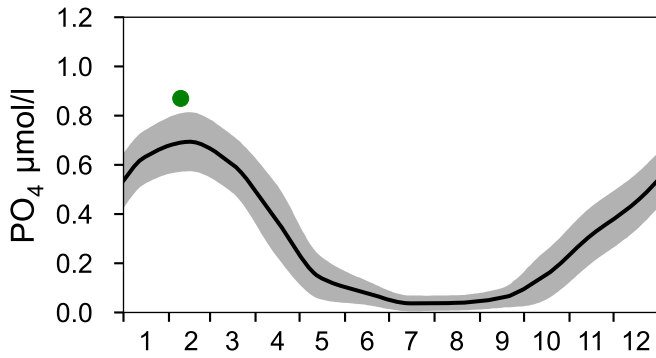
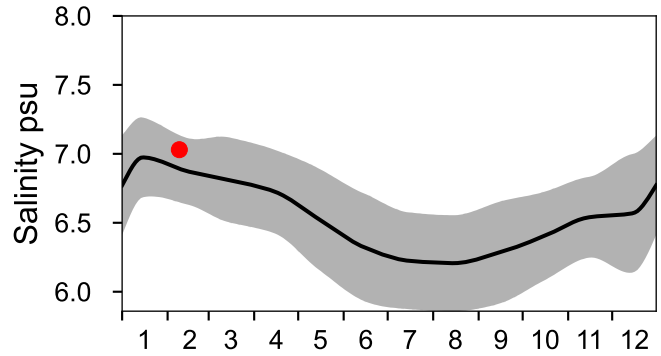
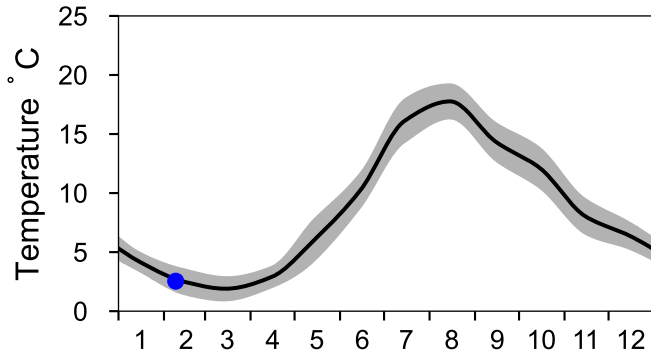


# STATION BY27 SURFACE WATER (0-10 m)

## Annual Cycles

Statistics based on data from: Norra Egentliga Östersjön

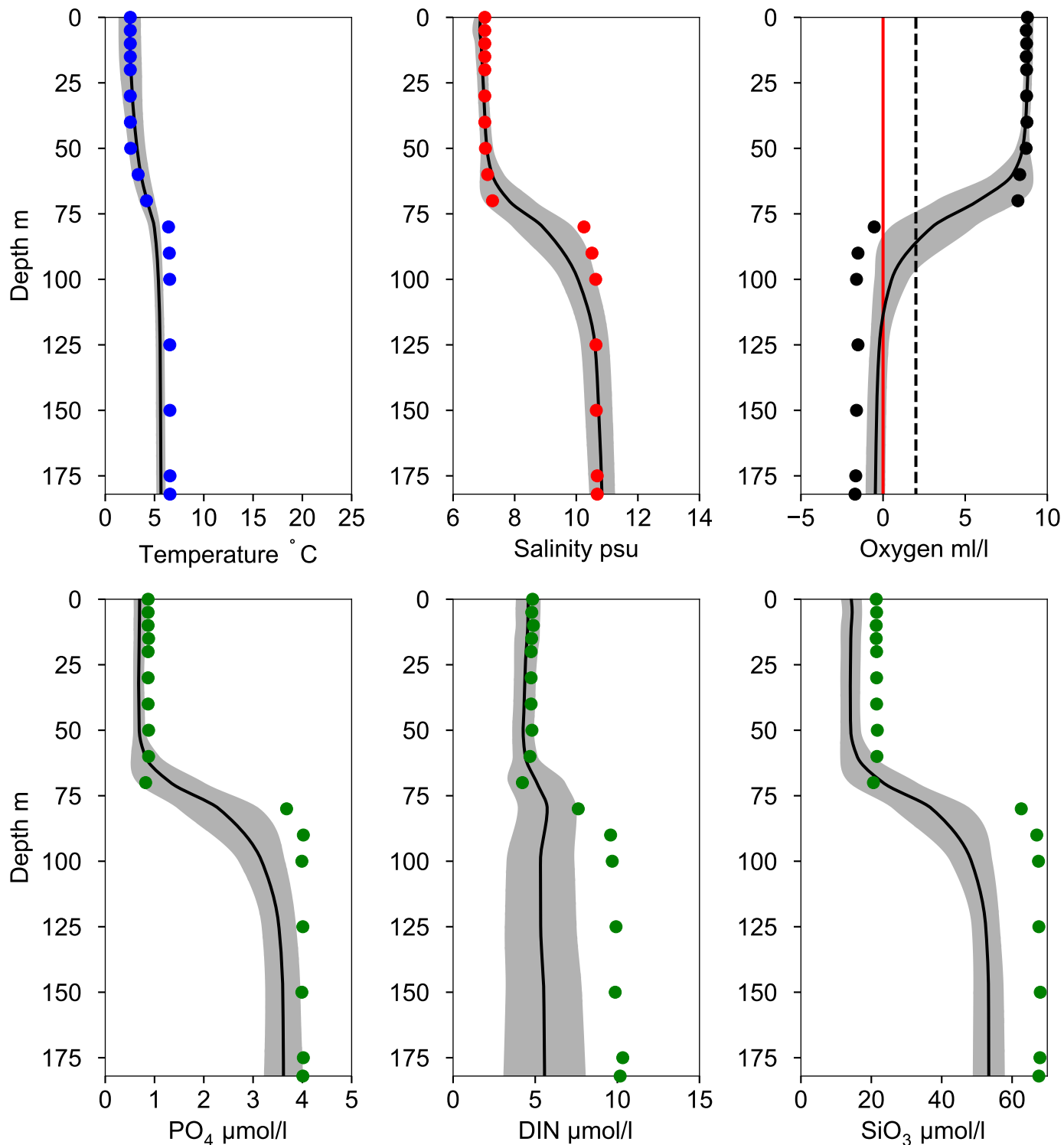
— Mean 1991-2020    St.Dev.    ● 2026



# Vertical profiles BY27 February

Statistics based on data from: Norra Egentliga Östersjön

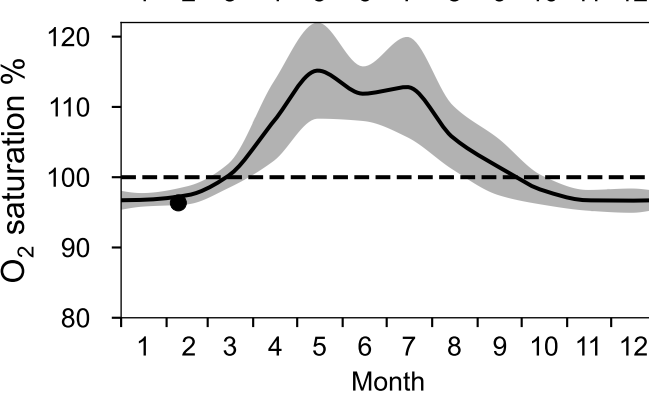
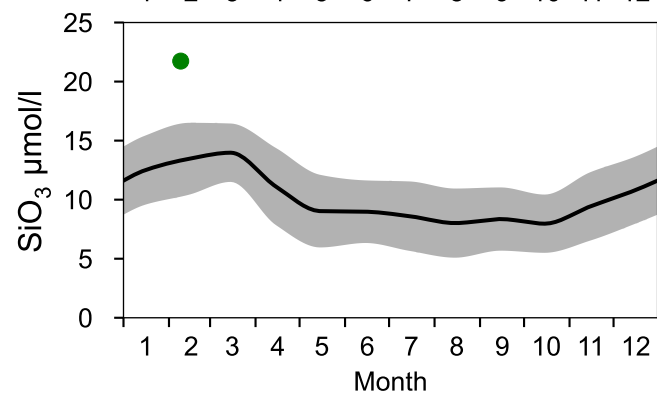
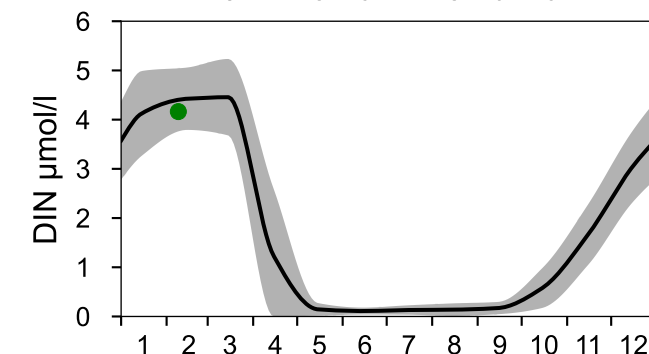
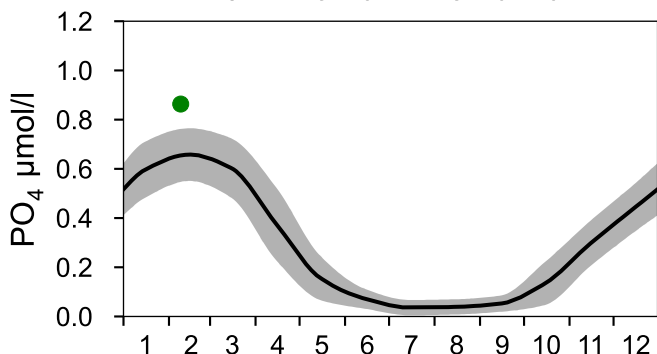
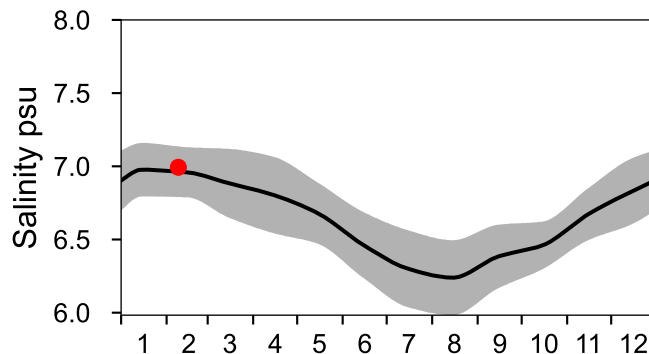
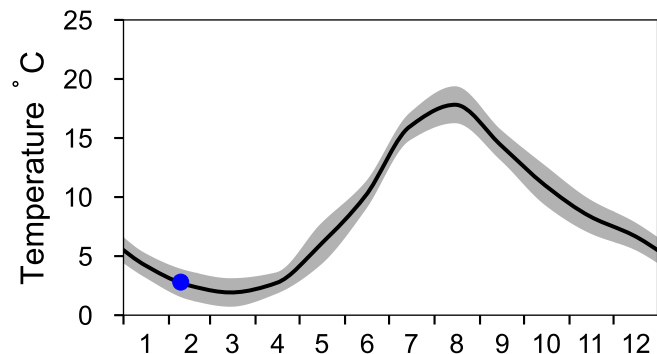
— Mean 1991-2020    St.Dev.    ● 2026-02-09



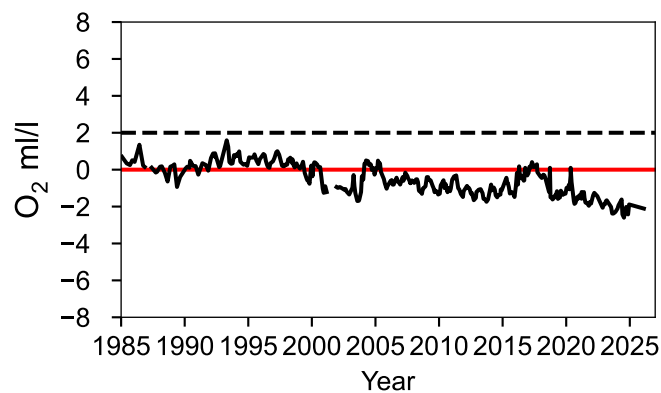
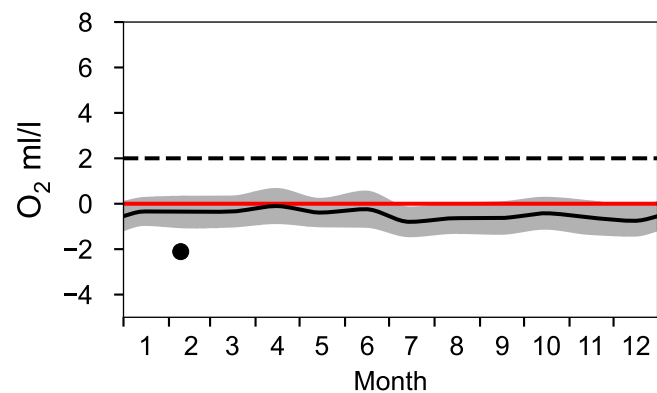
# STATION BY29 / LL19 SURFACE WATER (0-10 m)

Annual Cycles

— Mean 1991-2020    St.Dev.    ● 2026

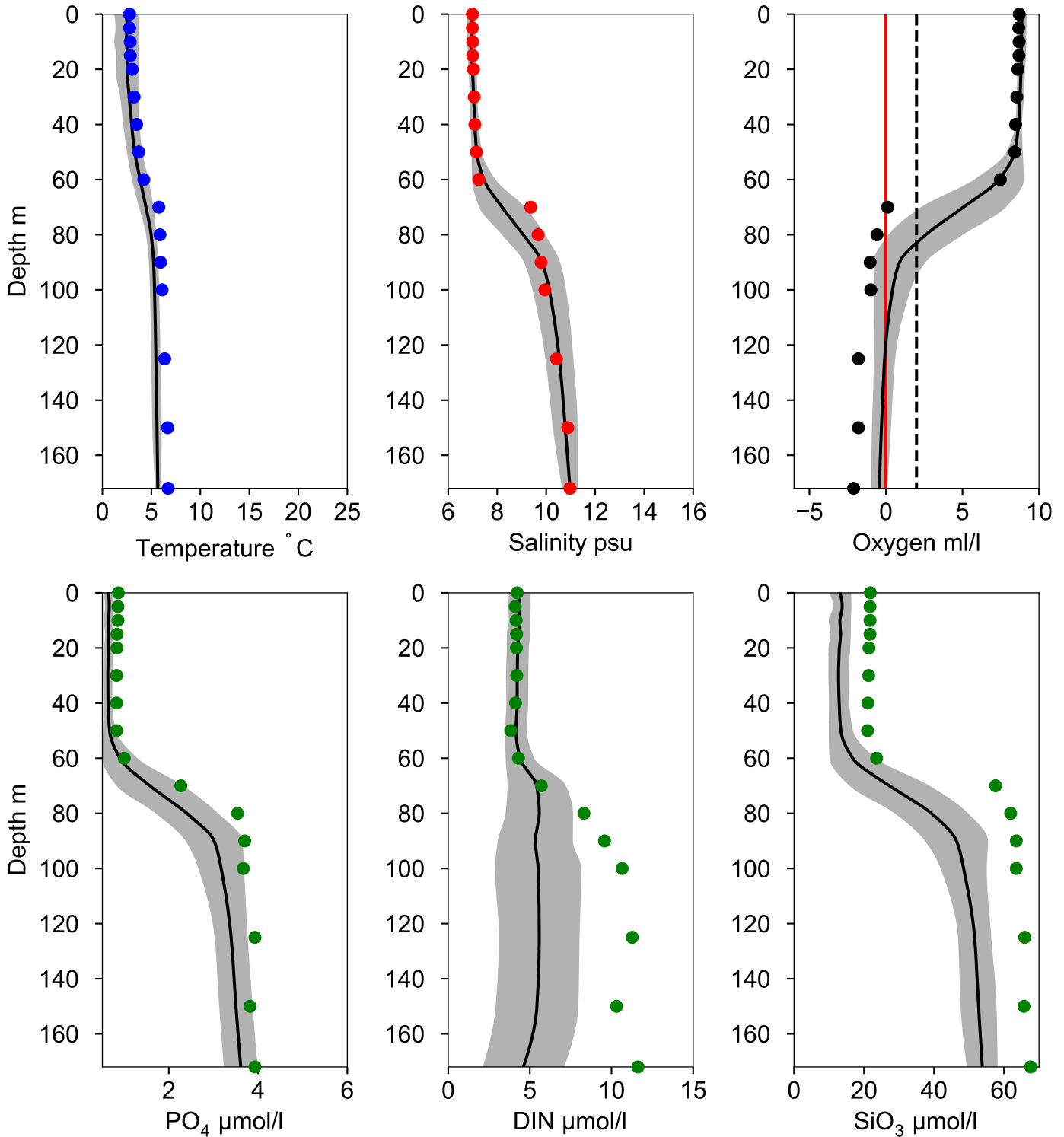


## OXYGEN IN BOTTOM WATER (depth >= 150 m)



# Vertical profiles BY29 / LL19 February

— Mean 1991-2020    St.Dev.    ● 2026-02-09

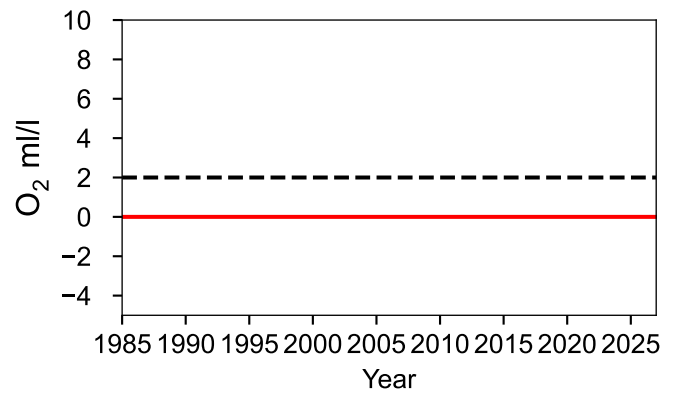
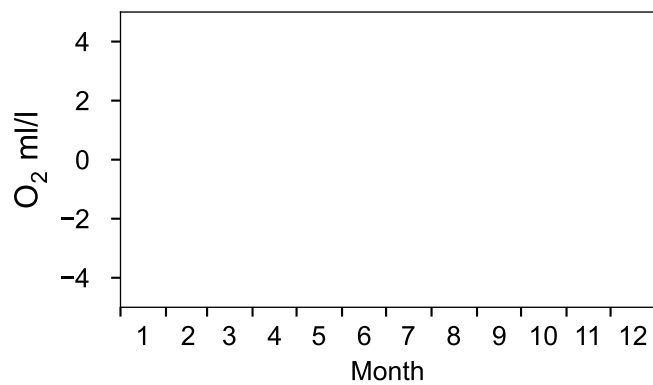
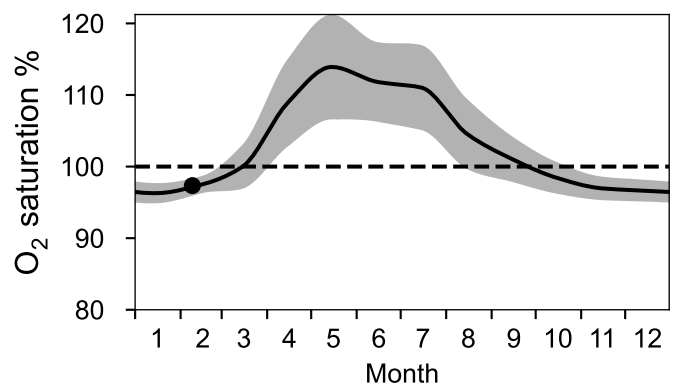
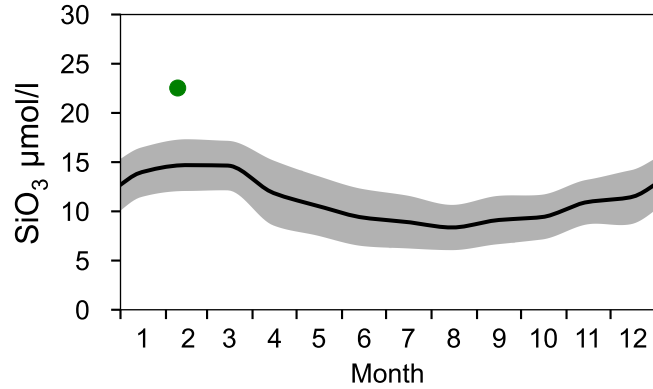
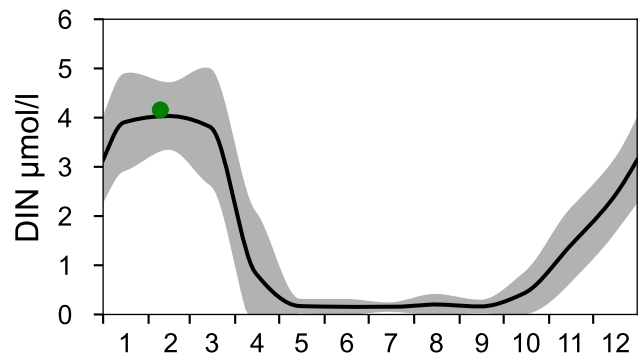
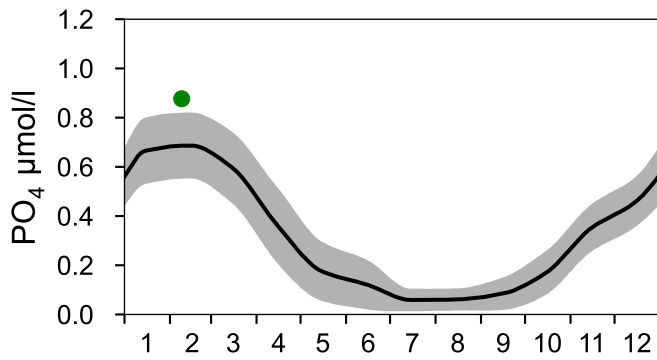
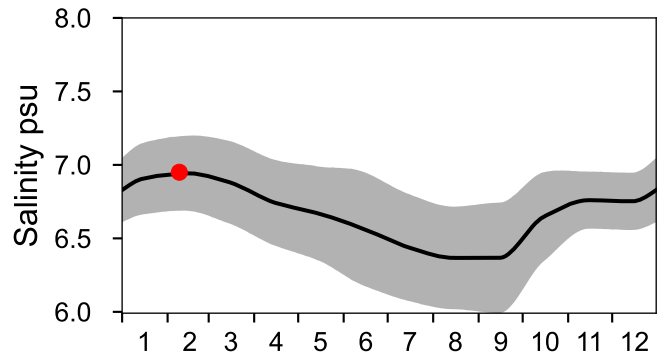
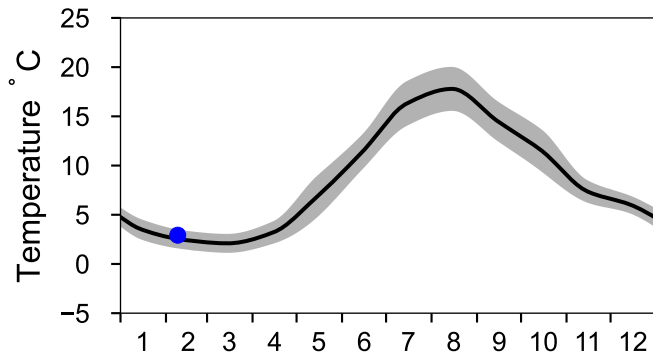


# STATION BY30 SURFACE WATER (0-10 m)

## Annual Cycles

Statistics based on data from: Västra Gotlandshavet

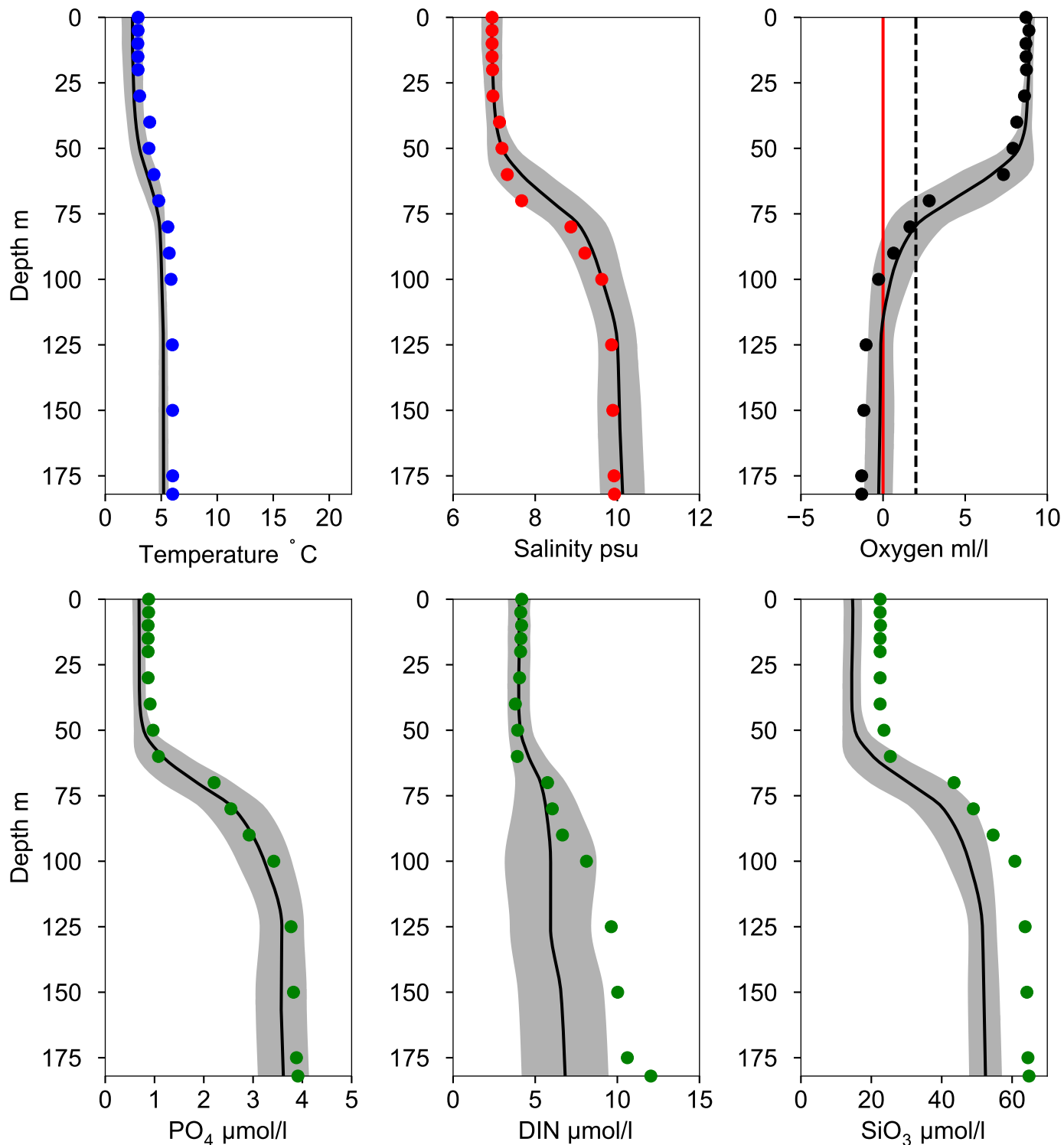
— Mean 1991-2020    St.Dev.    ● 2026



# Vertical profiles BY30 February

Statistics based on data from: Västra Gotlandshavet

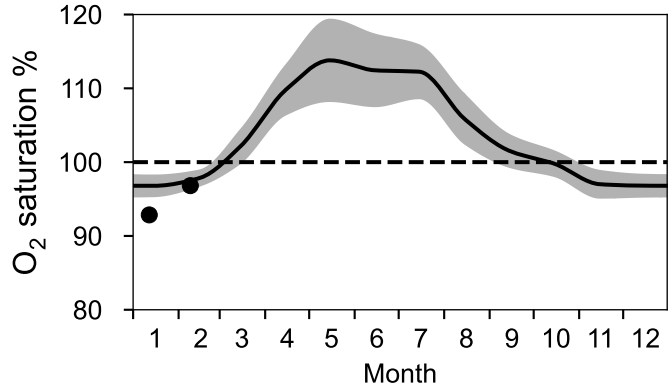
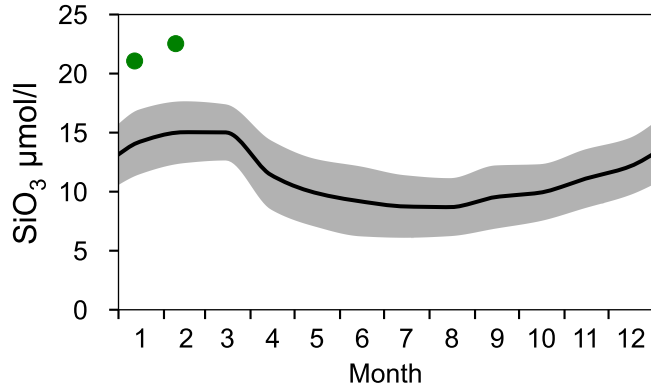
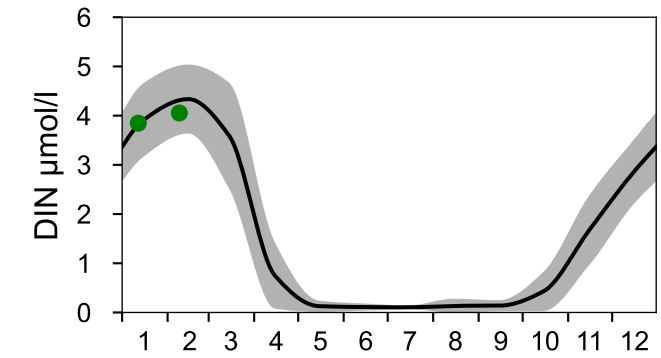
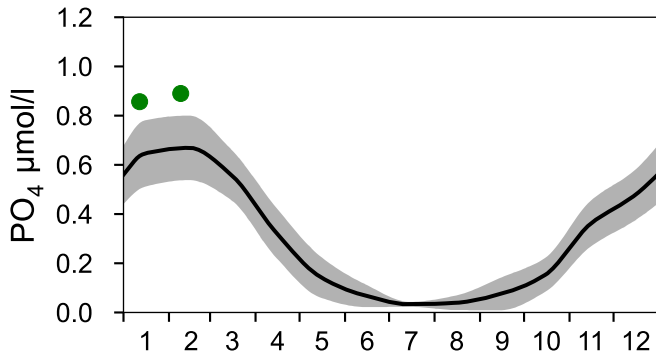
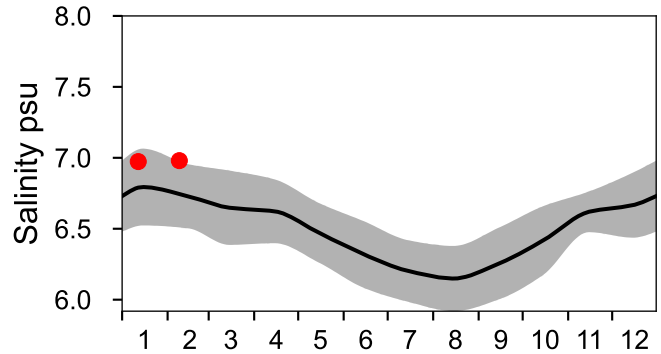
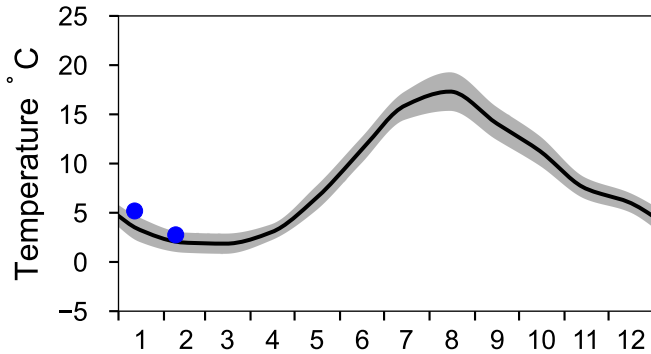
— Mean 1991-2020    ■ St.Dev.    ● 2026-02-09



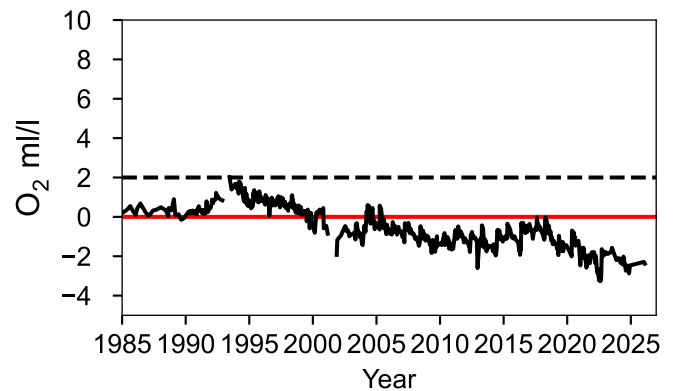
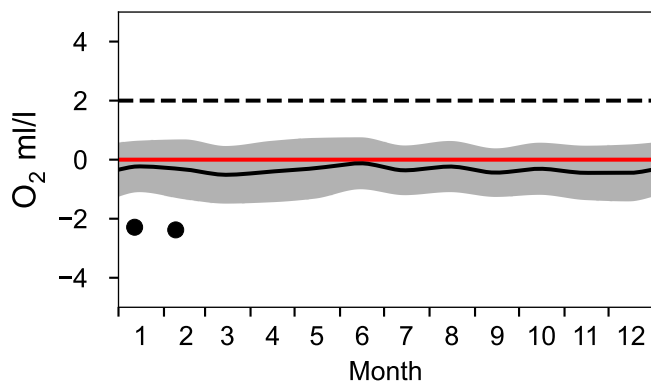
# STATION BY31 LANDSORTSDJ SURFACE WATER (0-10 m)

Annual Cycles

— Mean 1991-2020    St.Dev.    ● 2026

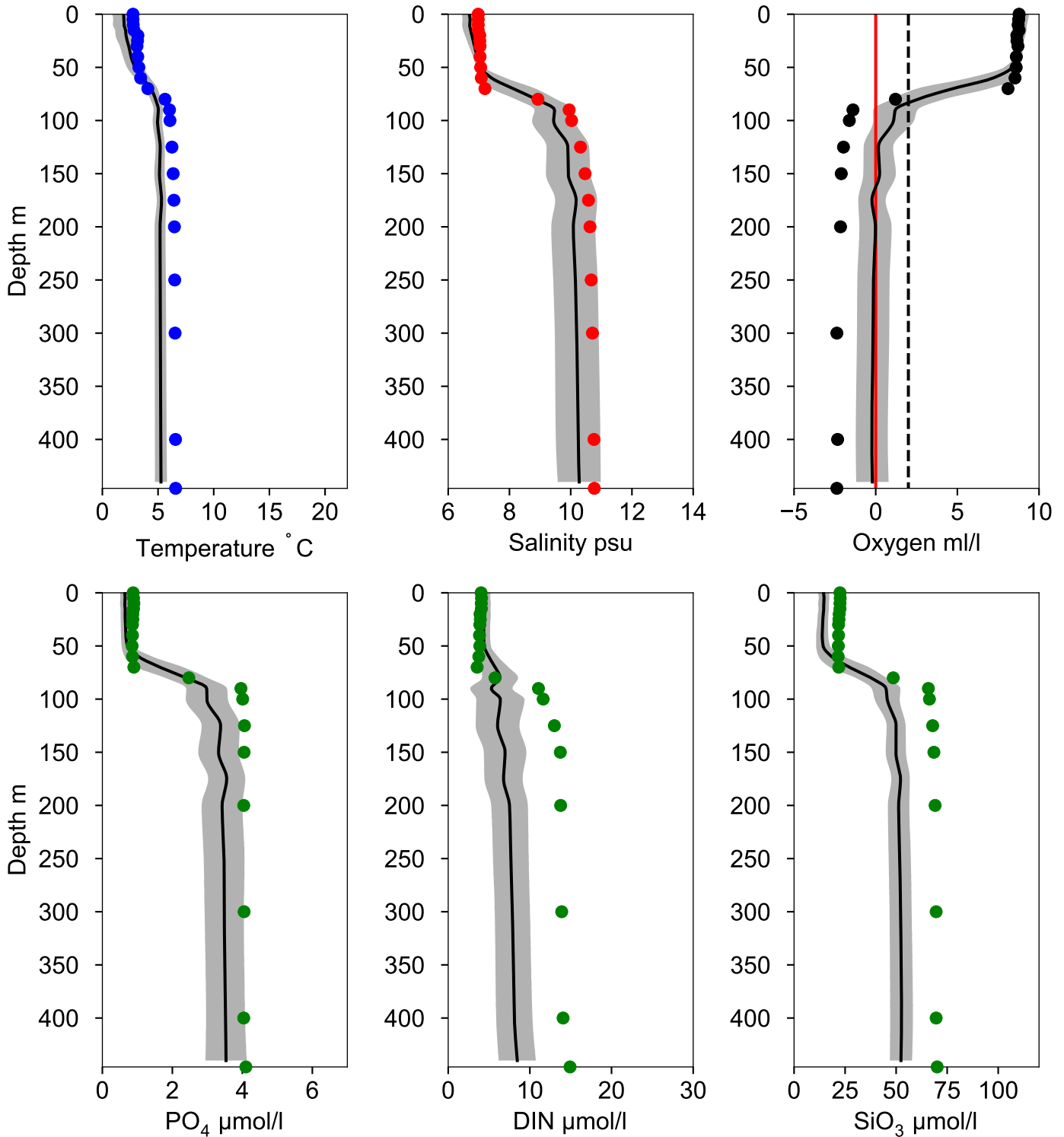


## OXYGEN IN BOTTOM WATER (depth >= 419 m)



# Vertical profiles BY31 LANDSORTSDJ February

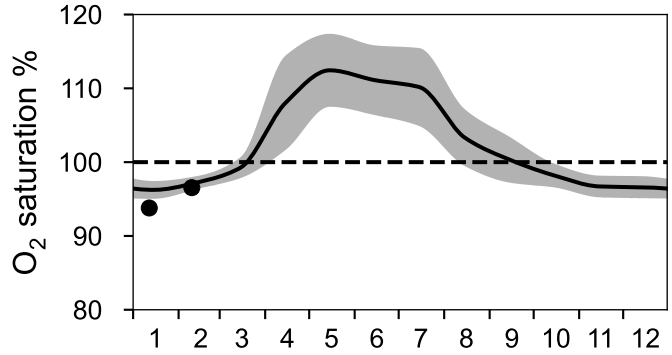
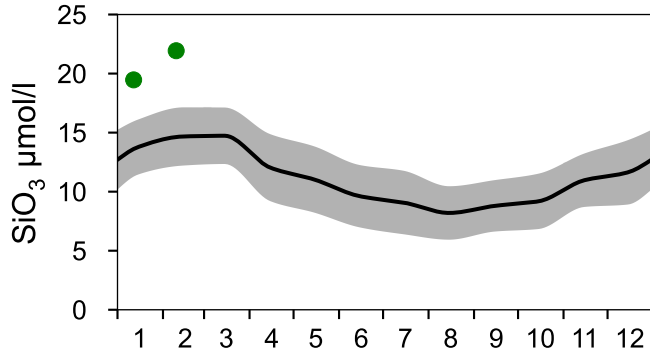
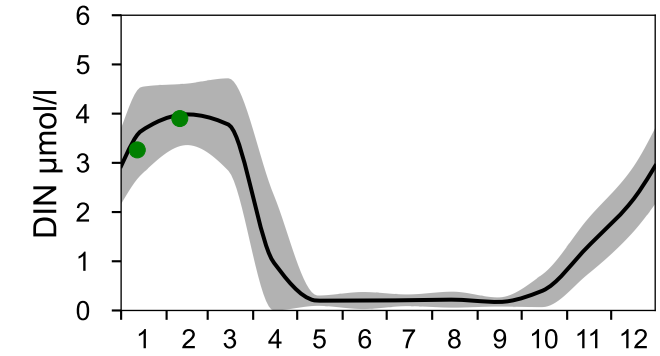
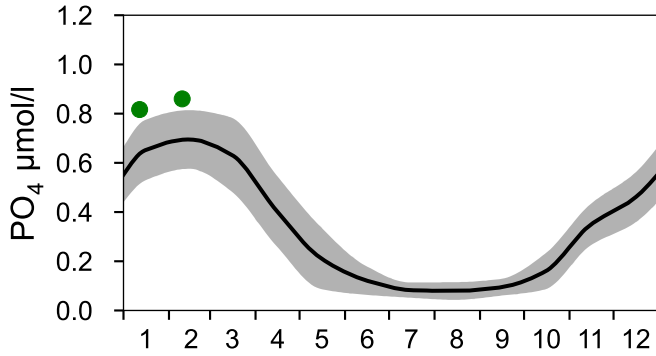
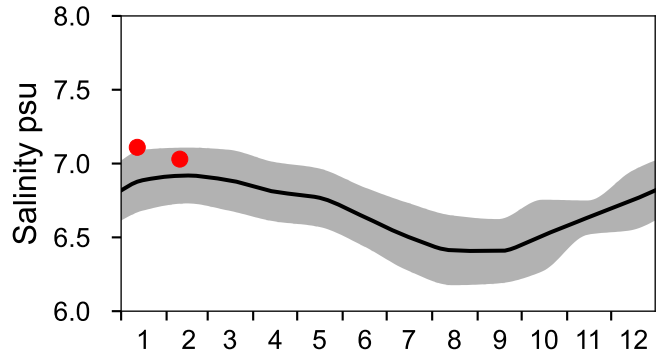
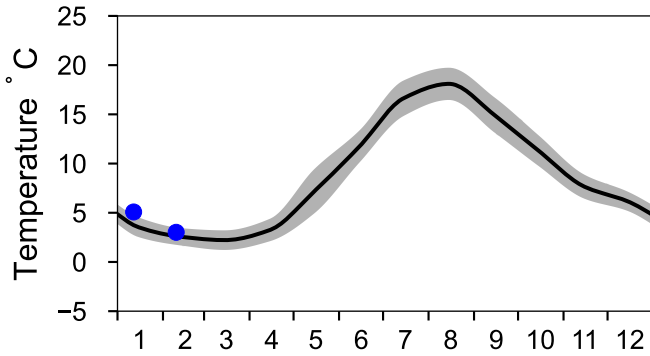
— Mean 1991-2020    St.Dev.    ● 2026-02-09



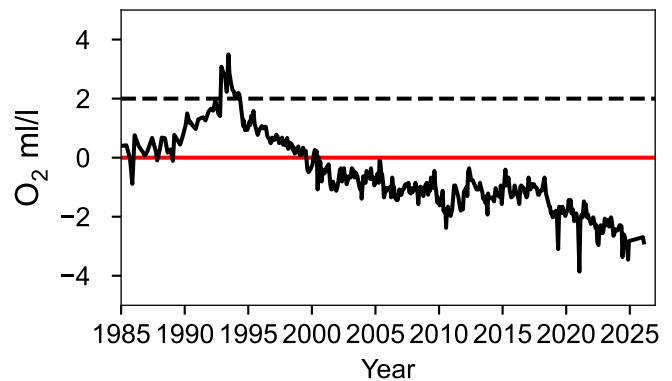
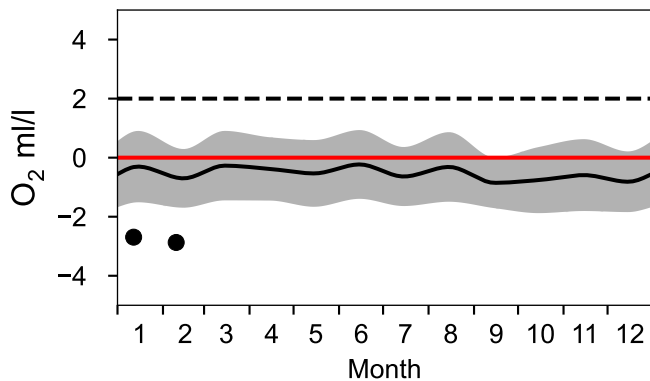
# STATION BY32 NORRKÖPINGSDJ SURFACE WATER (0-10 m)

Annual Cycles

— Mean 1991-2020    St.Dev.    ● 2026

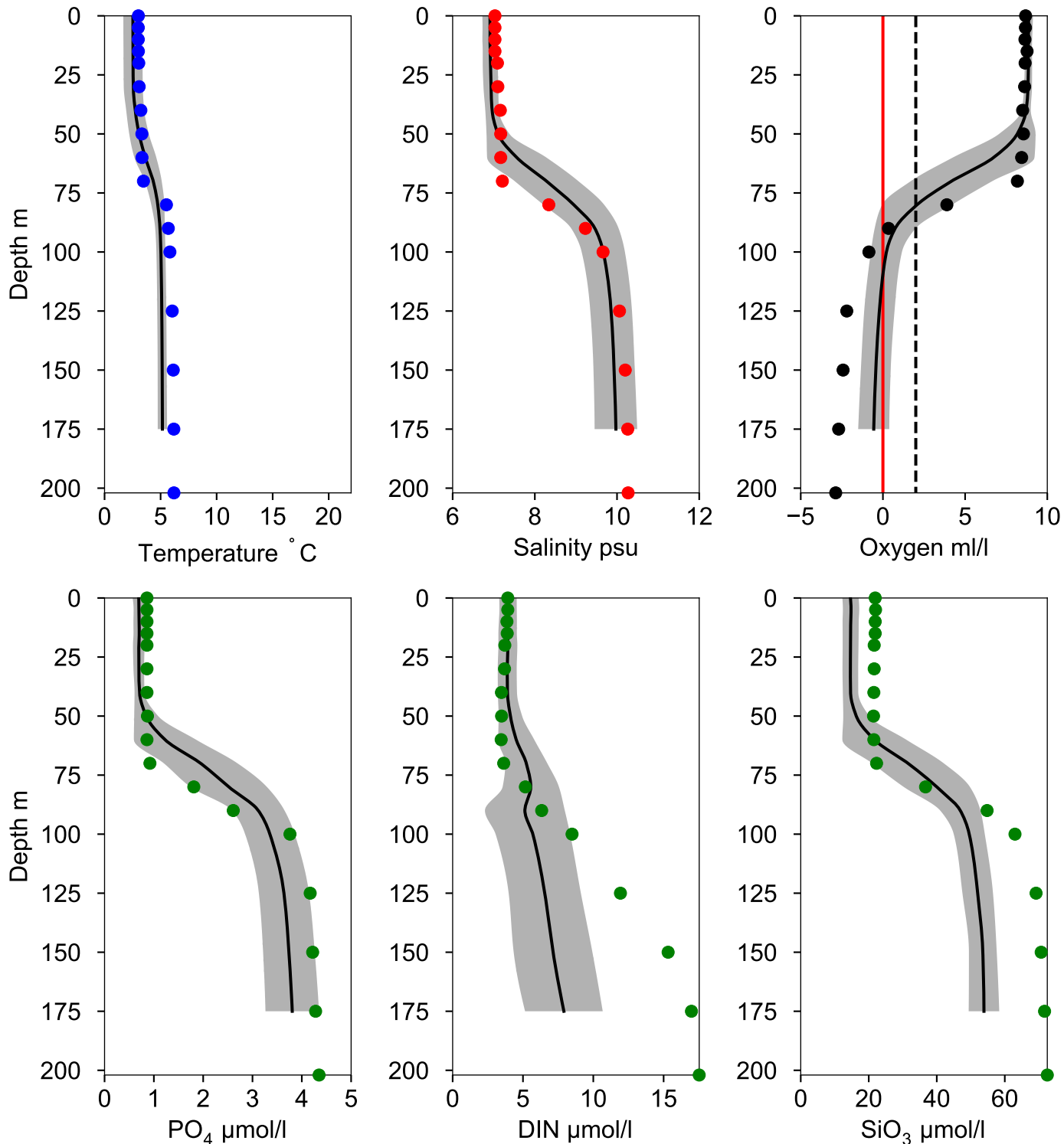


## OXYGEN IN BOTTOM WATER (depth >= 175 m)



# Vertical profiles BY32 NORRKÖPINGSDJ February

— Mean 1991-2020    ■ St.Dev.    ● 2026-02-10

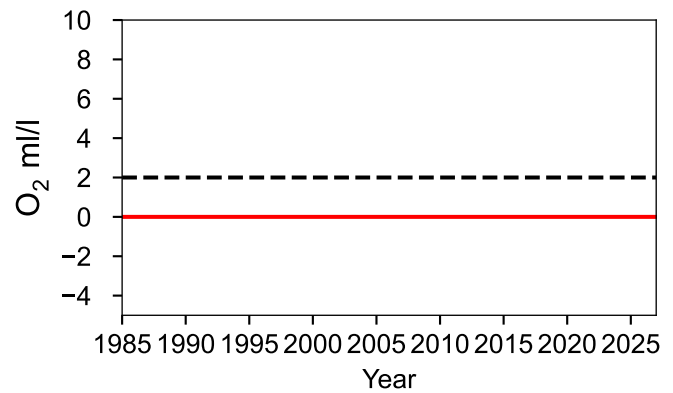
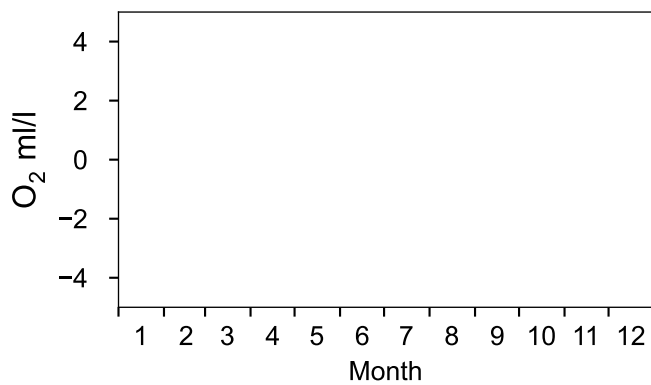
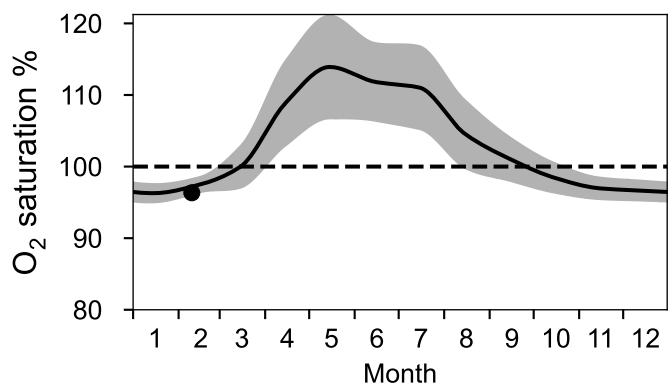
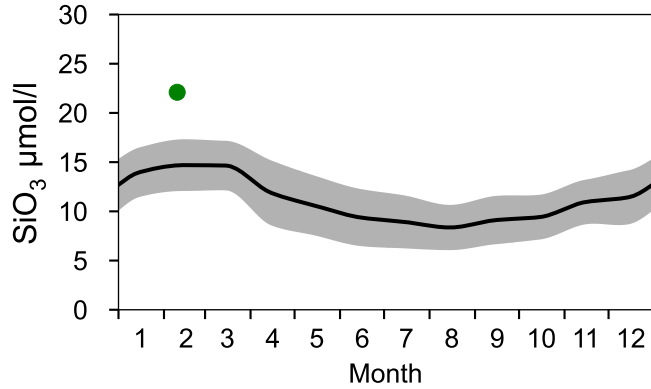
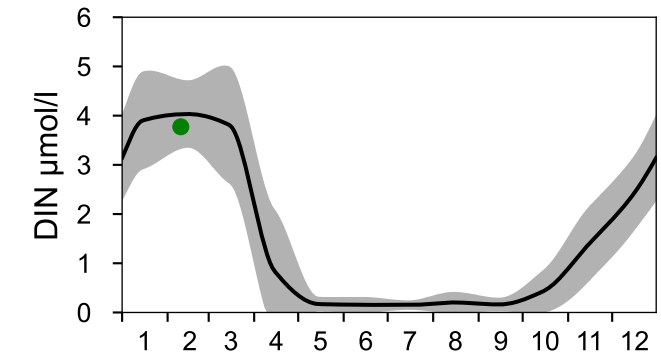
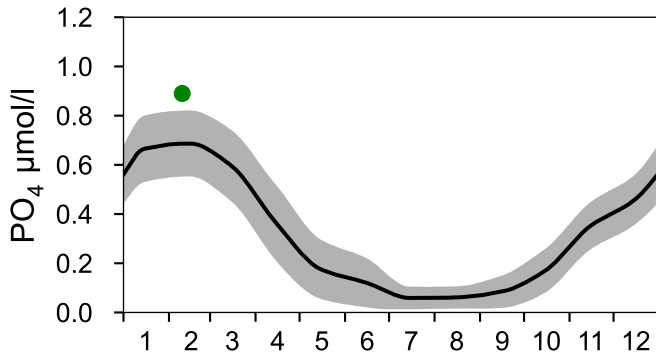
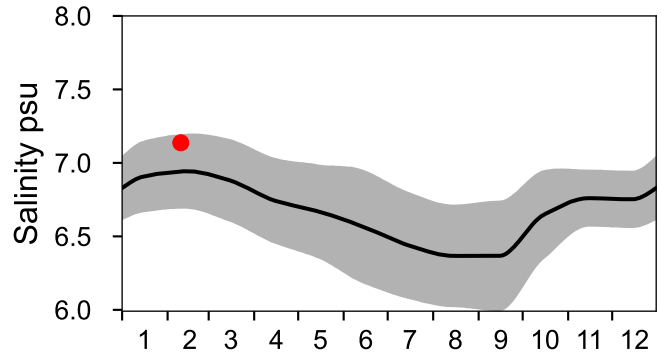
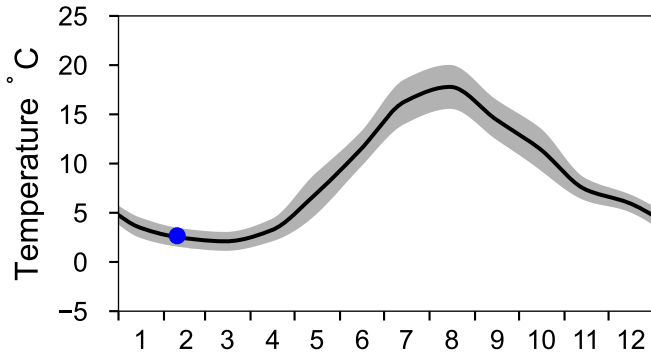


# STATION BY36 SURFACE WATER (0-10 m)

## Annual Cycles

Statistics based on data from: Västra Gotlandshavet

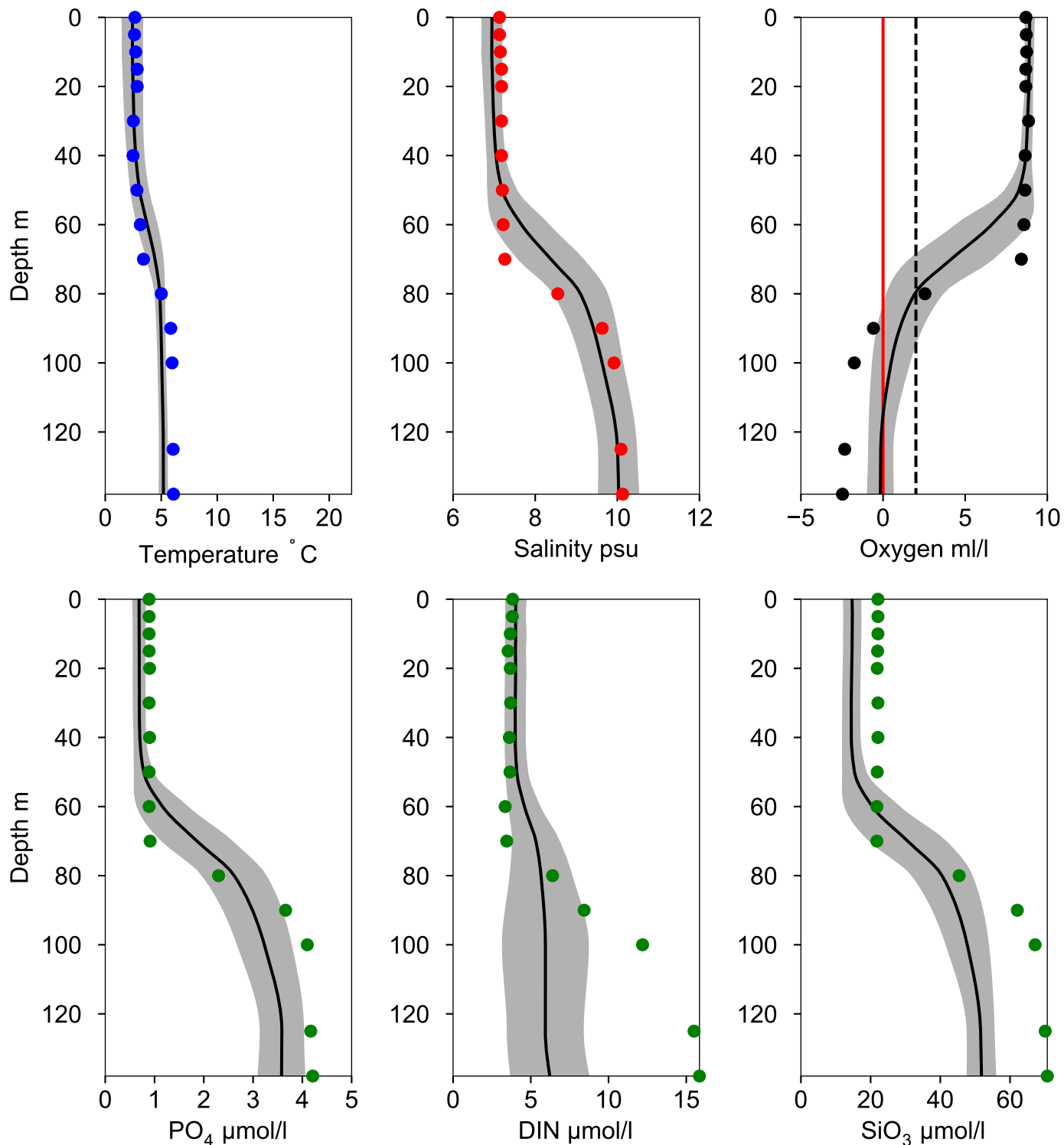
— Mean 1991-2020    St.Dev.    ● 2026



# Vertical profiles BY36 February

Statistics based on data from: Västra Gotlandshavet

— Mean 1991-2020    St.Dev.    ● 2026-02-10



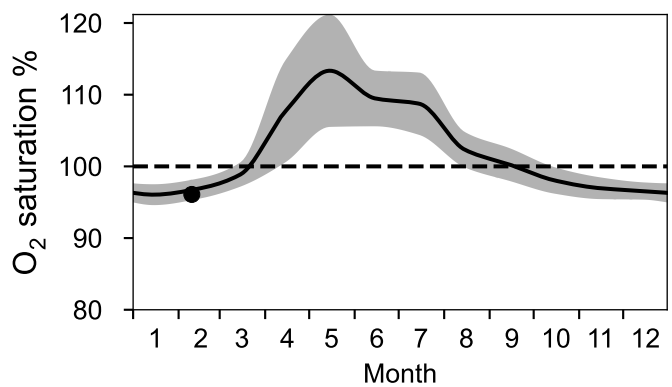
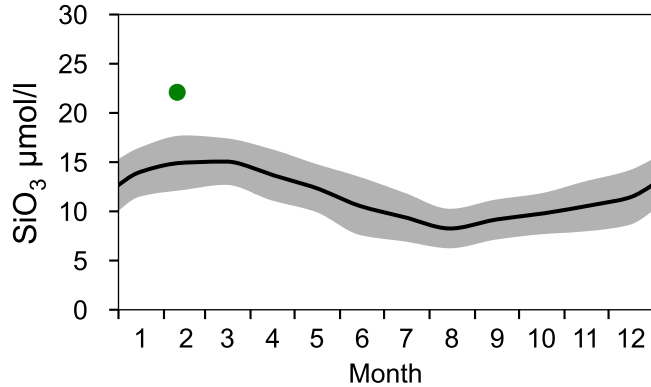
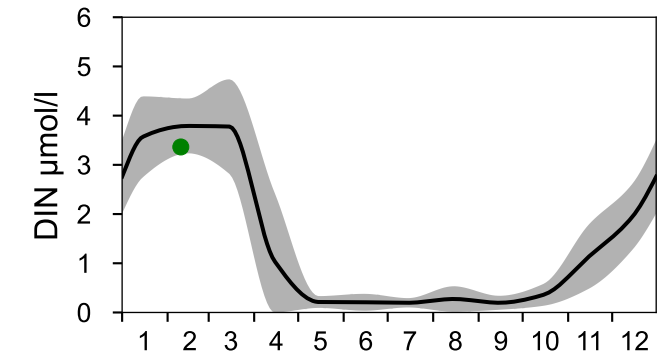
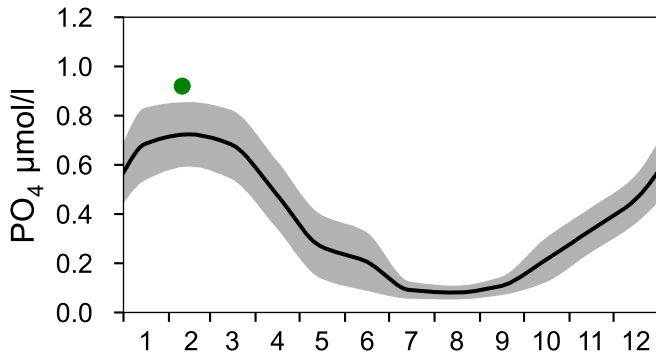
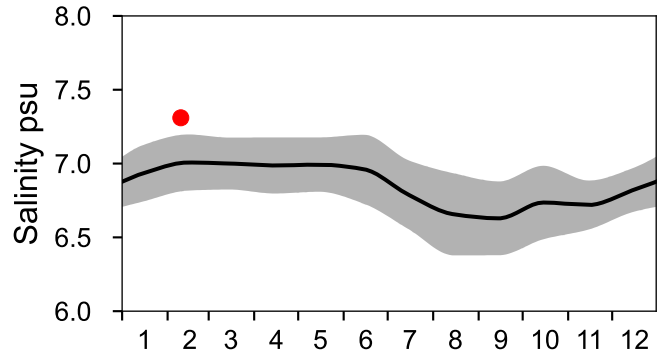
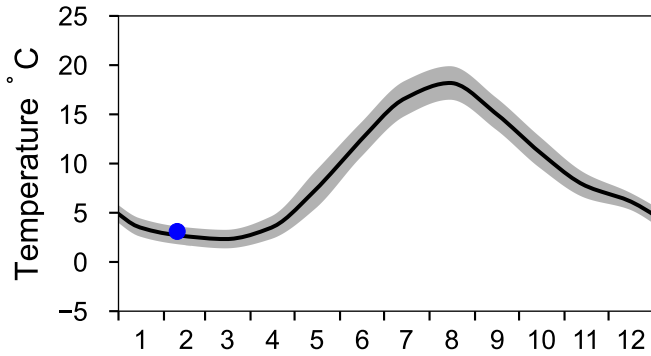
# STATION BY38 KARLSÖDJ SURFACE WATER (0-10 m)

Annual Cycles

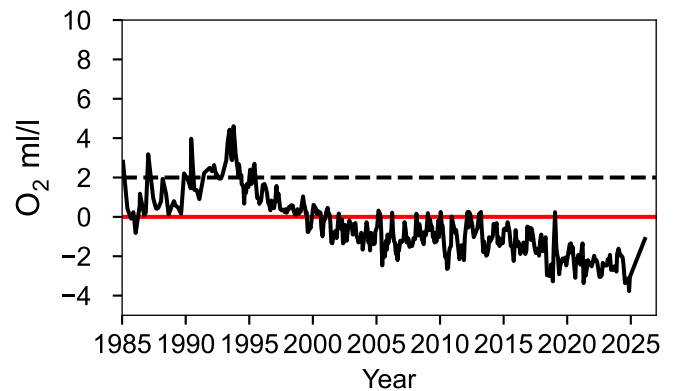
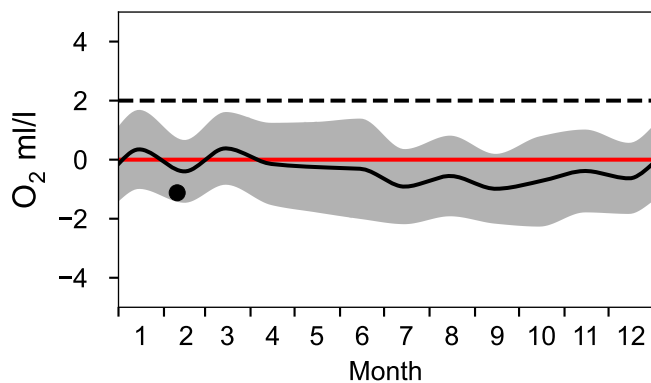
— Mean 1991-2020

■ St.Dev.

● 2026

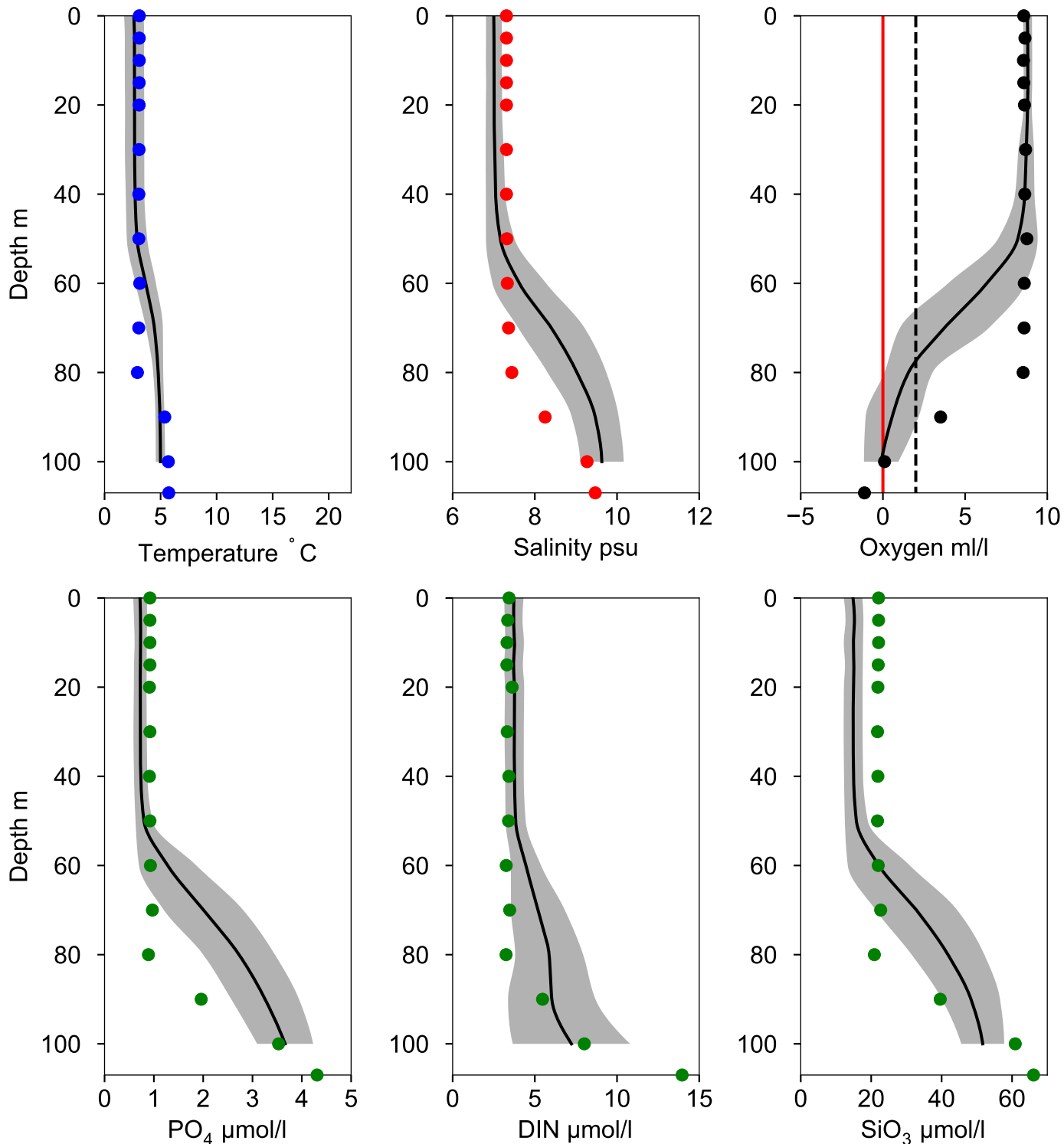


## OXYGEN IN BOTTOM WATER (depth >= 100 m)



# Vertical profiles BY38 KARLSÖDJ February

— Mean 1991-2020    ■ St.Dev.    ● 2026-02-10



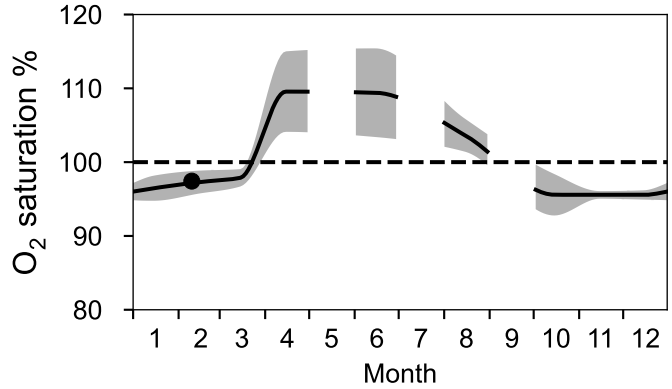
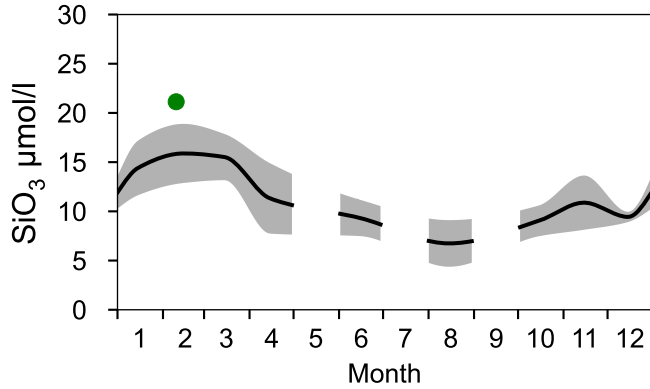
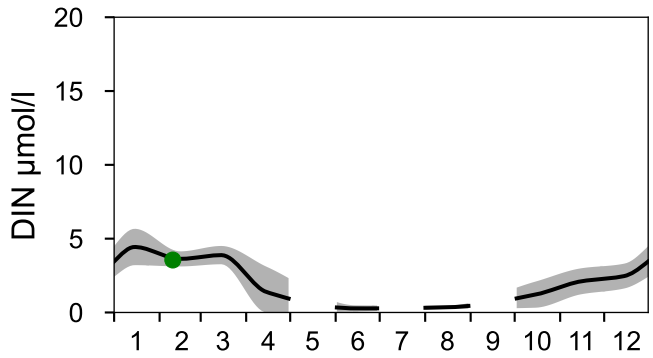
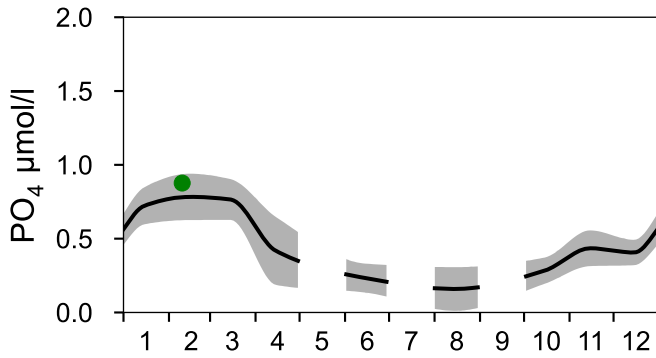
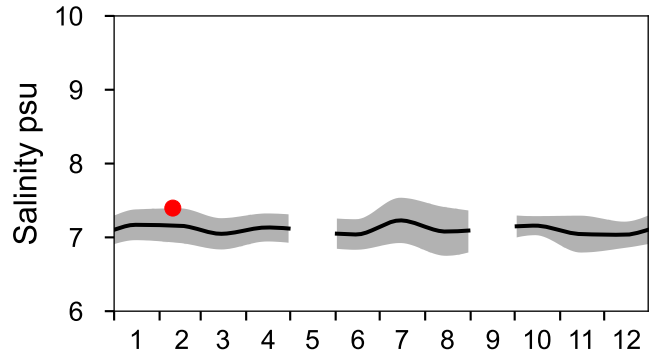
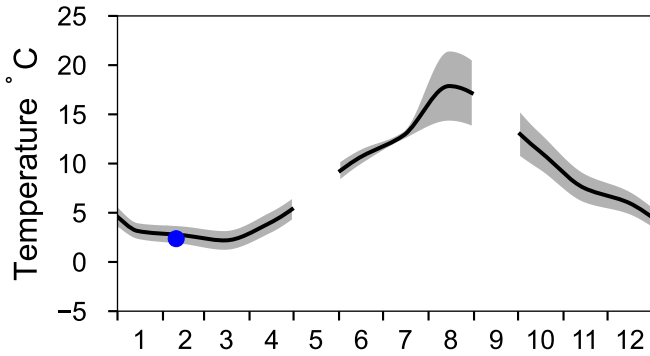
# STATION BY39 ÖLANDS S UDDE SURFACE WATER (0-10 m)

Annual Cycles

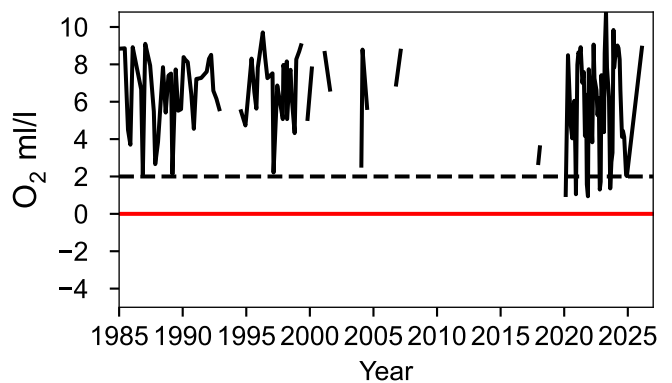
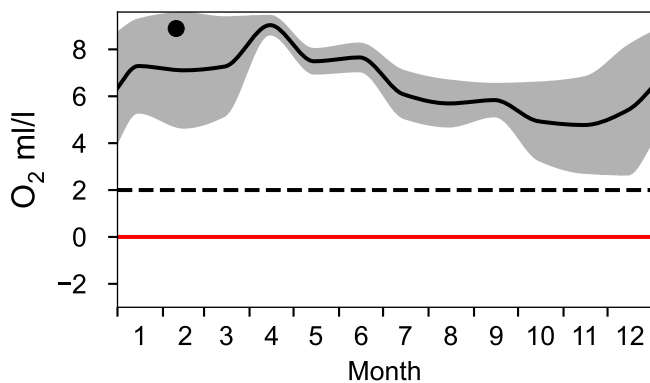
— Mean 1991-2020

■ St.Dev.

● 2026



## OXYGEN IN BOTTOM WATER (depth >= 40 m)



# Vertical profiles BY39 ÖLANDS S UDDE February

