

Report from SMHI's marine monitoring cruise with R/V Svea – October 2025



Photo: Martin Hansson, SMHI

Survey period: 2025-10-20 to 2025-10-26
Principals: Swedish Meteorological and Hydrological Institute (SMHI),
Swedish Agency for Marine and Water Management (SwAM)
Cooperation partners: Swedish University of Agricultural Sciences (SLU),
Swedish Maritime Administration

SUMMARY

During the cruise, which is part of the Swedish pelagic monitoring programme, the Skagerrak, Kattegat, The Sound, and the Baltic Proper were visited.

Strong winds and rough seas prevailed during the cruise, which made sampling difficult and resulted in one sampling and two buoy missions not being carried out.

The surface water had begun to cool somewhat. In both the Skagerrak and Kattegat, warmer water masses were observed below the surface, while the Baltic Proper showed slightly higher deep-water temperatures than normal.

Nutrient concentrations in the surface water had increased since September, particularly phosphate and silicate, which were above normal levels in almost all sea areas. Elevated nutrient concentrations were also measured in the deep water, especially in the Baltic Proper, where high levels of hydrogen sulphide were also recorded.

The oxygen situation remains very problematic in the Baltic Proper. Acute oxygen deficiency was observed from depths of 60–70 metres, and hydrogen sulphide from 80–90 metres. The most critical levels were measured in the western and eastern Gotland Basins, where hydrogen sulphide concentrations were very high—at some depths among the highest ever recorded.

Plankton activity was generally low, reflecting a season in which productivity has begun to decline.

The next cruise with R/V *Svea* is scheduled for 5–16 December, starting in Kalmar and ending in Lysekil. During the December cruise, nutrient mapping will be carried out in the Gulf of Bothnia.

EXPEDITION OVERVIEW

The cruise was carried out with the research vessel R/V *Svea* and took place between 20 and 26 October, starting in Kalmar and ending in *Svea*'s home port, Lysekil.

All but one of SMHI's regular 26 stations could be sampled as planned, and in addition, both the Huvudskär buoy and Laholmsbukten L9 were visited for reference measurements using the CTD. The Anholt E station had to be cancelled entirely due to strong winds, high waves, and strong currents.

Using a CTD rosette and water samplers on a wire, water samples were collected for analysis of nutrients, total nitrogen and phosphorus, chlorophyll, oxygen, hydrogen sulphide, alkalinity, pH, and humus. Phytoplankton, zooplankton, and jellyfish plankton were collected using different nets and hoses. A Secchi disk was used to determine the water transparency (Secchi depth). The CTD's sensors on the rosette collected profiles of temperature, salinity, oxygen, chlorophyll and phycocyanin fluorescence, turbidity, and light (PAR).

The route was adjusted to allow for the possibility of lifting the Huvudskär buoy for service and maintenance. Unfortunately, the winds and sea state were too strong to make lifting the buoy possible. At Östergarnsholm, one of Uppsala University's oceanic carbon dioxide measuring systems was to be recovered, but due to bad weather, the operation had to be cancelled, with hopes that it can be carried out during SMHI's next cruise in December.

In Laholmsbukten, it was time to replace the bottom rig measuring system that SMHI has deployed on behalf of the County Administrative Board of Halland. The system had been in place for six months and was now replaced by a similar setup that will continue measurements for another six months. The system continuously records salinity, temperature, and oxygen concentration at the seabed.

Svea's FerryBox and the Moving Vessel Profiler (MVP)—an instrument used to measure oxygen, salinity, and temperature profiles while underway—were operated frequently throughout the cruise.

The results presented in this report are based on data that have undergone initial quality control and have been compared to monthly averages for the period 1991 – 2020. After further quality assurance, some values may be subject to change. All values in the report are rounded to the nearest tenth and may therefore differ slightly from published values. Data are published as soon as possible on the data host's website, usually within about a week after the expedition. Some analyses are completed after the expedition and are therefore published later.

More information about our data hosting and to download data:

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

For more information on the algal situation, see the AlgAware report:

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

RESULTS

It was generally windy with rough seas during most of the cruise. During the first two days, the average wind speed was 13–16 m/s from the southeast, followed by two days with somewhat calmer conditions. In the Skagerrak and Kattegat, the wind increased again to 13–16 m/s. Due to the strong winds, strong currents, and high waves, sampling at Anholt E could not be carried out.

The air temperature ranged between 10 and 13 °C.

Skagerrak

The surface water temperature in the Skagerrak was normal for the season, around 12–13 °C. The surface layer had cooled by a few degrees, and below the surface a warmer water mass was found at depths of 25–50 m. Below this layer, the temperature gradually decreased towards the bottom, where it was around 8 °C. The salinity in the surface water was about 30–33 psu in offshore areas and lower near the coast, around 27–28 psu. The stratification of salinity and temperature followed each other in the surface layer.

The concentration of dissolved inorganic nutrients in the surface water had increased since the last measurement in September. Phosphate concentrations were above normal at all stations, ranging from 0.3–0.4 µmol/l. Silicate concentrations were above normal at station P2, located near the Kattegat boundary, varying between 2.3–6.1 µmol/l. Concentrations of dissolved inorganic nitrogen (DIN) were normal for the season, ranging between 0.5–1.5 µmol/l.

Oxygen concentrations near the bottom were normal for the month, ranging between 3.6–5.6 ml/l, with the lowest value recorded at Släggö at the entrance to the Gullmar Fjord.

Some plankton activity occurred in the surface water, but fluorescence measurements from the CTD, on which the assessment is based, were relatively low.

Kattegat and the Sound

In the Kattegat, surface water temperatures had also begun to decrease, though not as clearly as in the Skagerrak. The surface temperature was normal, just above 12 °C. In the deep water, below the surface layer, temperatures were a few degrees higher, above the seasonal norm.

The surface salinity was normal for the season, varying between 22–23 psu in the northern parts, while in the Sound it ranged between 12–16 psu. In Laholmsbukten, the surface salinity was higher than normal, around 21 psu. In the deep water, salinity exceeded 30 psu, which is normal for this time of year. Stratification of temperature and salinity occurred at depths of 10–20 m.

Chlorophyll fluorescence measured with the CTD was low, although some plankton activity could be observed in the surface layer.

The concentrations of dissolved inorganic nutrients in the surface water had, as in the Skagerrak, increased since the last measurement in September. Phosphate concentrations were above normal for the season, varying between 0.3–0.6 µmol/l. DIN levels were around 0.1–0.4 µmol/l, but slightly higher in the Sound (1.9 µmol/l). Silicate concentrations were higher than normal in the Sound, 17 µmol/l, but otherwise normal at around 3 µmol/l.

The oxygen situation in the bottom water of the Kattegat and the Sound was somewhat improved compared to the last measurement in September. Oxygen deficiency (2.5 ml/l) was recorded in the Sound, while concentrations above 4 ml/l—the threshold for oxygen deficiency—were measured in other areas.

THE BALTIC SEA

The surface water temperature had started to decrease but remained normal throughout the Baltic Proper, ranging between 11 and 14 °C. The lowest temperature was observed at the southern tip of Öland (BY39), likely caused by upwelling of deeper water, resulting in low temperature and high salinity, silicate, and phosphate concentrations. Surface salinity was higher than normal in the southern parts and in sections of the Bornholm Basin. In the deep water, temperatures were generally higher than normal, while salinity was normal. The thermocline was found at around 40 m, and the halocline extended over depths of 40–70 m.

DIN concentrations in the surface water were below or close to the detection limit (0.1 µmol/l) in several areas. In the central basins around Gotland, values were around 0.3 µmol/l. Phosphate concentrations were above normal in large parts of the area, varying between 0.2–0.5 µmol/l. Silicate concentrations in the surface water were also above normal at most stations, with measured values between 13–16 µmol/l. Concentrations of all nutrients in the deep water were well above normal in all investigated areas.

In the Arkona Basin, deep-water oxygen conditions were good, with concentrations above 4 ml/l. In the Bornholm Basin and Hanöbukten, oxygen concentrations near the bottom were just above zero (0.1–0.3 ml/l), but no hydrogen sulphide was detected in the area. Acute oxygen deficiency was recorded from depths exceeding 60–70 m.

In the southeastern part of the Baltic Proper, at stations BY10 and BCSIII-10, oxygen was completely depleted between 70 and 100 m depth, and hydrogen sulphide was detected near the bottom.

In the Eastern Gotland Basin, oxygen concentrations were near zero between 90 and 125 m depth, with low hydrogen sulphide concentrations at certain depths within this interval. Below 125 m, hydrogen sulphide concentrations increased progressively to very high levels near the bottom. In the Northern Gotland Basin, conditions were similar, but no extended depth interval with near-zero oxygen occurred; instead, hydrogen sulphide appeared directly below 80 m and increased towards the bottom. However, near-bottom hydrogen sulphide concentrations were lower here than in the Eastern Gotland Basin.

In the Western Gotland Basin, acute oxygen deficiency occurred from 60–70 m, and hydrogen sulphide was present from about 80–90 m. Hydrogen sulphide concentrations in the deep water were far above normal—at some depths comparable to the highest levels previously recorded. Further south, at the southern tip of Öland (BY39), oxygen deficiency occurred near the bottom, with oxygen concentrations just below 4 ml/l.

Fluorescence measurements from the CTD indicated low plankton activity in the well-mixed surface layer down to the stratification depth. Below the stratification, no plankton activity was observed.

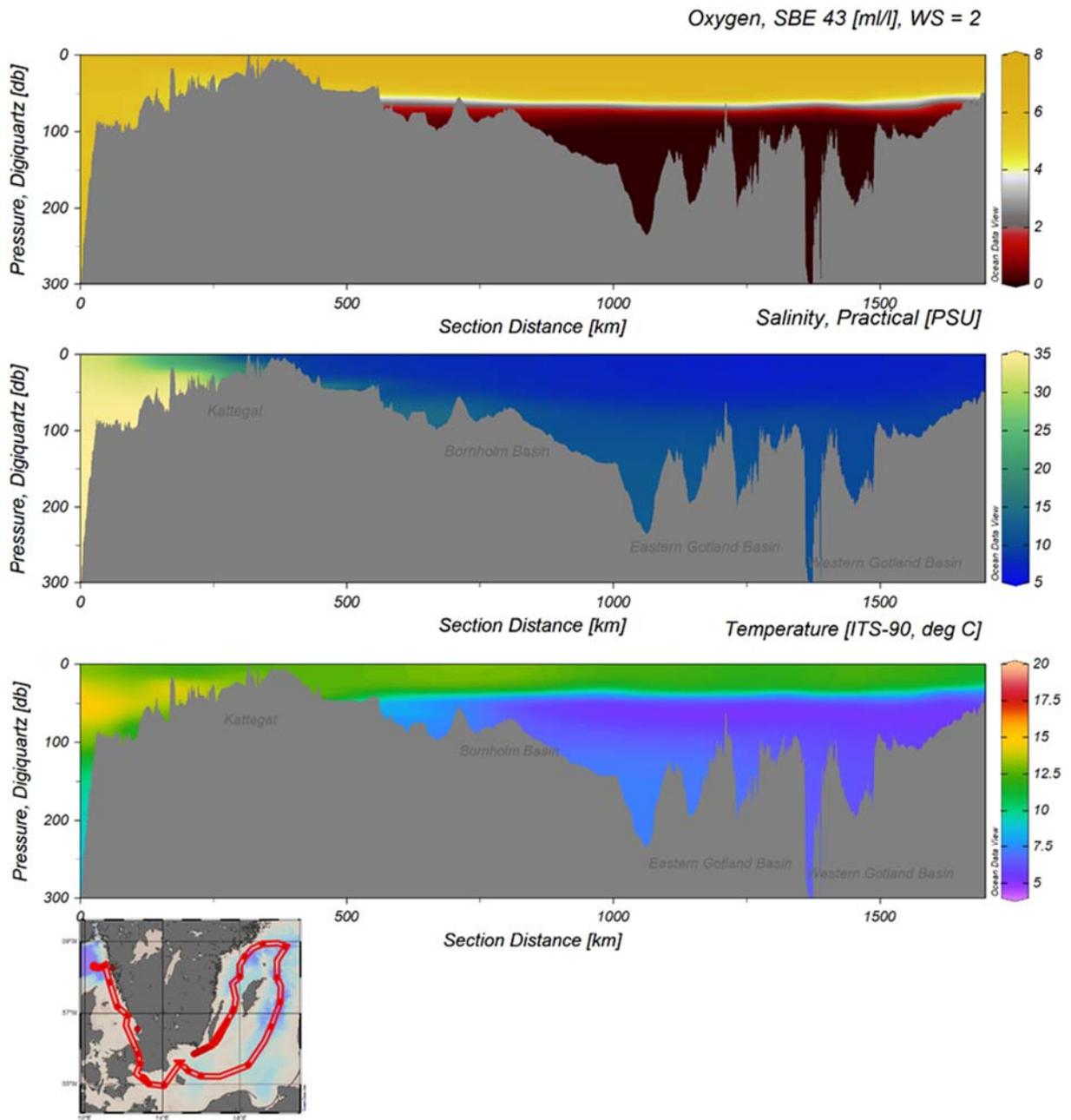


Figure 1. Section showing oxygen concentration, salinity, and temperature from CTD and MVP measurements, from the Skagerrak through the Kattegat and into the Baltic Sea according to the map (bottom).

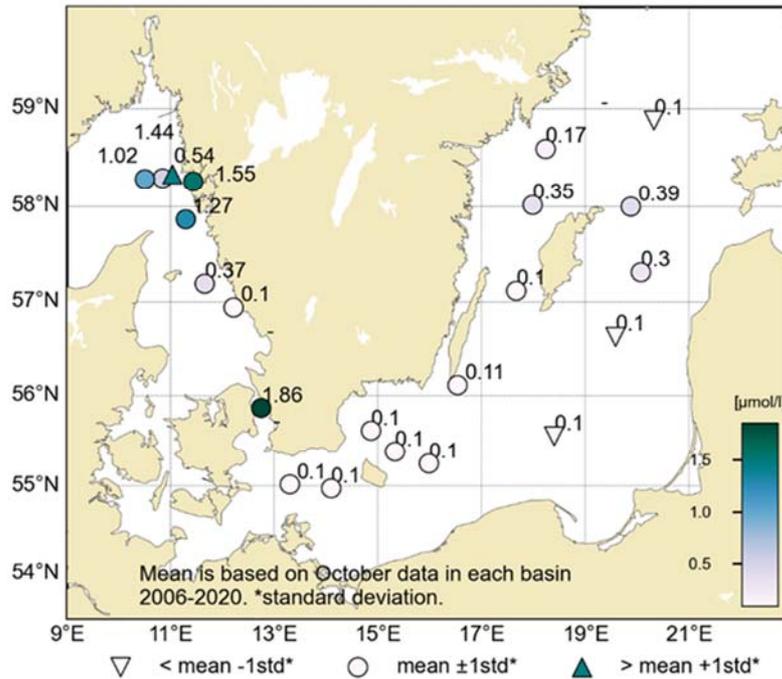
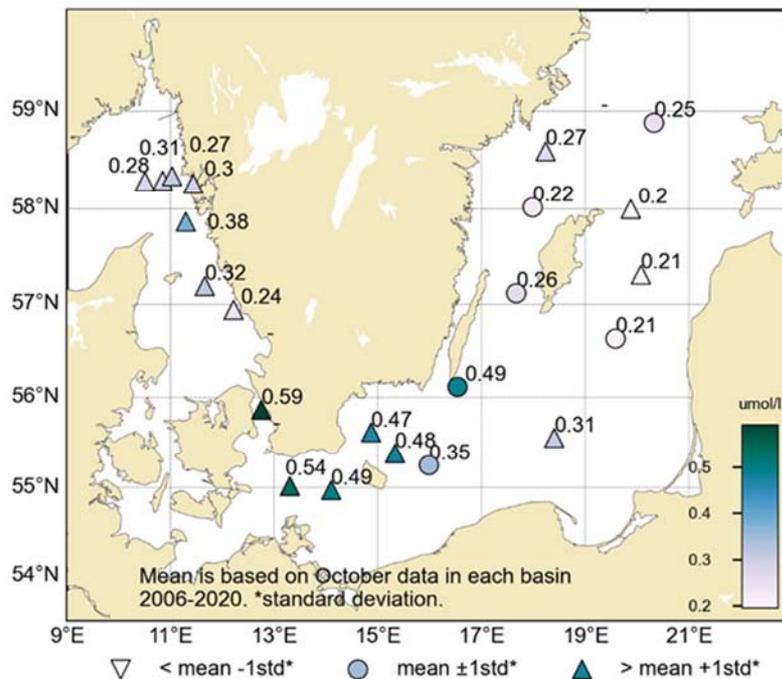


Figure 2. The concentration ($\mu\text{mol/l}$) of inorganic nitrogen (DIN) in the surface water (0 – 10 m). The mean value is based on data for the month at each station during the years 1991 – 2020.



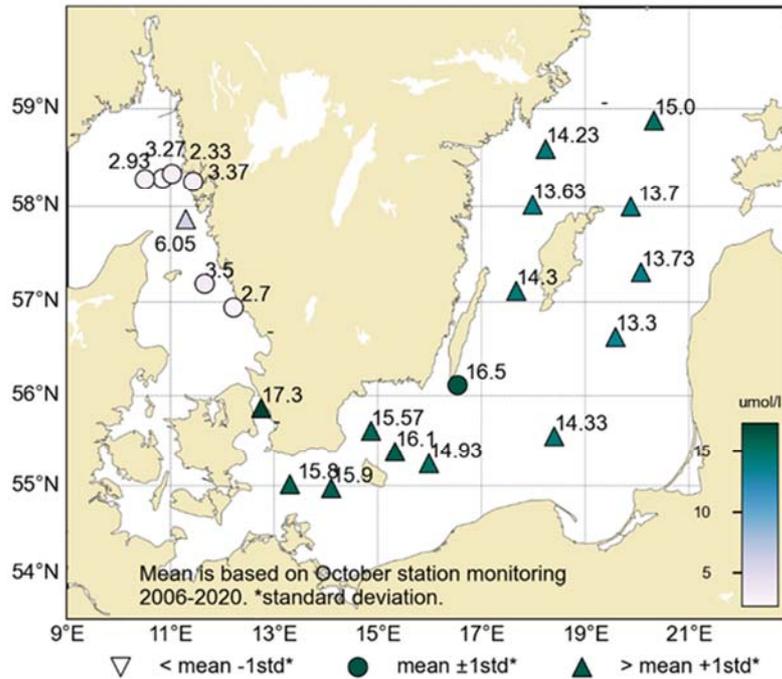


Figure 4. The concentration ($\mu\text{mol/l}$) of silicate in the surface water (0 – 10 m). The mean value is based on data for the month at each station during the years 1991 – 2020.

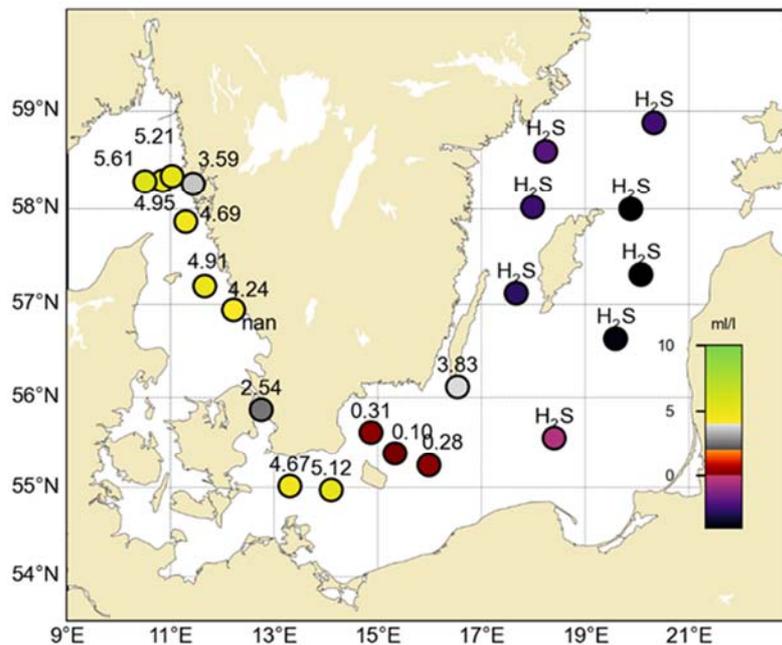


Figure 5. Dissolved oxygen concentration (ml/l) in the bottom water, approx. one meter above the seafloor. Presence of hydrogen sulphide is shown as H_2S . Note that the values have not been compared to statistics as in similar figures and only circles are shown

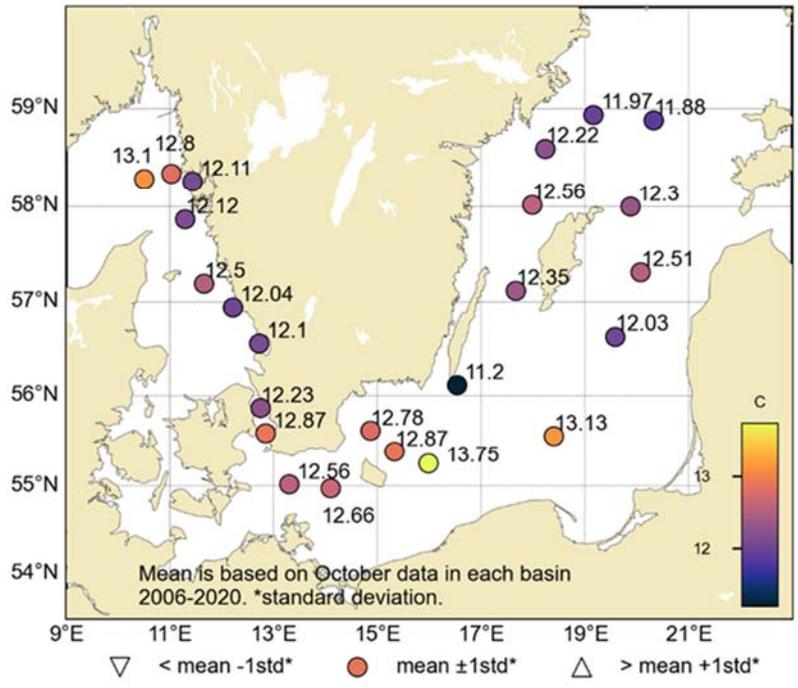


Figure 6. The temperature in the surface water (0 – 10 m). The mean value is based on data for the month at each station during the years 1991 – 2020.

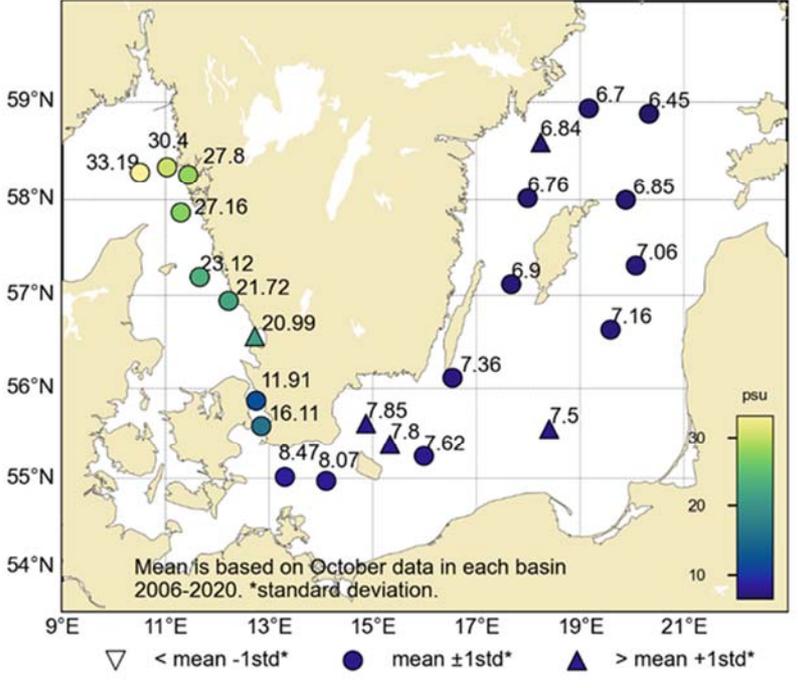


Figure 7. The salinity in the surface water (0 – 10 m). The mean value is based on data for the month at each station during the years 1991 – 2020.

PARTICIPANTS

Name	Role	Organisation
Martin Hansson	Chief Scientist, Oceanographer	SMHI
Daniel Bergman Sjöstrand	Oceanographic technician, CTD-operations and water analysis	SMHI
Lena Viktorsson	Oceanographer, CTD-operations and water analysis	SMHI
Johanna Linders	Oceanographer, water sampling and water analysis	SMHI
Ann-Turi Skjevik	Marine biologist, CTD-operations and water analysis	SMHI
Monica Lindner	Nutrient analysis, quality assurance	SMHI
Markus Lindh	Head of Oceanographic Laboratory.	SMHI

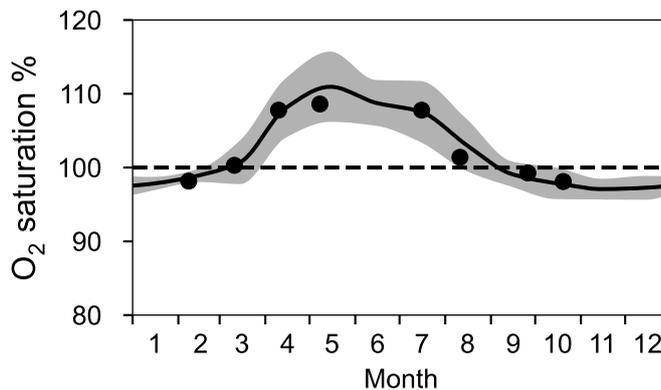
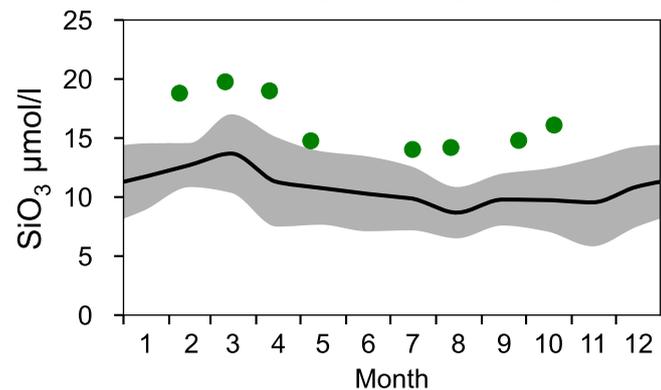
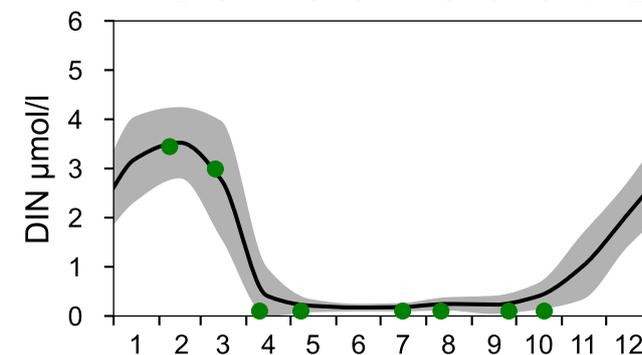
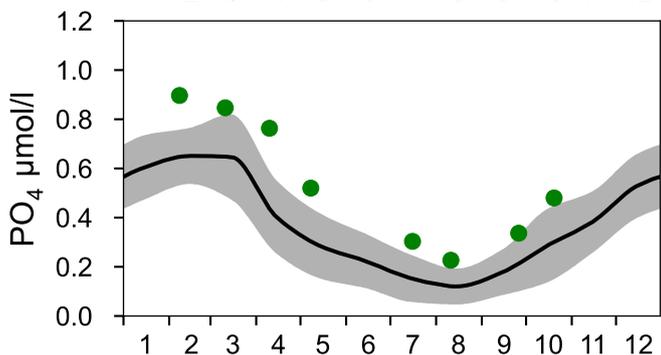
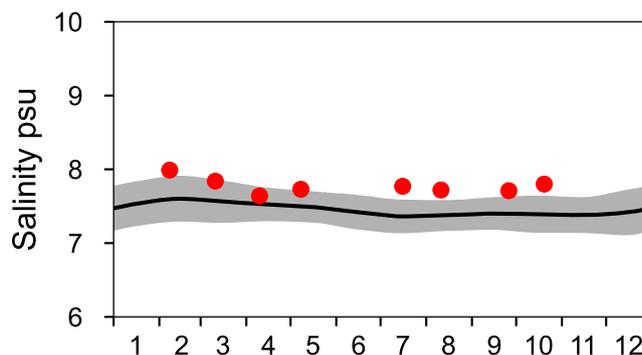
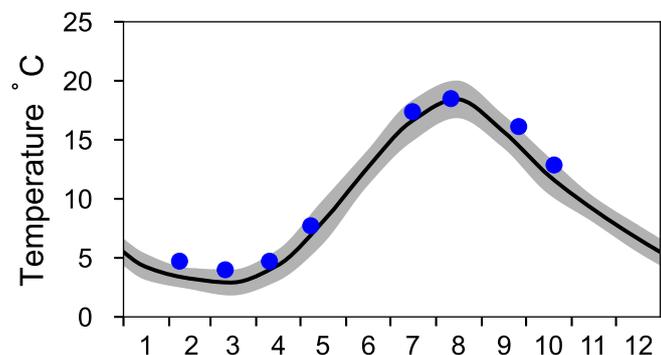
APPENDICES

- Track chart
- Table with stations, analysed parameters and number of sampling depths
- Monthly average plots for surface water
- Vertical profiles

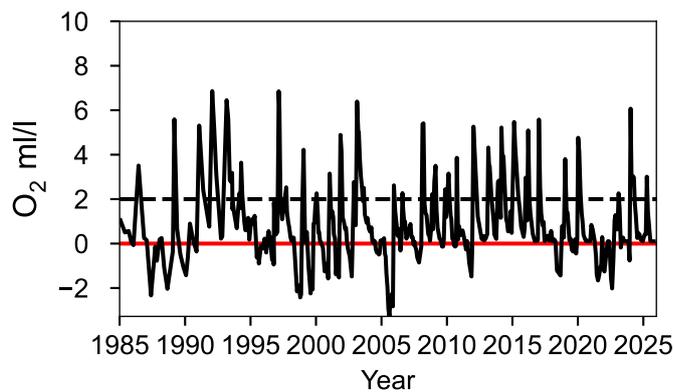
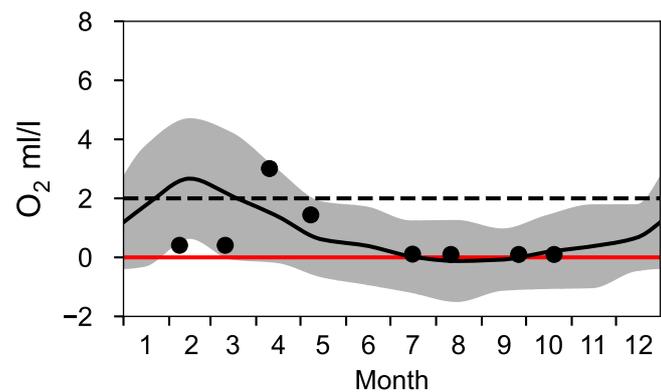
STATION BY4 CHRISTIANSÖ SURFACE WATER (0-10 m)

Annual Cycles

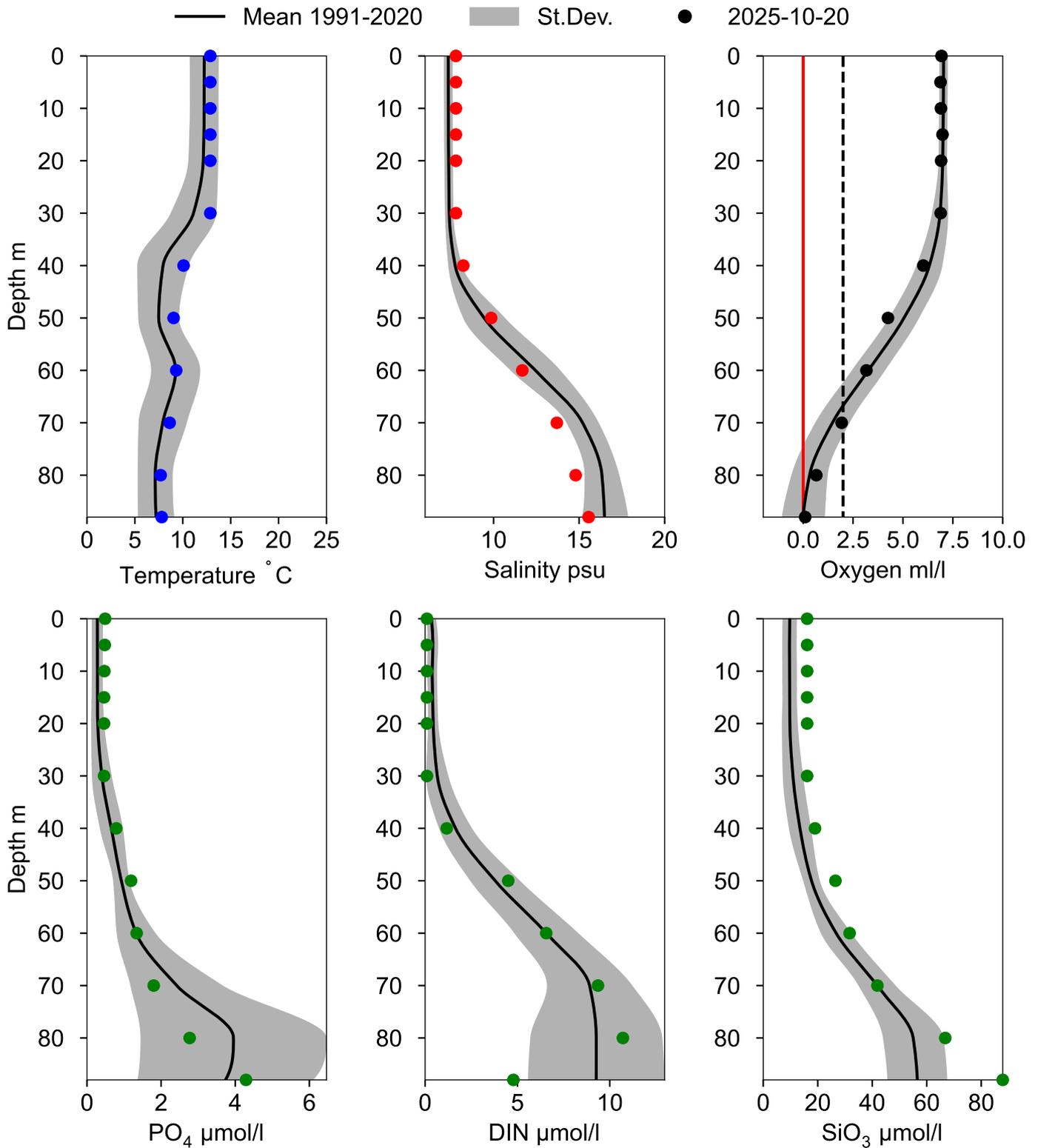
— Mean 1991-2020 St.Dev. ● 2025



OXYGEN IN BOTTOM WATER (depth >= 80 m)



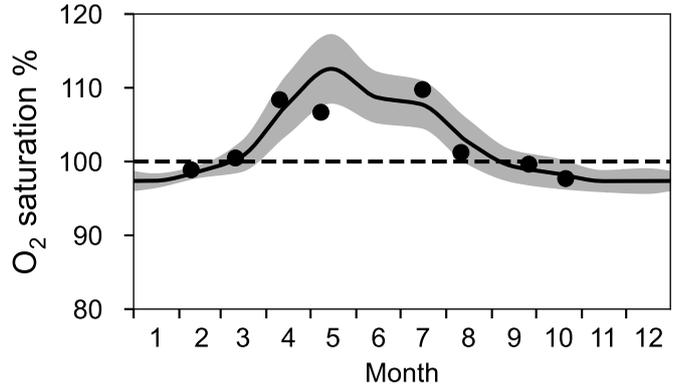
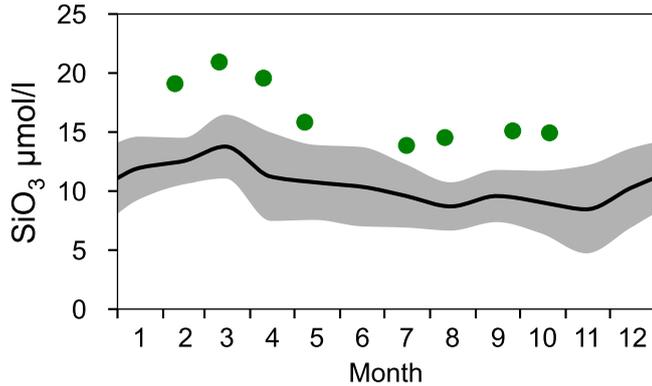
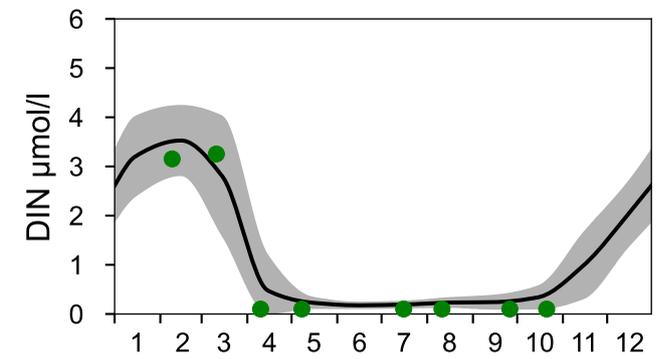
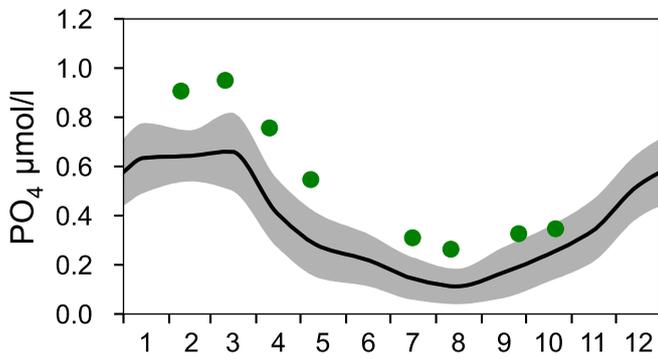
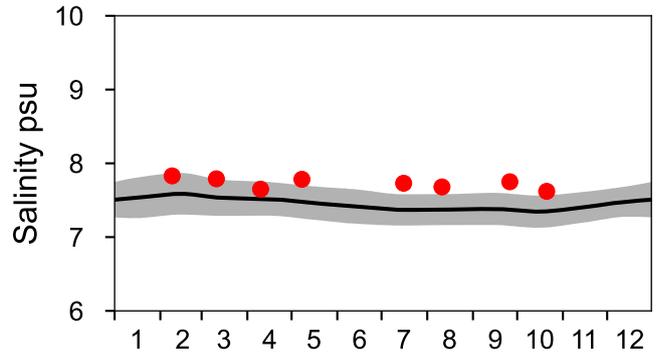
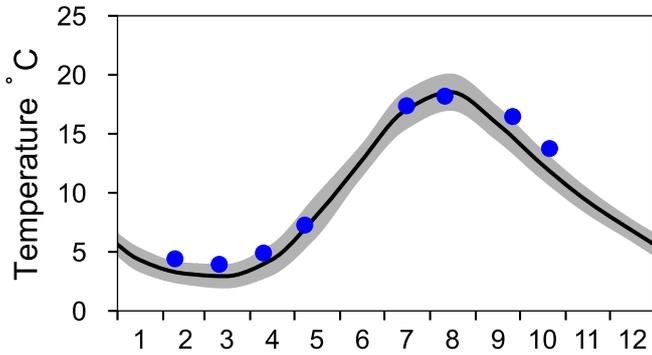
Vertical profiles BY4 CHRISTIANSÖ October



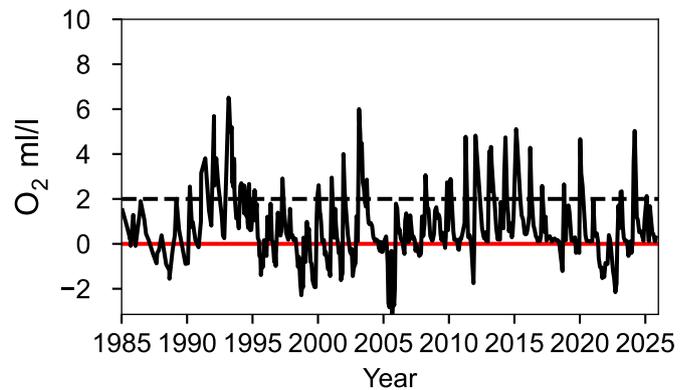
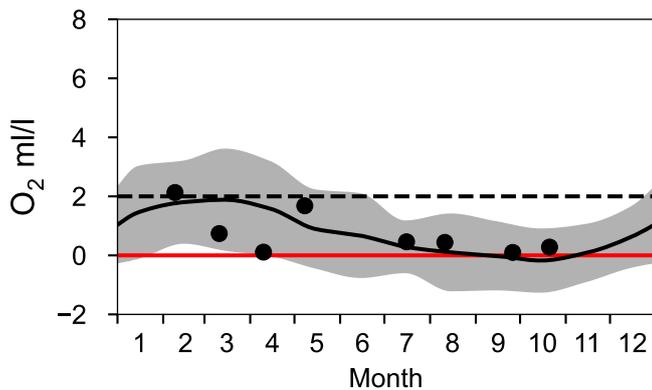
STATION BY5 BORNHOLMSDJ SURFACE WATER (0-10 m)

Annual Cycles

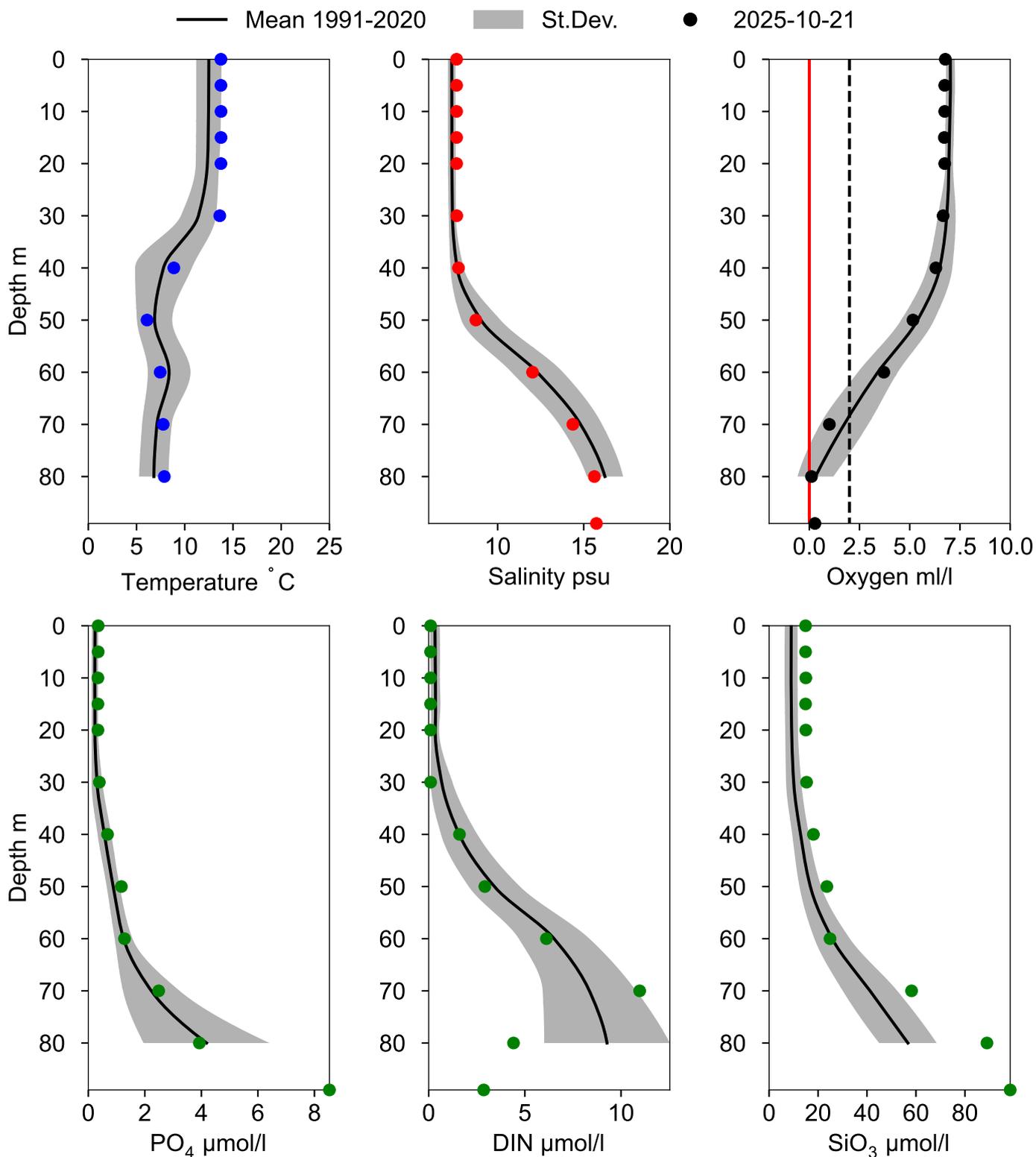
— Mean 1991-2020 St.Dev. ● 2025



OXYGEN IN BOTTOM WATER (depth ≥ 80 m)



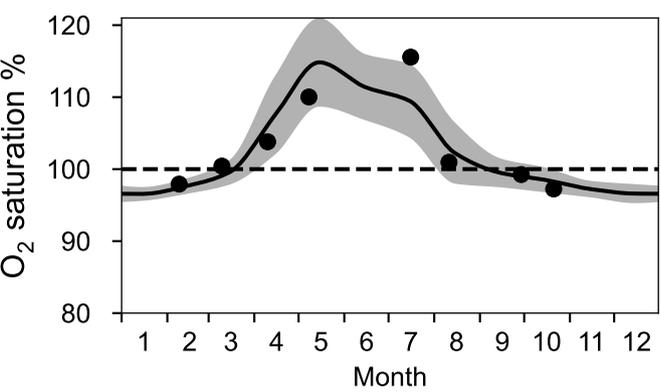
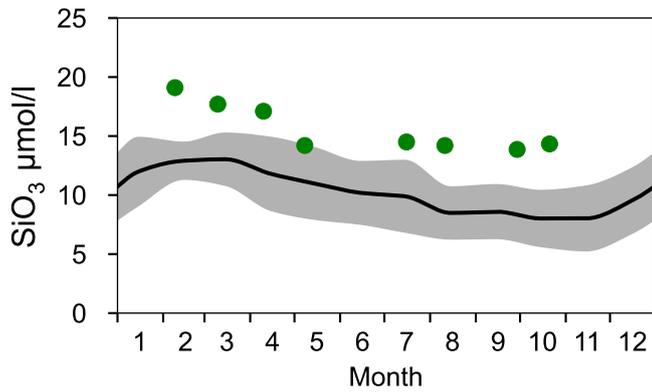
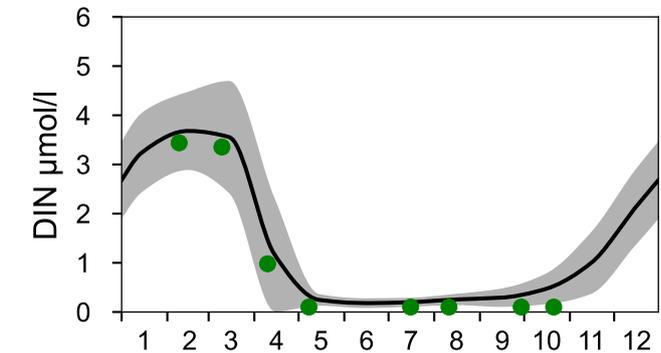
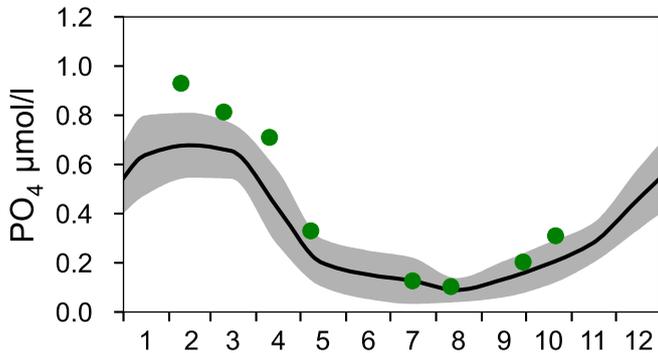
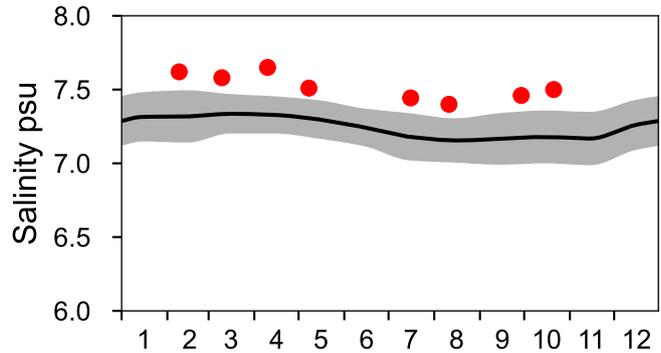
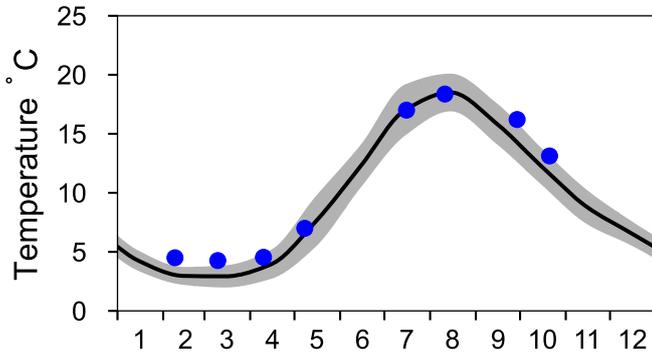
Vertical profiles BY5 BORNHOLMSDJ October



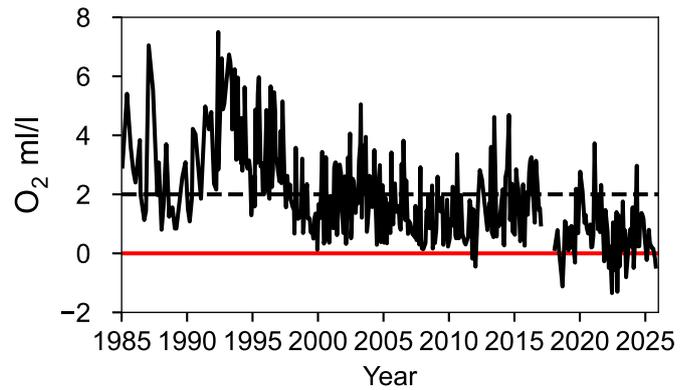
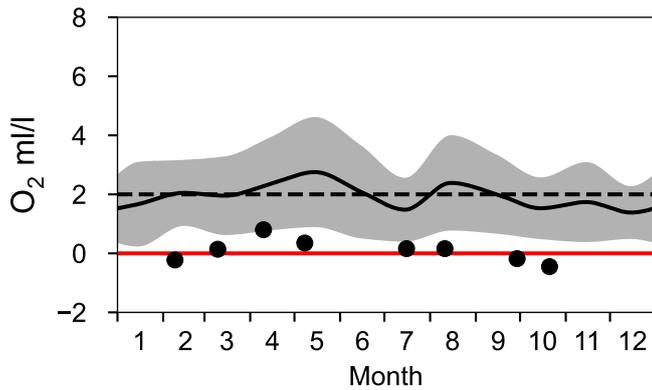
STATION BCS III-10 SURFACE WATER (0-10 m)

Annual Cycles

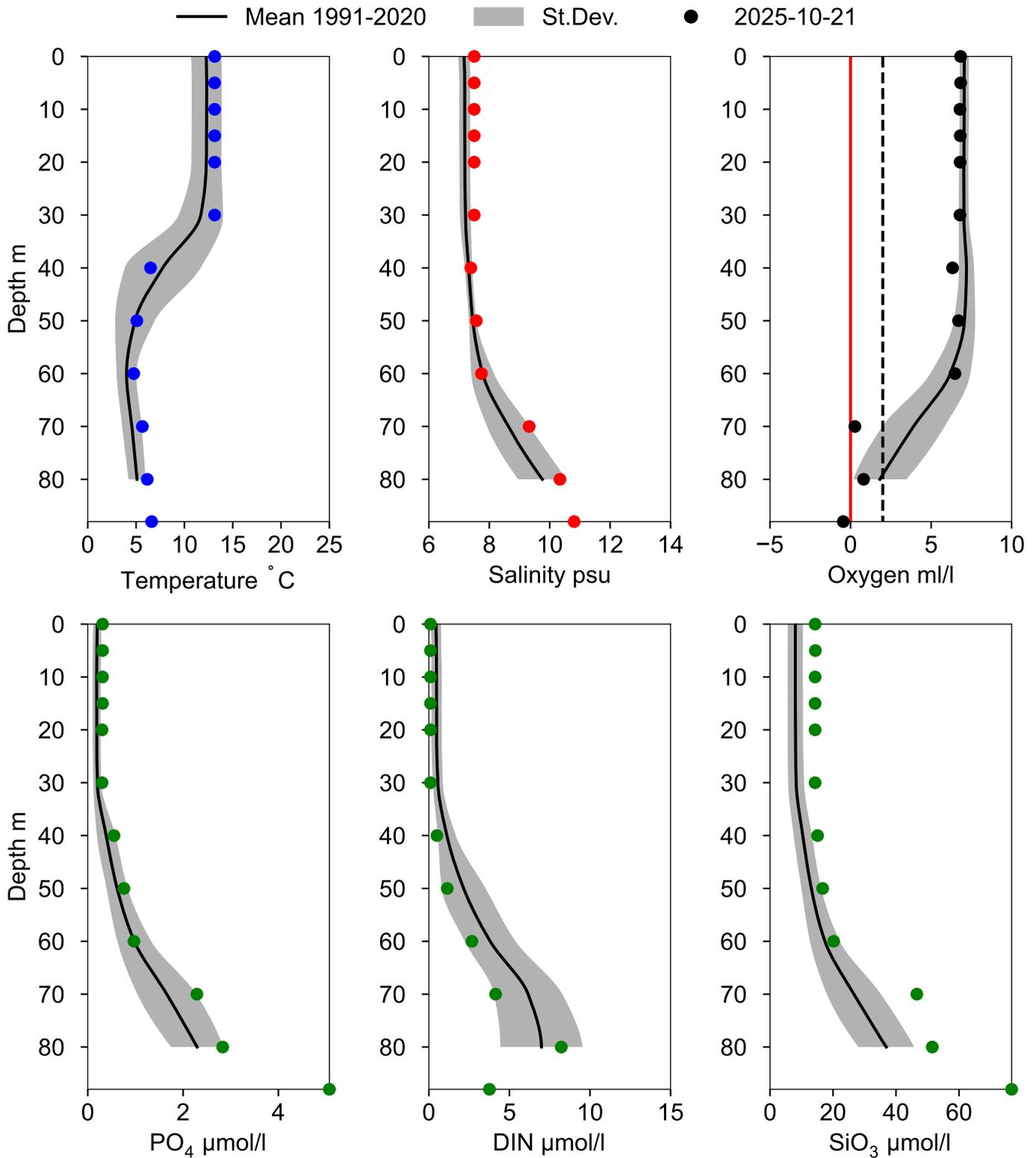
— Mean 1991-2020 St.Dev. ● 2025



OXYGEN IN BOTTOM WATER (depth >= 80 m)



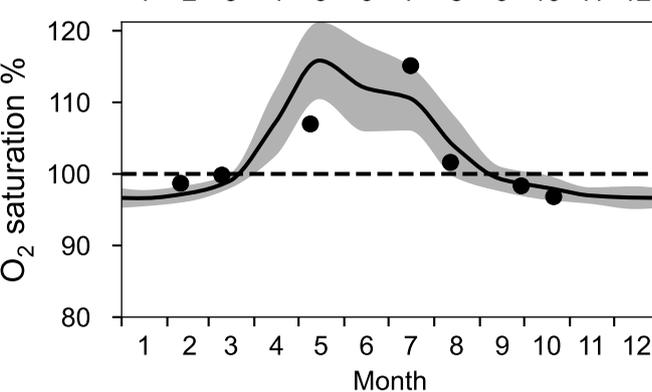
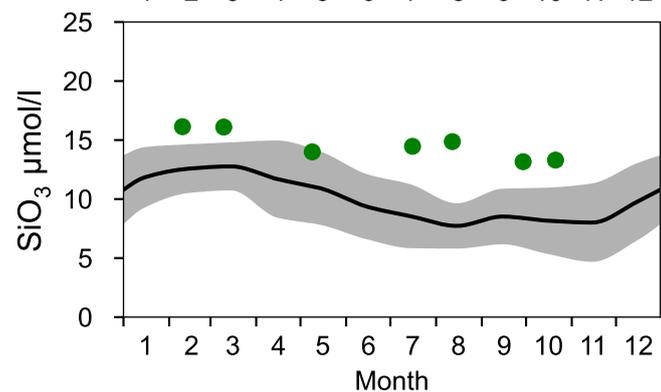
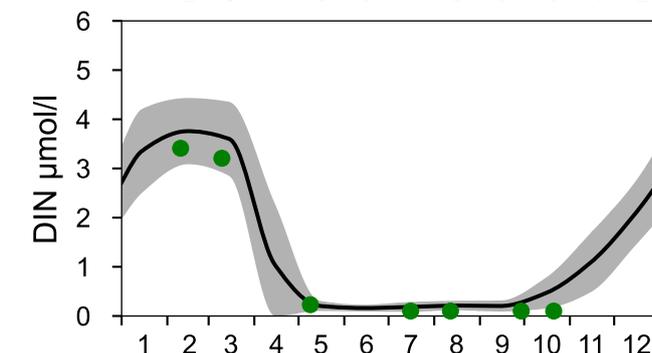
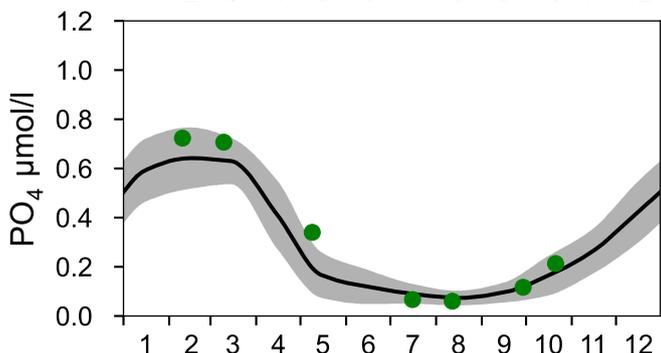
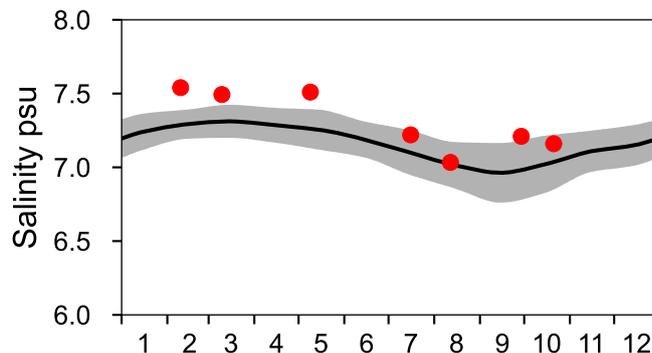
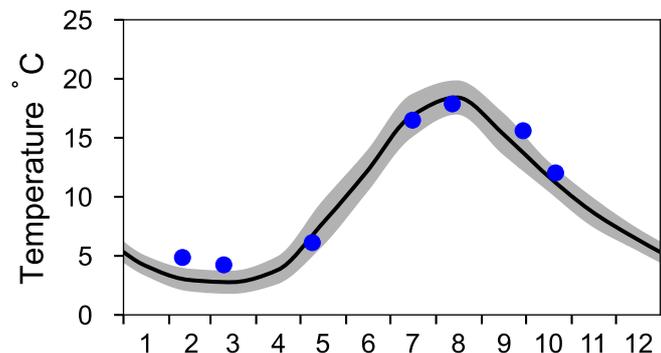
Vertical profiles BCS III-10 October



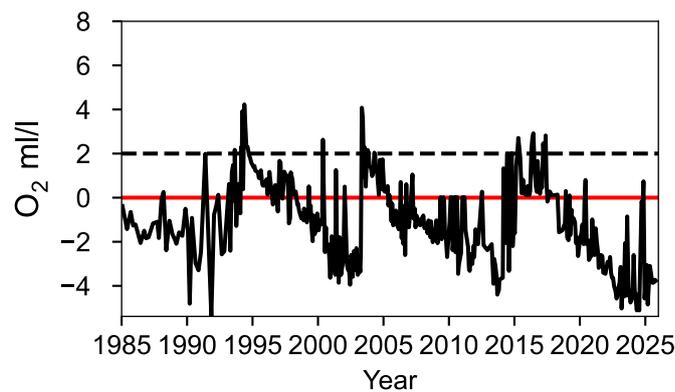
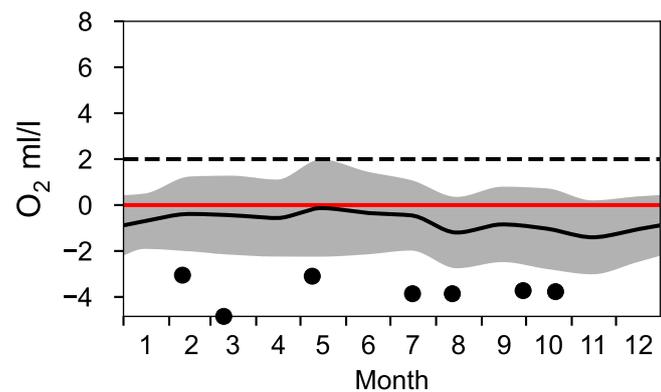
STATION BY10 SURFACE WATER (0-10 m)

Annual Cycles

— Mean 1991-2020 St.Dev. ● 2025

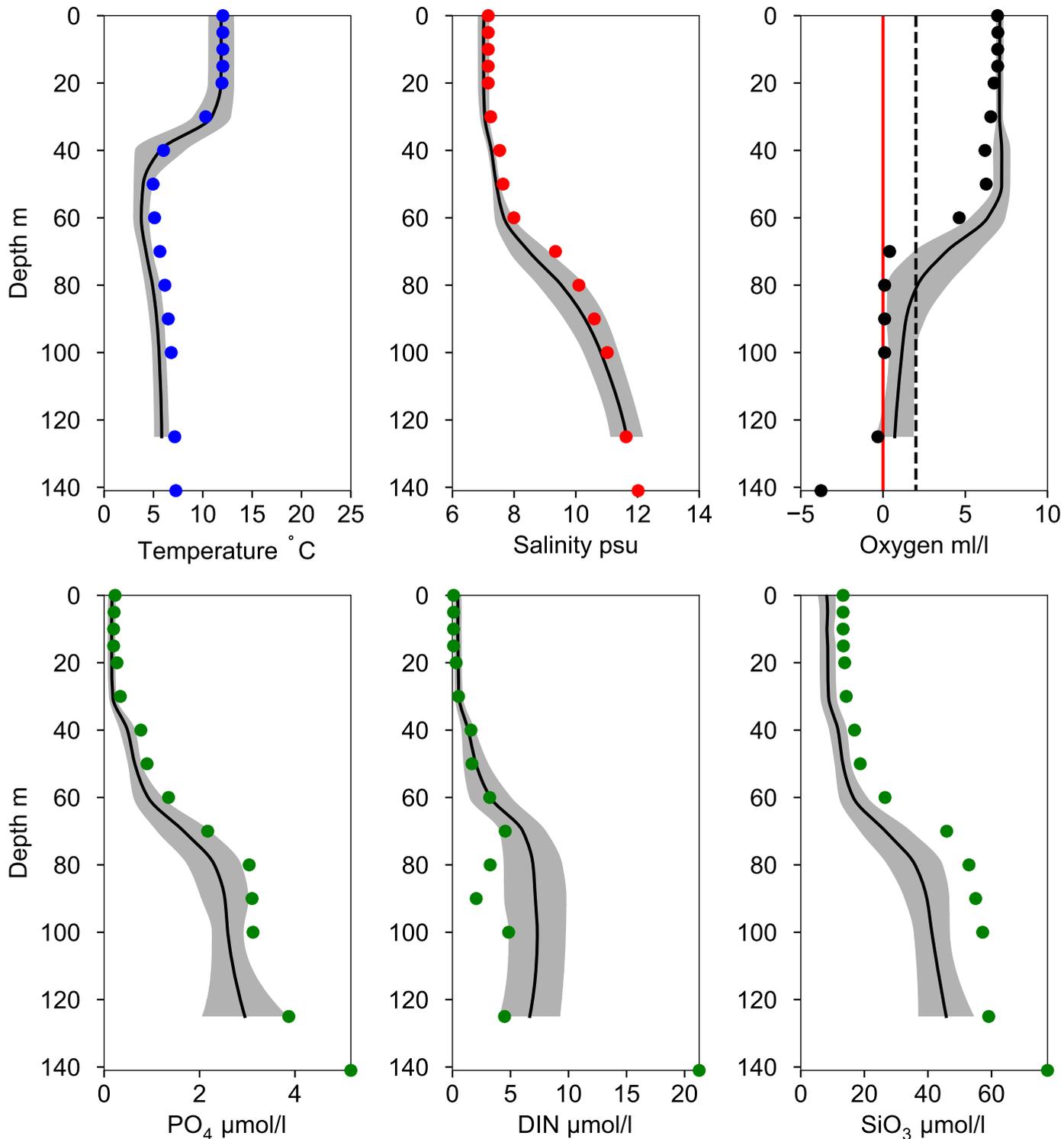


OXYGEN IN BOTTOM WATER (depth >= 125 m)



Vertical profiles BY10 October

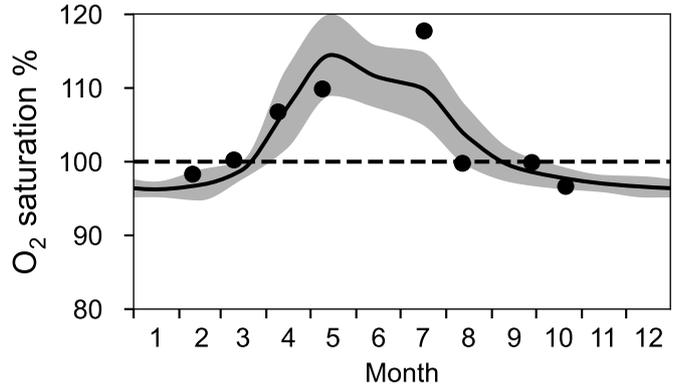
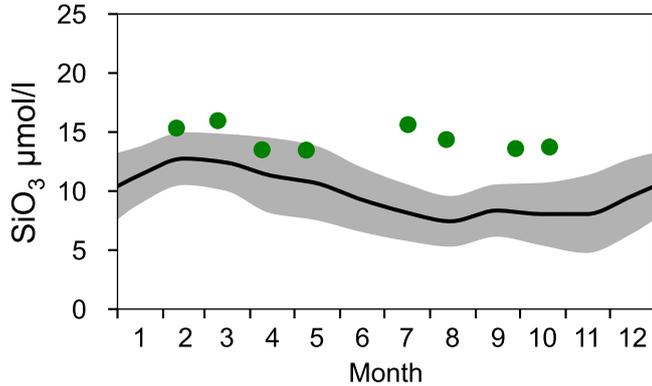
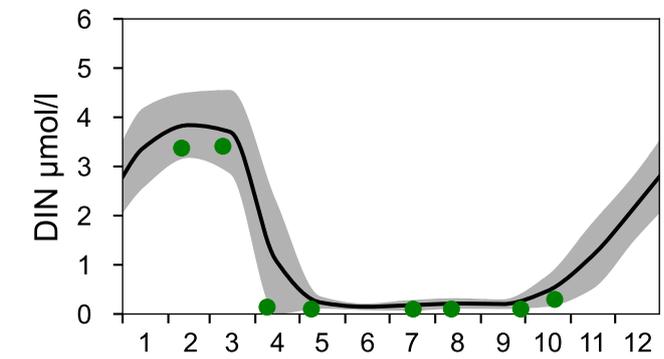
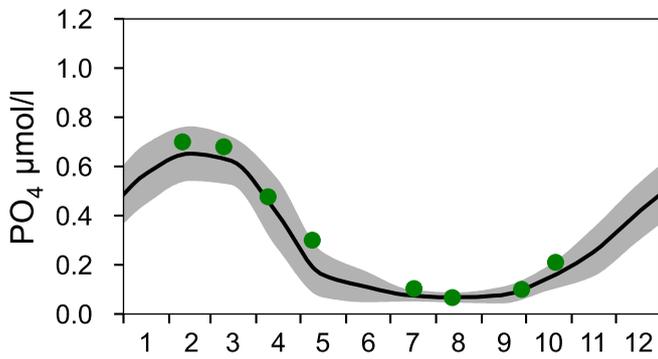
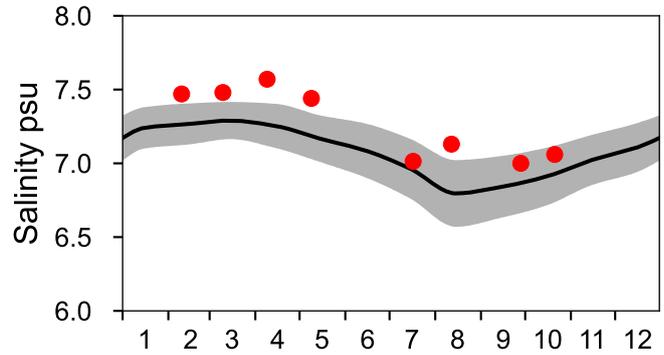
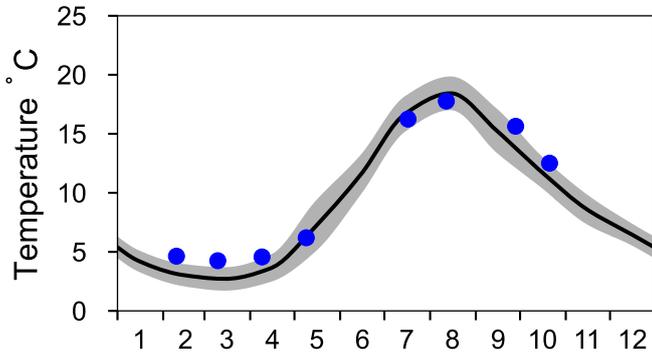
— Mean 1991-2020 ■ St.Dev. ● 2025-10-21



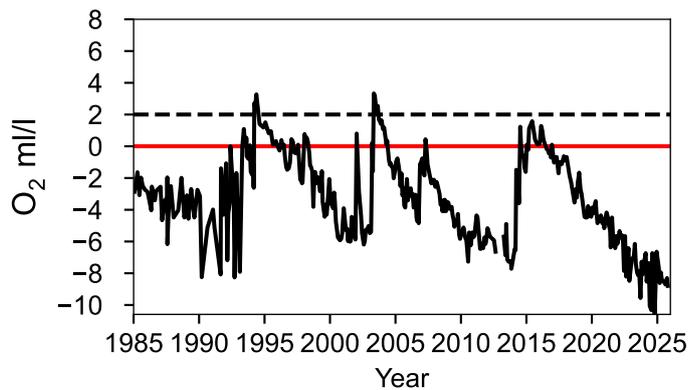
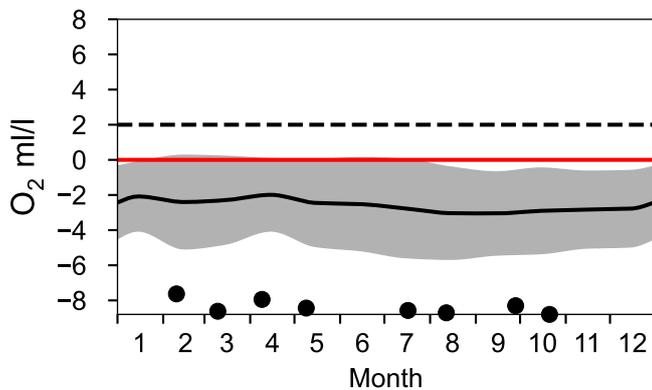
STATION BY15 GOTLANDSDJ SURFACE WATER (0-10 m)

Annual Cycles

— Mean 1991-2020 St.Dev. ● 2025

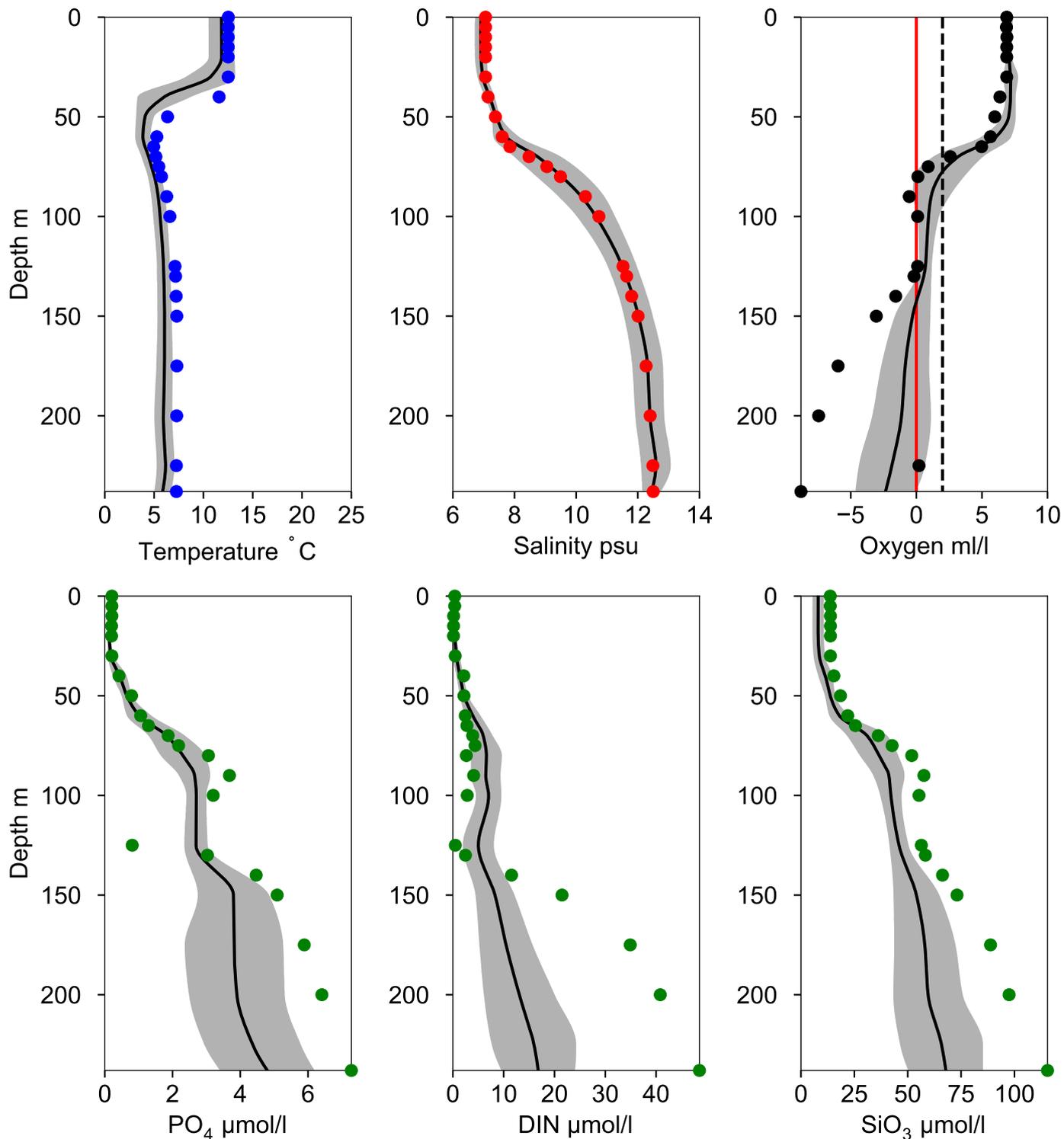


OXYGEN IN BOTTOM WATER (depth >= 225 m)



Vertical profiles BY15 GOTLANDSDJ October

— Mean 1991-2020 St.Dev. ● 2025-10-21



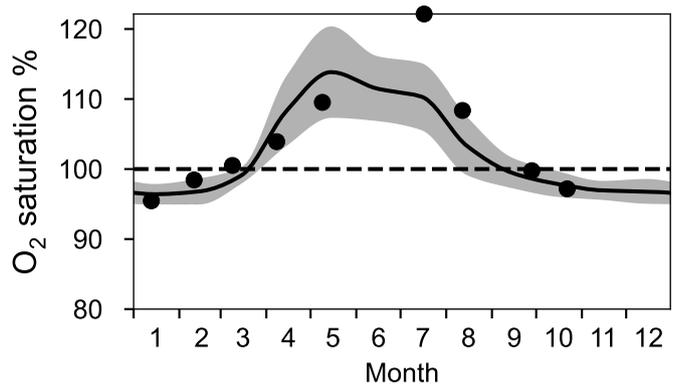
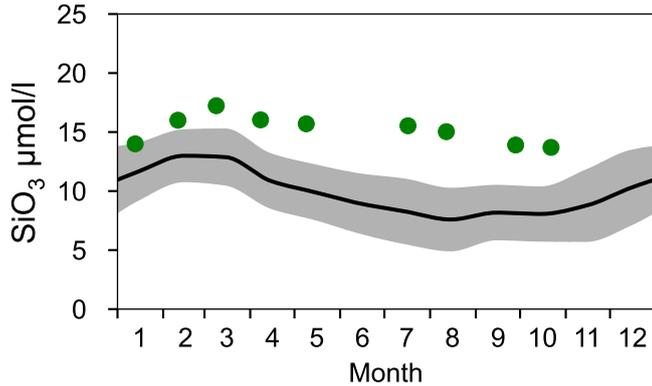
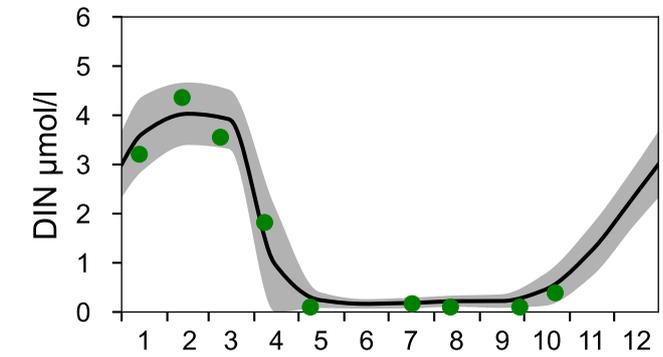
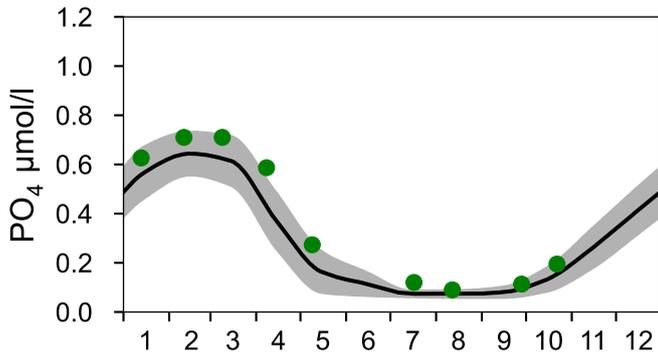
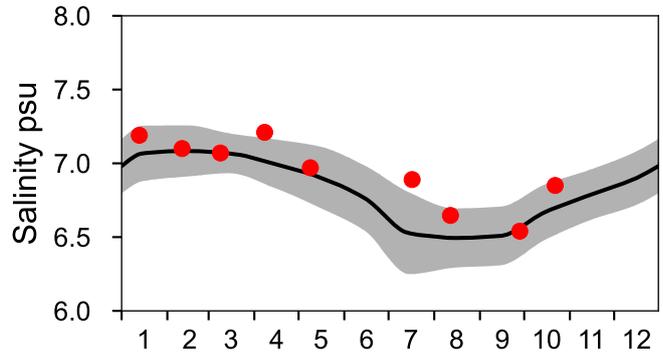
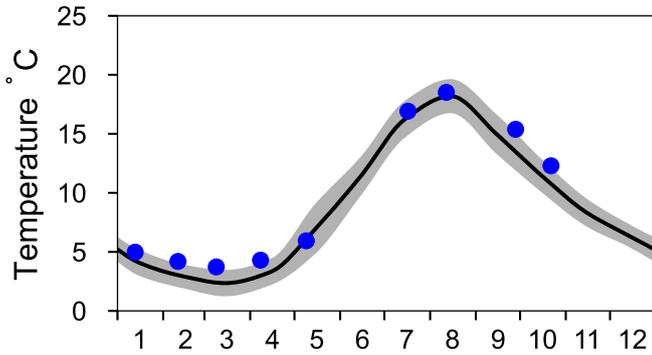
STATION BY20 FÄRÖDJ SURFACE WATER (0-10 m)

Annual Cycles

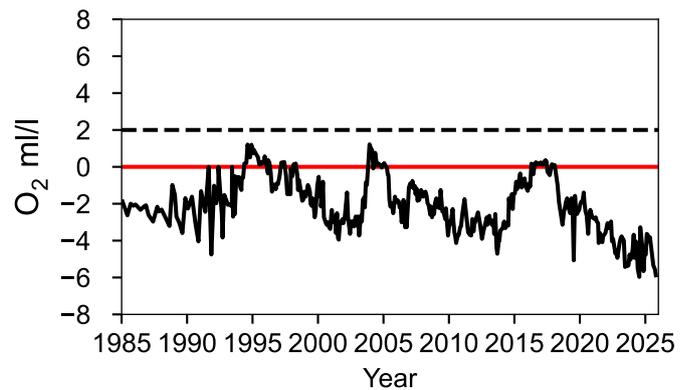
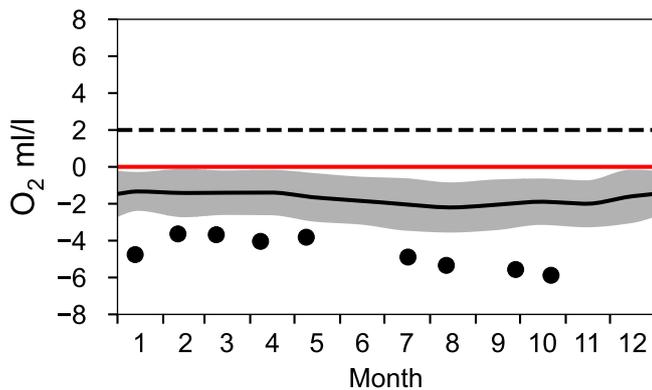
— Mean 1991-2020

■ St.Dev.

● 2025

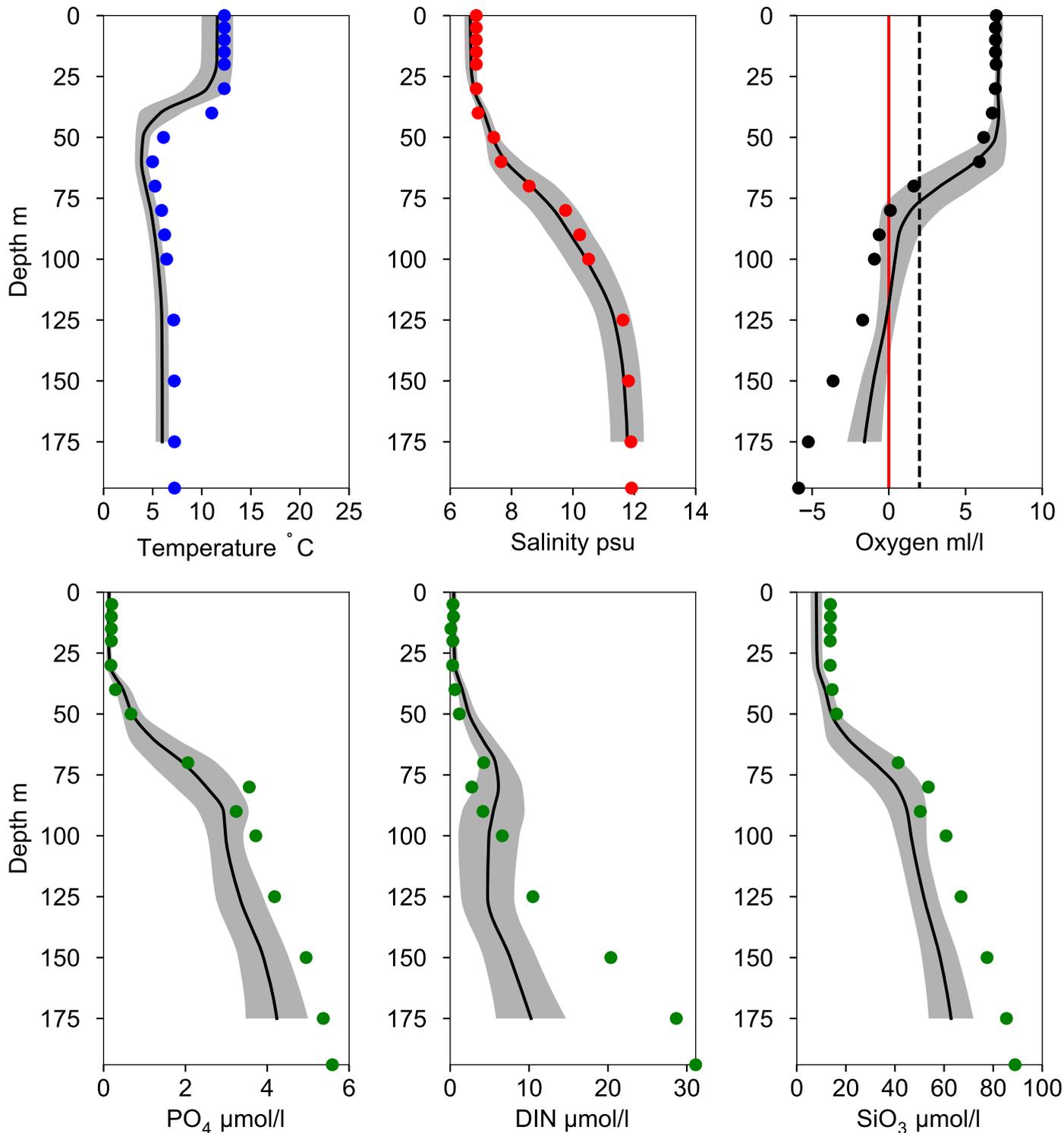


OXYGEN IN BOTTOM WATER (depth >= 175 m)



Vertical profiles BY20 FÅRÖDJ October

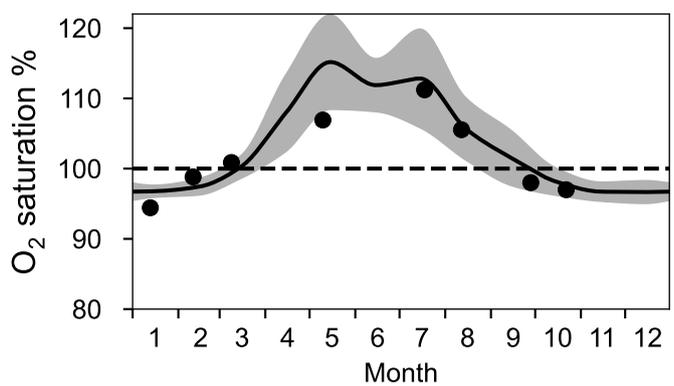
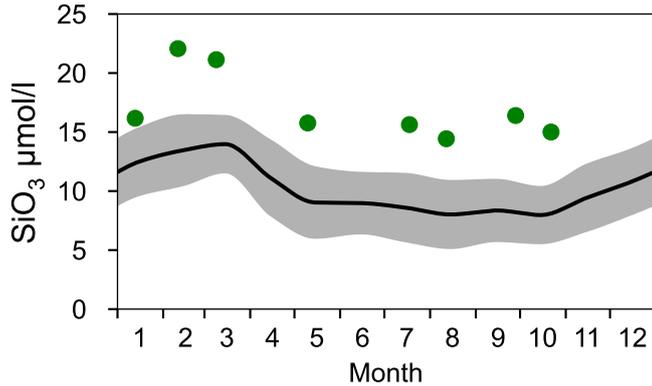
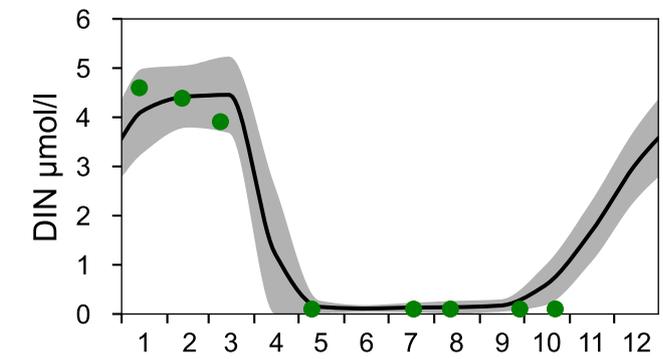
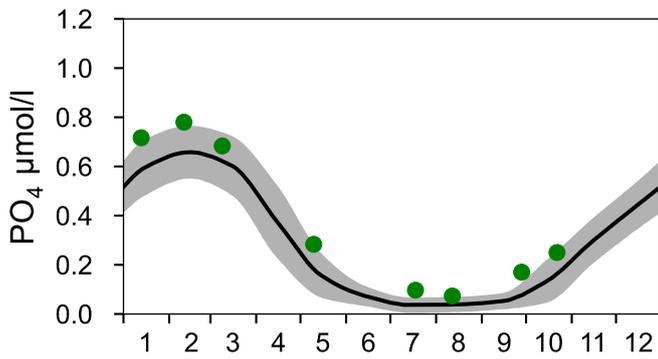
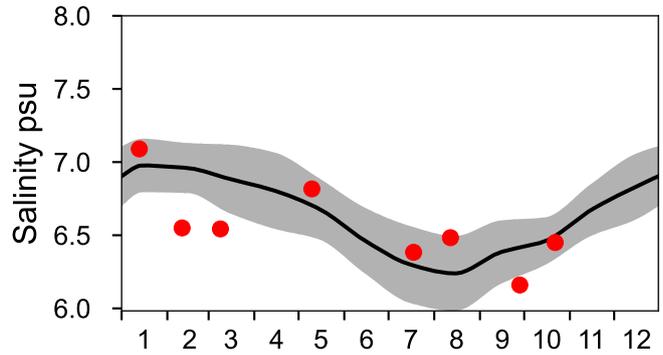
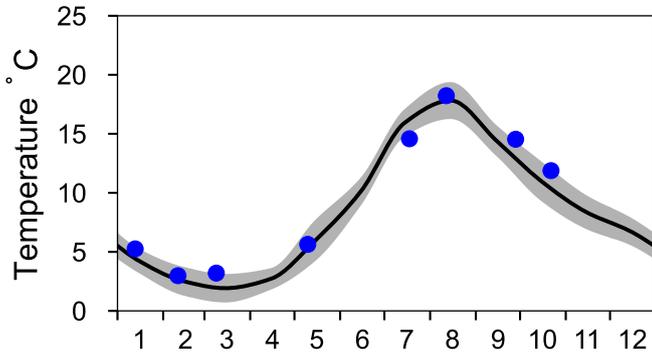
— Mean 1991-2020 St.Dev. ● 2025-10-22



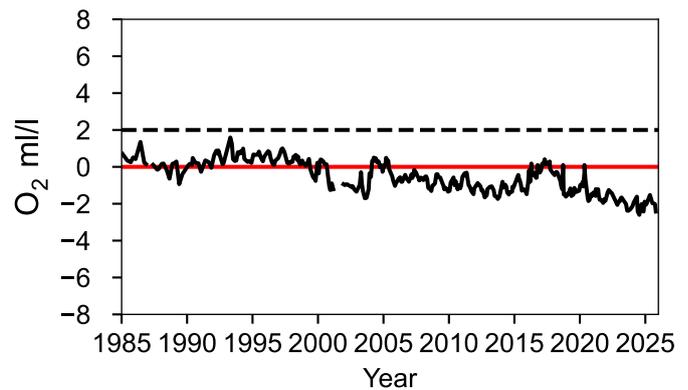
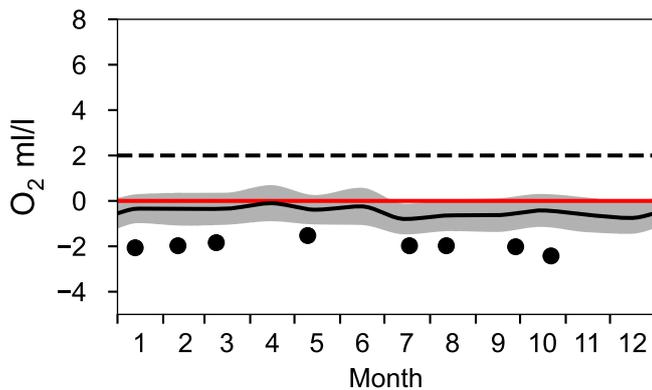
STATION BY29 / LL19 SURFACE WATER (0-10 m)

Annual Cycles

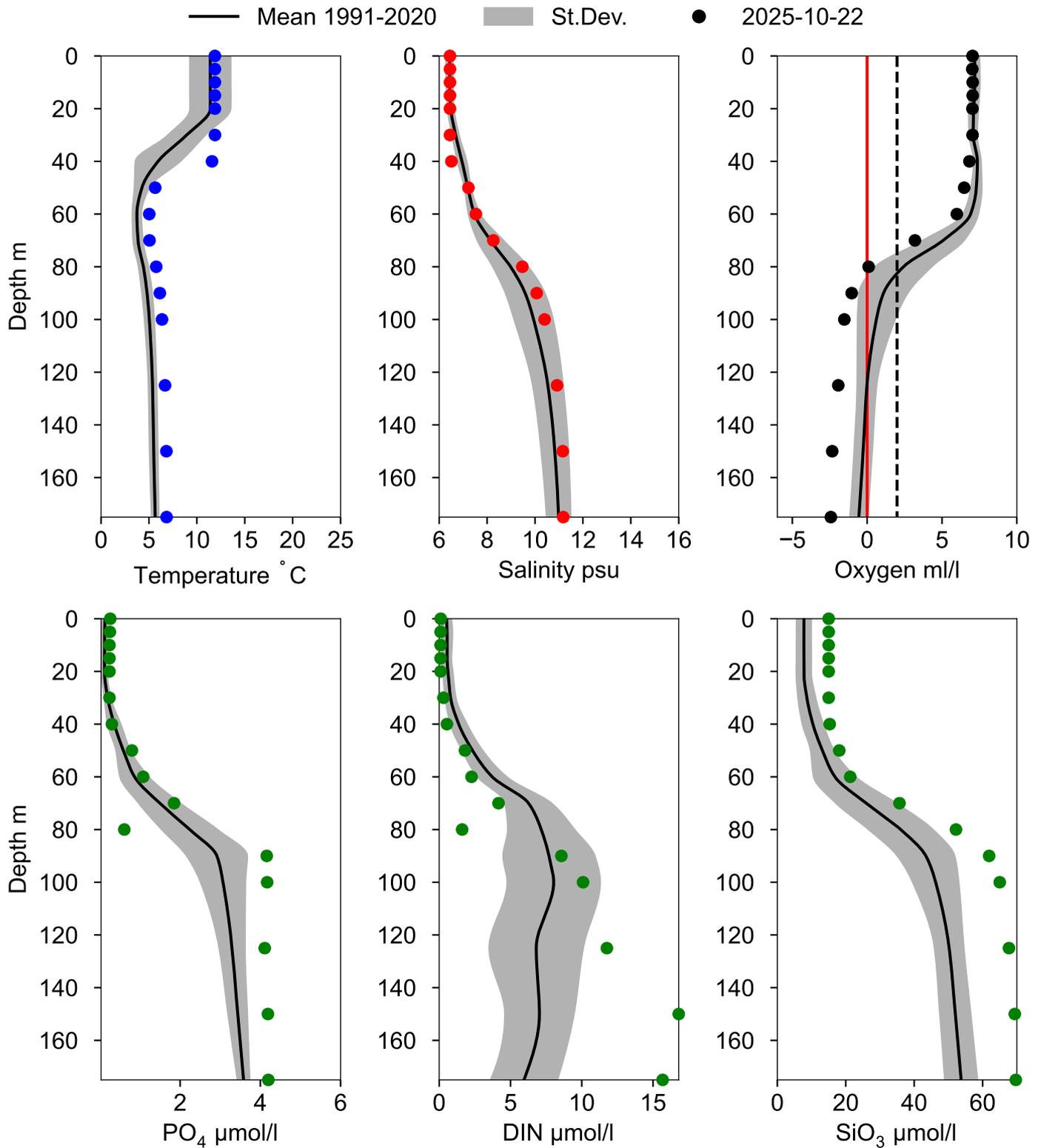
— Mean 1991-2020 St.Dev. ● 2025



OXYGEN IN BOTTOM WATER (depth >= 150 m)



Vertical profiles BY29 / LL19 October

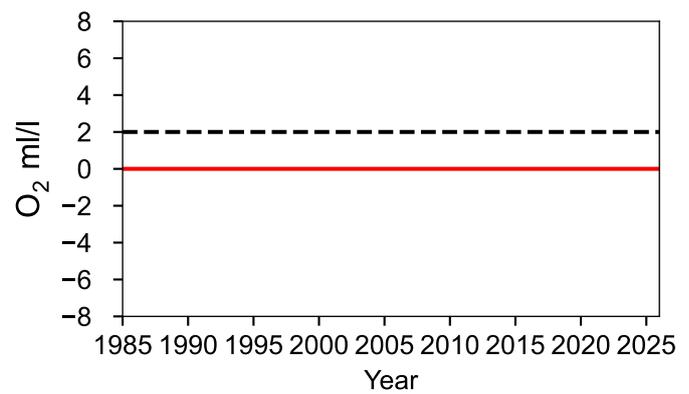
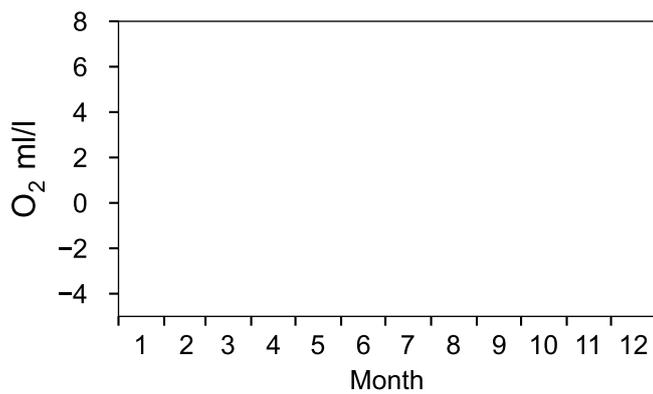
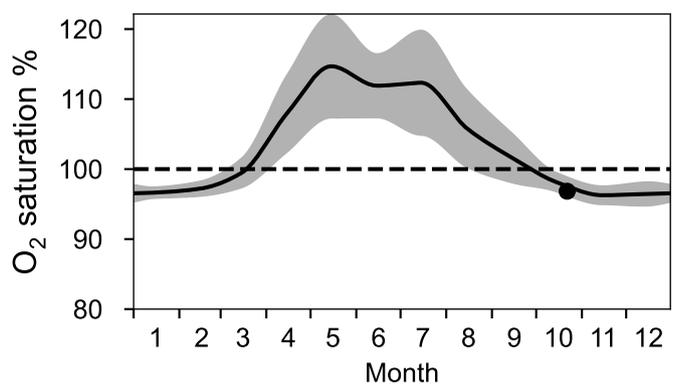
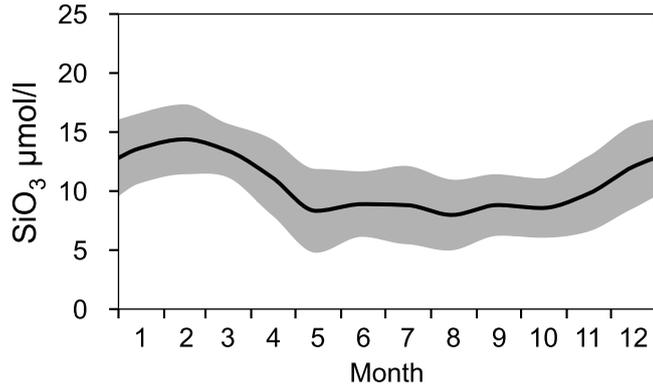
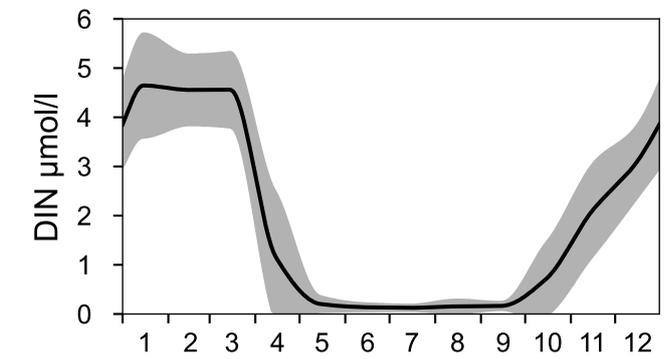
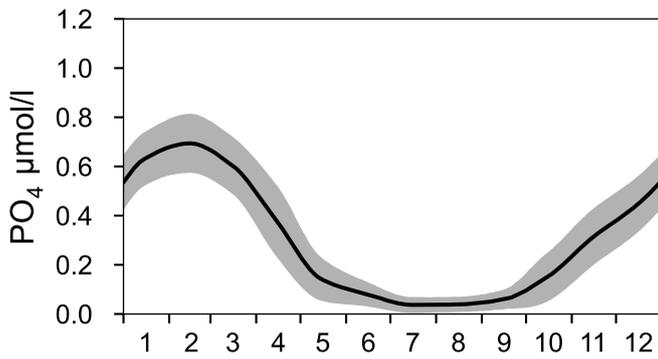
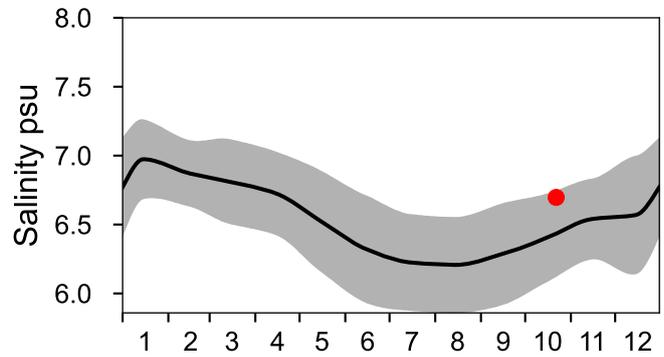
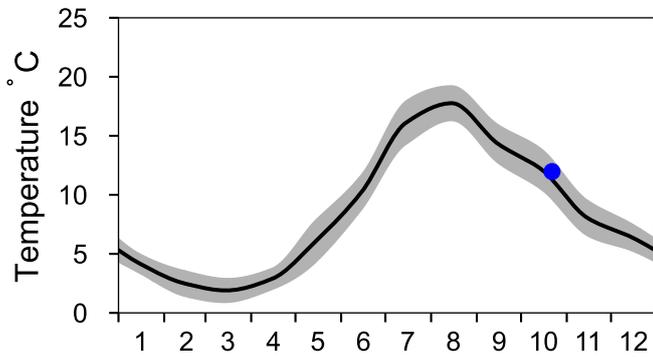


STATION HUVUDSKÄR SURFACE WATER (0-10 m)

Annual Cycles

Statistics based on data from: Norra Egentliga Östersjön

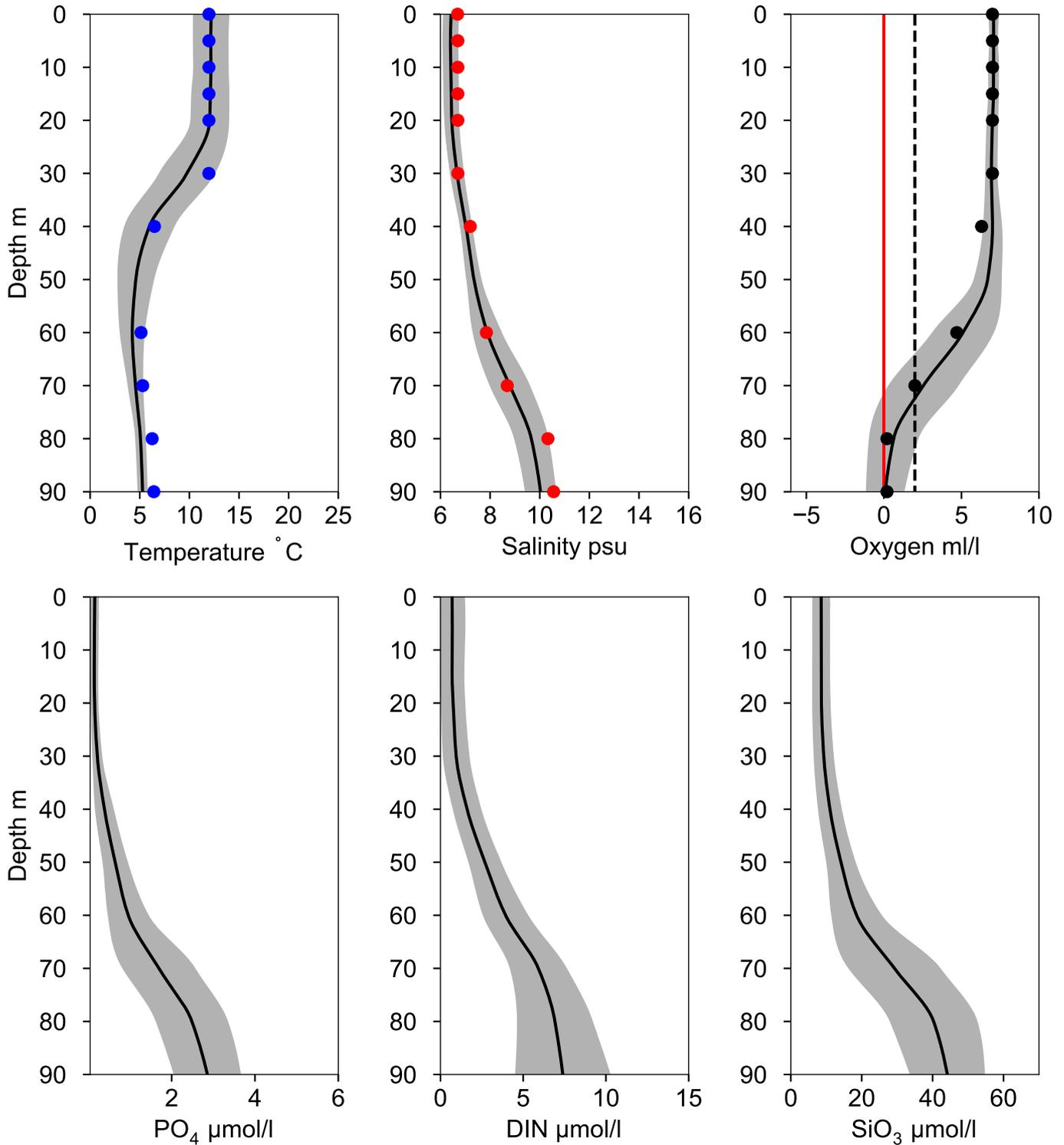
— Mean 1991-2020 St.Dev. ● 2025



Vertical profiles HUVUDSKÄR October

Statistics based on data from: Norra Egentliga Östersjön

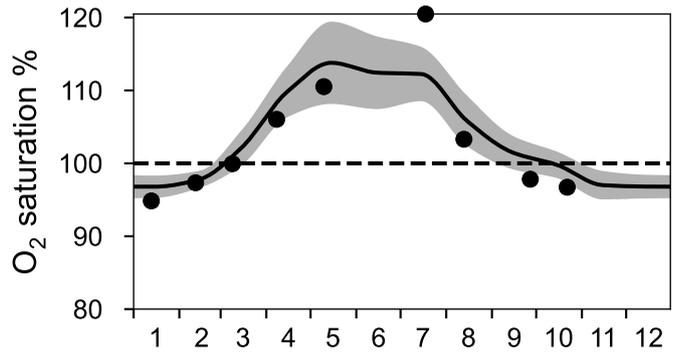
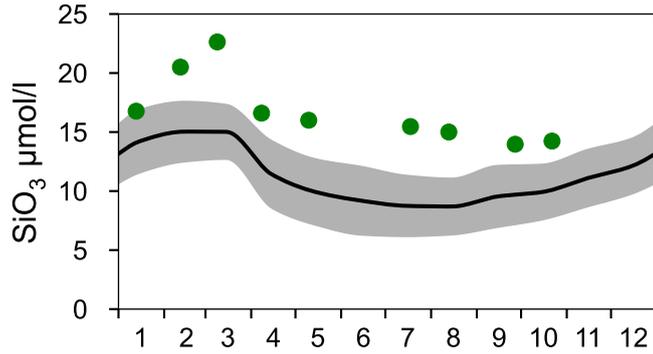
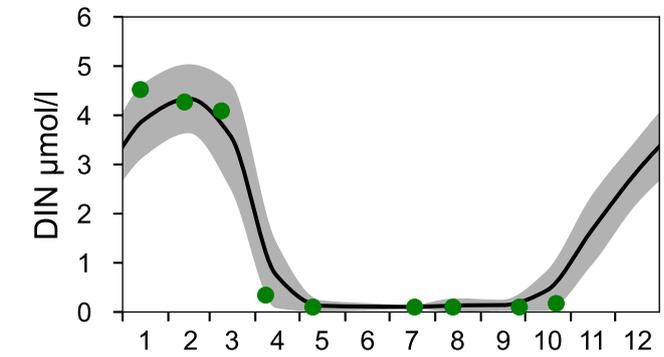
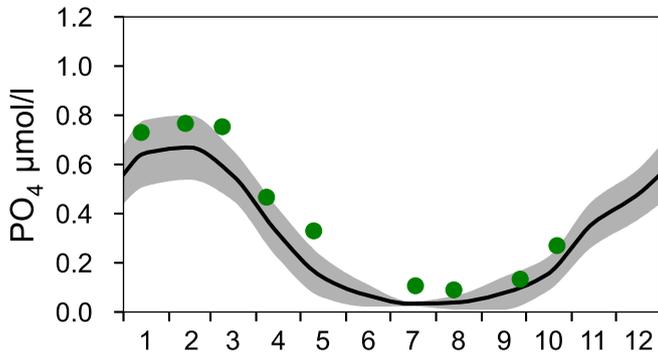
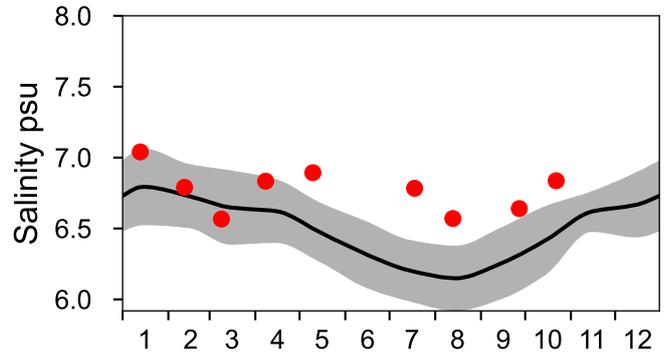
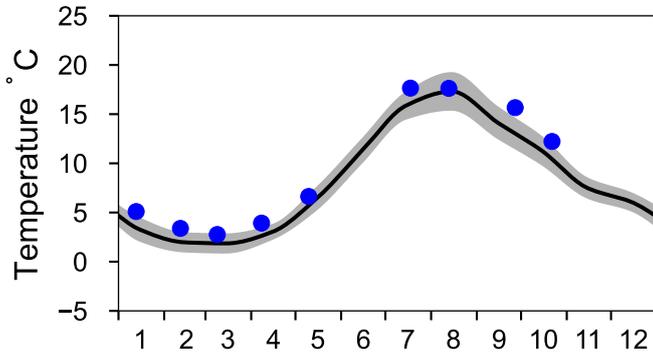
— Mean 1991-2020 ■ St.Dev. ● 2025-10-22



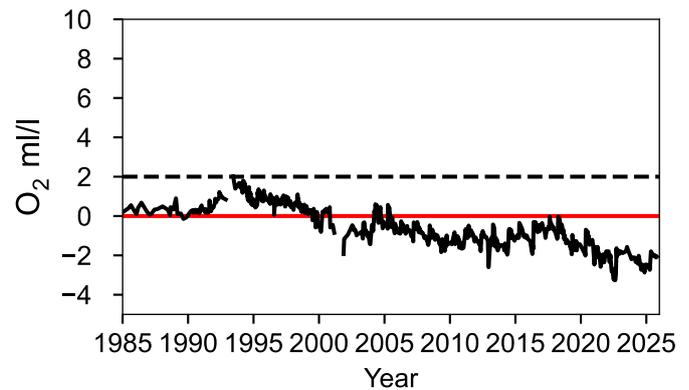
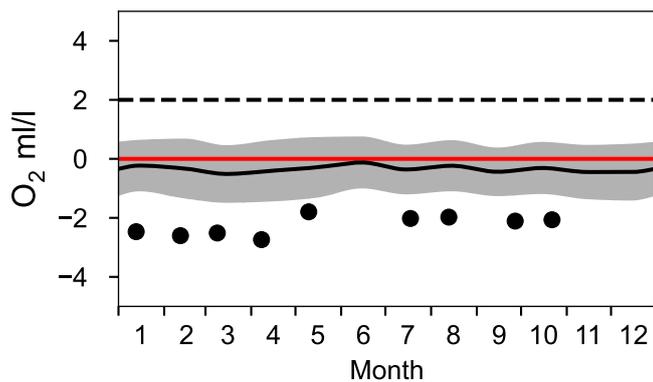
STATION BY31 LANDSORTSDJ SURFACE WATER (0-10 m)

Annual Cycles

— Mean 1991-2020 St.Dev. ● 2025

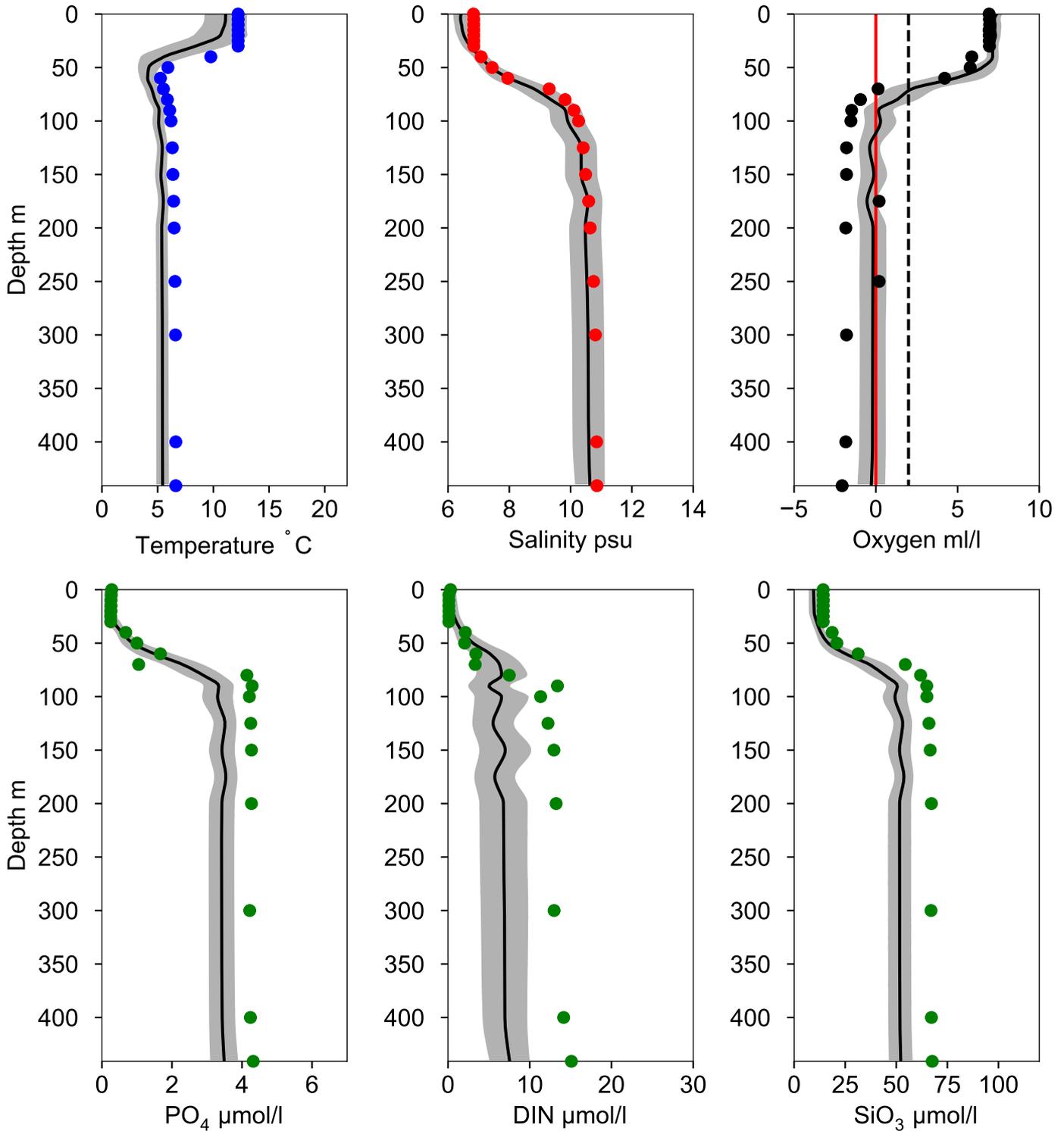


OXYGEN IN BOTTOM WATER (depth >= 419 m)



Vertical profiles BY31 LANDSORTSDJ October

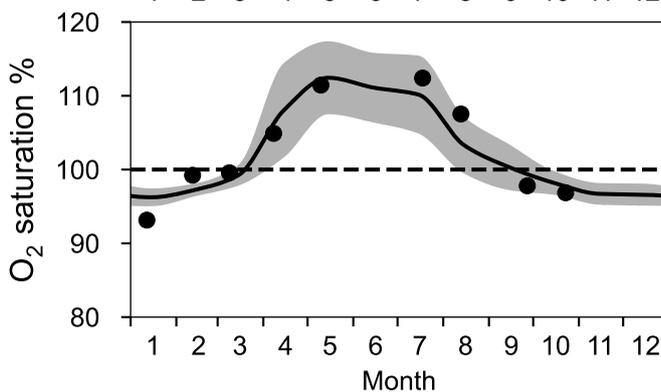
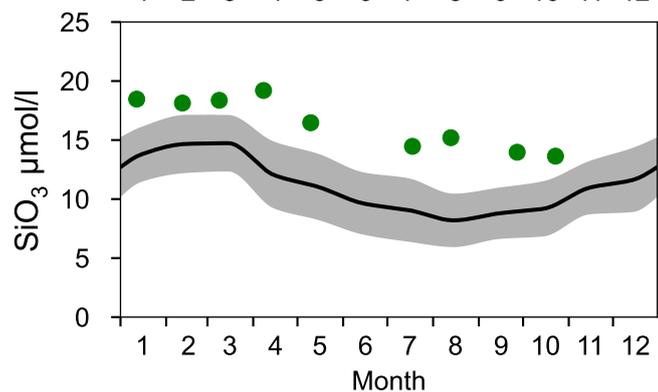
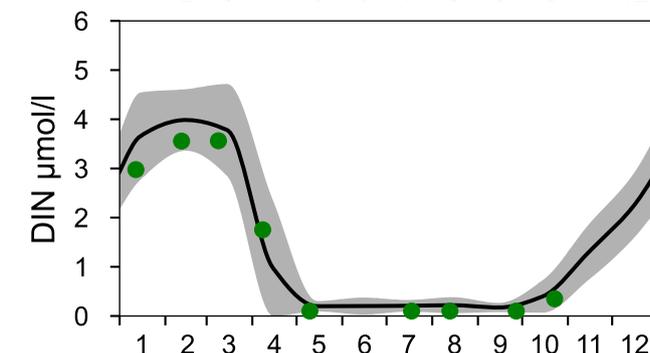
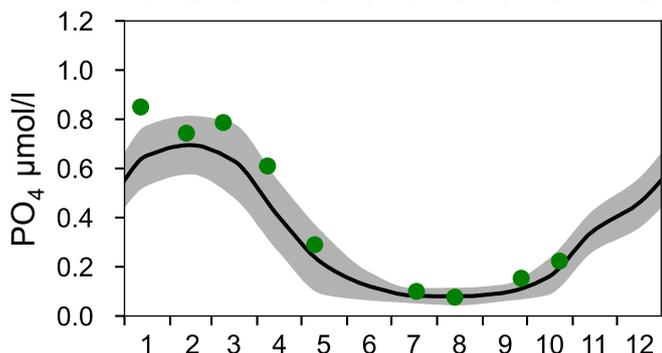
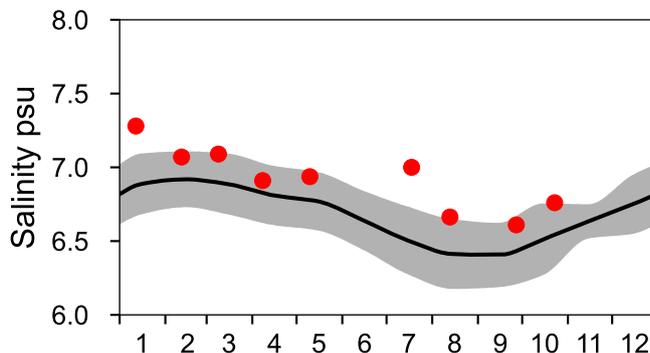
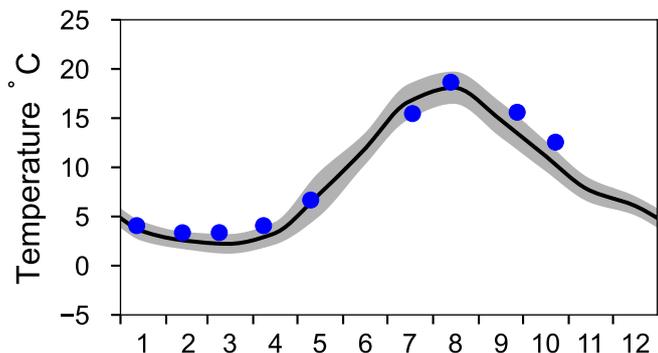
— Mean 1991-2020 St.Dev. ● 2025-10-22



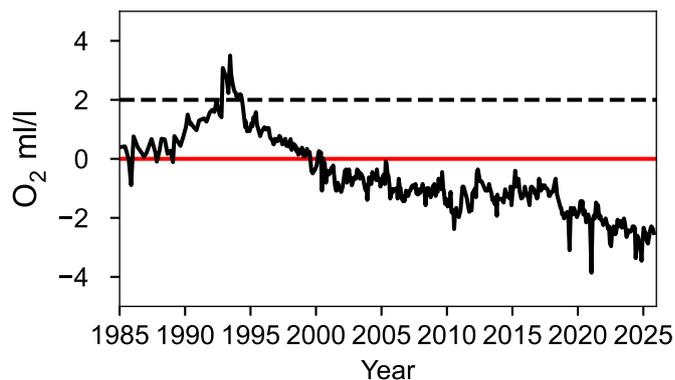
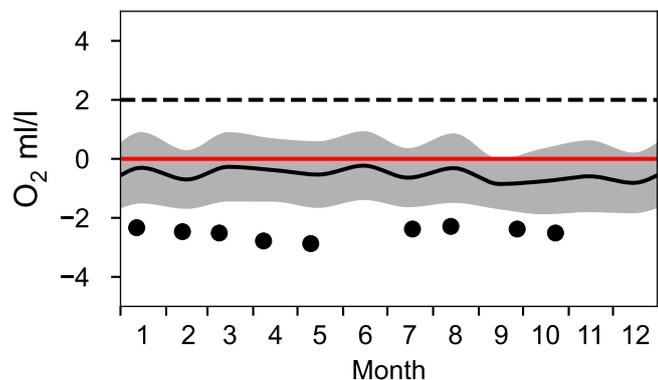
STATION BY32 NORRKÖPINGSDJ SURFACE WATER (0-10 m)

Annual Cycles

— Mean 1991-2020 St.Dev. ● 2025

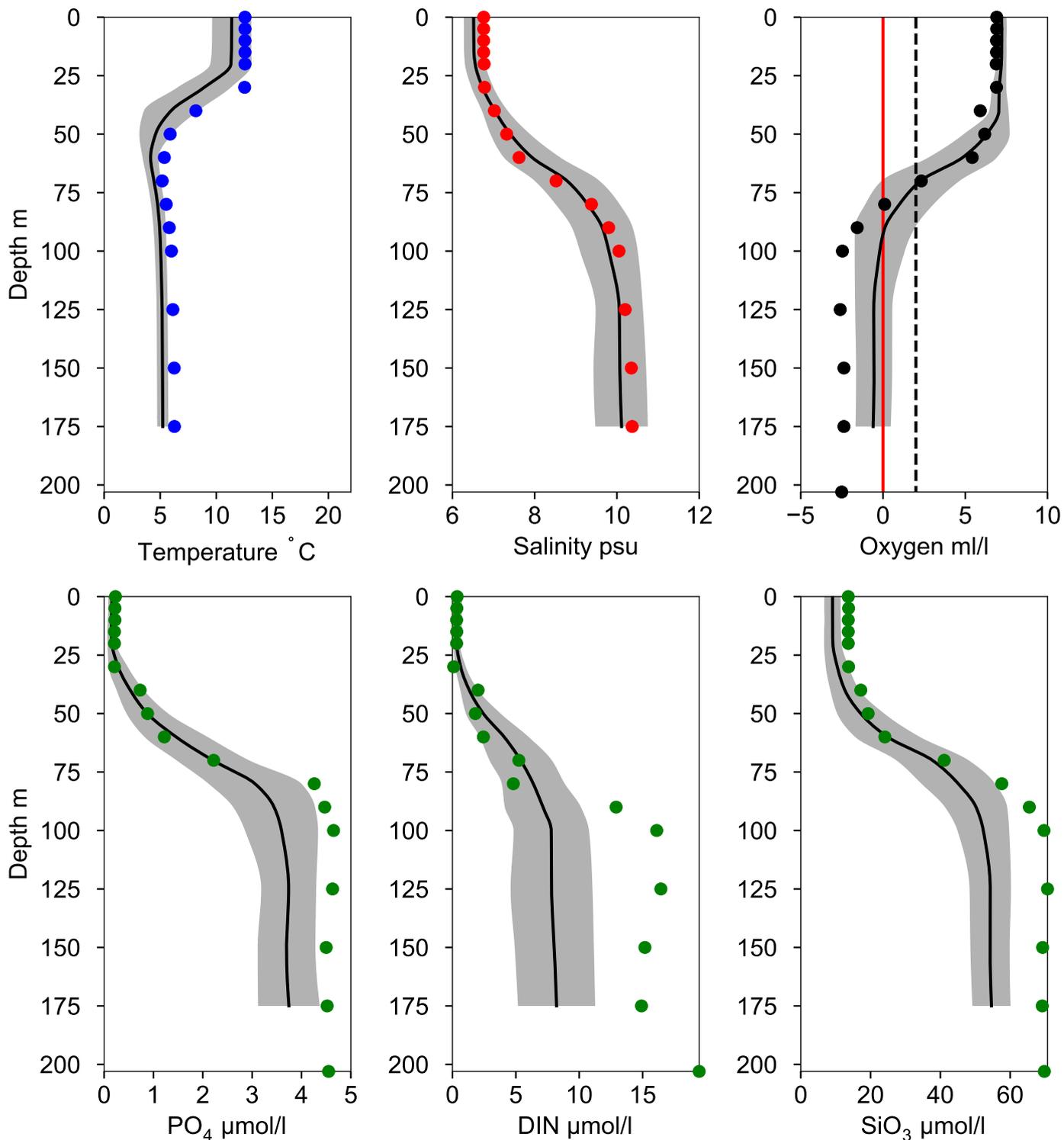


OXYGEN IN BOTTOM WATER (depth >= 175 m)



Vertical profiles BY32 NORRKÖPINGSDJ October

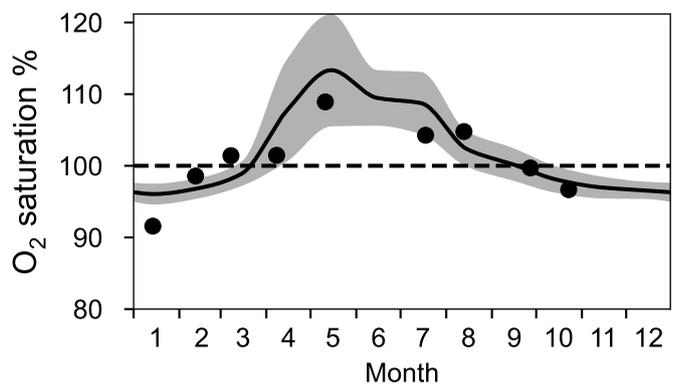
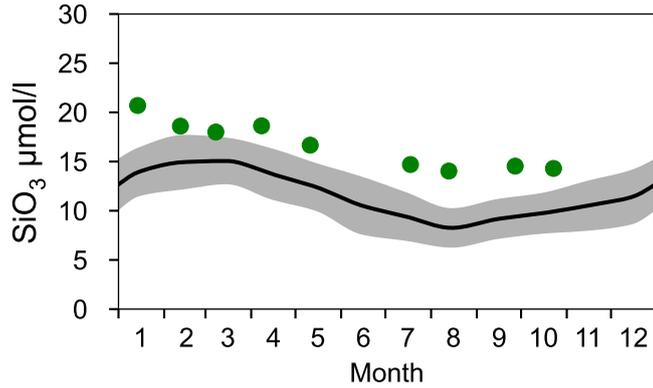
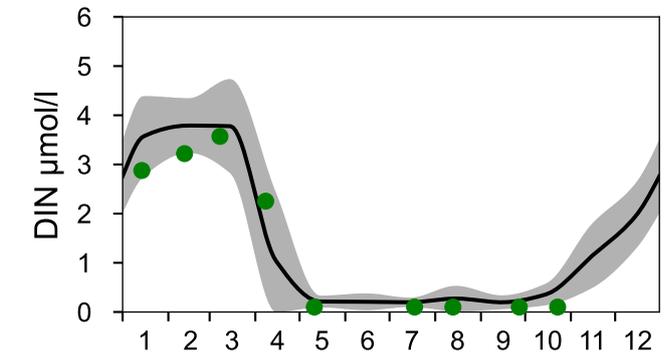
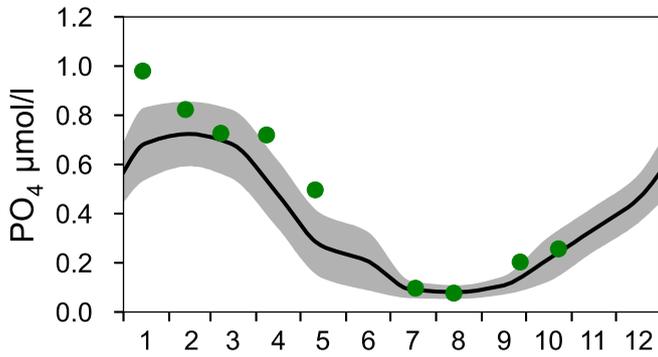
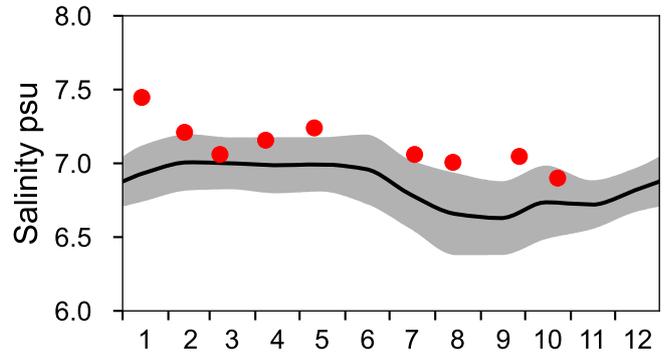
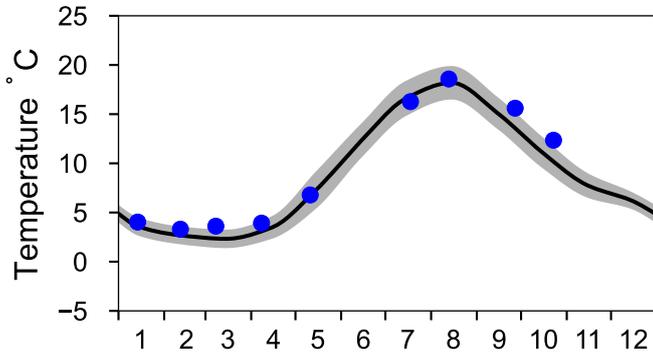
— Mean 1991-2020 ■ St.Dev. ● 2025-10-23



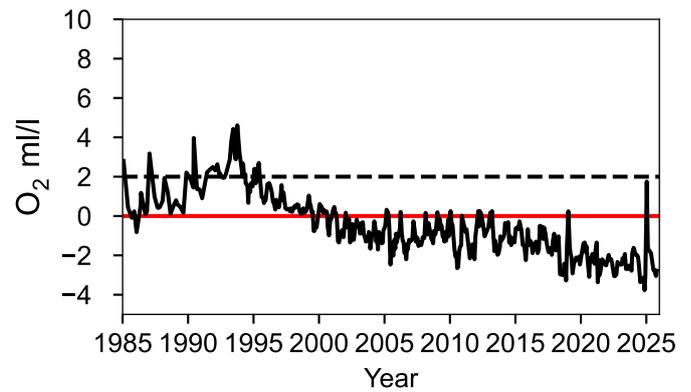
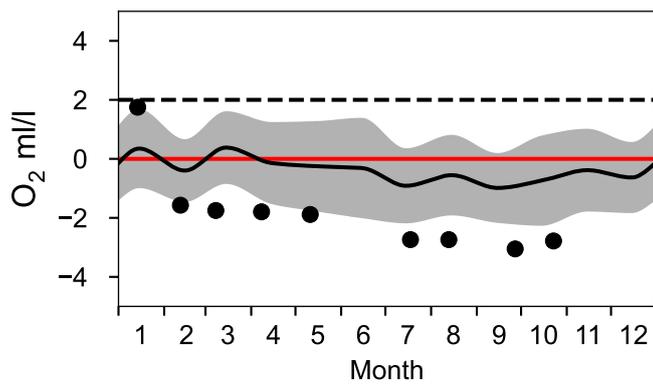
STATION BY38 KARLSÖDJ SURFACE WATER (0-10 m)

Annual Cycles

— Mean 1991-2020 St.Dev. ● 2025

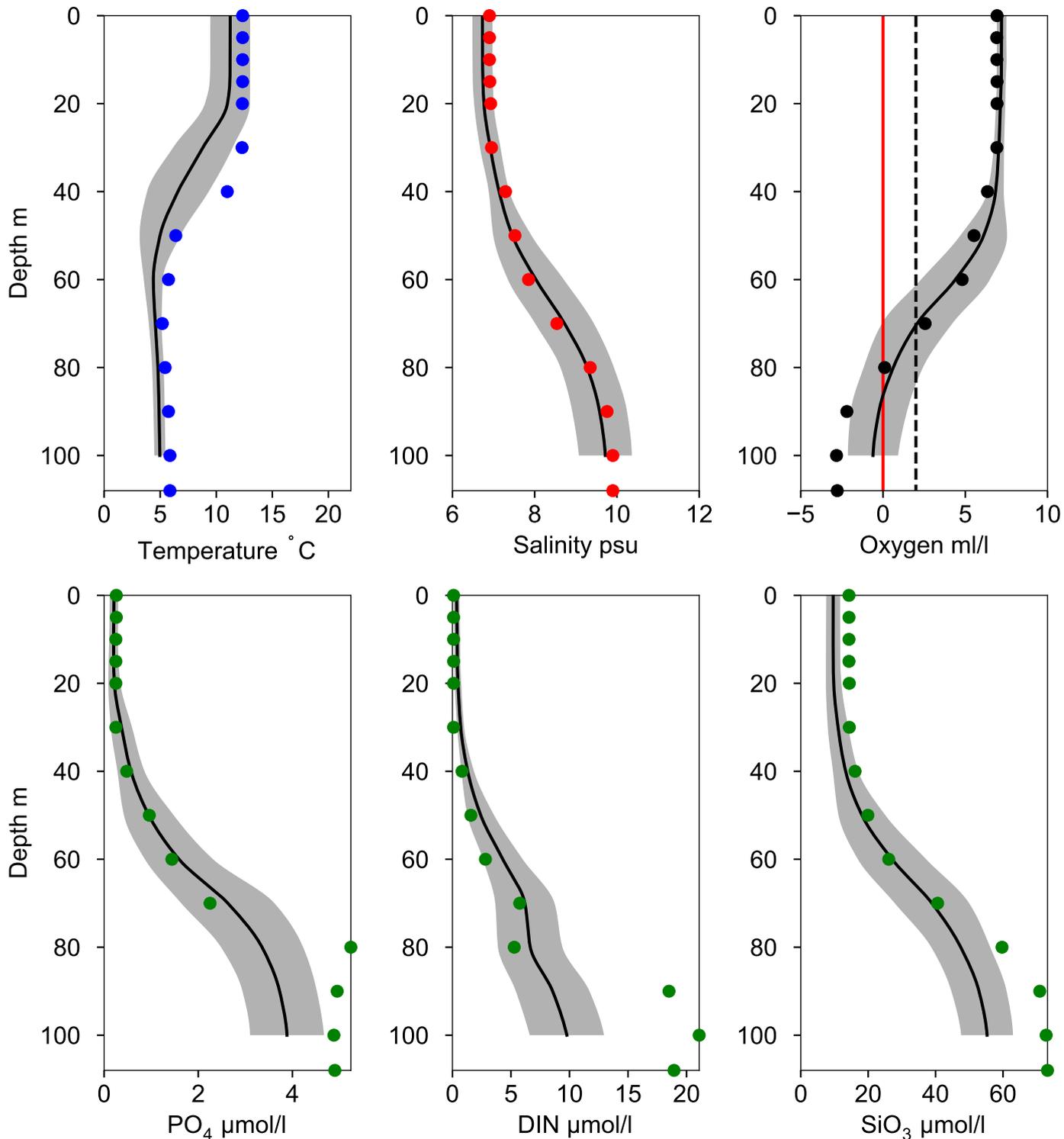


OXYGEN IN BOTTOM WATER (depth >= 100 m)



Vertical profiles BY38 KARLSÖDJ October

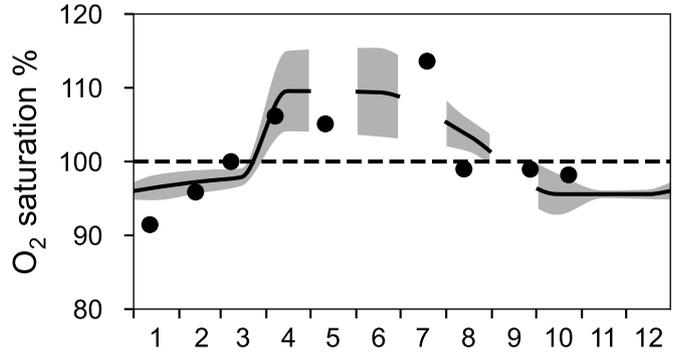
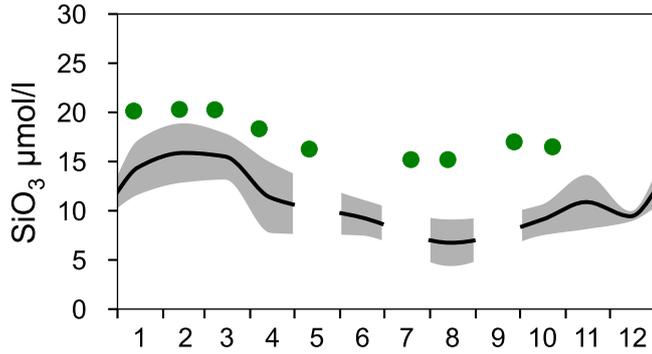
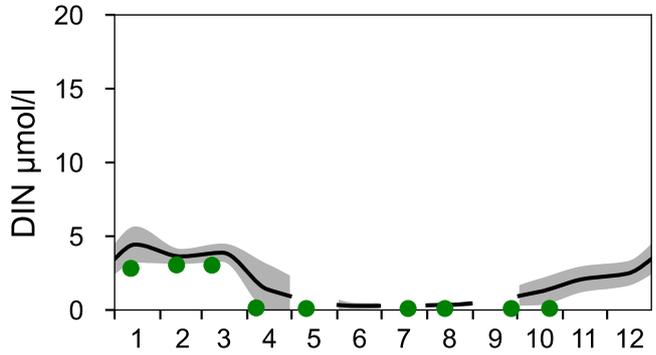
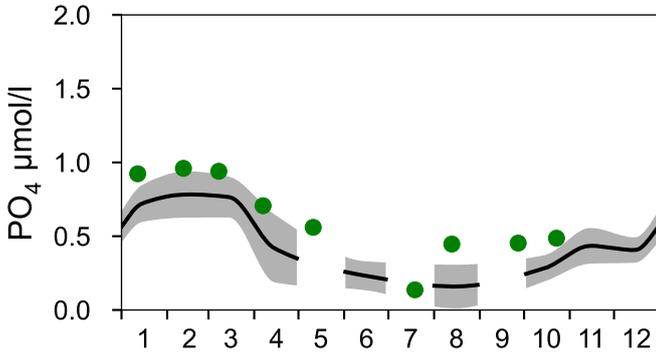
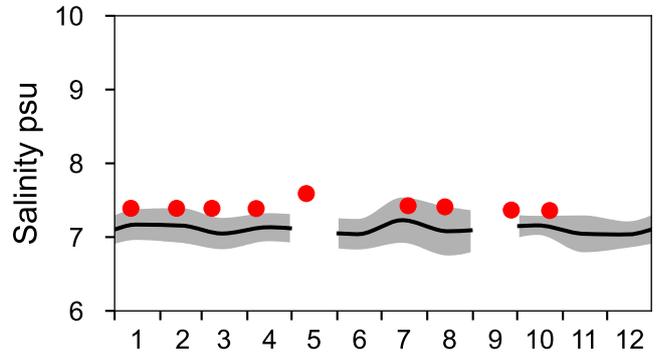
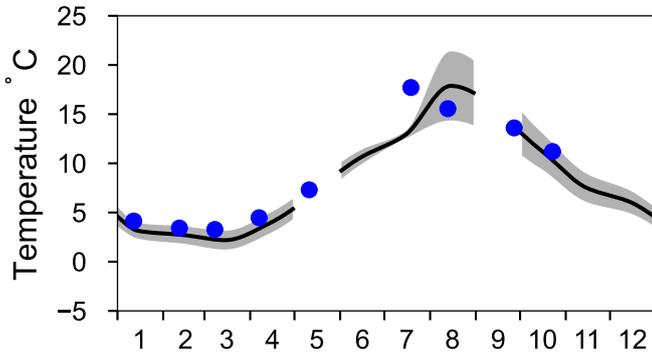
— Mean 1991-2020 ■ St.Dev. ● 2025-10-23



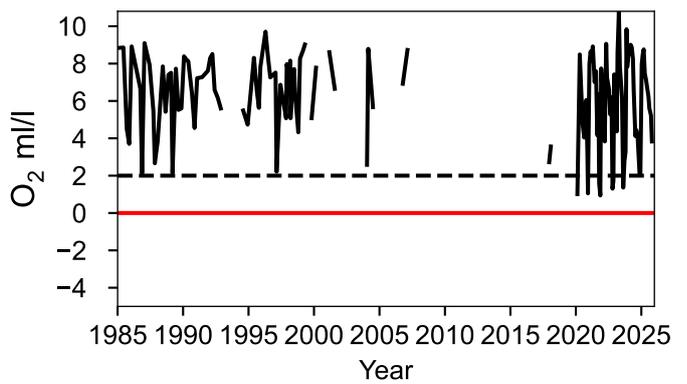
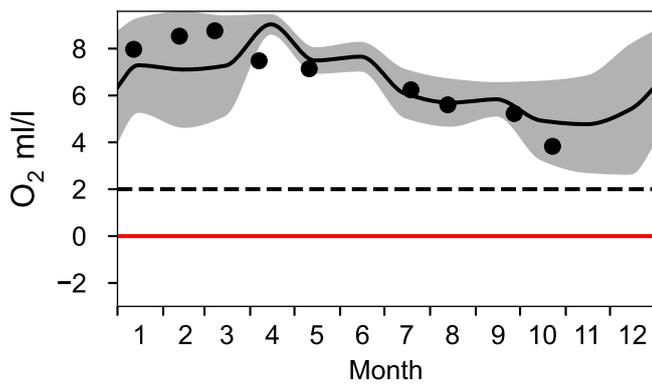
STATION BY39 ÖLANDS S UDDE SURFACE WATER (0-10 m)

Annual Cycles

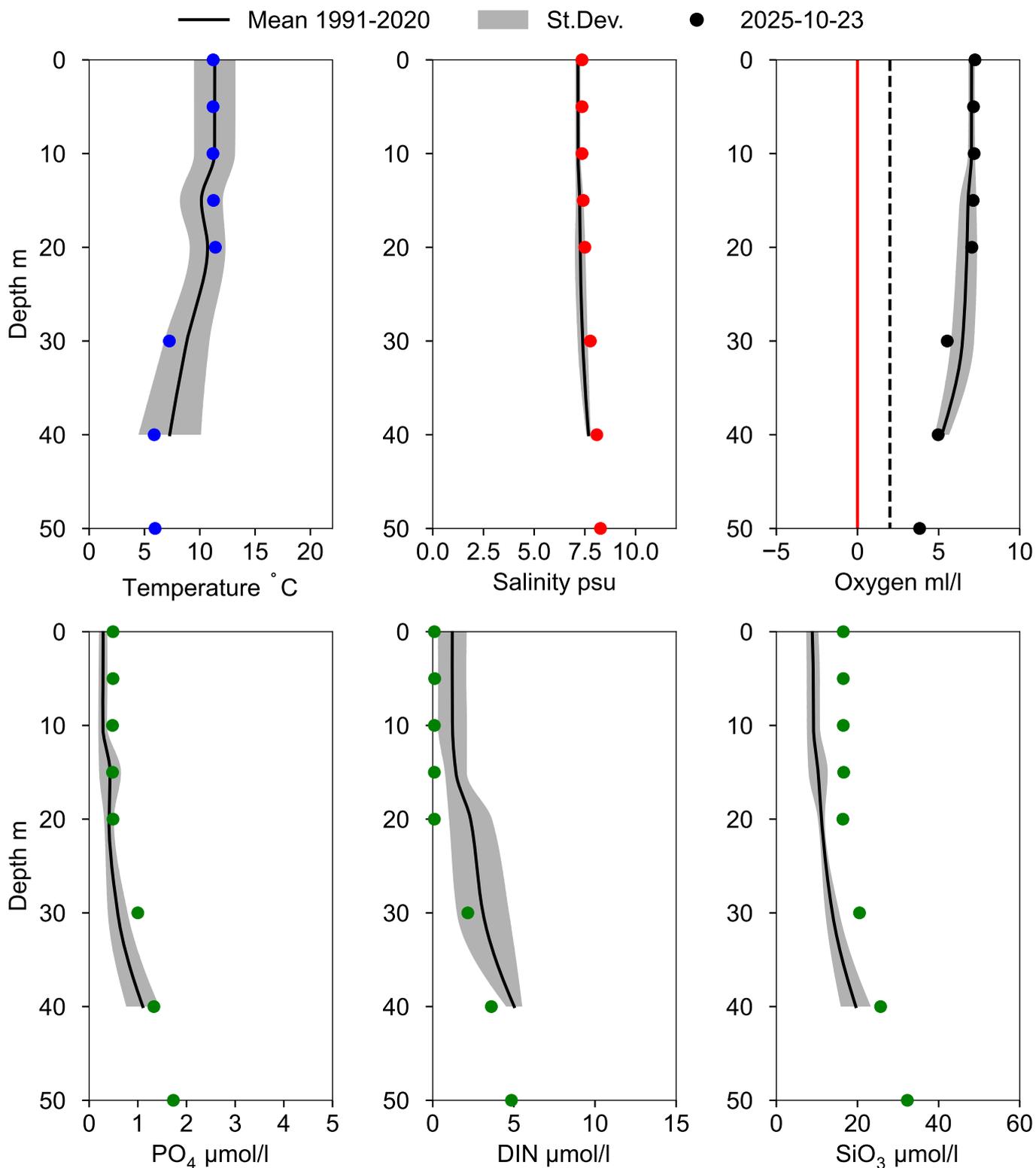
— Mean 1991-2020 St.Dev. ● 2025



OXYGEN IN BOTTOM WATER (depth >= 40 m)



Vertical profiles BY39 ÖLANDS S UDDE October



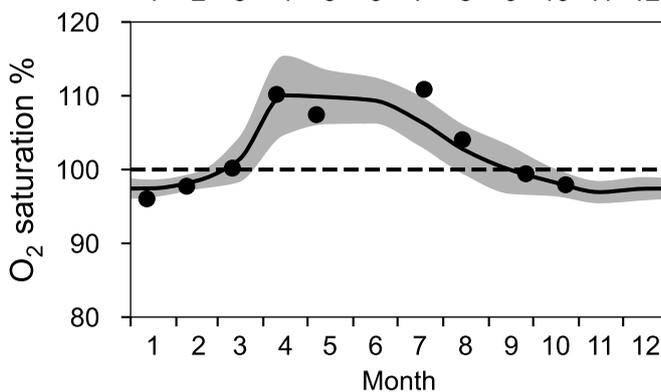
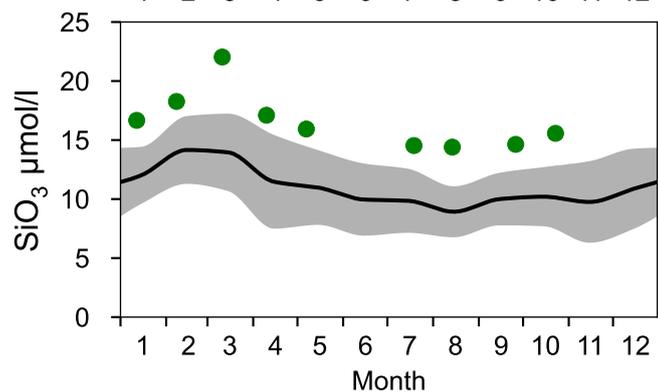
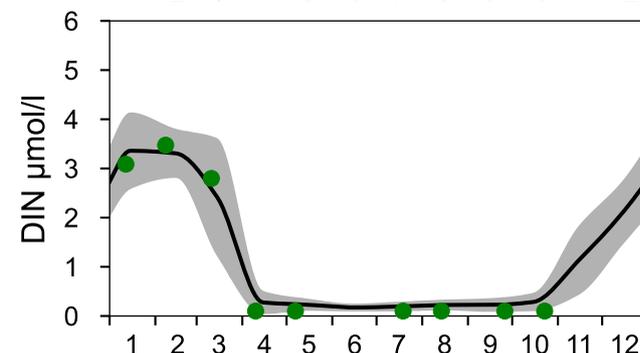
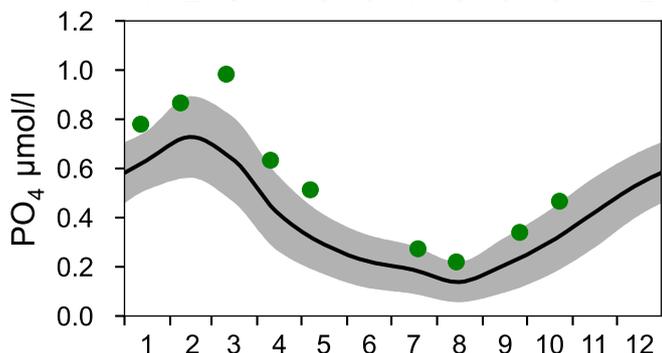
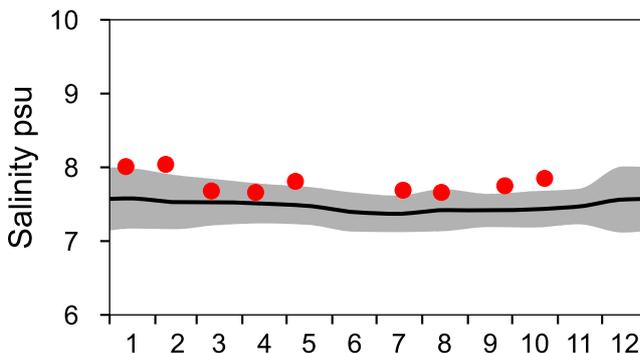
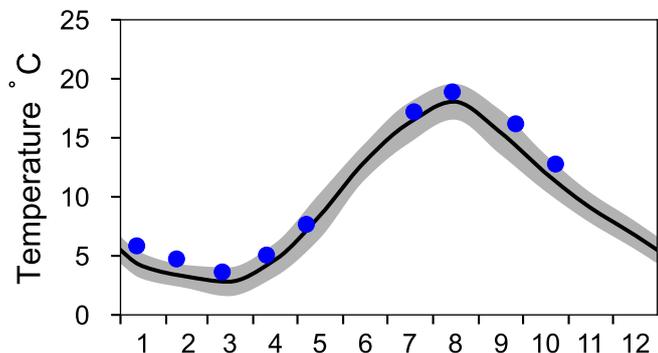
STATION HANÖBUKTEN SURFACE WATER (0-10 m)

Annual Cycles

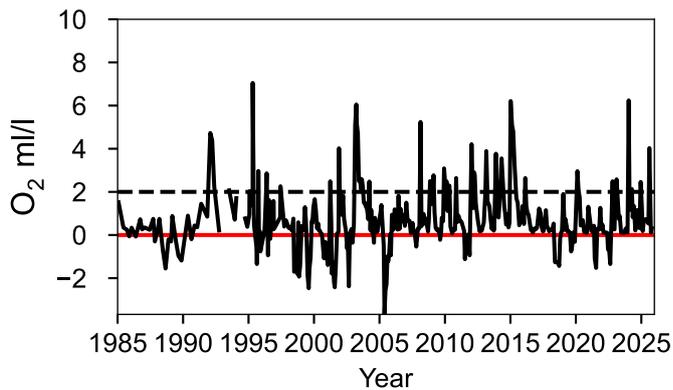
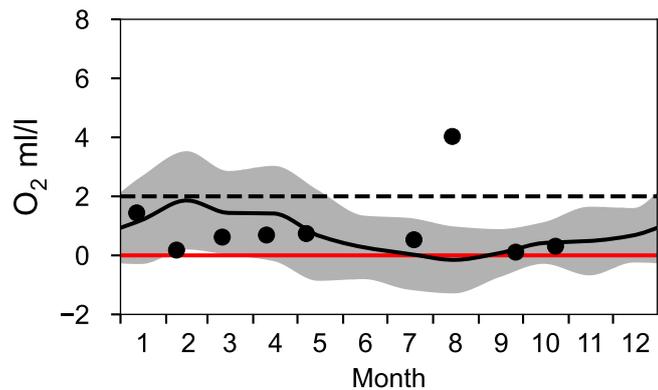
— Mean 1991-2020

■ St.Dev.

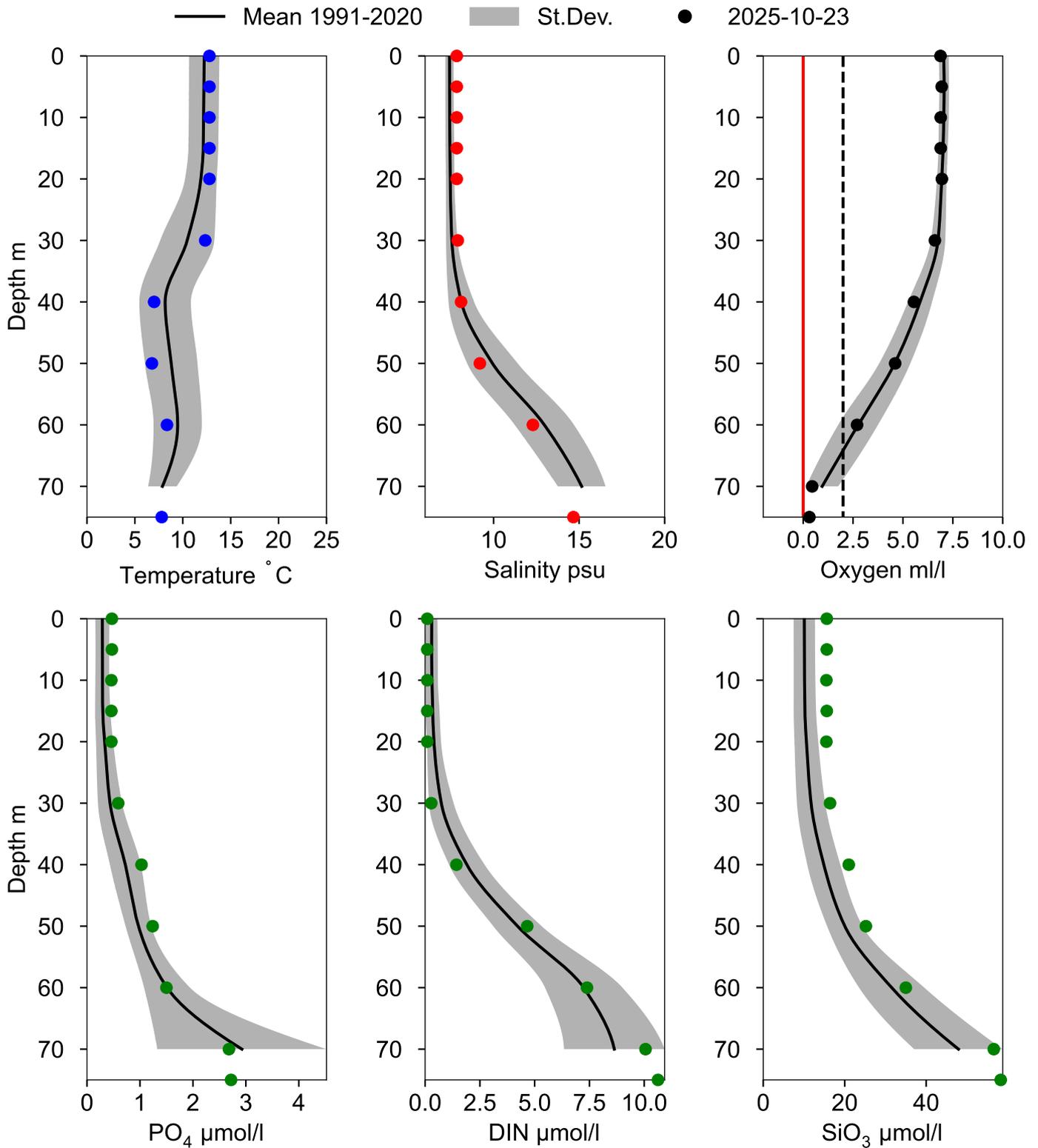
● 2025



OXYGEN IN BOTTOM WATER (depth >= 70 m)



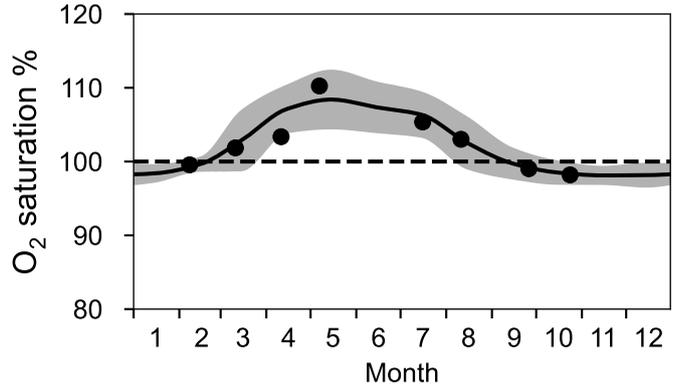
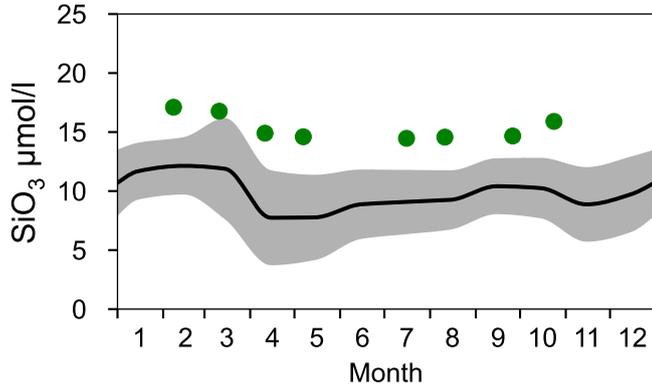
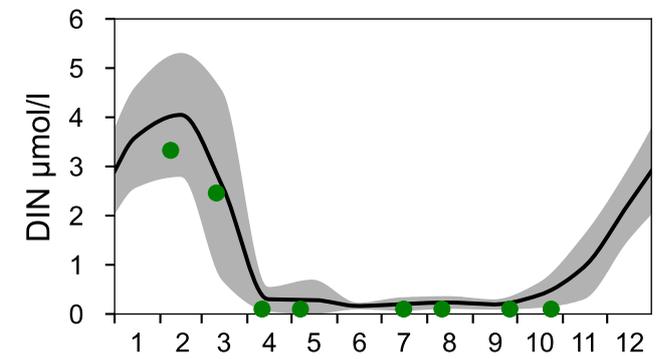
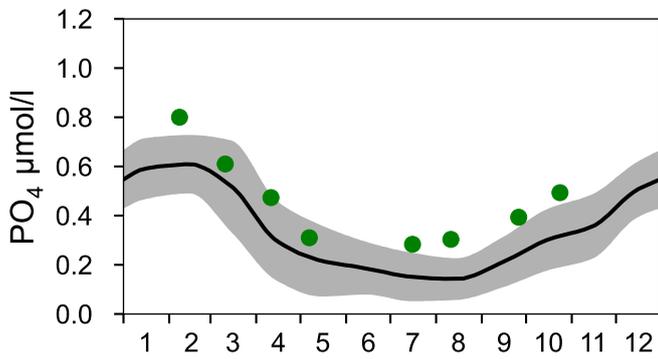
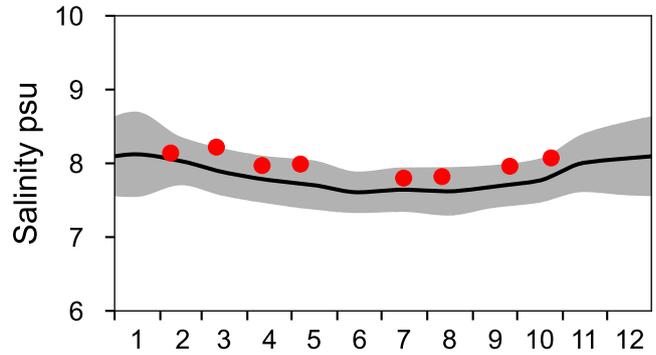
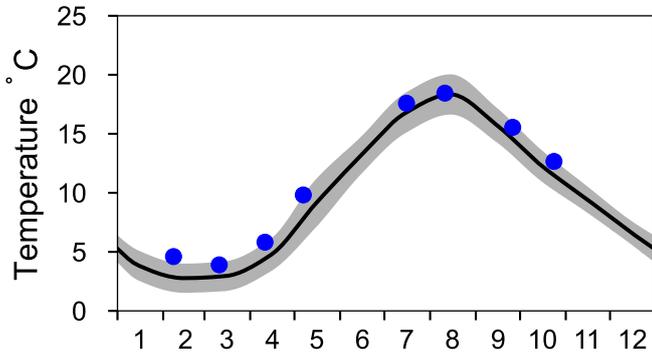
Vertical profiles HANÖBUKTEN October



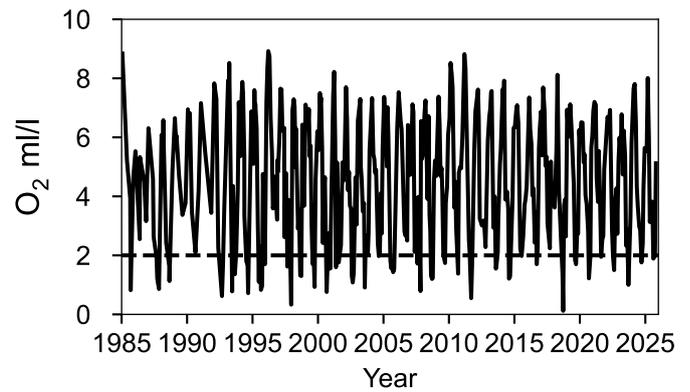
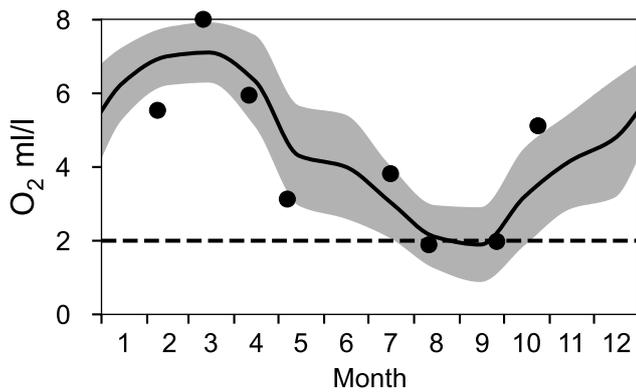
STATION BY2 ARKONA SURFACE WATER (0-10 m)

Annual Cycles

— Mean 1991-2020 St.Dev. ● 2025

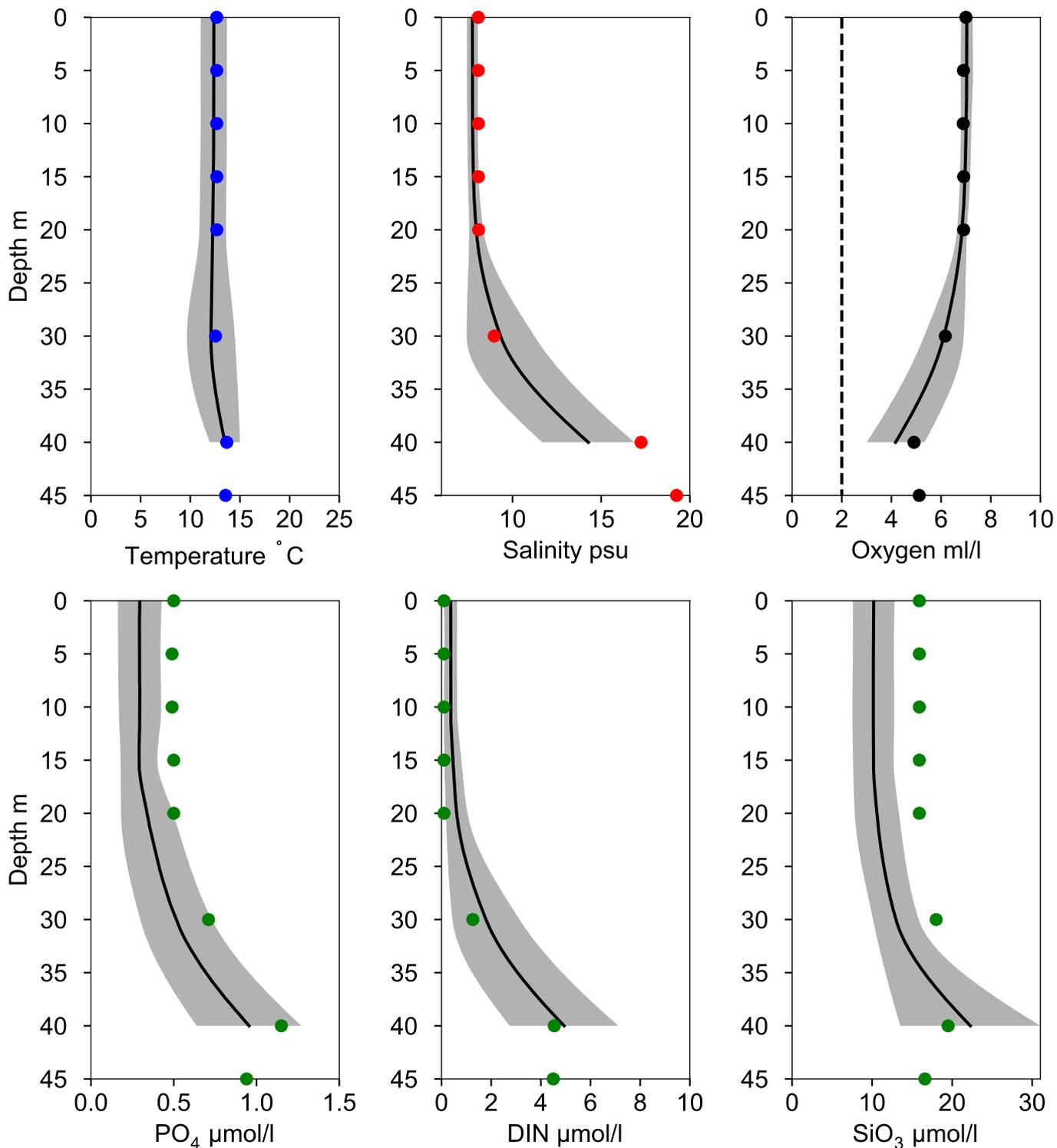


OXYGEN IN BOTTOM WATER (depth ≥ 40 m)



Vertical profiles BY2 ARKONA October

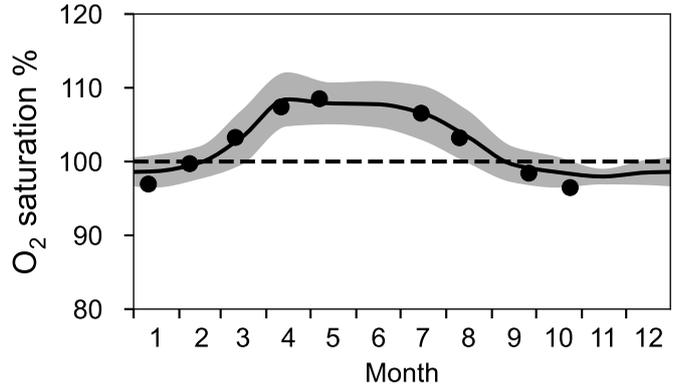
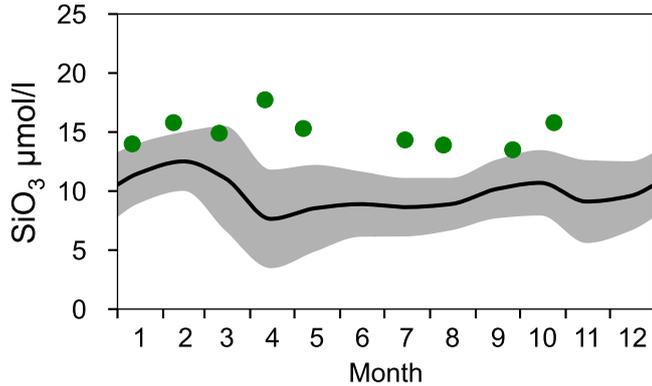
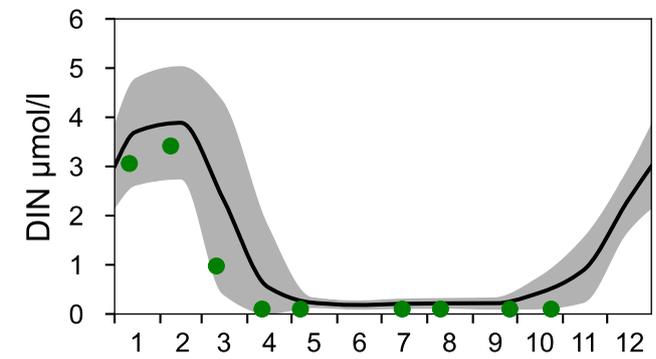
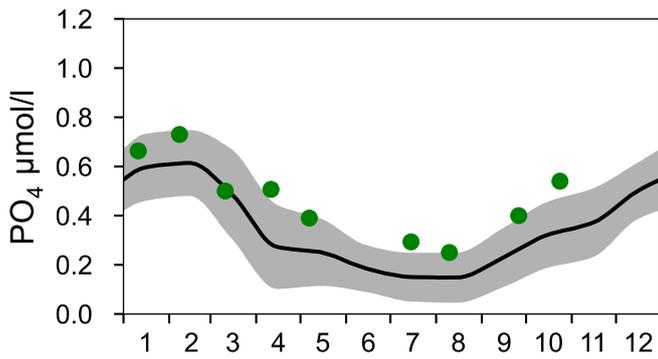
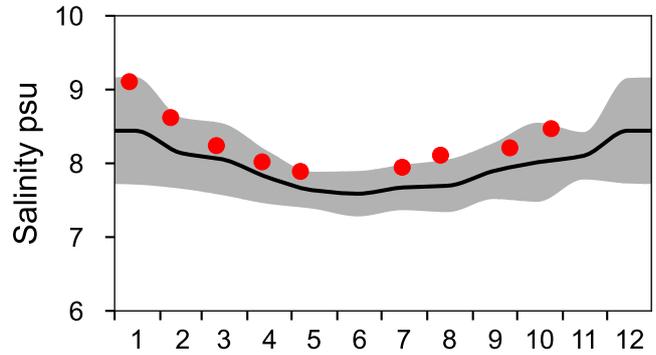
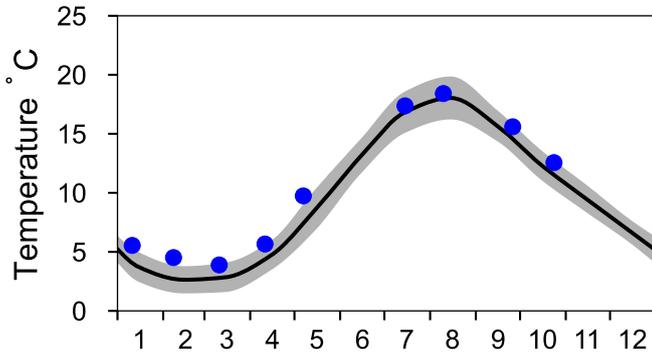
— Mean 1919-2020 ■ St.Dev. ● 2025-10-24



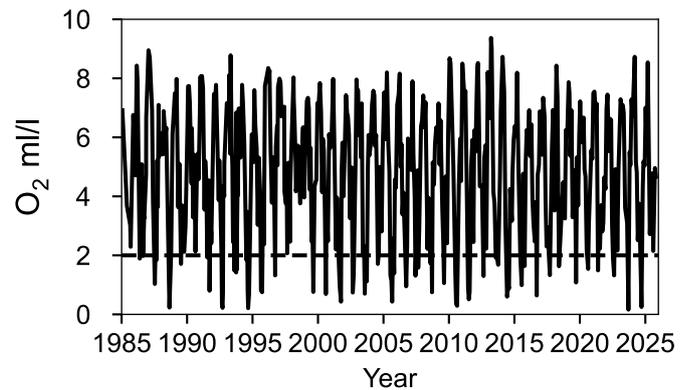
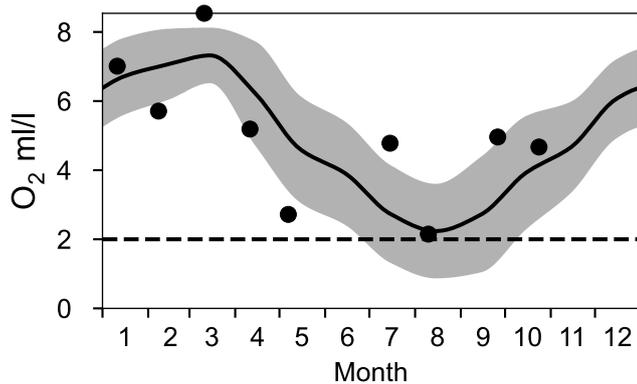
STATION BY1 SURFACE WATER (0-10 m)

Annual Cycles

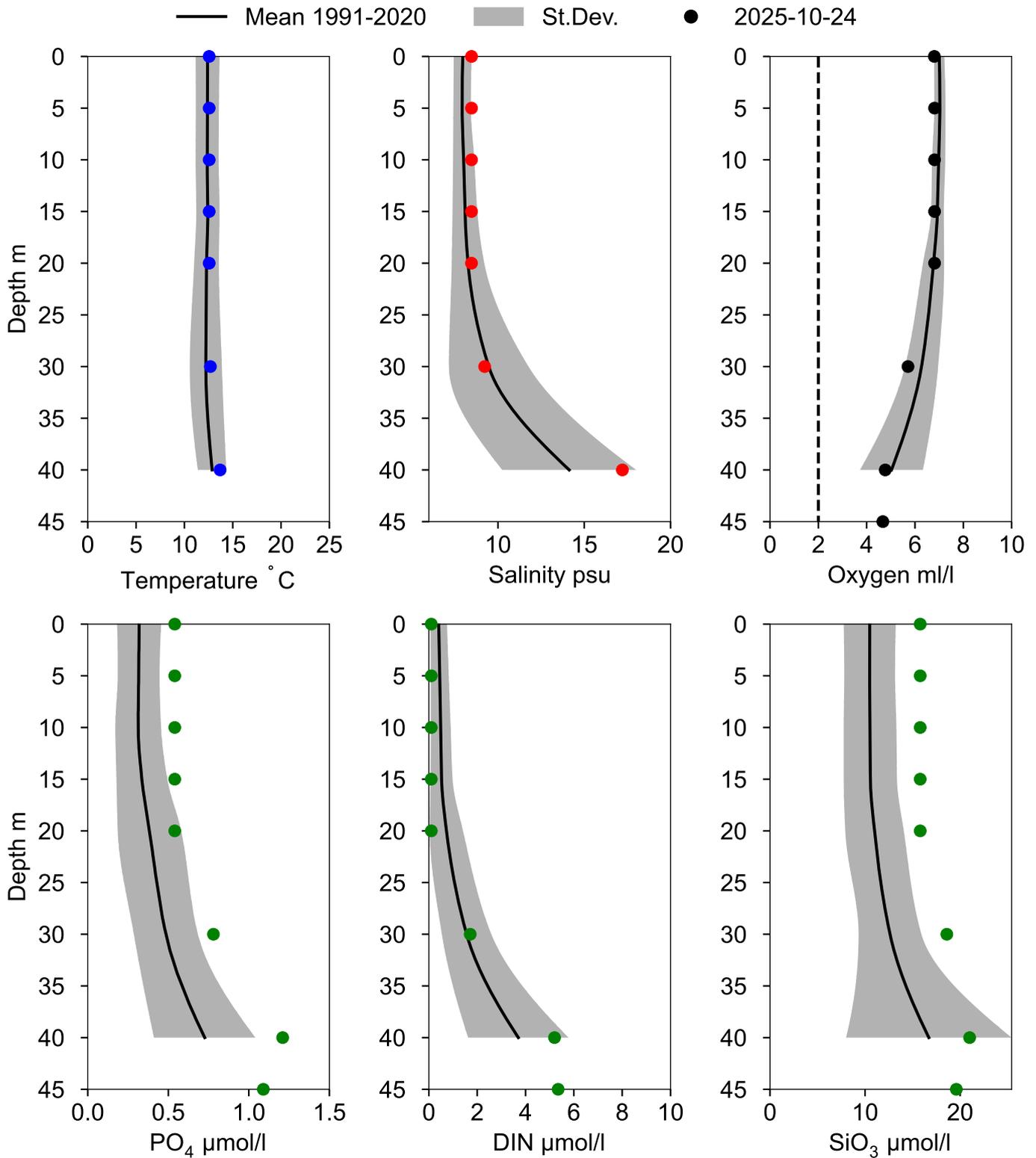
— Mean 1991-2020 St.Dev. ● 2025



OXYGEN IN BOTTOM WATER (depth >= 39 m)



Vertical profiles BY1 October

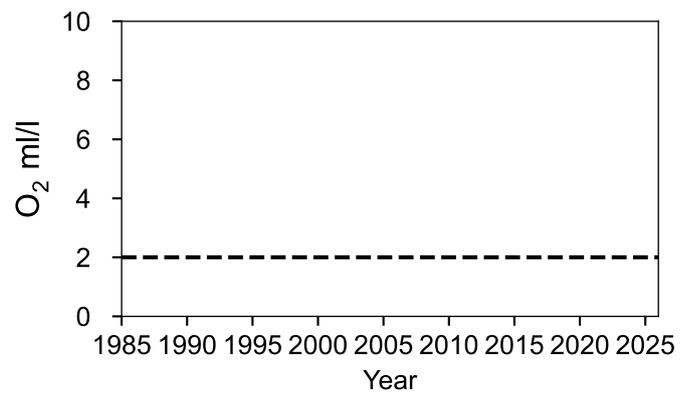
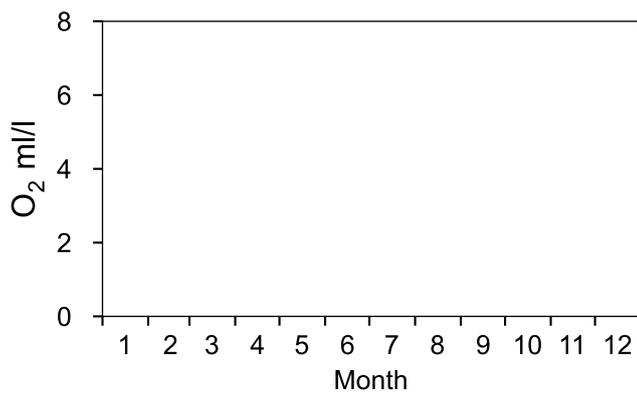
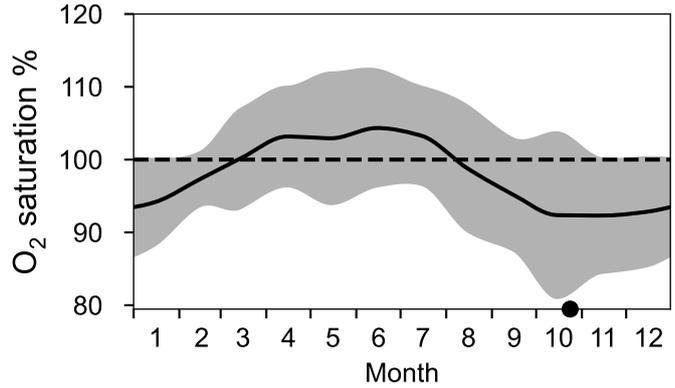
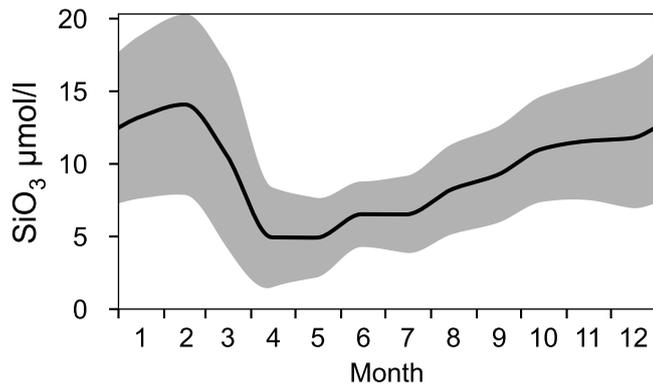
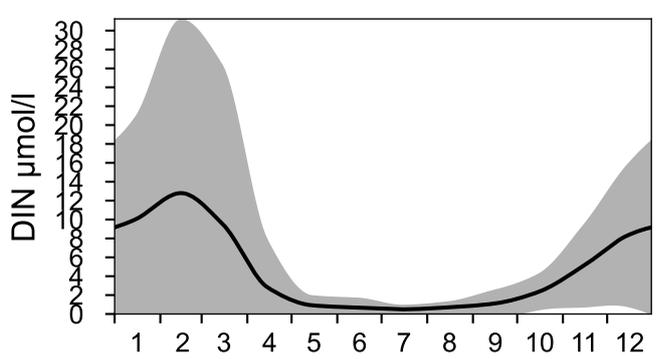
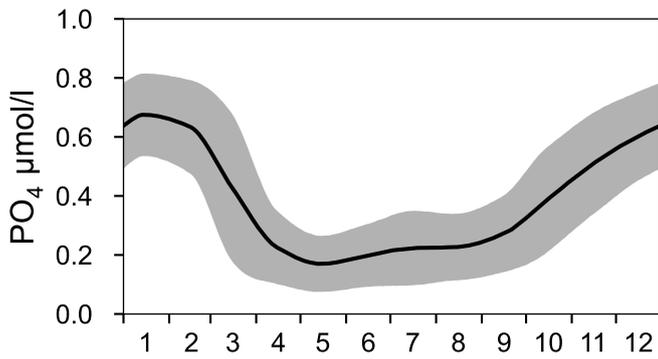
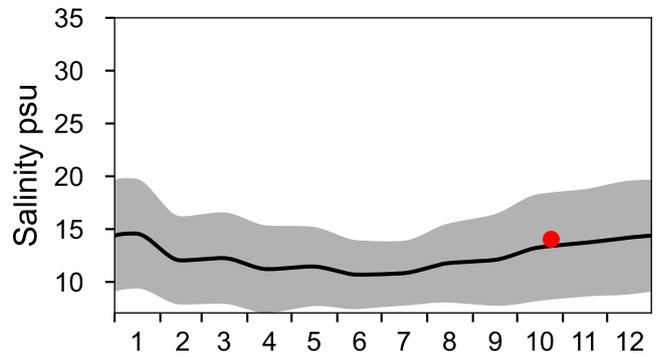
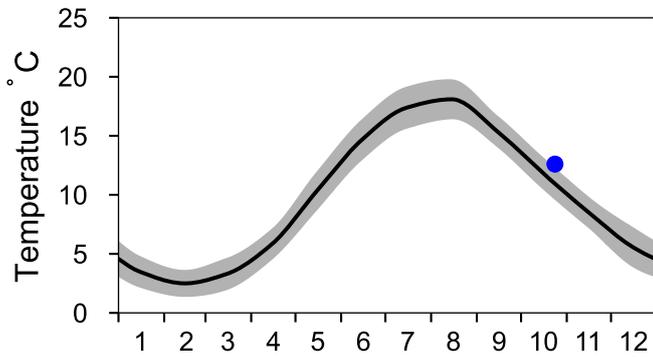


STATION FLINTEN 7 SURFACE WATER (0-10 m)

Annual Cycles

Statistics based on data from: Öresund

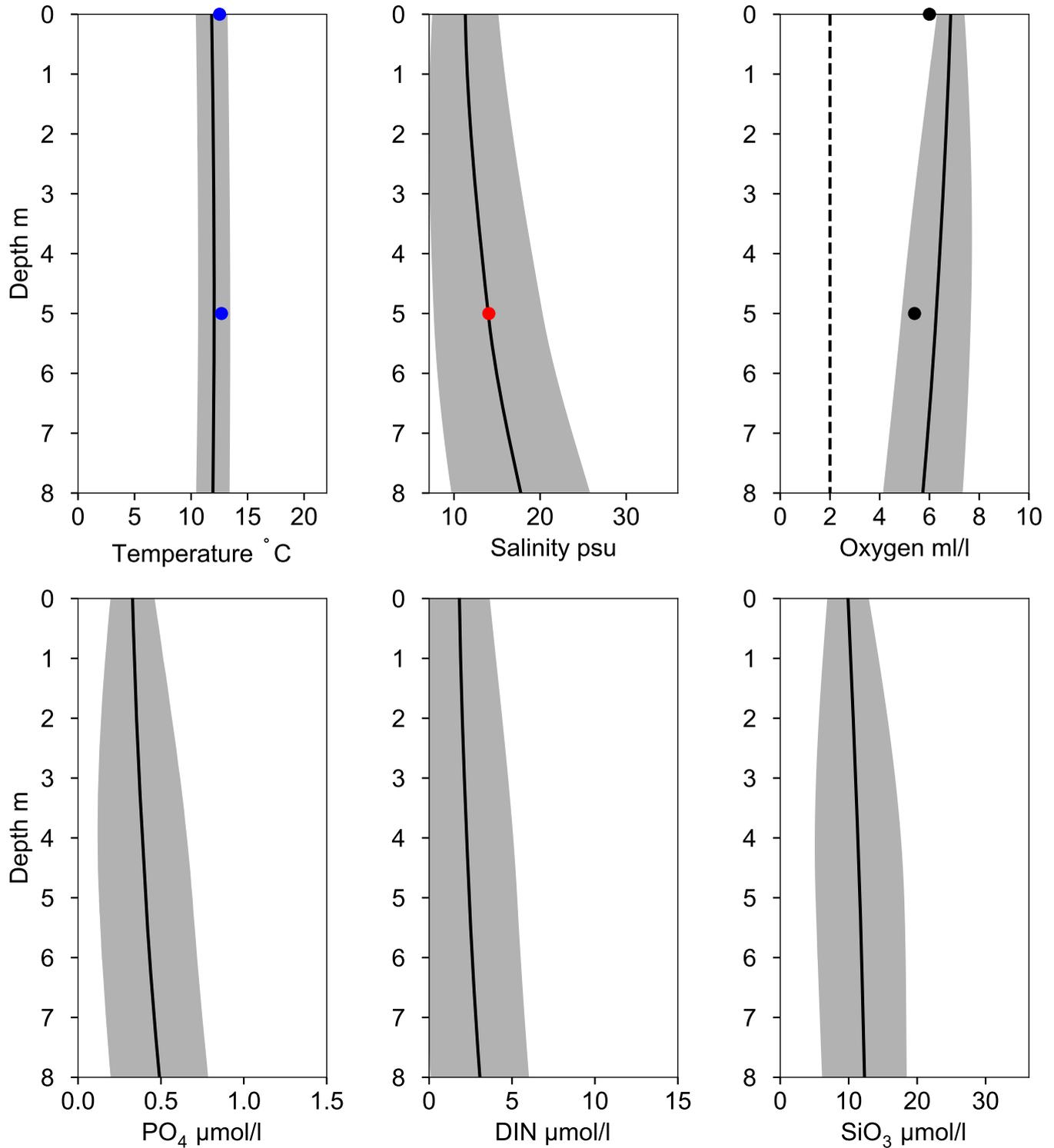
— Mean 1991-2020 St.Dev. ● 2025



Vertical profiles FLINTEN 7 October

Statistics based on data from: Öresund

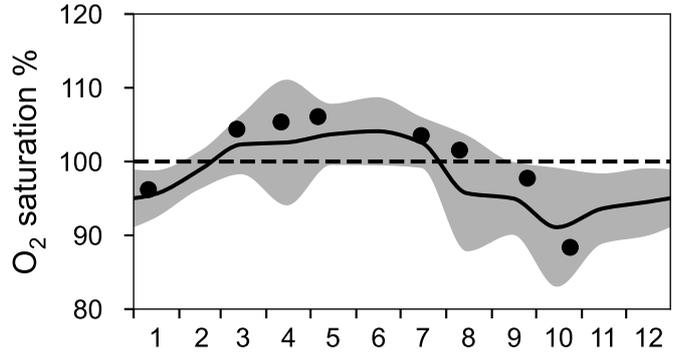
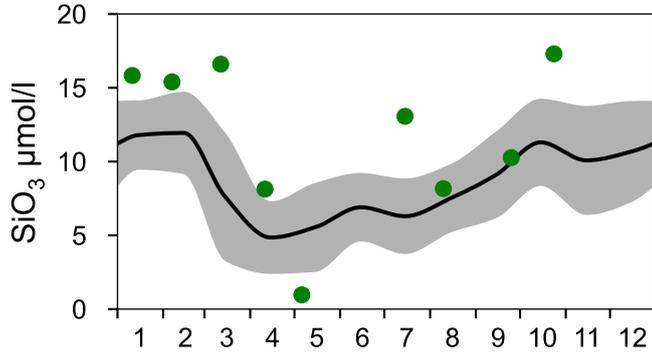
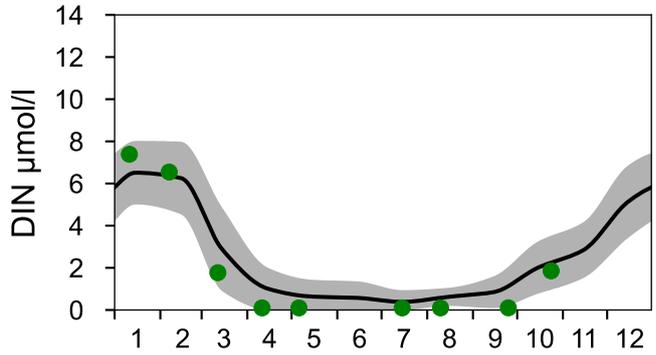
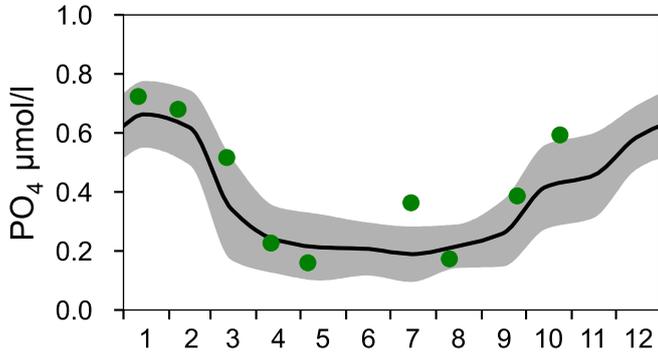
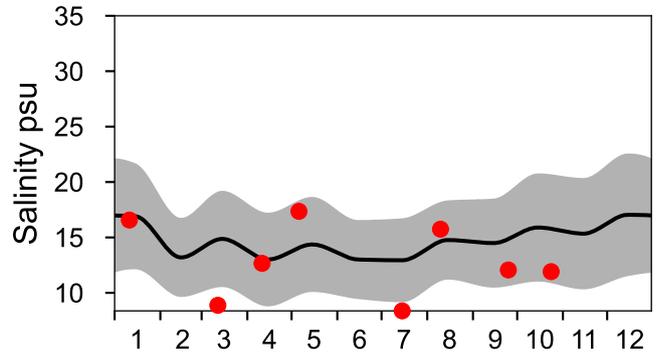
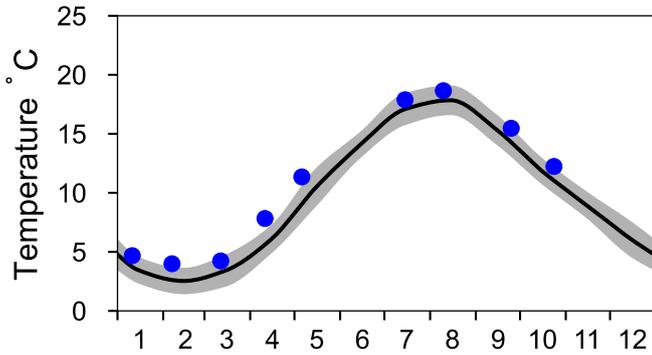
— Mean 1991-2020 ■ St.Dev. ● 2025-10-24



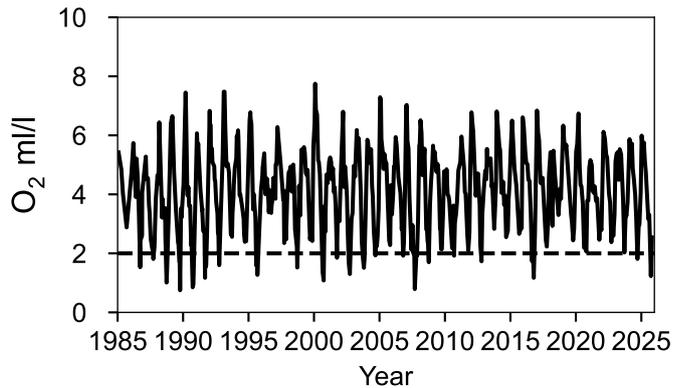
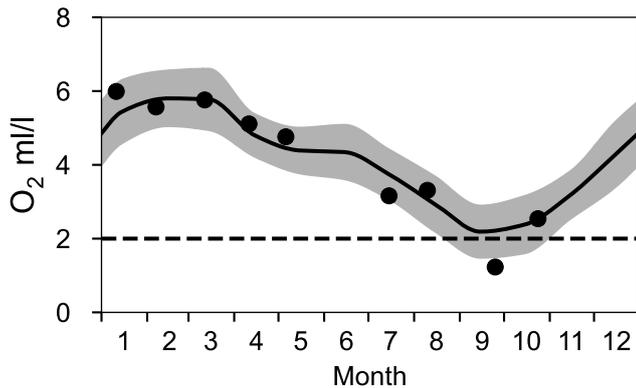
STATION W LANDSKRONA SURFACE WATER (0-10 m)

Annual Cycles

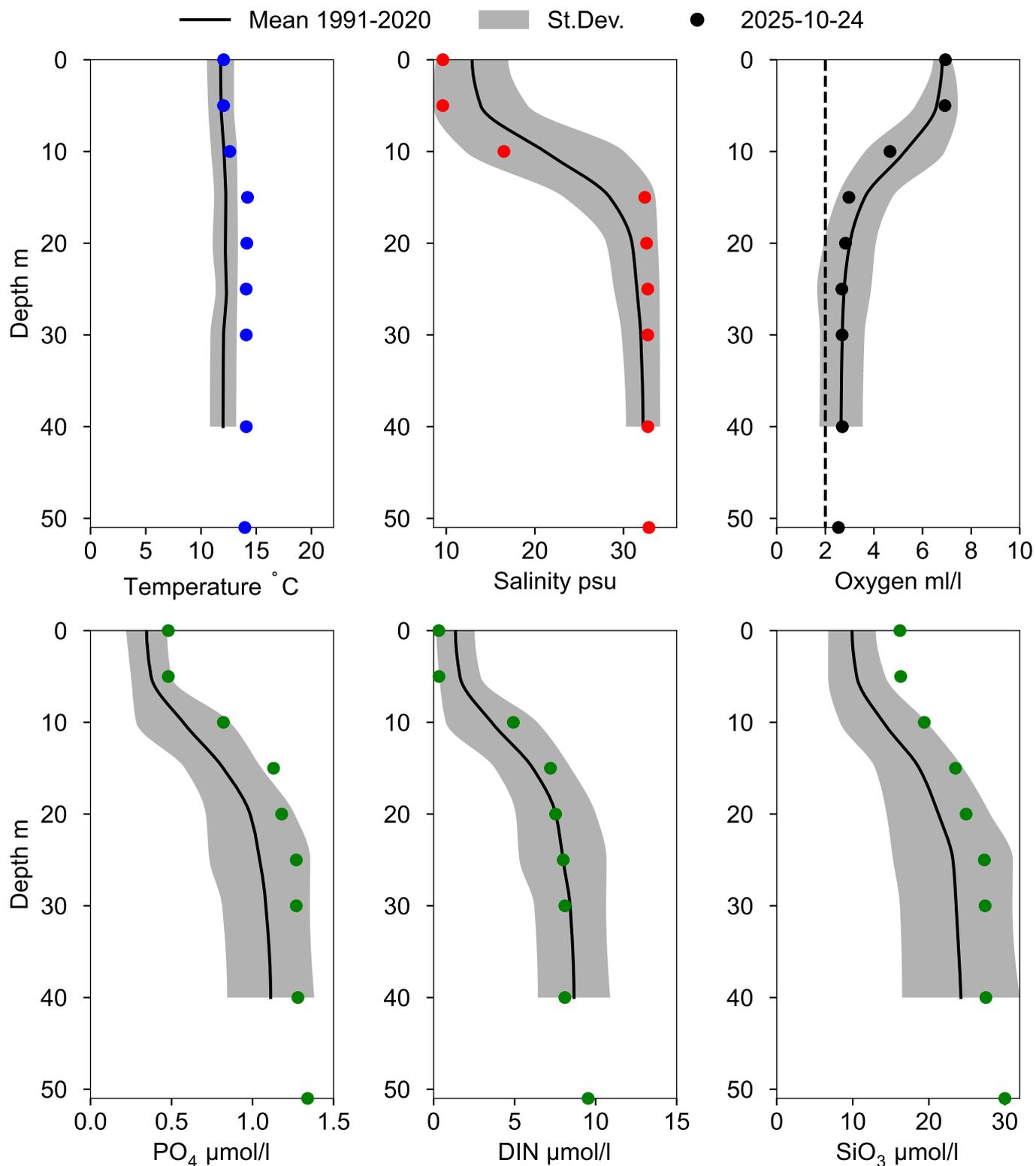
— Mean 1991-2020 St.Dev. ● 2025



OXYGEN IN BOTTOM WATER (depth >= 40 m)



Vertical profiles W LANDSKRONA October

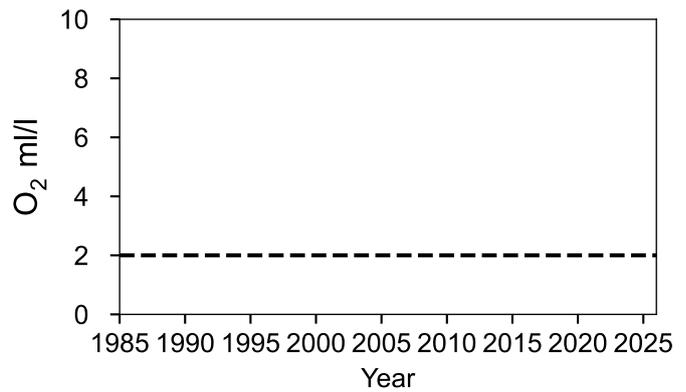
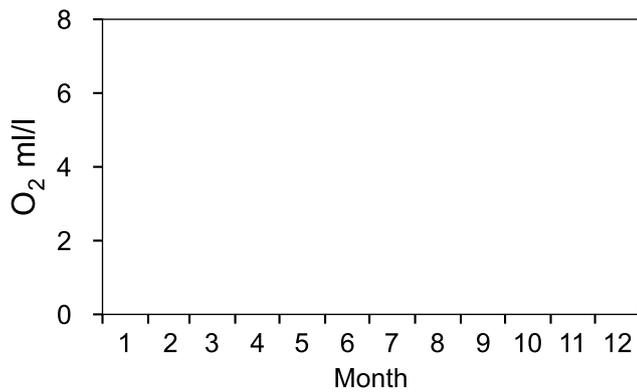
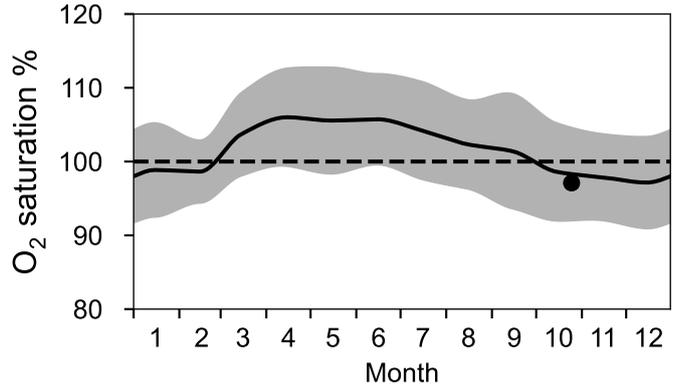
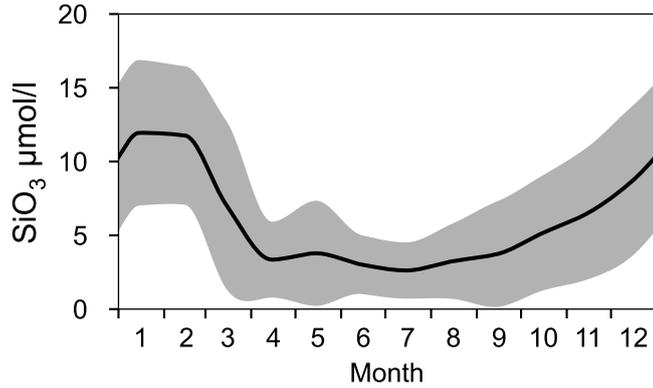
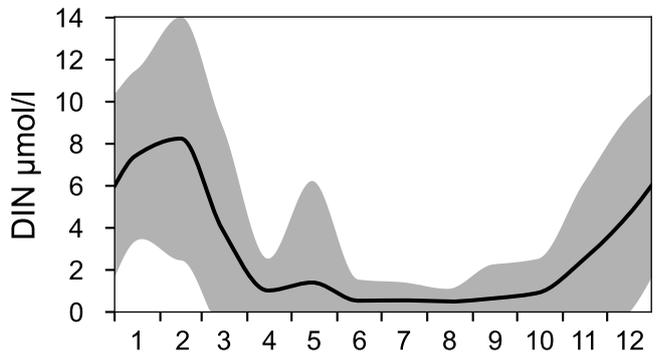
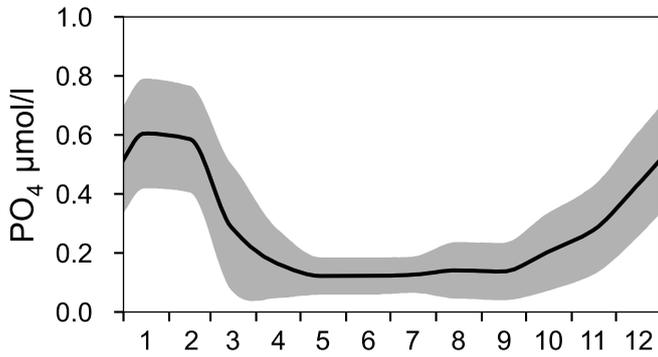
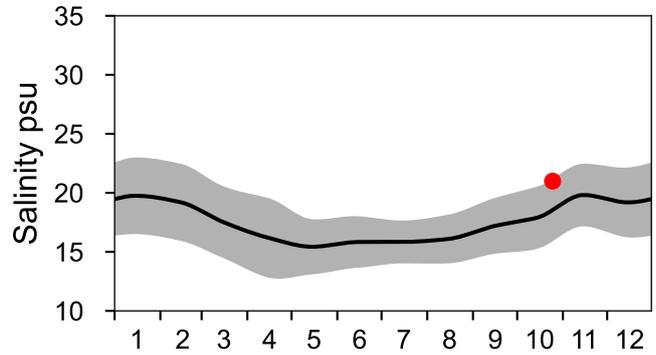
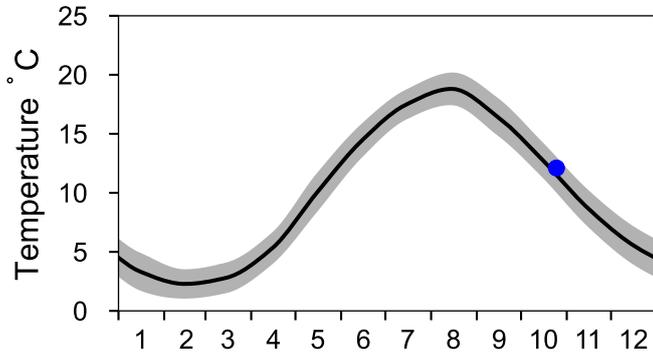


STATION L9 LAHOLMSBUKTEN SURFACE WATER (0-10 m)

Annual Cycles

Statistics based on data from: Södra Hallands och norra Öresunds kustvatten

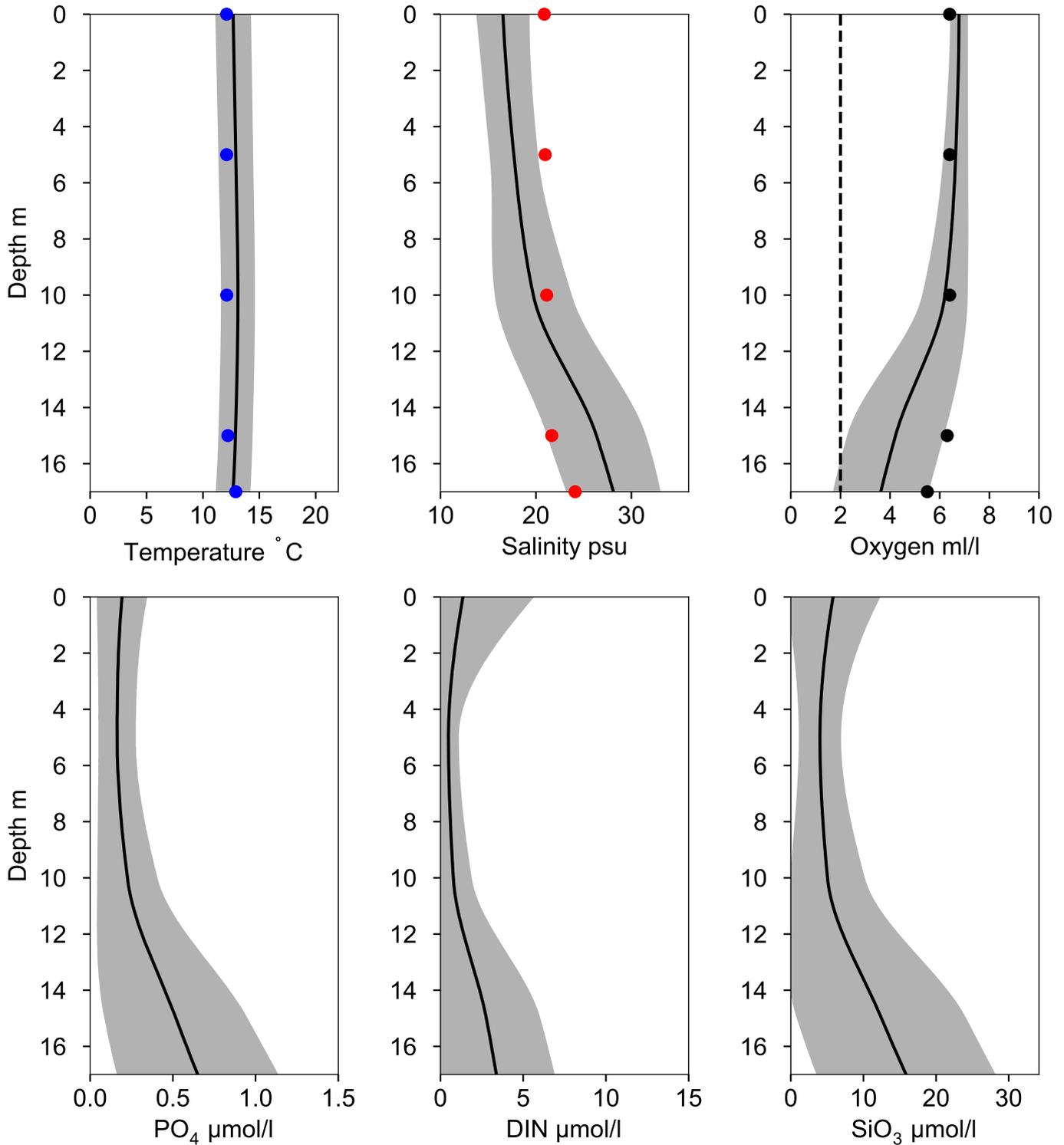
— Mean 1991-2020 St.Dev. ● 2025



Vertical profiles L9 LAHOLMSBUKTEN October

Statistics based on data from: Södra Hallands och norra Öresunds kustvatten

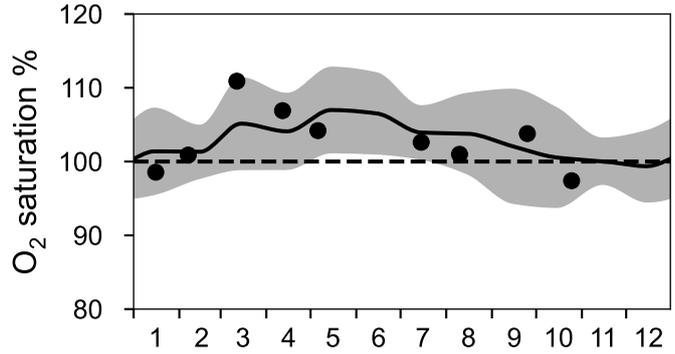
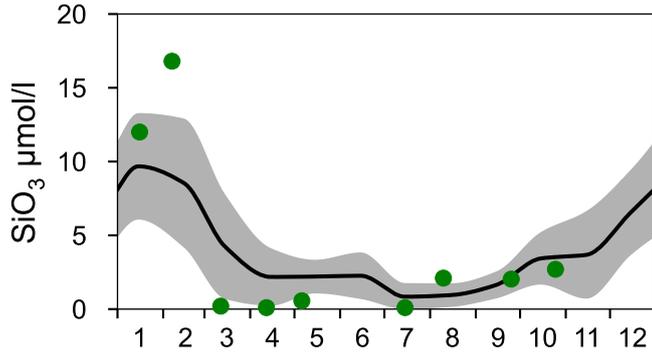
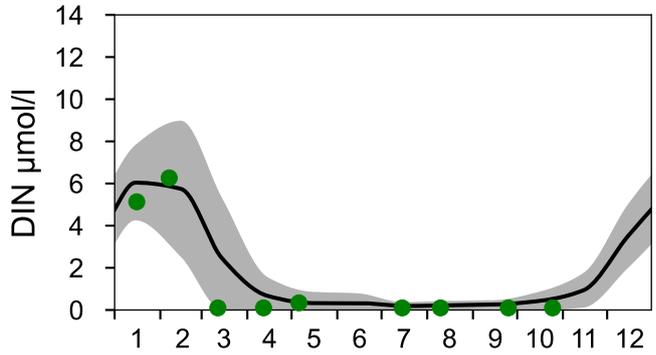
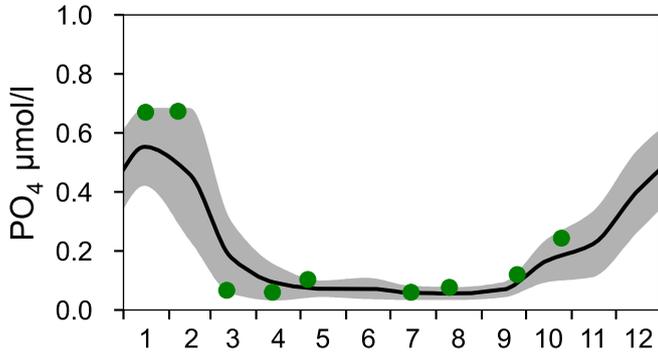
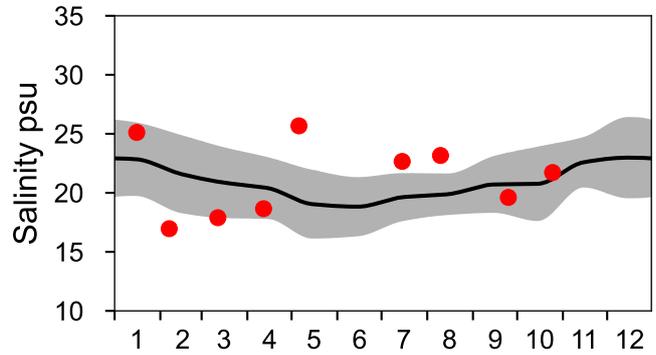
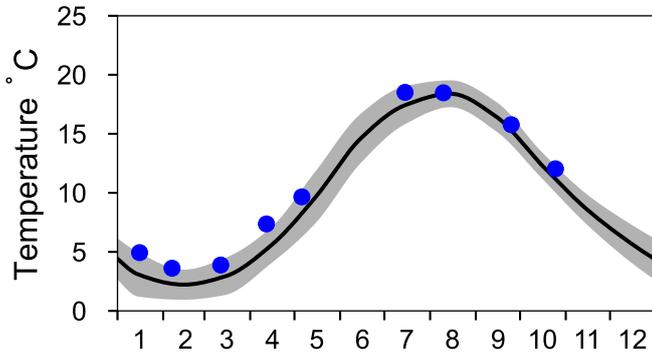
— Mean 1991-2020 ■ St.Dev. ● 2025-10-25



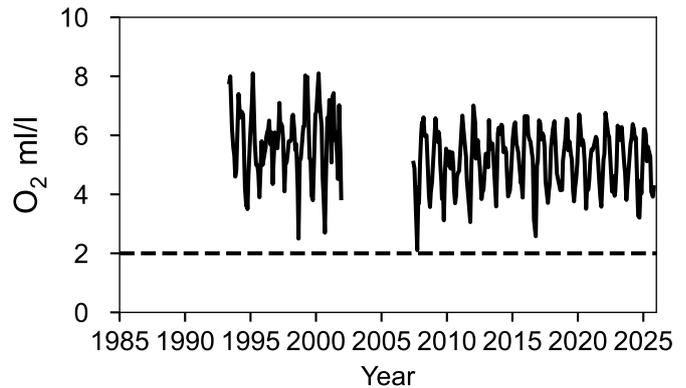
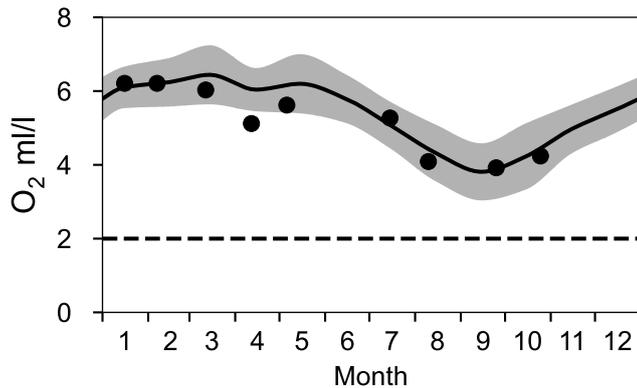
STATION N14 FALKENBERG SURFACE WATER (0-10 m)

Annual Cycles

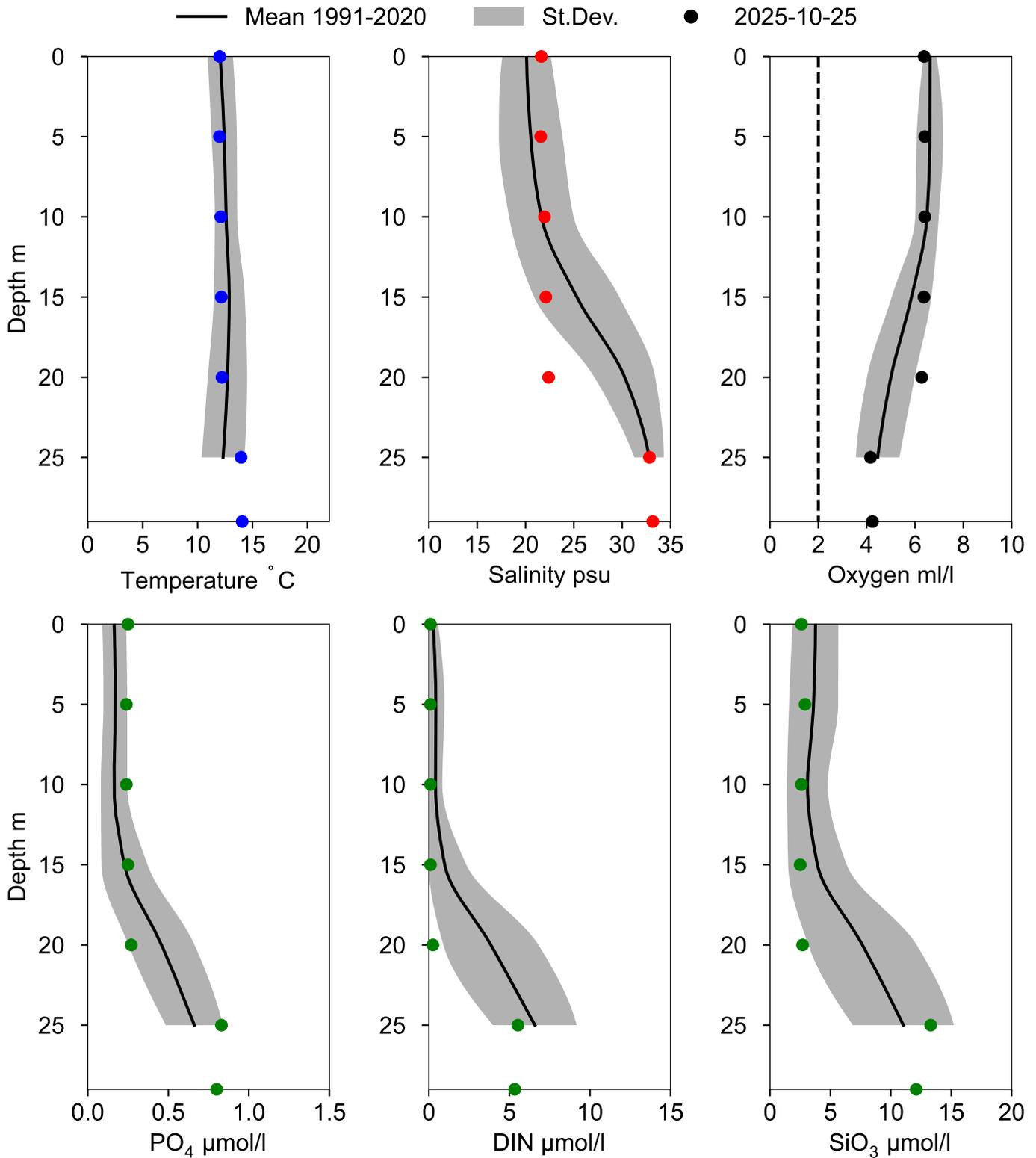
— Mean 1991-2020 St.Dev. ● 2025



OXYGEN IN BOTTOM WATER (depth ≥ 25 m)



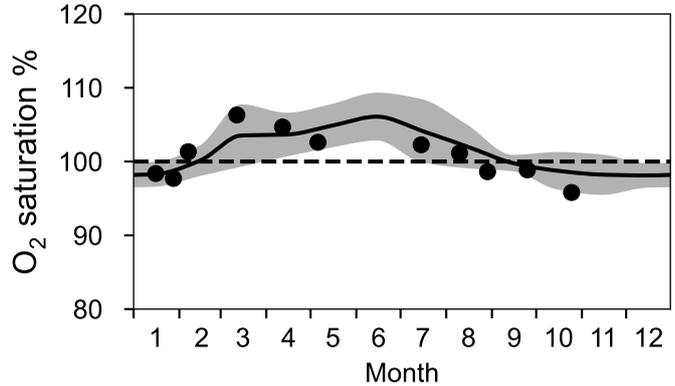
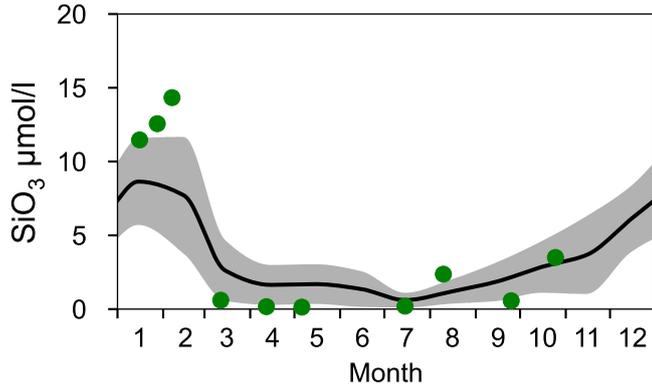
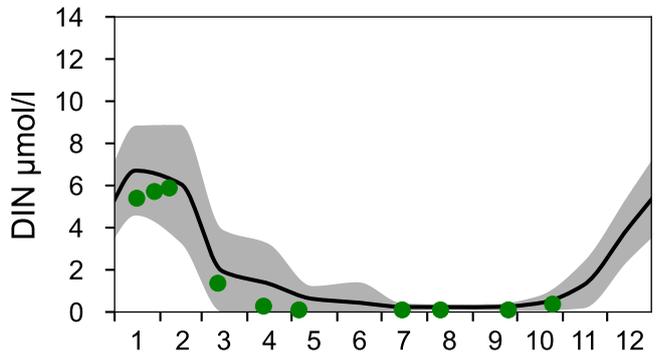
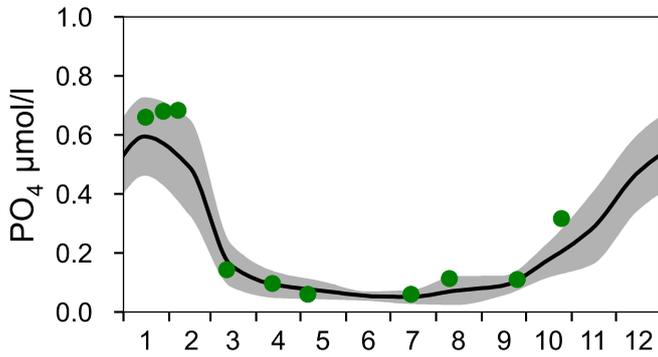
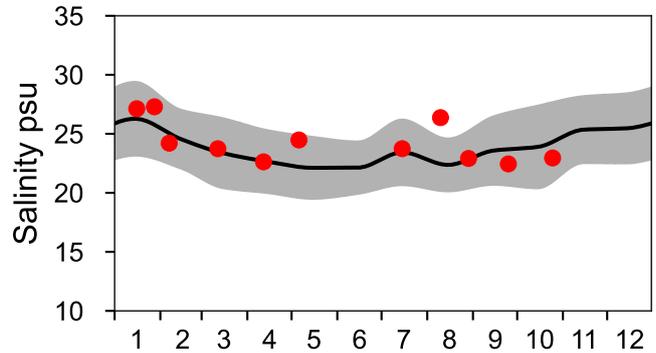
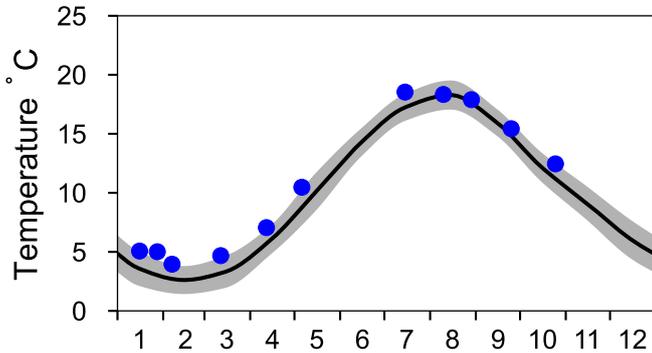
Vertical profiles N14 FALKENBERG October



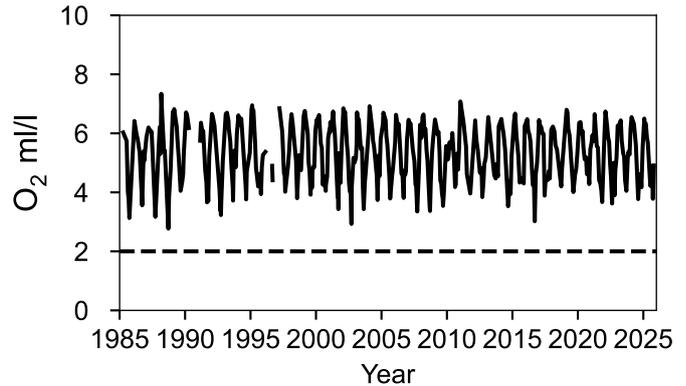
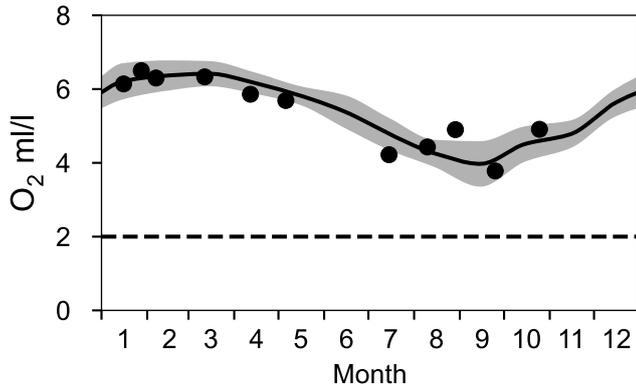
STATION FLADEN SURFACE WATER (0-10 m)

Annual Cycles

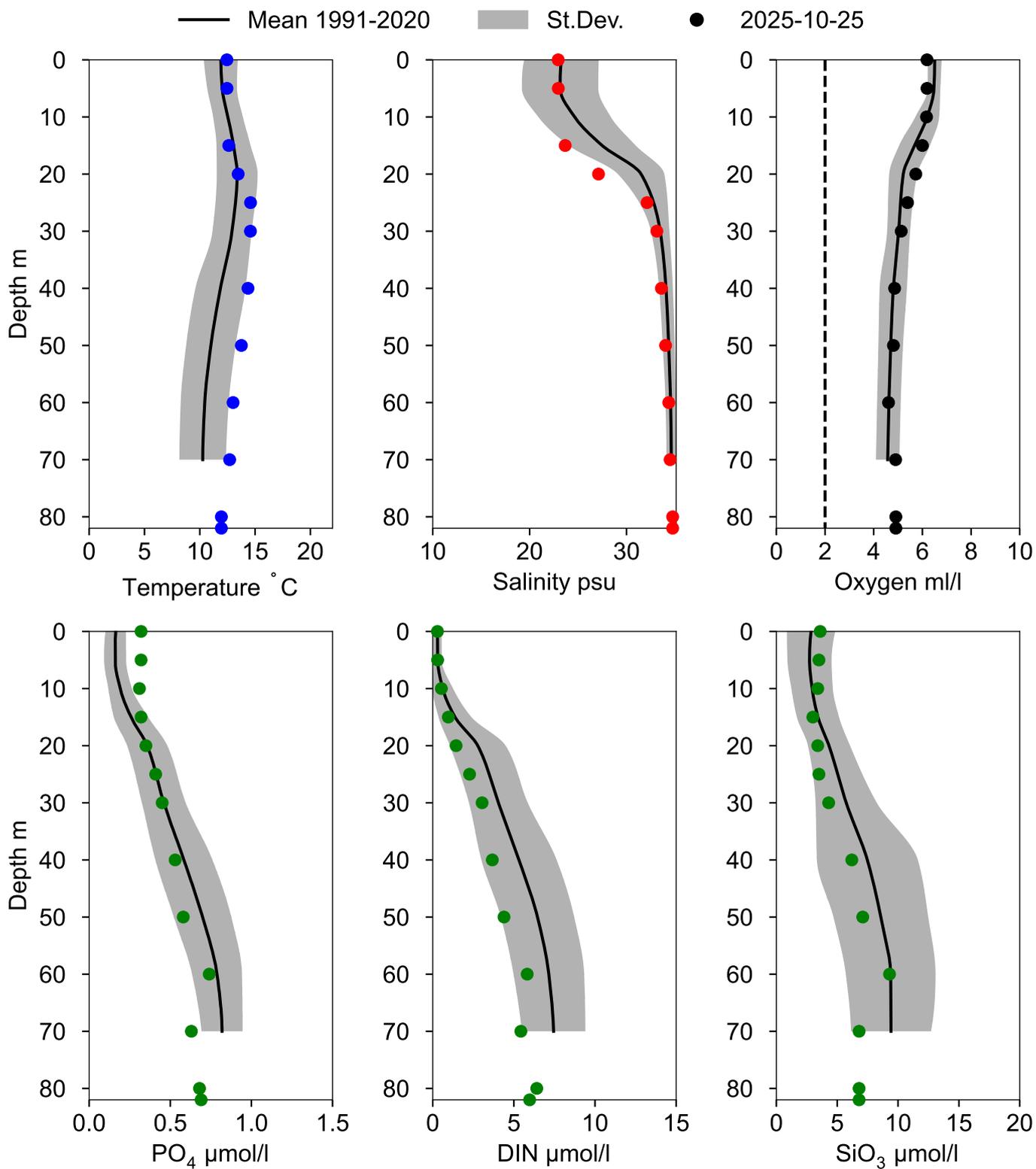
— Mean 1991-2020 St.Dev. ● 2025



OXYGEN IN BOTTOM WATER (depth >= 74 m)



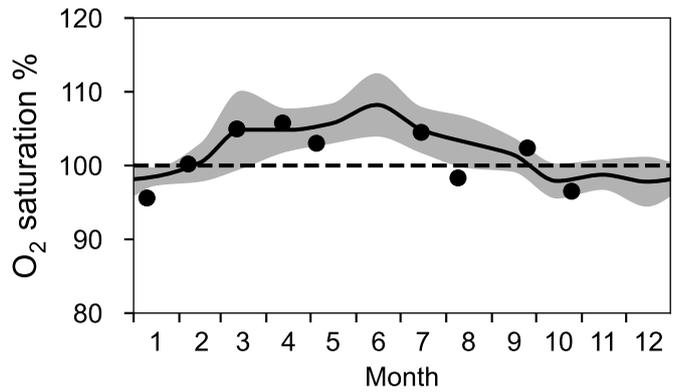
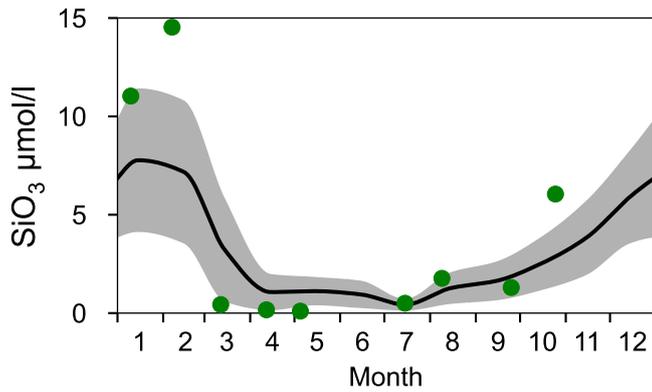
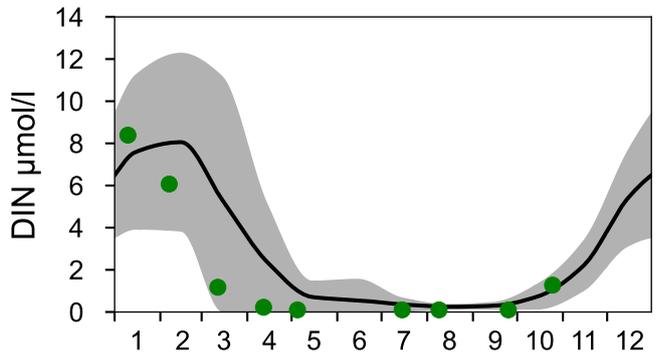
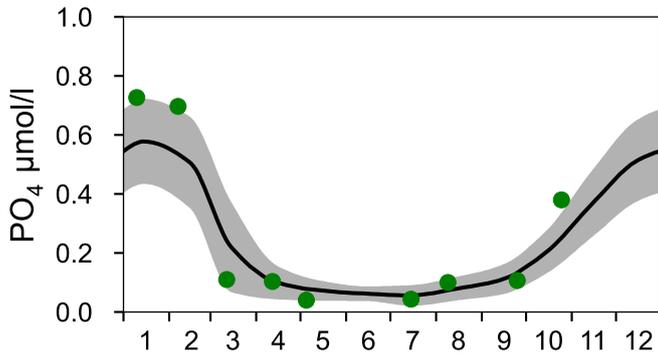
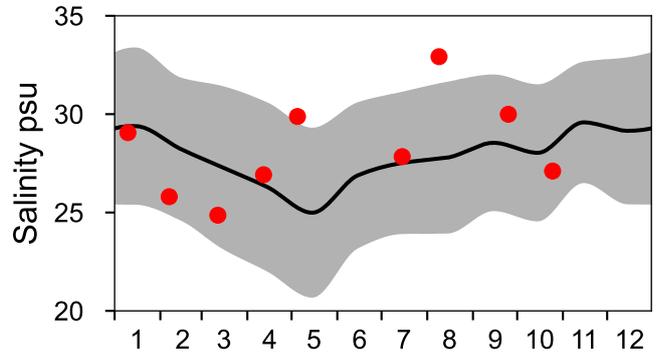
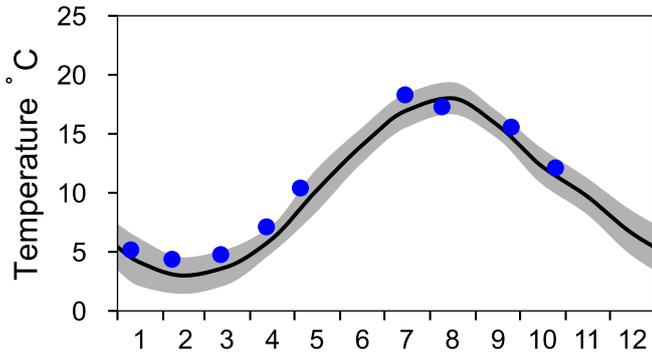
Vertical profiles FLADEN October



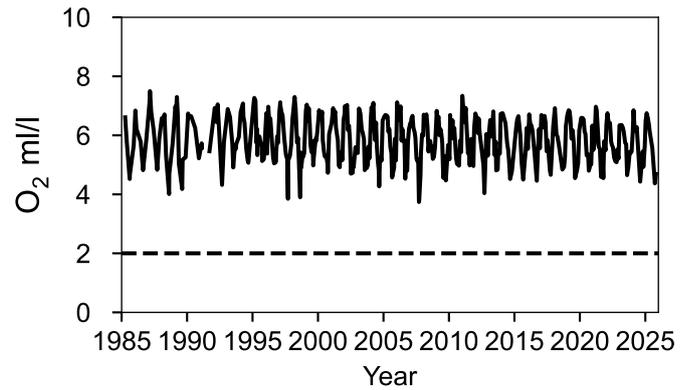
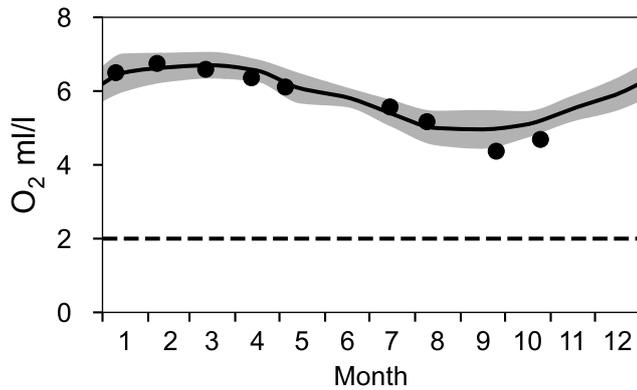
STATION P2 SURFACE WATER (0-10 m)

Annual Cycles

— Mean 1991-2020 St.Dev. ● 2025

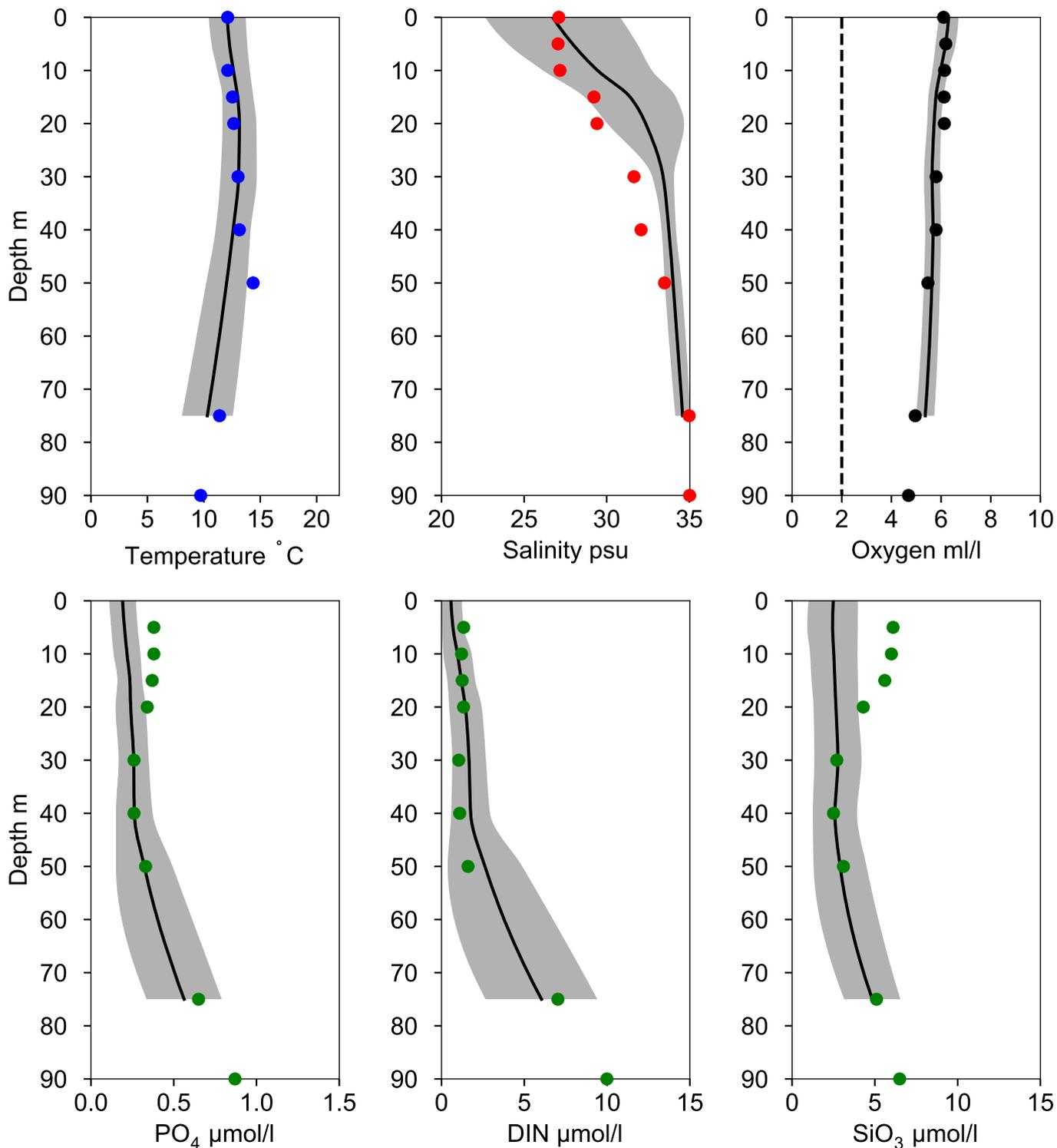


OXYGEN IN BOTTOM WATER (depth >= 75 m)



Vertical profiles P2 October

— Mean 1991-2020 ■ St.Dev. ● 2025-10-25



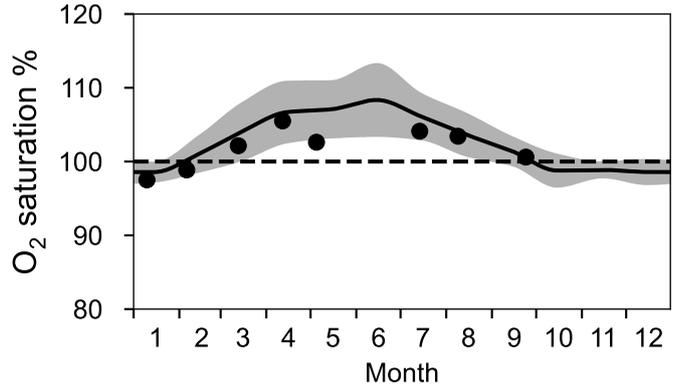
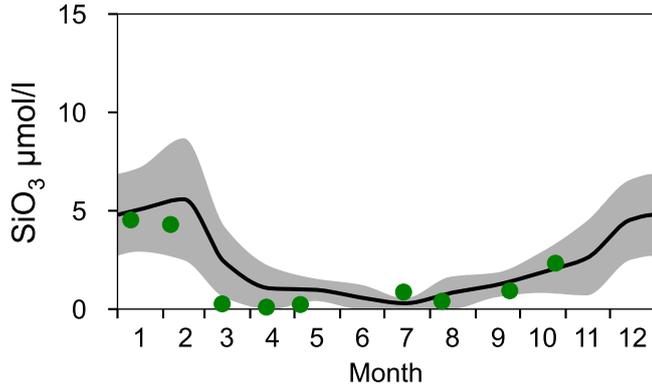
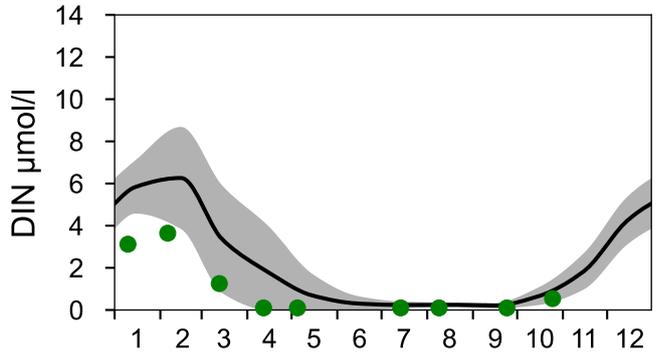
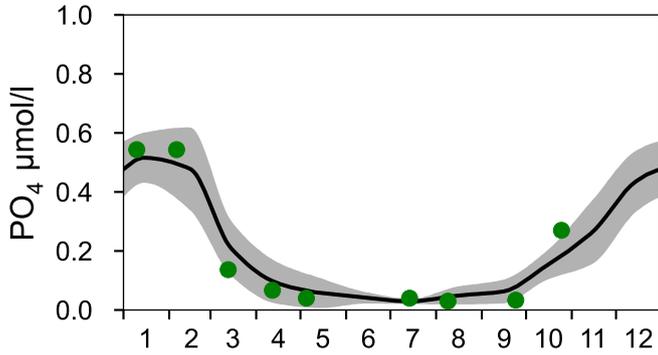
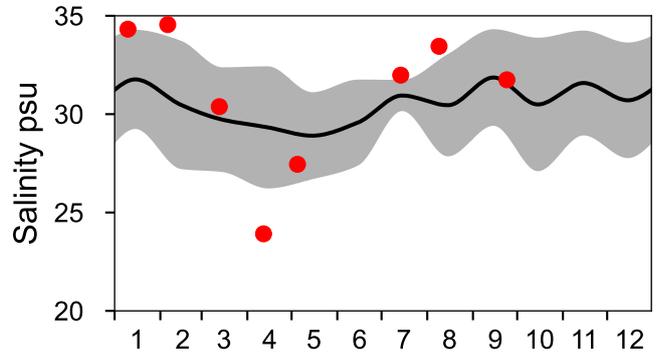
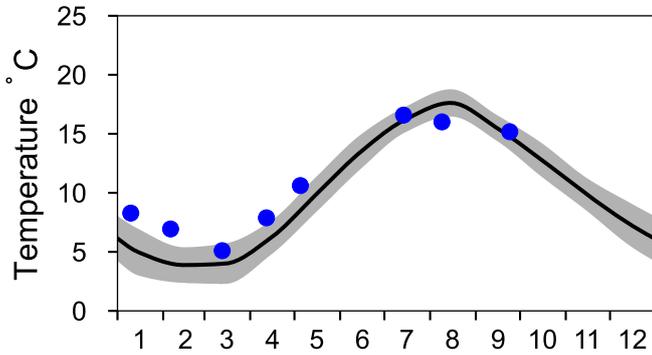
STATION Å15 SURFACE WATER (0-10 m)

Annual Cycles

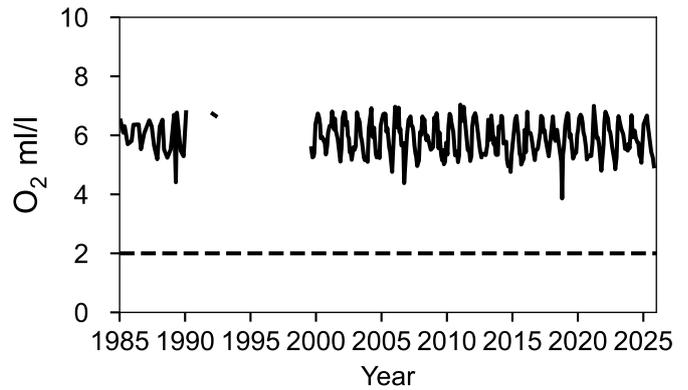
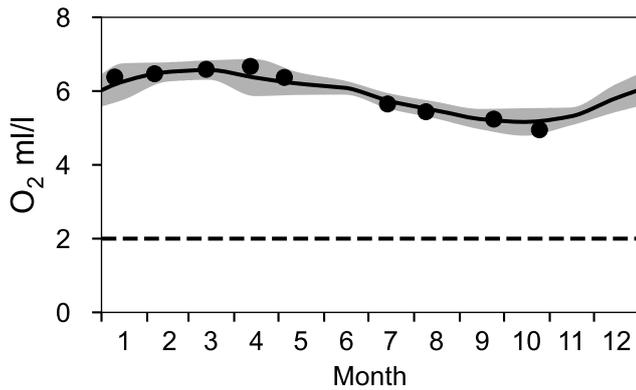
— Mean 1991-2020

■ St.Dev.

● 2025

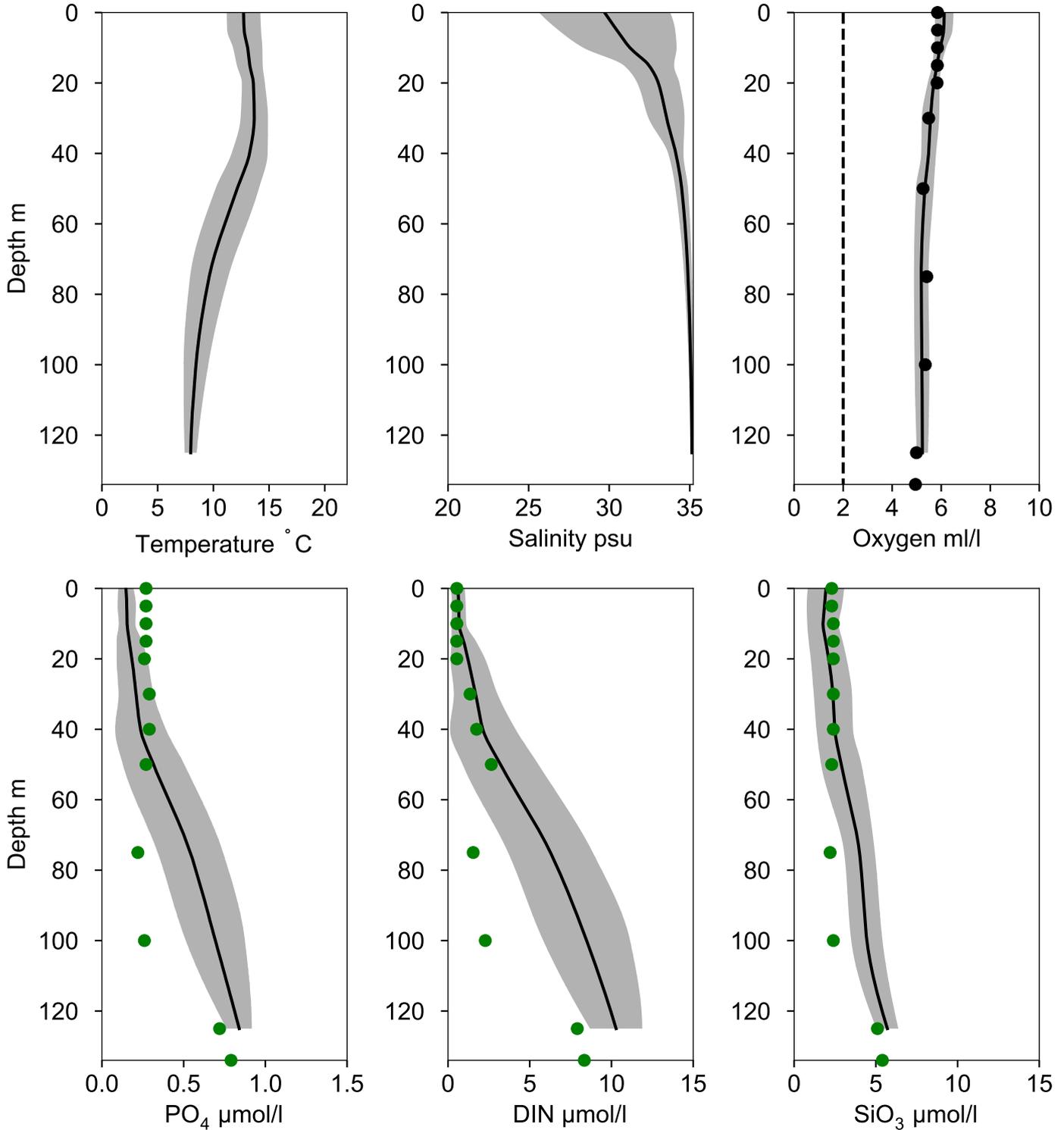


OXYGEN IN BOTTOM WATER (depth >= 125 m)



Vertical profiles Å15 October

— Mean 1991-2020 ■ St.Dev. ● 2025-10-25



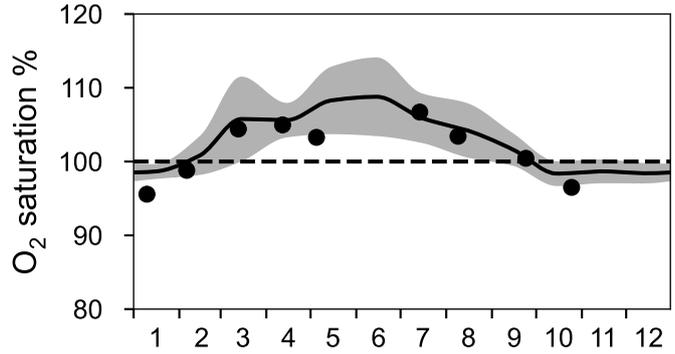
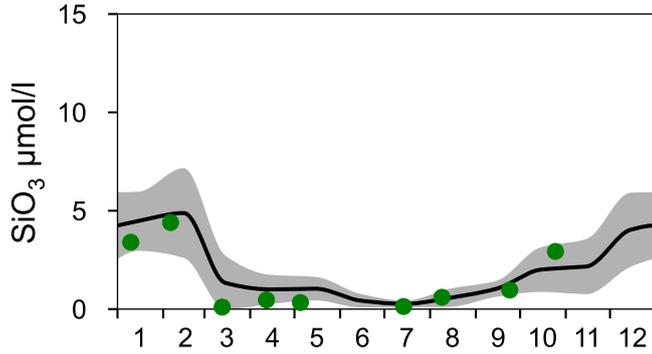
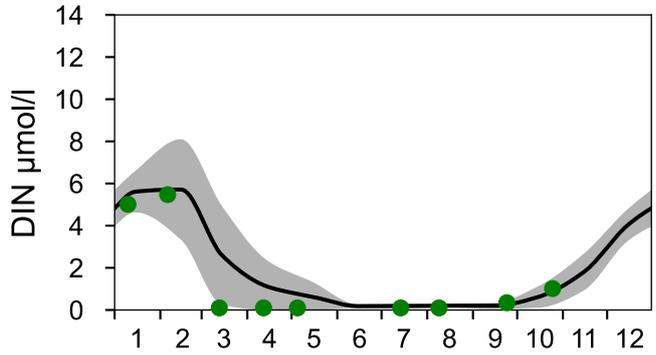
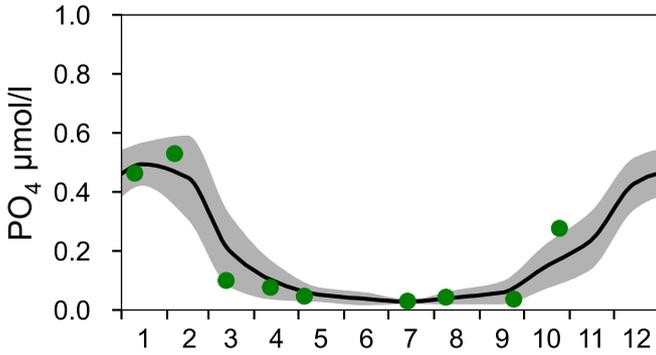
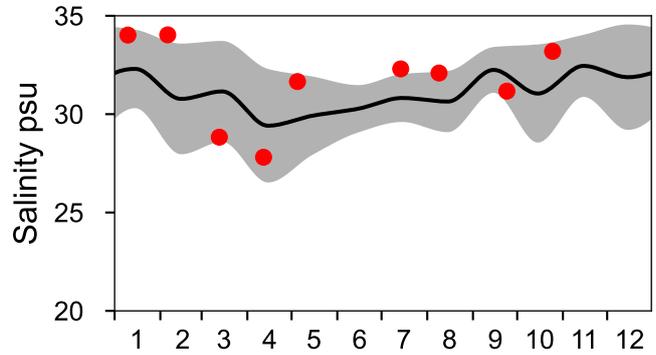
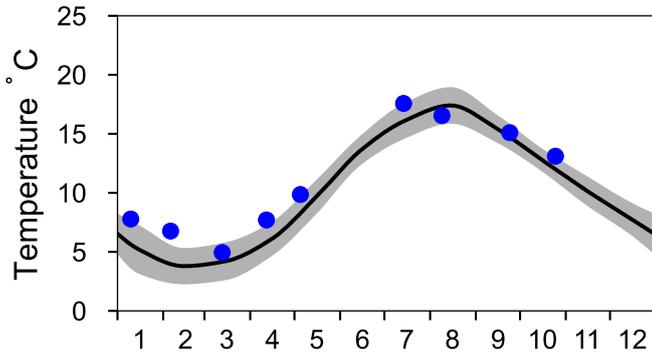
STATION Å17 SURFACE WATER (0-10 m)

Annual Cycles

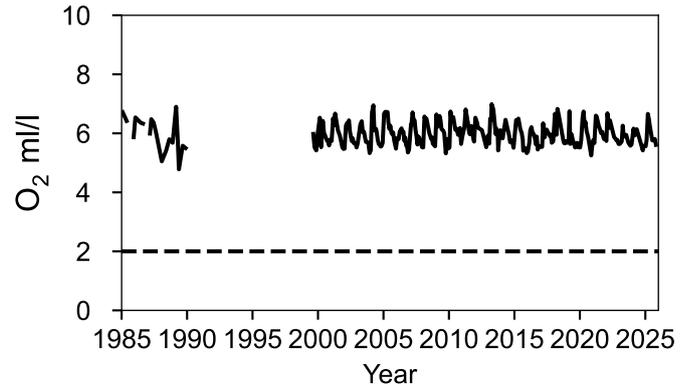
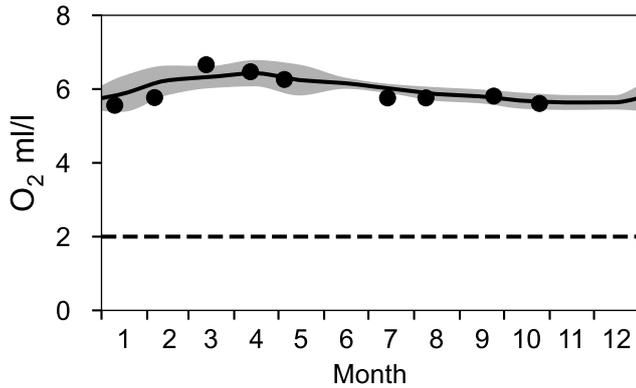
— Mean 1991-2020

■ St.Dev.

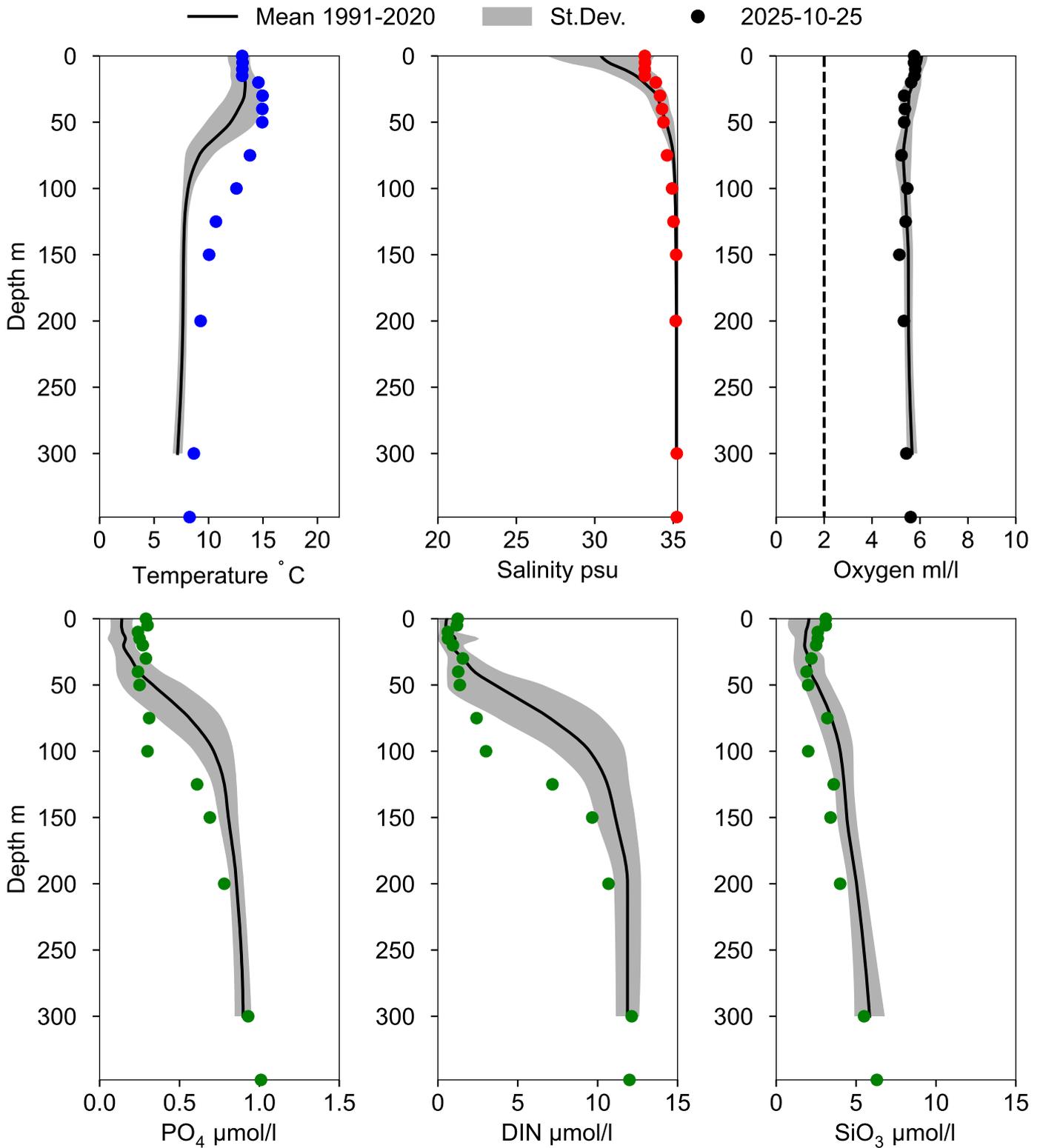
● 2025



OXYGEN IN BOTTOM WATER (depth >= 300 m)



Vertical profiles A17 October



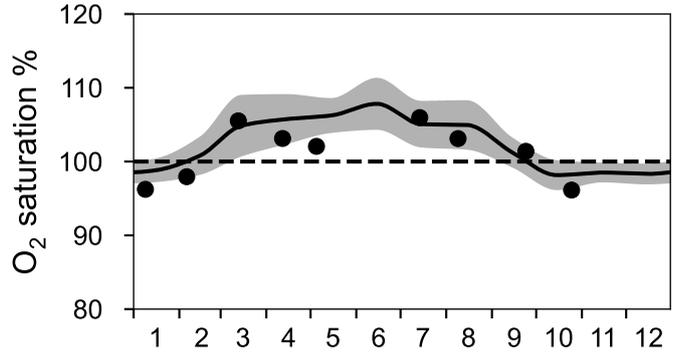
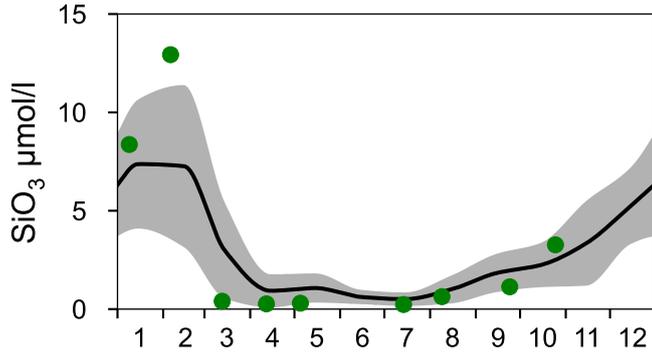
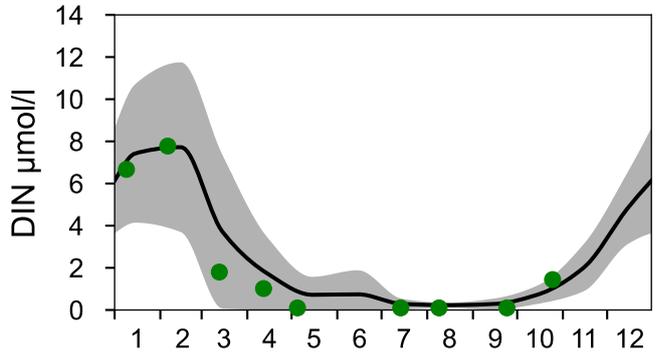
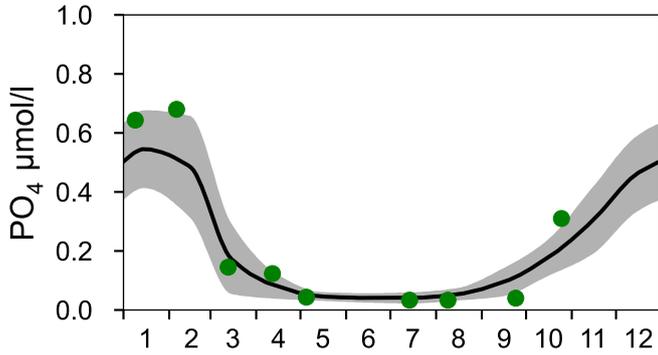
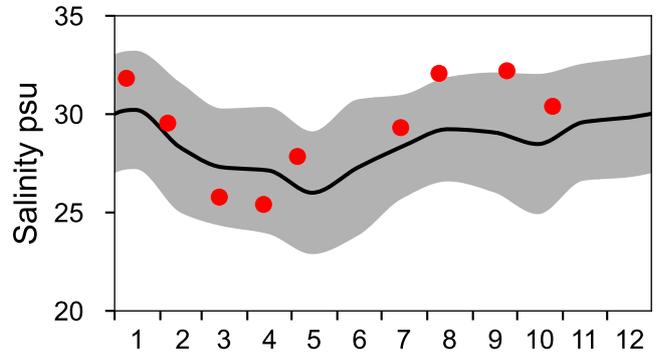
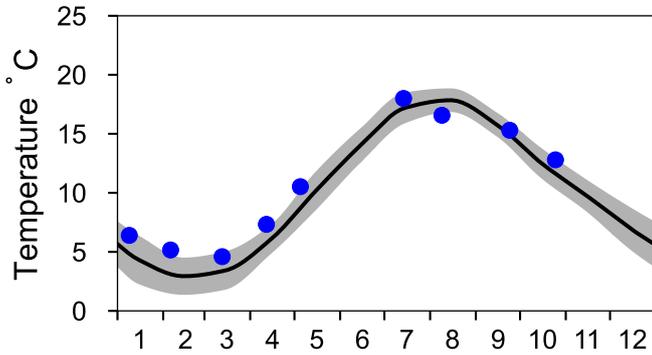
STATION Å13 SURFACE WATER (0-10 m)

Annual Cycles

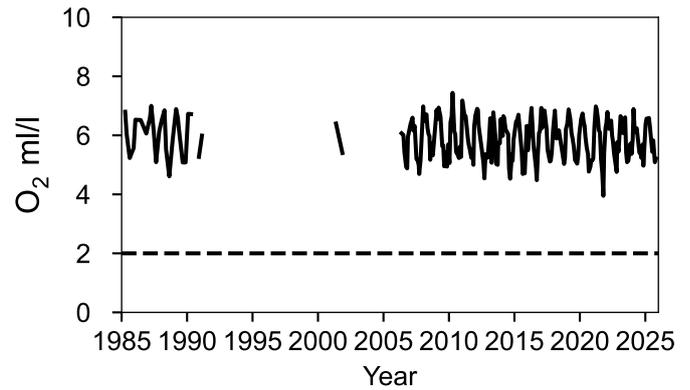
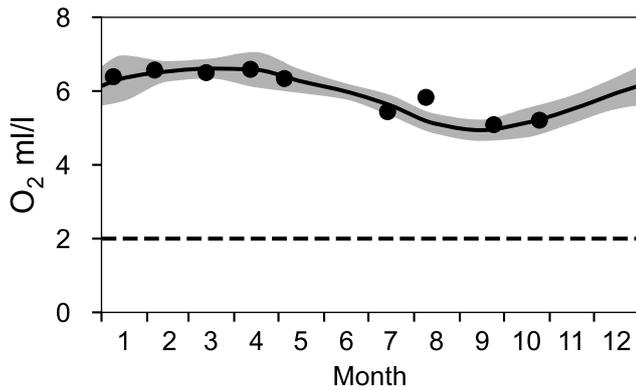
— Mean 1991-2020

■ St.Dev.

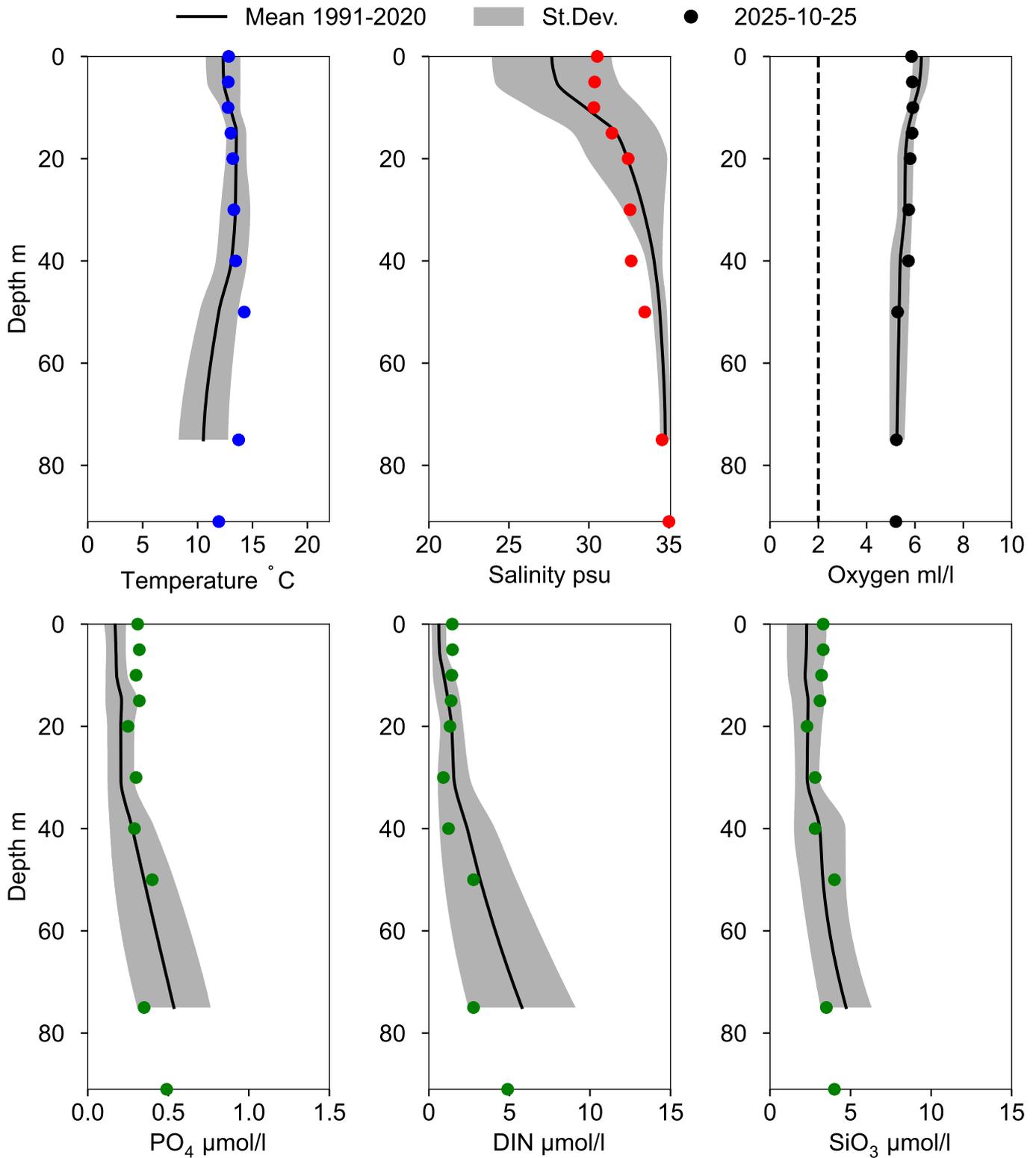
● 2025



OXYGEN IN BOTTOM WATER (depth >= 82 m)



Vertical profiles Å13 October



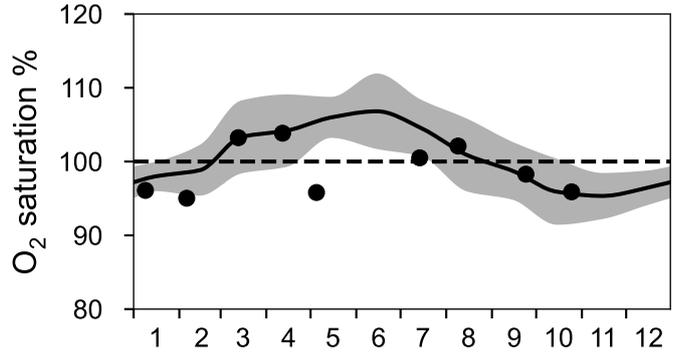
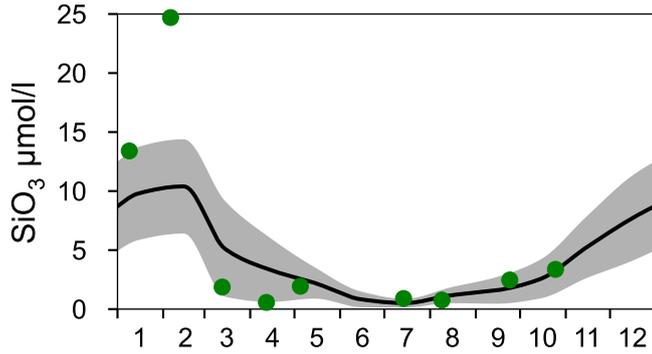
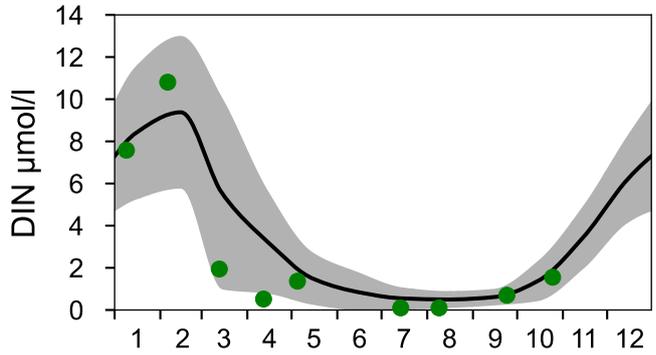
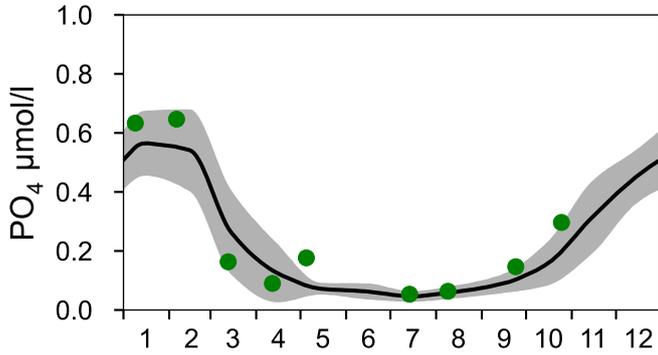
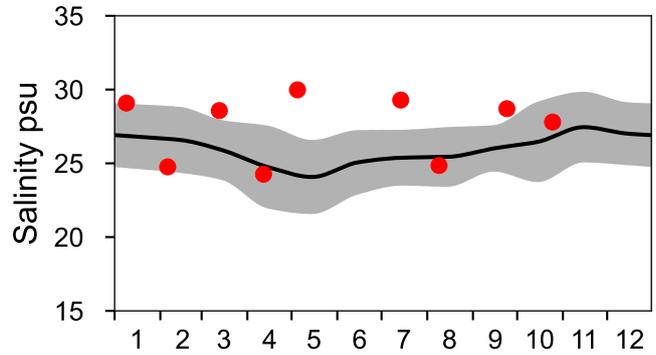
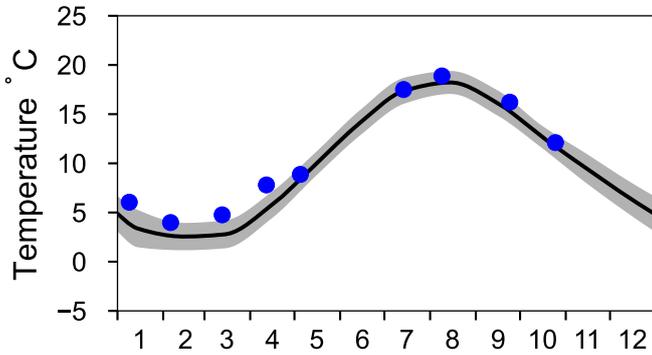
STATION SLÄGGÖ SURFACE WATER (0-10 m)

Annual Cycles

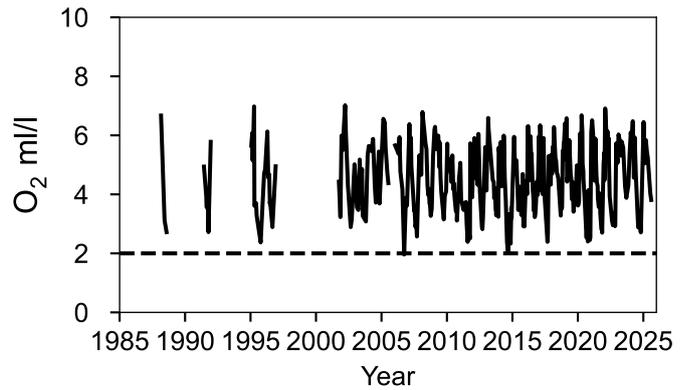
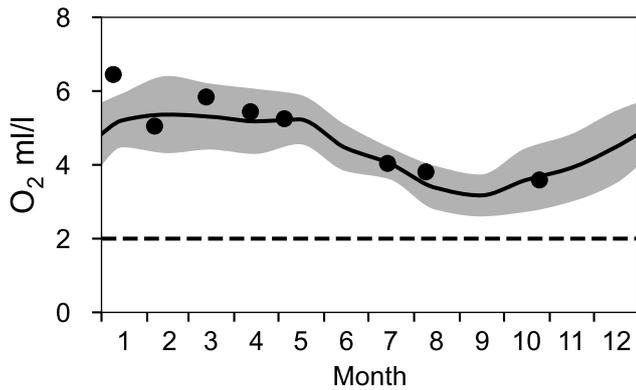
— Mean 1991-2020

■ St.Dev.

● 2025



OXYGEN IN BOTTOM WATER (depth >= 64 m)



Vertical profiles SLÄGGÖ October

