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

Photo: Madeleine Nilsson, SMHI

Survey period: 2025-02-06 to 2025-02-13

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SUMMARY

During the expedition, which is part of Sweden's pelagic monitoring program, the Skagerrak, Kattegat, the Sound, and the Baltic Proper were visited. Nutrient mapping was conducted in the Baltic Proper.

In all sea areas, surface water temperatures were above normal at most stations. In Skagerrak, temperatures ranged between 4.0–7.0°C, while in Kattegat and the Sound, they were around 4°C. In the Baltic Proper, the average temperature was 3.3–4.8°C, with the largest deviations in the southern basins. Salinity in the surface water was above normal at several stations in the Baltic Proper, while in Skagerrak and Kattegat, it varied without major anomalies.

In Skagerrak, a very thin, cold, and fresh surface layer was observed near the coast, similar to the conditions in January. In Kattegat and the Sound, a well-mixed surface layer was present, with a thermocline at approximately 15 meters depth. In the Baltic Proper, the halocline was found at varying depths: around 30 meters in the Arkona Basin, 60 meters in the Western Gotland Basin, and 70 meters in the Eastern Gotland Basin. Below the halocline, temperatures remained high at many stations, and in the Bornholm Basin, signs of a minor inflow were observed.

The concentrations of nutrients in the surface water varied between sea areas. In Skagerrak, silica concentrations were above normal at most stations, while phosphate and nitrogen concentrations were slightly lower at the outermost stations. In Kattegat and the Sound, nutrient levels showed little variation, but silica concentrations were consistently above normal. In the Baltic Proper, nitrogen levels were within the normal range at most stations, while phosphate levels were above normal in the southern basins. Silica concentrations were higher than normal at almost all stations, particularly in the southern parts.

The oxygen situation was generally good in Skagerrak, Kattegat, and the Sound, with no signs of oxygen deficiency observed. In the Baltic Proper, the situation was more varied. Oxygen concentrations in the Arkona Basin remained good, but in Hanö Bay, bottom oxygen levels had decreased since January and were now close to zero. In the Bornholm Basin, acute oxygen deficiency was recorded, and in the Baltic Proper, waters below 80–90 meters depth were completely anoxic. At station BY38, which had been oxygenated following storm Charly in January, the water was once again oxygen-free.

The next expedition with R/V Svea is planned to start on March 7 in Kalmar and end in Gothenburg March 13.

EXPEDITION OVERVIEW

The expedition was conducted with the research vessel R/V Svea, starting in Lysekil on February 6 and ending in Gothenburg on February 13. In the Baltic Proper, nutrient mapping was conducted.

The weather during the expedition was favourable, with light to moderate winds from varying directions. Air temperatures ranged between -2 and +6°C throughout the week. All planned stations were successfully sampled.

Profiles of salinity, temperature, oxygen, and fluorescence in the water column were measured using a CTD mounted on a rosette with space for 24 water samplers. At all stations, the water samplers were triggered using autofire during the descent. This method saves time at each station and has been made possible by the development of the pre-system used for CTD sampling, developed and maintained by SMHI, SharkTools. Auto heave compensation (AHC) was used at most stations, contributing to improved depth precision when sampling with the water samplers.

A reference measurement at Flinten 7 was conducted on the way south through the Sound.

Svea's FerryBox system was out of order throughout the expedition due to flow issues. The cause of the problem has been identified, and the system will be operational again for the next expedition in March. The Moving Vessel Profiler (MVP) instrument, used for measuring profiles while underway, was deployed during the latter part of the expedition, primarily in the eastern, northern, and western Gotland Basins. Svea's ADCP (measuring water current velocities and directions), was operated continuously throughout the expedition.

This report is based on data that has undergone an initial quality control and has been compared against monthly averages for the period 1991–2020. Further quality assurance may lead to some values being adjusted. The values presented in this report have been rounded to the nearest tenth and may therefore differ from published values. Data will be made publicly available as soon as possible on the data host's website, typically within about a week after the expedition ends. Some analyses are conducted after the expedition and will be published at a later stage.

For more information on our data hosting and to download data, visit:
https://www.smhi.se/data/oceanografi/datavardskap-oceanografi-och-marinbiologi

For details on the algae situation, refer to the Algaware report,
https://www.smhi.se/publikationer-fran-smhi

The Skagerrak

The temperature in the surface water was above normal at the three westernmost stations and within the normal range at the other stations, varying between 4.0–7.0°C. The salinity in the surface water ranged from 25 to 35 psu and was below normal at station P2 outside Marstrand (25.8 psu). As in January, a very thin, fresh, and cold surface layer, shallower than 5 meters, was present along the coast. Below this layer, both salinity and temperature increased. The salinity in the deep water was 34–35 psu, and the temperature ranged from 6.5 to 8.3°C, with the lowest temperature recorded at station P2.

Regarding nutrient concentrations in the surface water, a clear difference was observed between the two westernmost stations, Å17 and Å15, and the stations closer to the coast, which had higher concentrations. The most notable difference was in silica, where concentrations were normal at Å17 and Å15 (approximately 4 µmol/l) but significantly above normal at the other stations (13–25 µmol/l). The difference in phosphate and dissolved inorganic nitrogen (DIN) concentrations was less pronounced. At the outer stations, phosphate levels were measured at 0.5 µmol/l and nitrogen levels at 4–6 µmol/l, whereas the concentrations were higher at the inner stations, with phosphate at 0.7 µmol/l and nitrogen at 6–11 µmol/l.

Fluorescence measurements showed low plankton activity at all stations, with a peak at 15 m at station P2.

The Kattegat and the Sound

The surface water temperature was around 4°C, and salinity ranged from 15 to 24 psu in Kattegat, while it was approximately 10 psu in the Sound. A well-mixed surface layer was present at all stations, with a thermocline at around 15 meters depth.

The concentrations of silica, dissolved inorganic nitrogen (DIN), and phosphate in the surface water showed little variation across the area (DIN: 5.5–6.5 µmol/l, phosphate: 0.7 µmol/l, and silica: 14–17 µmol/l). Silica concentrations were above normal at all stations, phosphate concentrations were above normal except at Falkenberg and in the Sound, while dissolved inorganic nitrogen concentrations were within the normal range.

Oxygen levels in the bottom water of Kattegat and the Sound showed no signs of oxygen deficiency and were normal at all stations, ranging between 5.6 and 6.8 ml/l.

Chlorophyll fluorescence was highest between 0 and 15 meters, with the highest values recorded at Anholt and Fladen.

The Baltic Proper

The average surface water temperature varied between 3.3 and 4.8°C, which was above normal at most stations. Only in the Western Gotland Basin and Hanö Bay was the temperature within the normal range. Salinity was also above normal at several stations, ranging from 6.6 to 9.1 psu.

In the Arkona Basin, a halocline was observed at 30 meters, with saltier water near the bottom (14–18 psu). The temperature also increased slightly below the halocline, reaching 6–8°C near the bottom. In the Bornholm Basin, temperature and salinity stratification coincided at around 60 meters depth. The surface water had a temperature of 4°C and a salinity of 8 psu, while the deep water had a temperature of around 10°C and a salinity of 16 psu. At station BY5 in the Bornholm Basin, the temperature below the halocline varied between 8.9 and 10.2°C, likely indicating traces of a minor inflow. In the Eastern Gotland Basin, the halocline was found at around 70 meters, while in the Western Gotland Basin, it was slightly shallower at approximately 60 meters. Below the halocline, the temperature was above normal at most stations, around 6°C in the Western Gotland Basin and around 7°C in the Eastern Gotland Basin. Salinity in the bottom water was normal.

The concentration of dissolved inorganic nitrogen (DIN) was within the normal range at all stations except for two: BY36 in the Western Gotland Basin (below normal) and BY27 in the Northern Baltic Proper (above normal). The concentration was lowest in the southern basins and increased northward, ranging from 3.0 to 5.3 µmol/l. In contrast to nitrogen, phosphate concentrations were above normal at all stations in the southern basins (Arkona, Hanö Bay, and Bornholm) but normal in the basins around Gotland. In the southern parts, concentrations ranged between 0.7 and 1.0 µmol/l, while variation between stations was lower in the Gotland basins, where concentrations ranged between 0.7 and 0.8 µmol/l. The most significant deviation from normal was observed in silica concentrations, which were above normal at all but three stations in the Northern Baltic Proper (BY21, BY28, BY27). Silica concentrations varied between 15 and 22 µmol/l, with generally lower concentrations in the Eastern Gotland Basin compared to the other basins.

The oxygen situation was good in the Arkona Basin, where bottom water oxygen concentrations ranged between 5.5 and 5.7 ml/l. In Hanö Bay, the bottom oxygen concentration had continued to decline since December and was now only 0.2 ml/l. In the Bornholm Basin, oxygen concentrations in the bottom water varied significantly between the two stations BY4 and BY5, with levels just above 2 ml/l at BY5 (indicating acute oxygen deficiency) and only 0.4 ml/l at BY4. Oxygen concentrations in the Stolpe channel were also just above acute oxygen deficiency. At all other stations, hydrogen sulfide was detected in the bottom water, except for the two stations in the Gdańsk Basin (PL-P1 and PL-P63) and BY10 in the southern part of the Eastern Gotland Basin. At station BY38, where bottom water had been oxygenated due to storm Charly in January, the water was once again anoxic.

Fluorescence measurements generally indicated low plankton activity in the surface layer, with some peaks observed in the Arkona and Bornholm Basins and in Hanö Bay.

Figures

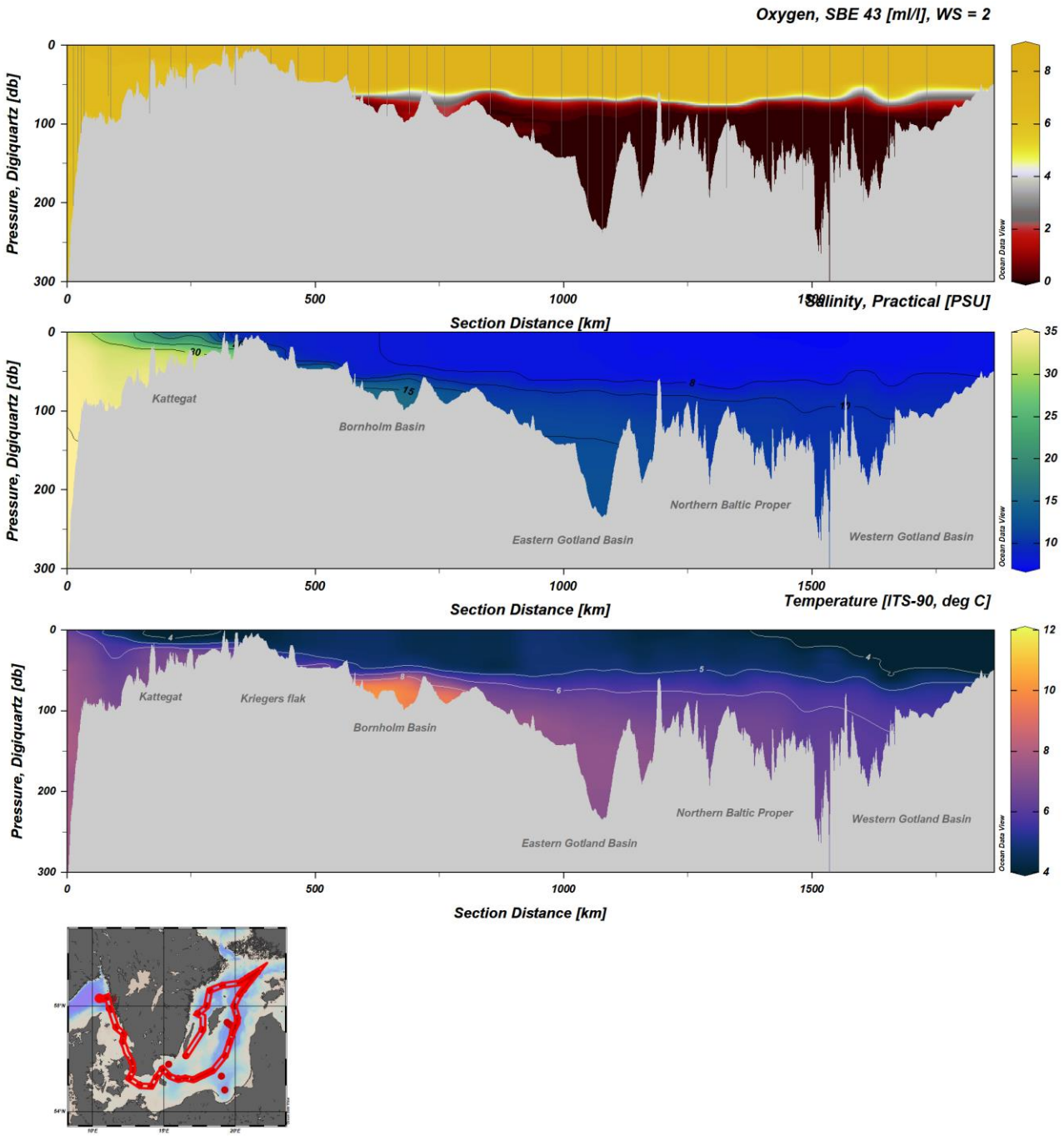


Figure 1. Section showing oxygen concentration, salinity, and temperature from CTD measurements, from the Skagerrak through the Kattegat and into the Baltic Proper and Gulf of Bothnia (to the right).

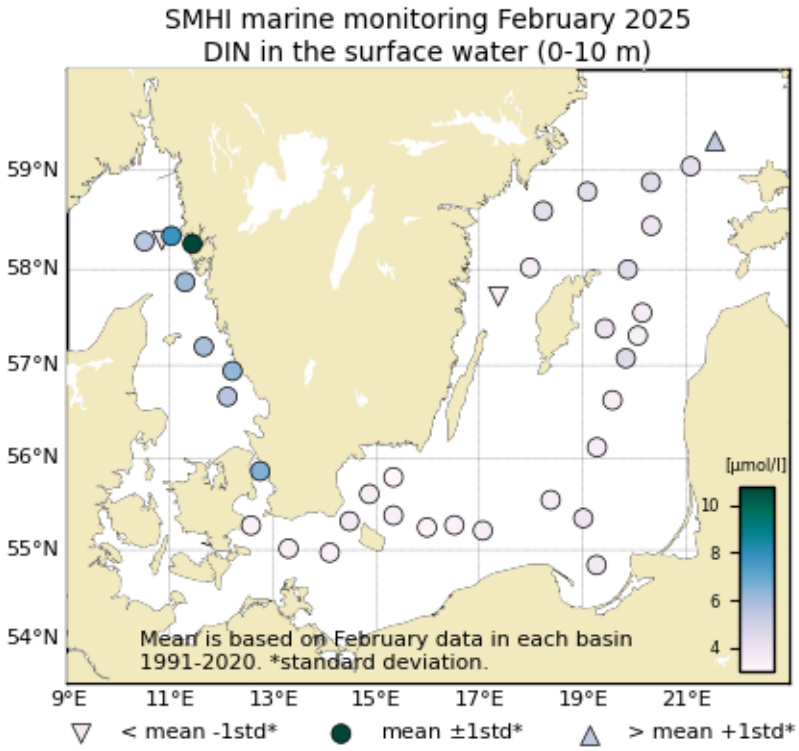


Figure 2. The concentration (µmol/l) of inorganic nitrogen (DIN) in the surface water (0 – 10 m). The mean value is based on data for the month at each station during the years 1991 – 2020.

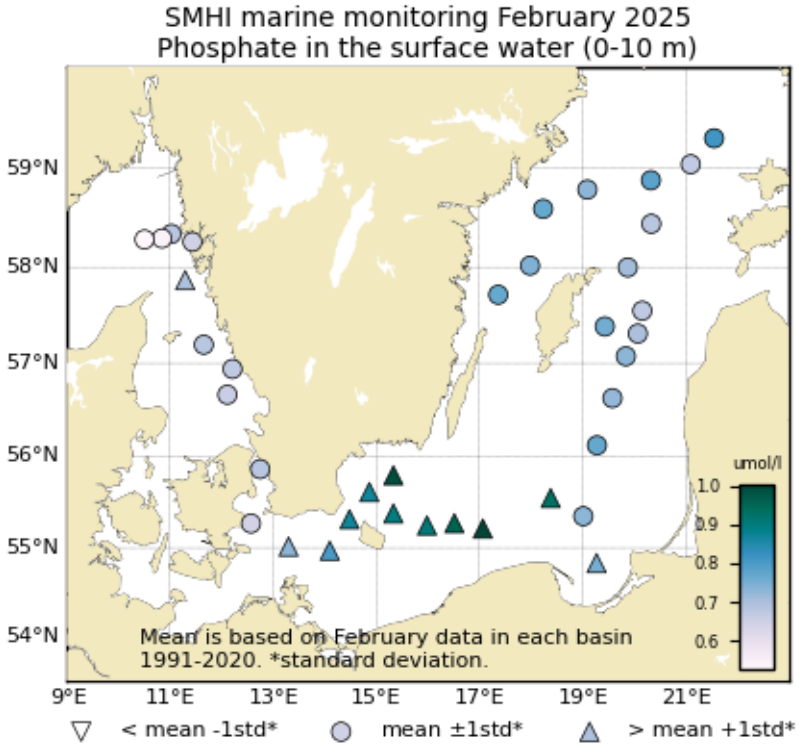


Figure 3. The concentration (µmol/l) of phosphate in the surface water (0 – 10 m). The mean value is based on data for the month at each station during the years 1991 – 2020.

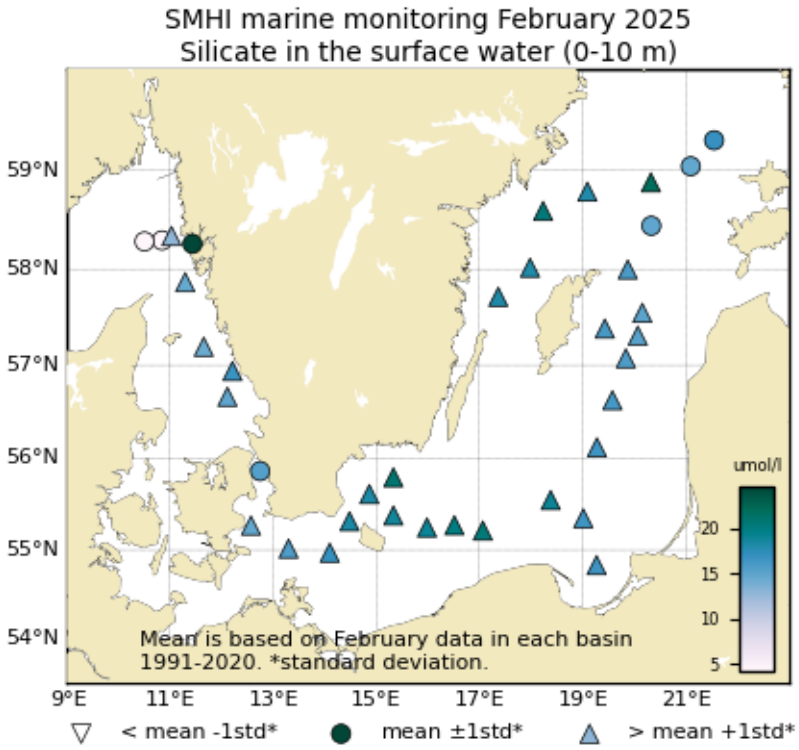


Figure 4. The concentration (µmol/l) of silicate in the surface water (0 – 10 m). The mean value is based on data for the month at each station during the years 1991 – 2020.

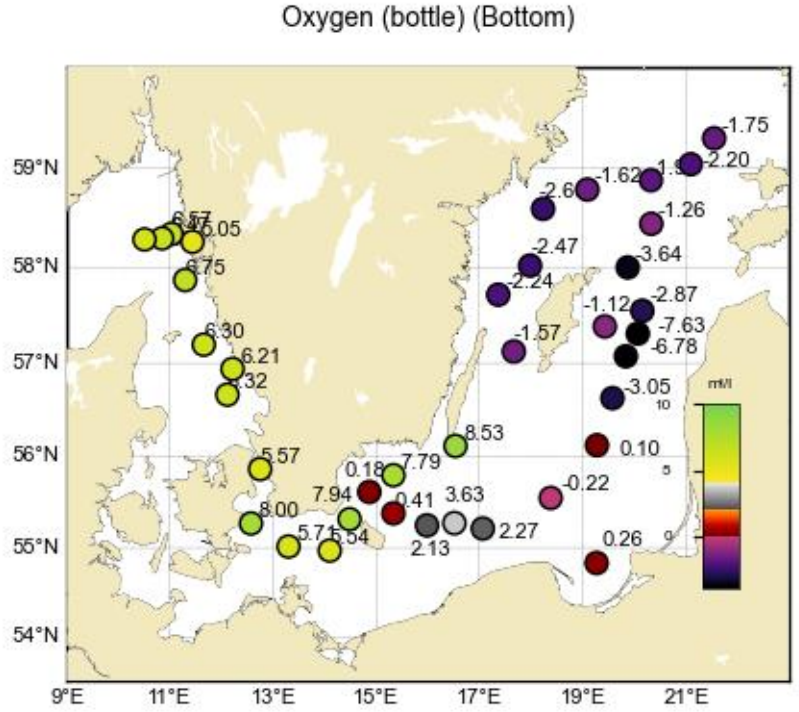


Figure 5. Dissolved oxygen concentration (ml/l) in the bottom water, approx. one meter above the seafloor. Presence of hydrogen sulphide is shown as H2S. Note that the values have not been compared to statistics as in similar figures and only circles are shown.

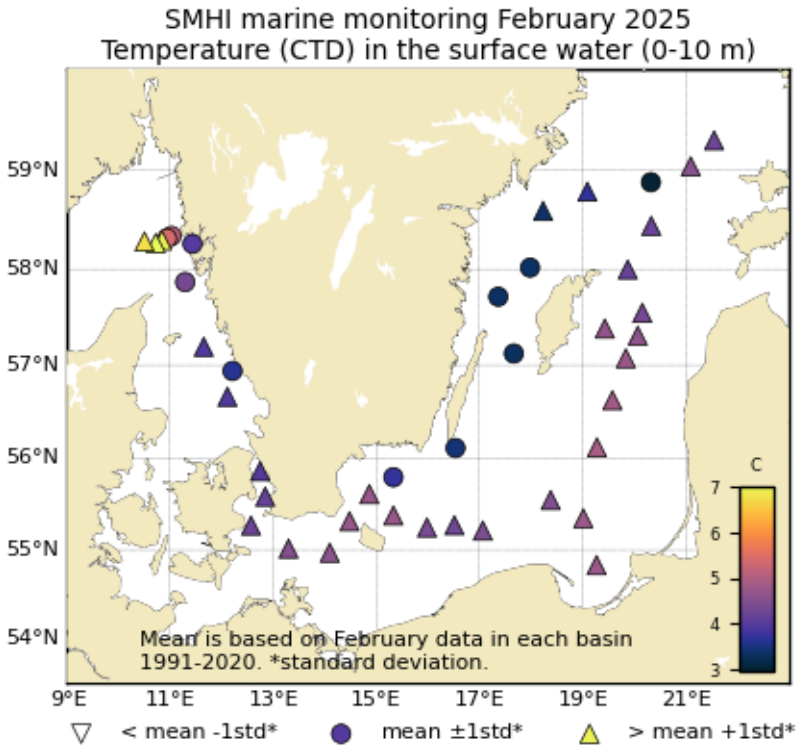


Figure 6. The temperature in the surface water (0 – 10 m). The mean value is based on data for the month at each station during the years 1991 – 2020.

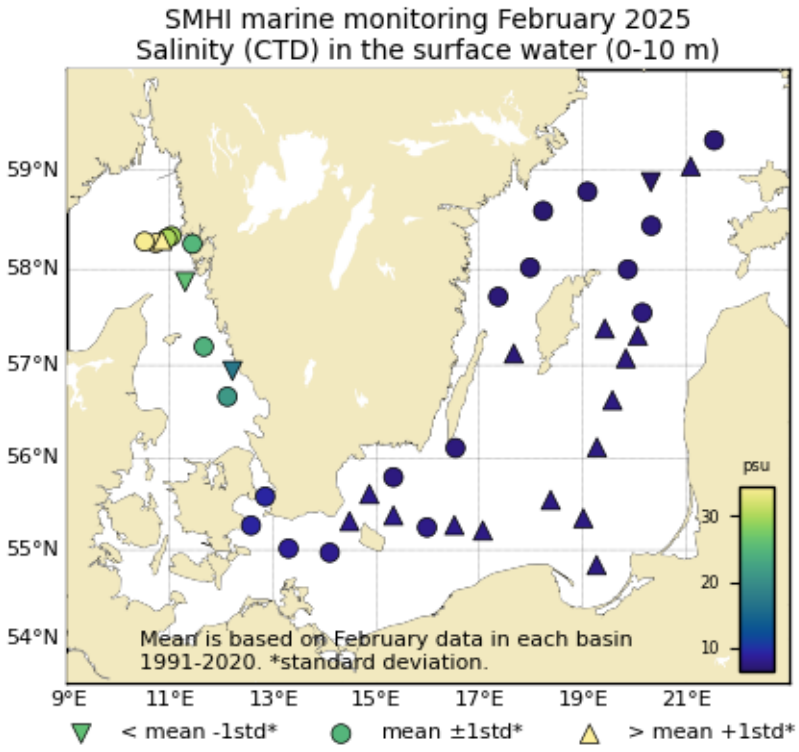


Figure 7. The salinity in the surface water (0 – 10 m). The mean value is based on data for the month at each station during the years 1991 – 2020.

PARTICIPANTS

Name	Role	From
Anna-Kerstin Thell	Cruise leader, CTD-operations and water analysis	SMHI
Sara Johansson	Water sampling and analysis	SMHI
Monica Lindner	Nutrient analysis, quality control	SMHI
Ann-Turi Skjevik	CTD-operations and water analysis	SMHI
Sari Sipilä	Water sampling and analysis	SMHI

APPENDICES

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


SMHI
SMHI monitoring stations
High frequency, ~24 visits/year
Frequent, ~12 visits/year
Low frequency mapping, 1 visits/year
Ocean buoy
Bottom rig
Wave buoy
F2
F3/A5
RR1
RR5
RR7
F9/A13
BO3/A3
F13
NB1/B3
F16
F18 SYDOSTBROTTEN
GAVIK-1
US2 ULVÖDJ
US3/C6
C3
US5B/C1
US7
MS2
MS4/C14
MS6
F26/C15
SR1A
SR3
SR5/C4
SS29
SR8
FINNGRUNDET
F33 GRUNDKALLEN
U19 NORRA RANDEN
F64 SOLOVJEVA
TRÖSKELN ÅLANDS HAV
10E ALMAGRUNDET
BY27
BY28
HUVUDSKÄRSBOJEN
BY29
BY30
BY31
BY21
BY32
BY20
BY36
KNOLLS GRUND
BY19
BY13
BY15
ÖSTERGARNSHOLM
BY38
BY11
BY10
BY9
BY39
BCS III-10
PL-P63
PL-P1
STOLPE TRÖSKEL
BY7
HANÖBUKTEN
HANÖBUKTEN-KBV
BY3
BY4
BY5
BY1
BY2
KOSTER
VÄDERÖARNA
Å13
Å17
SLÄGGÖ
Å15
BROFJORDEN
P2
GF6
GF8
GF9
SW VINGA GF4
LÄSÖ RÄNNA
FLADEN
L:A MIDDELGRUND
N14 FALKENBERG
409 ÅLBORG BUGT
ANHOLT E
P22
LAHOLM-3 (YG)
KULLEN
ÖRESUND-12X
925 KATTEGAT SW
W LANDSKRONA
ÖRESUND-7
ÖRESUND-4
ÖRESUND-2
FLINTEN 7
441 STEVNS KLINT
64
62
60
58
56
10
12
14
16
18
20
22

Date: 2025-03-07
Time: 17:22

Ship: 77SE
Year: 2025

Ser no	Cru no	Stat code	Proj	Stat name	Lat	Lon	Start date yyyymmdd	Start time hhmm	Bottom depth m	Secchi depth m	Wind dir	Wind vel	Air temp C	Air pres hPa	WCWI elac aoveo tueo hdsb	CZPP hohp loy apt o p	No de	No btl	T e m p _ b t l	T e m p _ d l	S a l _ c l	S a l _ t d	S P l _ c t d	D h o x y _ b l	D o x y _ c t d	H 2 s	P h s	P o t	N t r i	N t r a	N t r z	A m o n	A t o t	A l k y	S i o 3 - s i	H u m u s	C o m n _ v i s i t	C o m n t _ s a m p t
0151	05	FIBG27	BAS...	SLÄGGÖ	5815.58	01126.13	20250206	1335	74	4	08	1	5.7	1048	1110	xxx-	9	9	x	x	x	x	x	x	x	-	x	x	x	x	x	x	x	x	x	-	-	-
0152	05	SKEX14	BAS...	Å13	5820.39	01101.73	20250206	1845	90		07	3	3.9	1050	9990	x---	10	10	x	x	x	x	x	x	x	-	x	x	x	x	x	x	x	x	x	-	-	-
0153	05	SKEX15	BAS...	Å14	5818.94	01056.52	20250206	1945	110		07	3	3.9	1050	9990	----	11	0	-	x	-	x	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0154	05	SKEX16	BAS...	Å15	5817.67	01050.72	20250206	2040	135		07	2	3.6	1050	9990	x---	12	12	x	x	x	x	x	x	x	-	x	x	x	x	x	x	x	x	x	-	-	-
0155	05	SKEX17	BAS...	Å16	5816.02	01043.40	20250206	2145	202		07	2	5.6	1050	9990	----	13	0	-	x	-	x	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0156	05	SKEX18	BAS...	Å17	5817.02	01030.29	20250206	2310	340		07	2	5.9	1050	9990	xxx-	15	15	-	x	-	x	x	x	-	x	x	x	x	x	x	x	x	x	-	-	-
0157	05	SKEX23	BAS...	P2	5752.06	01117.67	20250207	0430	93		09	4	2.4	1049	9990	x---	10	10	x	x	x	x	-	x	x	-	x	x	x	x	x	x	x	x	x	-	-	-
0158	05	KANX25	BAS...	FLADEN	5711.75	01139.29	20250207	0930	84	9	10	8	0.5	1047	1130	x---	13	13	x	x	x	x	x	x	x	-	x	x	x	x	x	x	x	x	x	-	x	-
0159	05	KANX50	BAS...	N14 FALKENBERG	5656.41	01212.71	20250207	1255	30	8	06	8	2.0	1045	1530	xxx-	7	7	x	x	x	x	-	x	x	-	x	x	x	x	x	x	x	x	x	-	-	-
0160	05	KAEX29	BAS...	ANHOLT E	5640.05	01206.78	20250207	1520	62	8	08	10	2.9	1042	1630	xxxx	10	10	x	x	x	x	x	x	x	-	x	x	x	x	x	x	x	x	x	-	-	-
0161	05	SOCX39	BAS...	W LANDSKRONA	5552.01	01244.90	20250207	2210	50		09	9	2.9	1038	9990	x---	9	9	x	x	x	x	-	x	x	-	x	x	x	x	x	x	x	x	-	x	-	x	-
0162	05	SOSX00	EXT...	FLINTEN-7	5535.34	01250.77	20250208	0110	8		11	10	1.9	1038	9990	----	3	0	-	x	-	x	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-
0163	05	BPSA01	BAS...	441 STEVNS KLINT	5516.29	01234.26	20250208	0425	26		11	12	2.0	1035	9990	----	6	6	x	x	x	x	-	x	x	-	x	x	x	x	x	x	x	x	-	x	-	-	-
0164	05	BPSA02	BAS...	BY1	5500.95	01317.95	20250208	0825	47		12	10	1.5	1034	2840	x---	8	8	x	x	x	x	-	x	x	-	x	x	x	x	x	x	x	x	-	x	-	-	-
0165	05	BPSA03	BAS...	BY2 ARKONA	5458.27	01405.9	20250208	1150	47	10	12	9	1.4	1035	2840	xxx-	8	8	x	x	x	x	x	x	x	-	x	x	x	x	x	x	x	x	x	x	-	-	-
0166	05	BPSA04	BAS...	BY3 HAMRARNE SUND	5519.11	01428.93	20250208	1520	48		13	9	1.9	1035	2840	----	8	8	x	x	x	x	-	x	x	-	x	x	x	x	x	x	x	x	-	x	-	-	-
0167	05	BPSH05	BAS...	HANÖBUKTEN	5537.03	01451.98	20250208	1810	80		13	10	2.8	1035	9990	x---	11	11	x	x	x	x	-	x	x	-	x	x	x	x	x	x	x	x	-	x	-	-	-
0168	05	BPSH51	BAS...	HANÖBUKTEN-KBV	5548.01	01519.99	20250208	2040	60		14	9	2.6	1036	9990	----	9	9	x	x	x	x	-	x	x	-	x	x	x	x	x	x	x	x	-	x	-	-	-
0169	05	BPSB06	BAS...	BY4 CHRISTIANSÖ	5522.97	01520.00	20250208	2340	94		11	5	2.0	1036	9990	x---	12	12	x	x	x	x	-	x	x	-	x	x	x	x	x	x	x	x	-	x	-	-	-
0170	05	BPSB07	BAS...	BY5 BORNHOLMSDJ	5515.01	01559.07	20250209	0330	91		09	6	1.5	1036	9990	xxxx	12	12	x	x	x	x	x	x	x	-	x	x	x	x	x	x	x	x	x	x	-	-	-
0171	05	BPSE08	BAS...	STOLPE TRÖSKEL	5516.50	01630.95	20250209	0655	63		10	7	1.1	1036	2730	----	9	9	x	x	x	x	-	x	x	-	x	x	x	x	x	x	x	x	-	x	-	-	-
0172	05	BPSE09	BAS...	BY7 STOLPE RÄNNA	5512.93	01704.03	20250209	0935	91	10	09	6	0.8	1037	2830	----	12	12	x	x	x	x	-	x	x	-	x	x	x	x	x	x	x	x	-	x	-	-	-
0173	05	BPSE11	BAS...	BCS III-10	5533.11	01823.04	20250209	1505	90	9	09	8	0.1	1039	2830	x---	12	12	x	x	x	x	-	x	x	x	x	x	x	x	x	x	x	x	-	x	x	-	-
0174	05	BPSG71	BAS...	PL-P1	5449.95	01916.45	20250209	2040	110		14	5	-1.2	1039	9990	----	14	14	x	x	x	x	-	x	x	-	x	x	x	x	x	x	x	x	-	x	-	-	-
0175	05	BPSE70	BAS...	PL-P63	5521.06	01900.98	20250210	0025	83		11	5	-1.3	1039	9990	----	11	11	x	x	x	x	-	x	x	-	x	x	x	x	x	x	x	x	-	x	-	-	-
0176	05	BPSE12	BAS...	BY9 KLAIPEDA	5607.50	01916.89	20250210	0615	127		07	9	-0.9	1040	9990	----	14	14	x	x	x	x	-	x	x	x	x	x	x	x	x	x	x	x	-	x	-	-	-
0177	05	BPEX13	BAS...	BY10	5637.83	01934.92	20250210	1000	147	12	08	9	-0.3	1043	2830	x--x	15	15	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	-	x	-	x	-
0178	05	BPEX14	BAS...	BY11	5704.45	01950.53	20250210	1340	213		07	9	-1.1	1043	2730	----	17	17	-	x	-	x	-	x	x	x	x	x	x	x	x	x	x	x	-	x	-	-	-
0179	05	BPEX19	BAS...	BY13	5723.18	01926.05	20250210	1655	122		07	10	-0.1	1044	9990	----	14	14	x	x	x	x	-	x	x	x	x	x	x	x	x	x	x	x	-	x	-	-	-
0180	05	BPEX21	BAS...	BY15 GOTLANDSDJ	5718.72	02004.43	20250210	1930	249		07	10	-0.1	1044	9990	xxx-	24	24	-	x	-	x	x	x	x	x	x	x	x	x	x	x	x	x	-	x	-	-	-
0181	05	BPEX25	BAS...	BY19	5733.02	02009.64	20250210	2240	160		06	8	0.4	1044	9990	----	15	15	-	x	-	x	-	x	x	x	x	x	x	x	x	x	x	x	-	x	-	-	-
0182	05	BPEX26	BAS...	BY20 FÅRÖDJ	5759.86	01952.73	20250211	0200	203		08	5	1.3	1044	9990	x---	17	17	-	x	-	x	-	x	x	x	x	x	x	x	x	x	x	x	-	x	-	-	-
0183	05	BPNX27	BAS...	BY21	5826.58	02020.11	20250211	0545	122		11	3	0.9	1043	9990	----	14	14	x	x	x	x	-	x	x	x	x	x	x	x	x	x	x	x	-	x	-	-	-
0184	05	BPNX34	BAS...	BY28	5902.49	02106.03	20250211	1040	200		14	3	1.1	1043	2830	----	17	17	-	x	-	x	-	x	x	x	x	x	x	x	x	x	x	x	-	x	-	-	-
0185	05	BPNX33	BAS...	BY27	5917.95	02133.22	20250211	1320	180		20	2	1.3	1042	2830	----	16	16	-	x	-	x	-	x	x	x	x	x	x	x	x	x	x	x	-	x	-	-	-

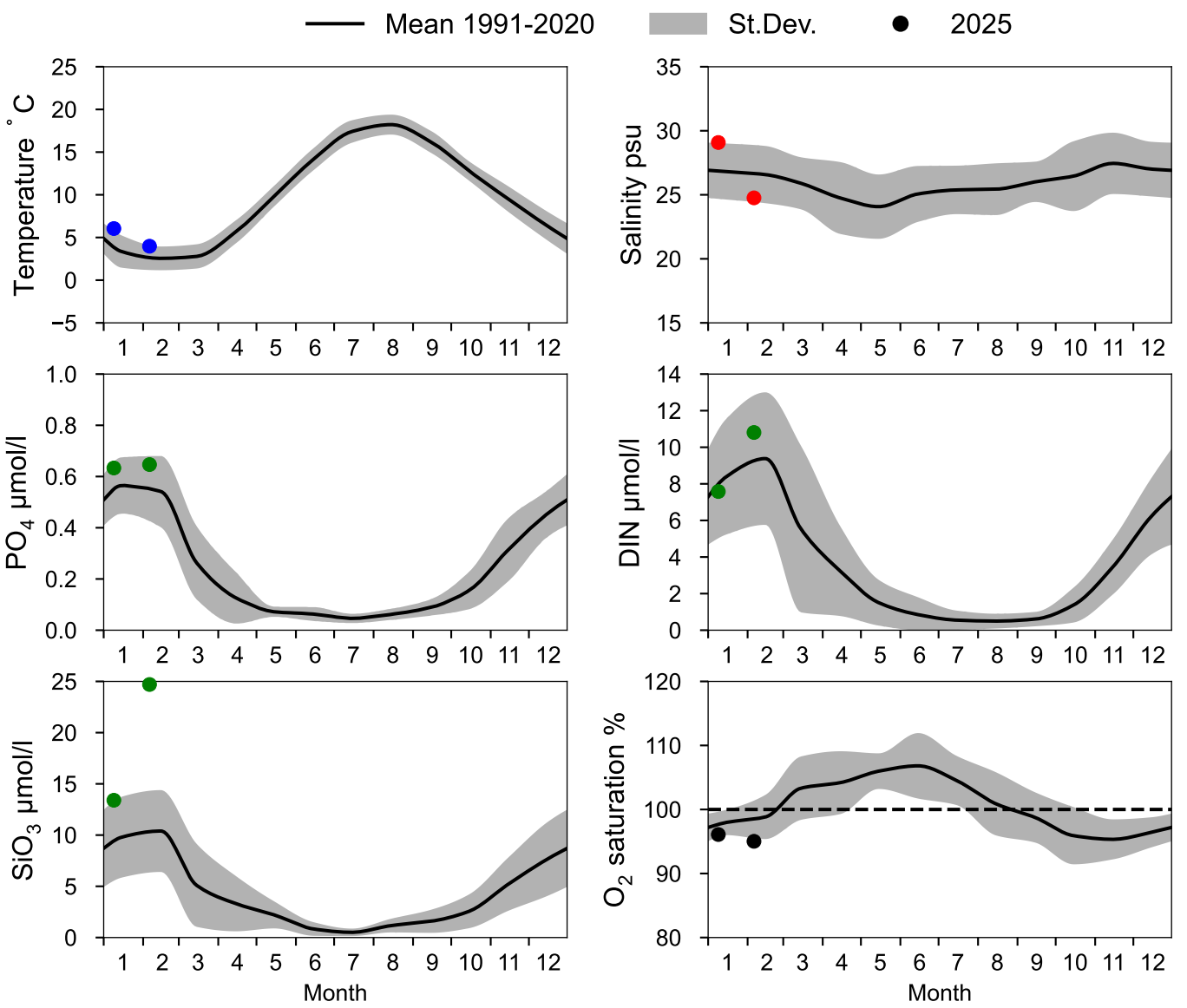
Date: 2025-03-07
Time: 17:22

Ship: 77SE
Year: 2025

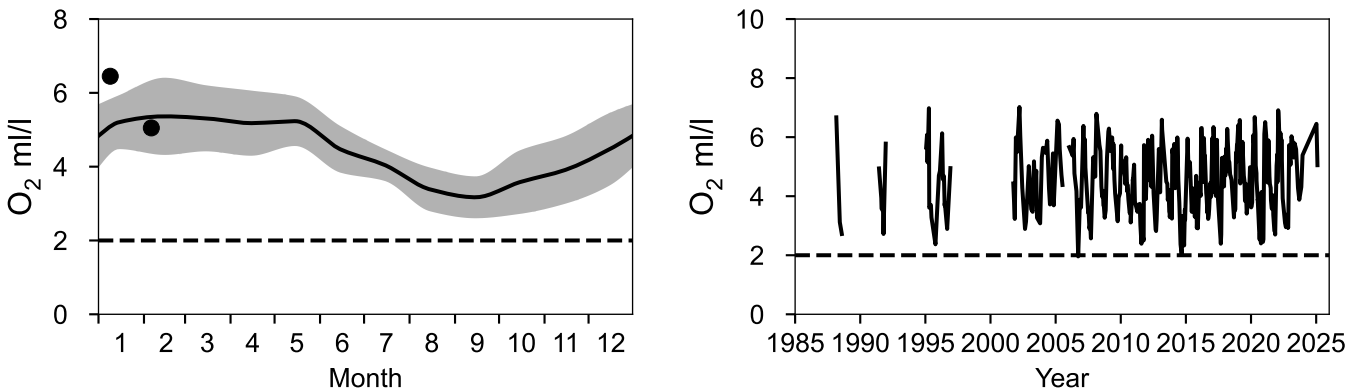
Ser no	Cru no	Stat code	Proj	Stat name	Lat	Lon	Start date yyyymmdd	Start time hhmm	Bottom depth m	Secchi depth m	Wind dir	vel	Air temp C	Air pres hPa	WCWI (Weath Cloud Waves Iceob)	CZPP (Chla Zoop Phytop Pp)	No de	No btl	Temp_btl	Temp_ctd	Salt_btl	Salt_ctd	Ph	Doxy_btl	Doxy_ctd	H2s	Phos	Ptot	Ntri	Ntra	Ntrz	Amon	Ntot	Alky	Sio3-si	Humus	Comnt_visit	Comnt_samp
0186	05	BPNX35	BAS...	BY29 / LL19	5852.89	02019.68	20250211	1820	178		15	4	-1.4	1041	9990	x---	16	16	-	x	-	x	-	x	x	x	x	x	x	x	x	x	x	-	x	-	-	-
0187	05	BPNX36	BAS...	BY30	5847.29	01905.73	20250211	2240	191		16	3	-0.6	1040	9990	----	16	16	-	x	-	x	-	x	x	x	x	x	x	x	x	x	x	-	x	-	-	-
0188	05	BPNX37	BAS...	BY31 LANDSORTSDJ	5835.64	01814.22	20250212	0210	459		15	3	-0.3	1038	9990	xxx-	20	20	-	x	-	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	-	-
0189	05	BPWX38	BAS...	BY32 NORRKÖPINGSDJ	5800.98	01759.05	20250212	0720	205		17	3	-1.5	1035	2830	x--x	17	17	-	x	-	x	x	x	x	x	x	x	x	x	x	x	x	x	x	-	x	-
0190	05	BPWX42	BAS...	BY36	5742.99	01722.00	20250212	1040	140	12	11	3	-1.8	1034	2830	----	15	15	x	x	x	x	-	x	x	x	x	x	x	x	x	x	x	-	x	-	-	-
0191	05	BPWX45	BAS...	BY38 KARLSÖDJ	5707.46	01740.12	20250212	1505	114	12	09	5	-0.9	1031	2830	x---	14	14	x	x	x	x	-	x	x	x	x	x	x	x	x	x	x	-	x	x	-	x
0192	05	BPSE49	BAS...	BY39 ÖLANDS S UDDE	5607.03	01632.22	20250212	2225	50		10	7	0.2	1027	9990	xxx-	8	8	x	x	x	x	x	x	x	-	x	x	x	x	x	x	x	x	x	-	-	-

STATION SLÄGGÖ SURFACE WATER (0-10 m)

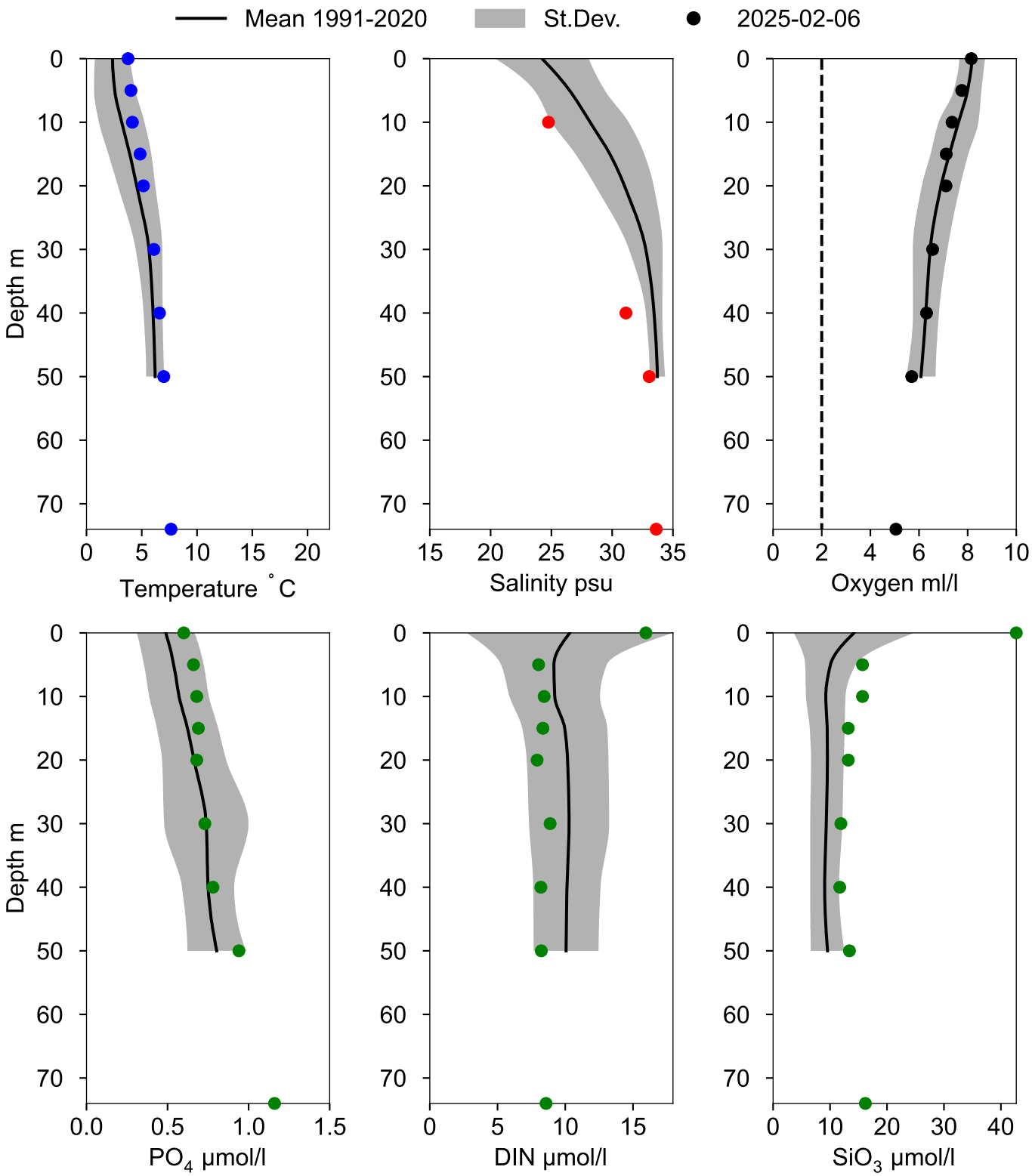
Annual Cycles



OXYGEN IN BOTTOM WATER (depth >= 64 m)

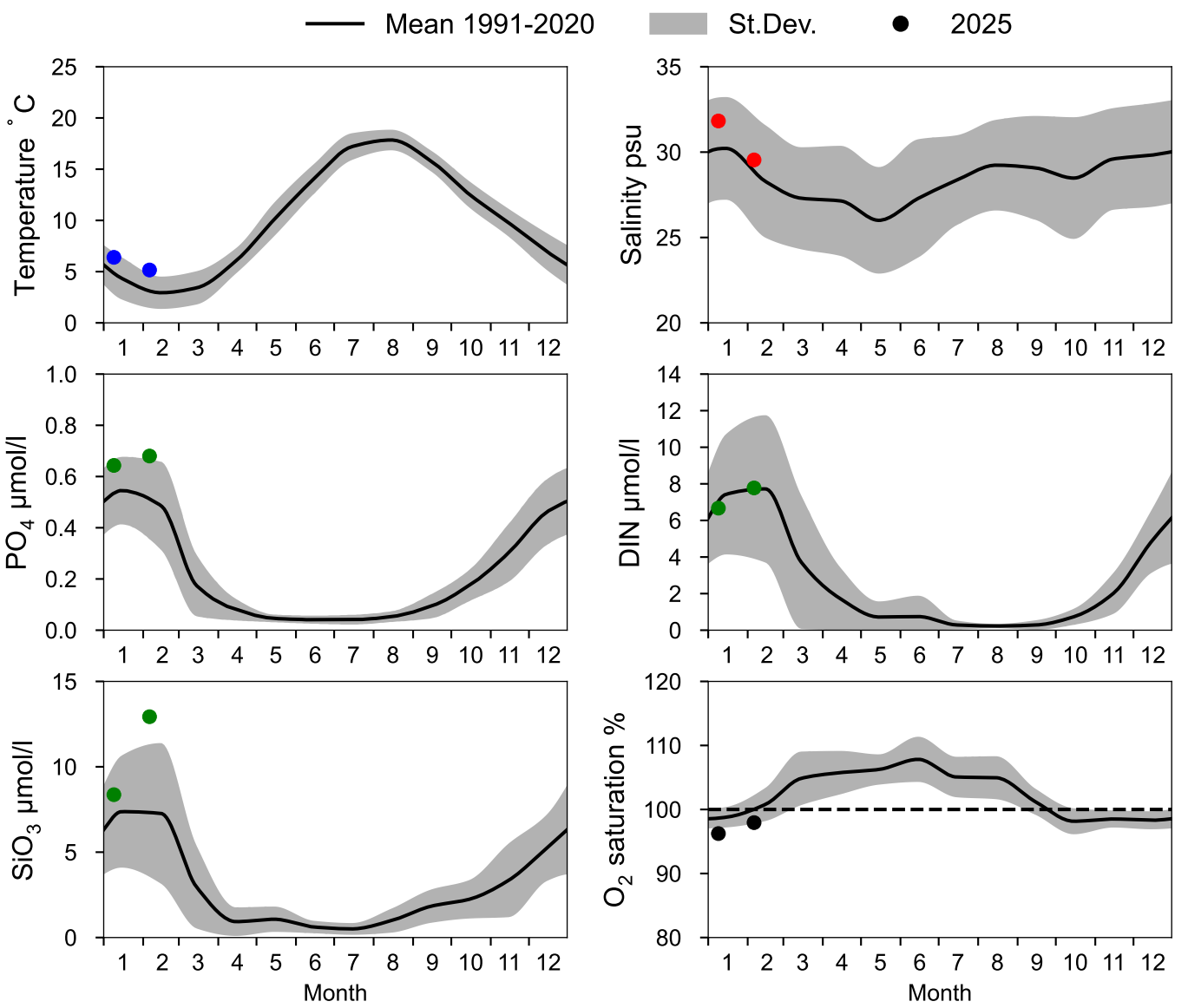


Vertical profiles SLÄGGÖ
February

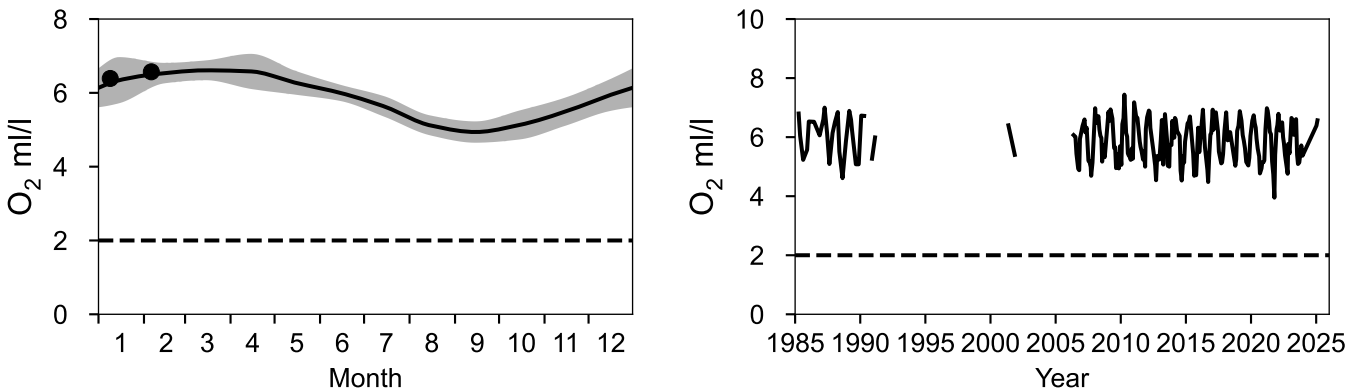


STATION Å13 SURFACE WATER (0-10 m)

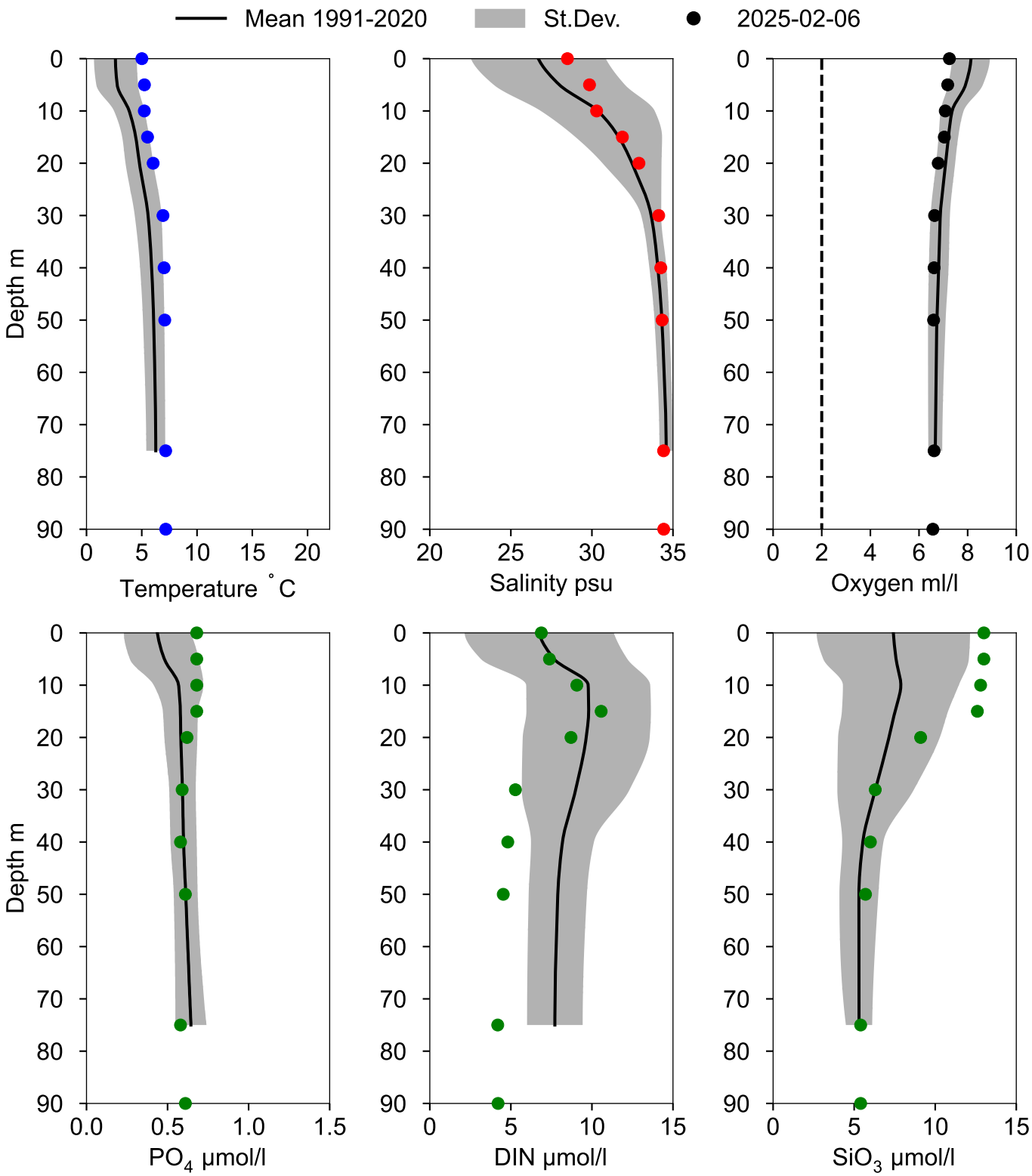
Annual Cycles



OXYGEN IN BOTTOM WATER (depth >= 82 m)

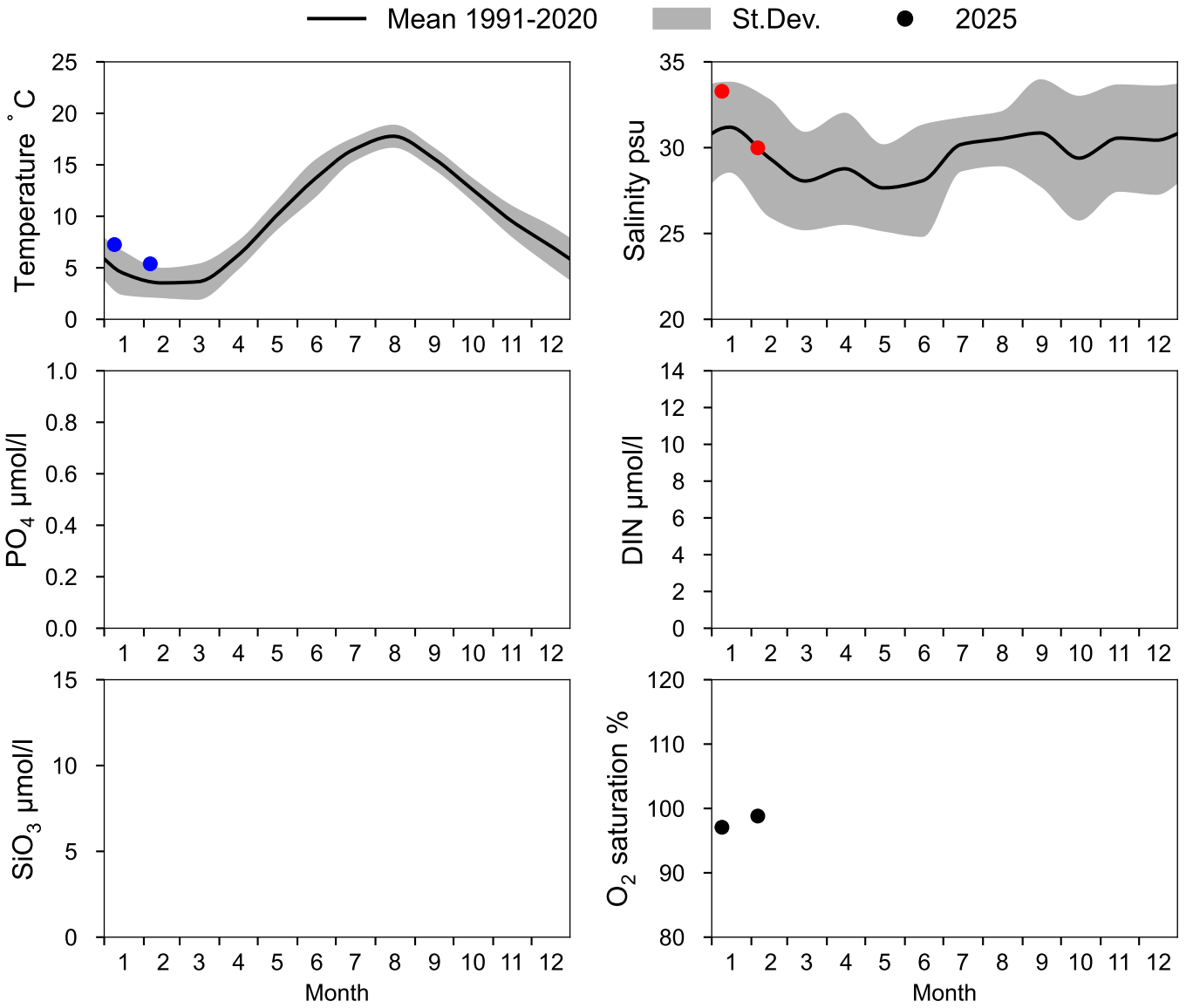


Vertical profiles Å13
February

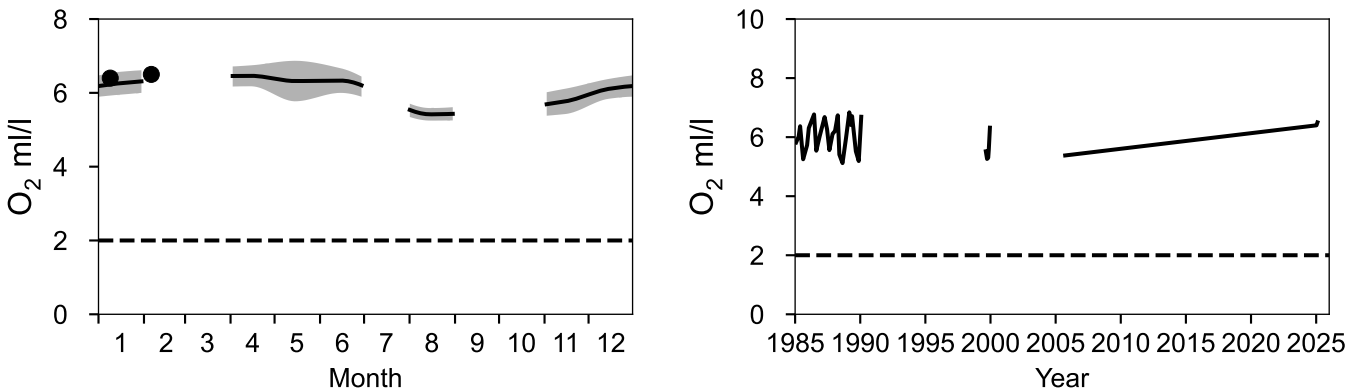


STATION Å14 SURFACE WATER (0-10 m)

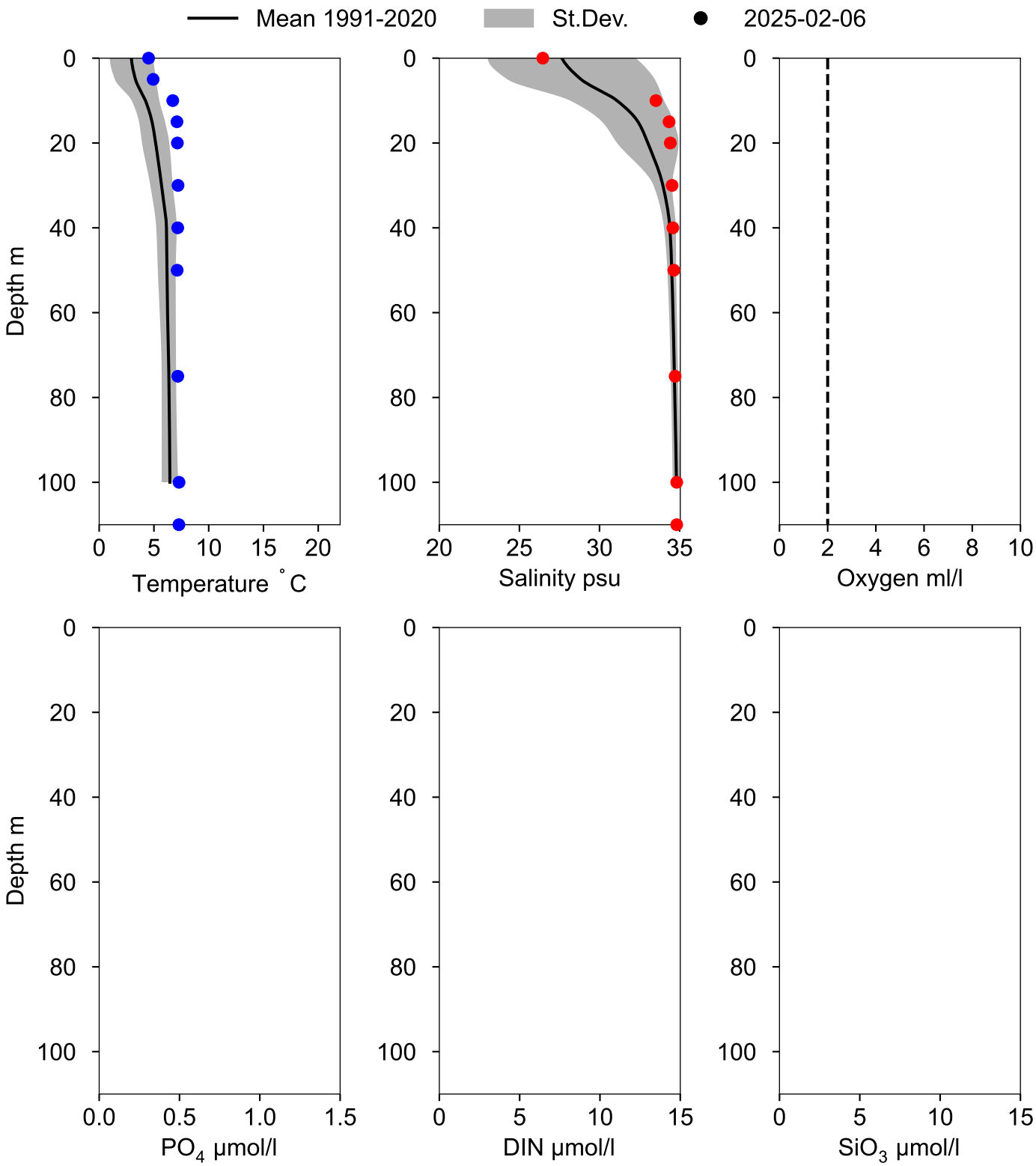
Annual Cycles



OXYGEN IN BOTTOM WATER (depth >= 100 m)

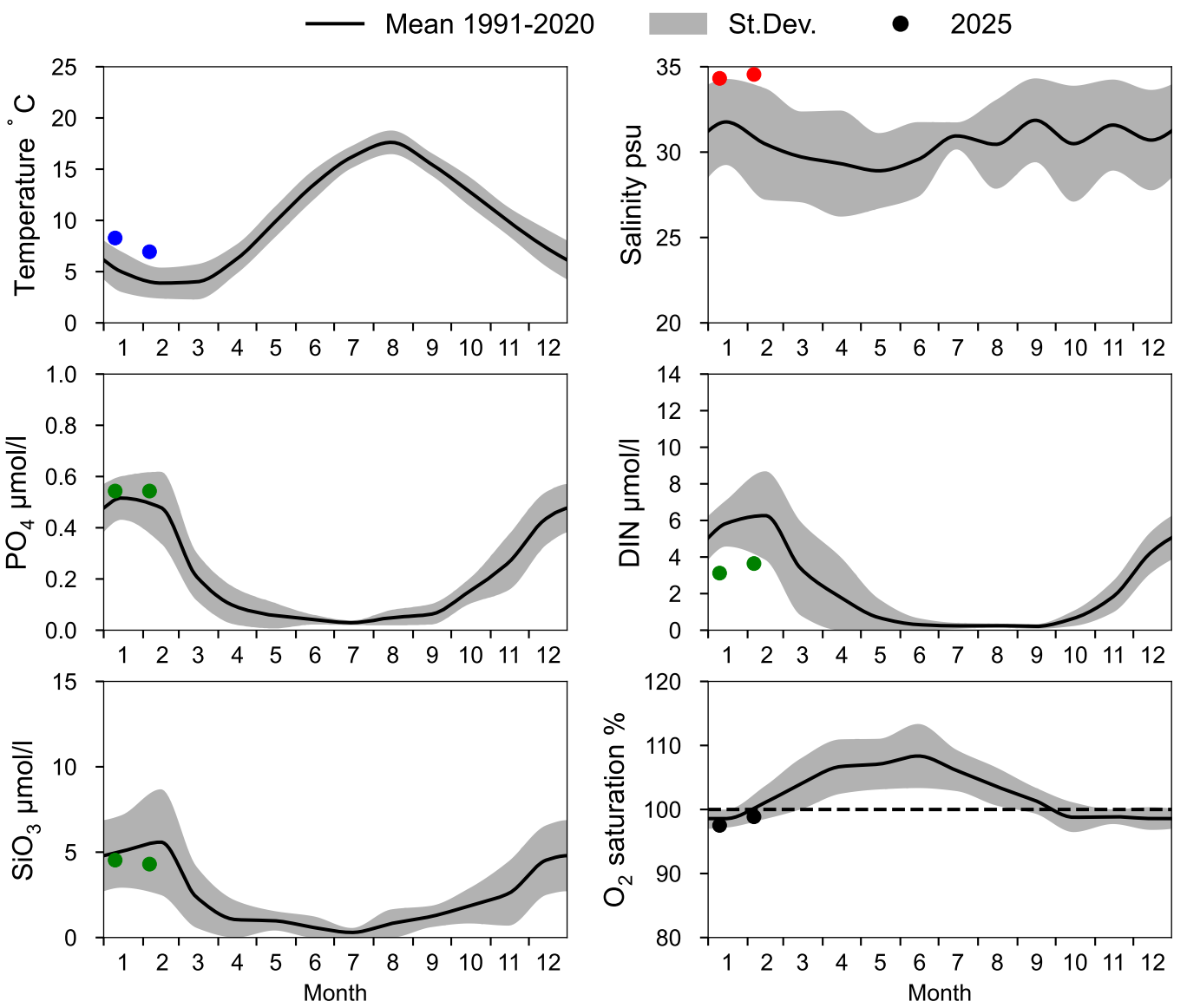


Vertical profiles Å14
February

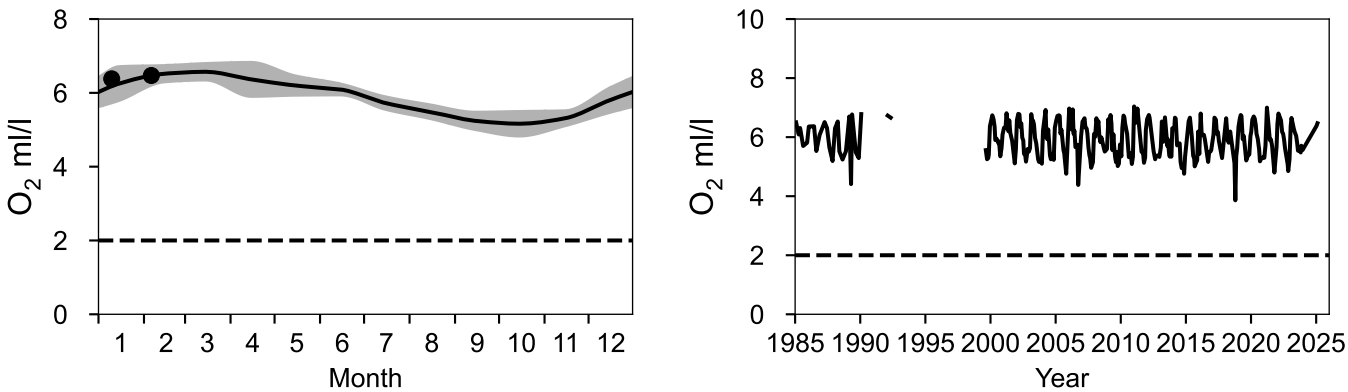


STATION Å15 SURFACE WATER (0-10 m)

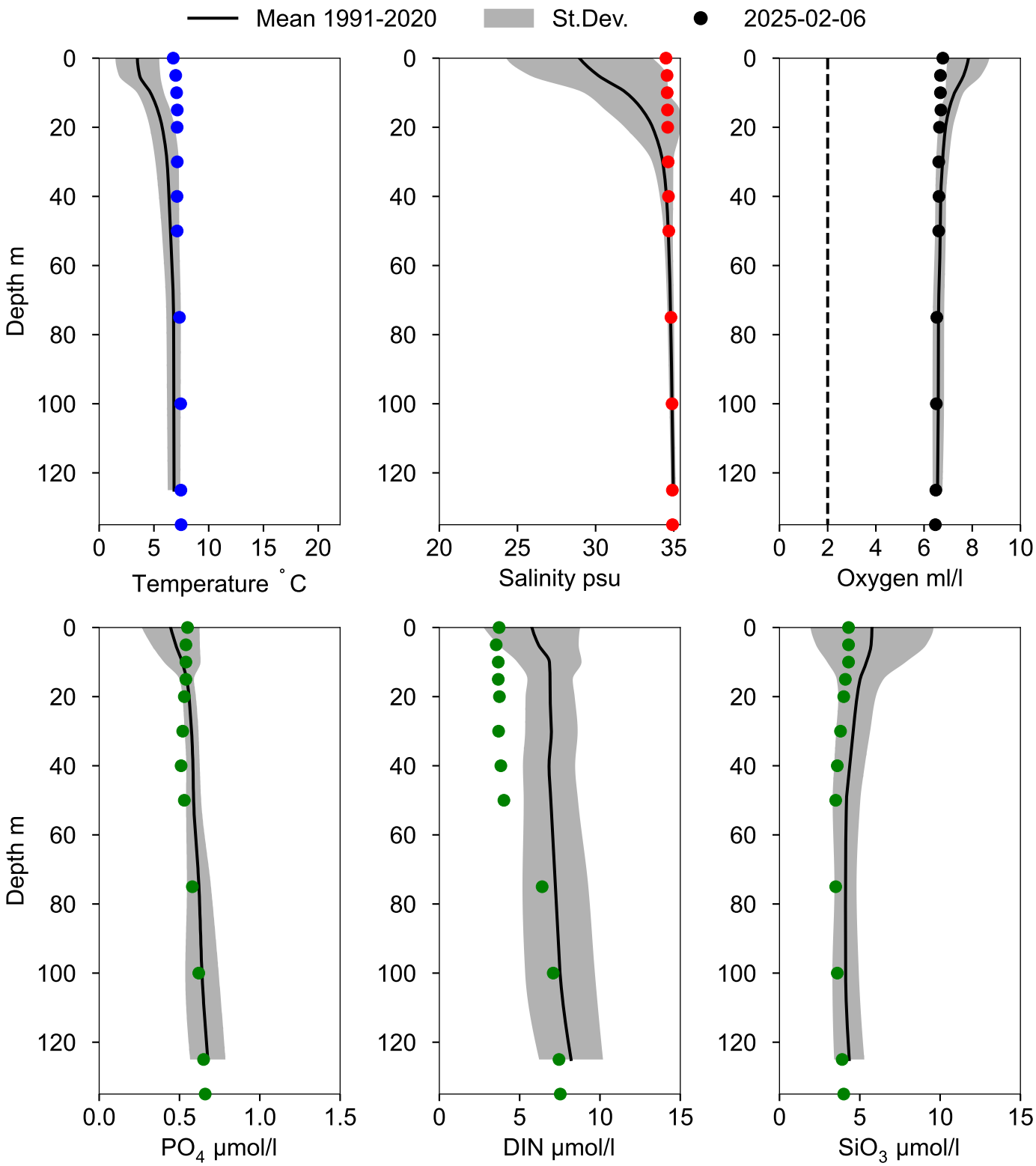
Annual Cycles



OXYGEN IN BOTTOM WATER (depth >= 125 m)

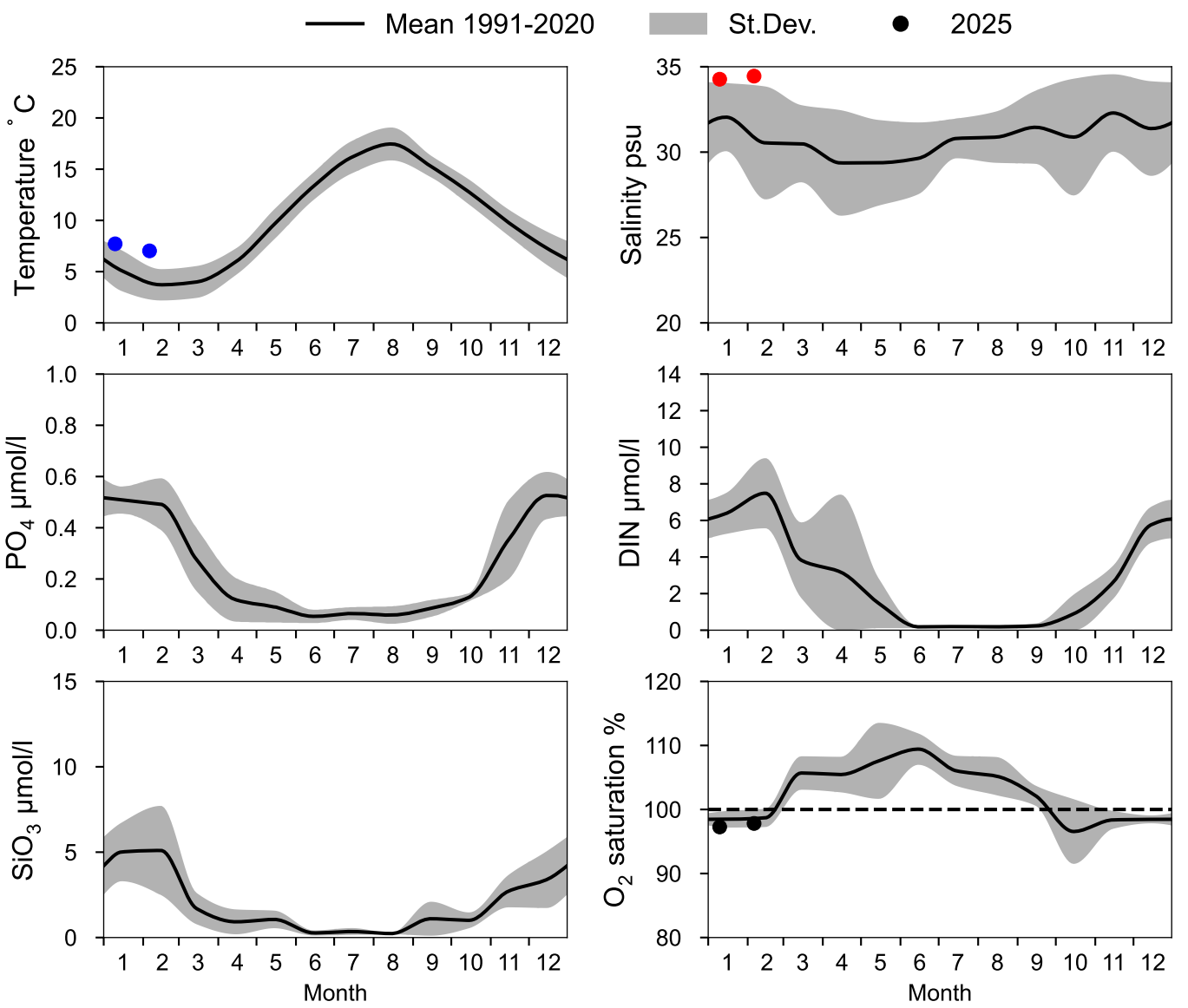


Vertical profiles Å15
February

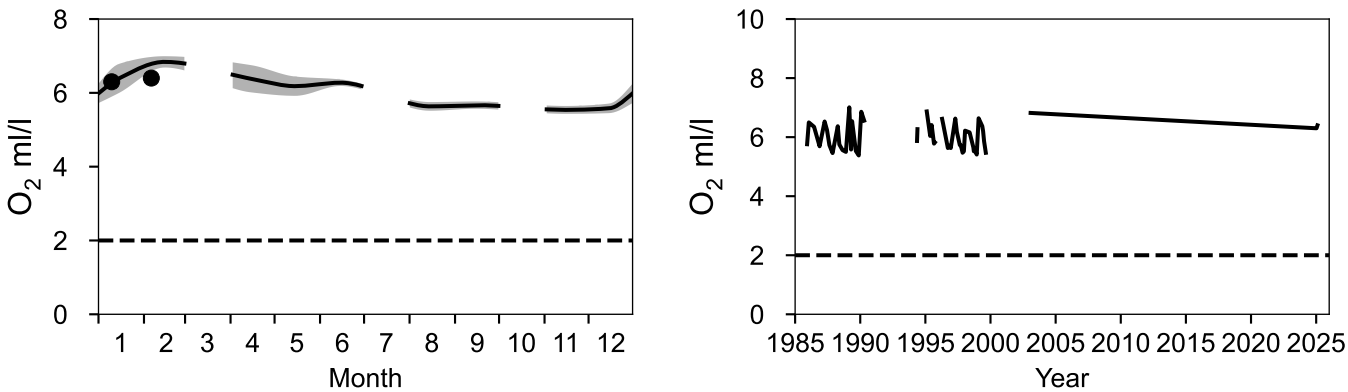


STATION Å16 SURFACE WATER (0-10 m)

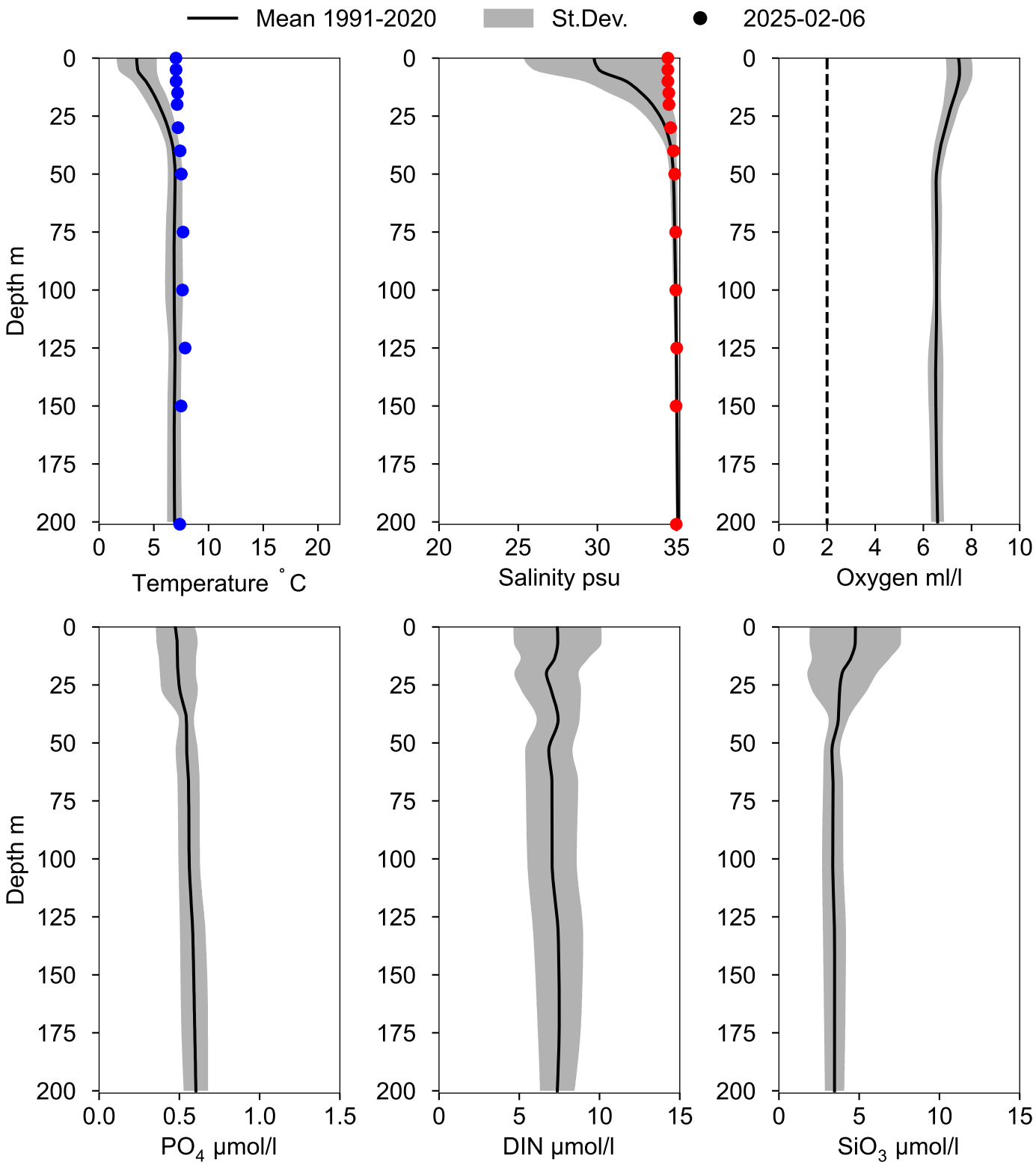
Annual Cycles



OXYGEN IN BOTTOM WATER (depth >= 193 m)

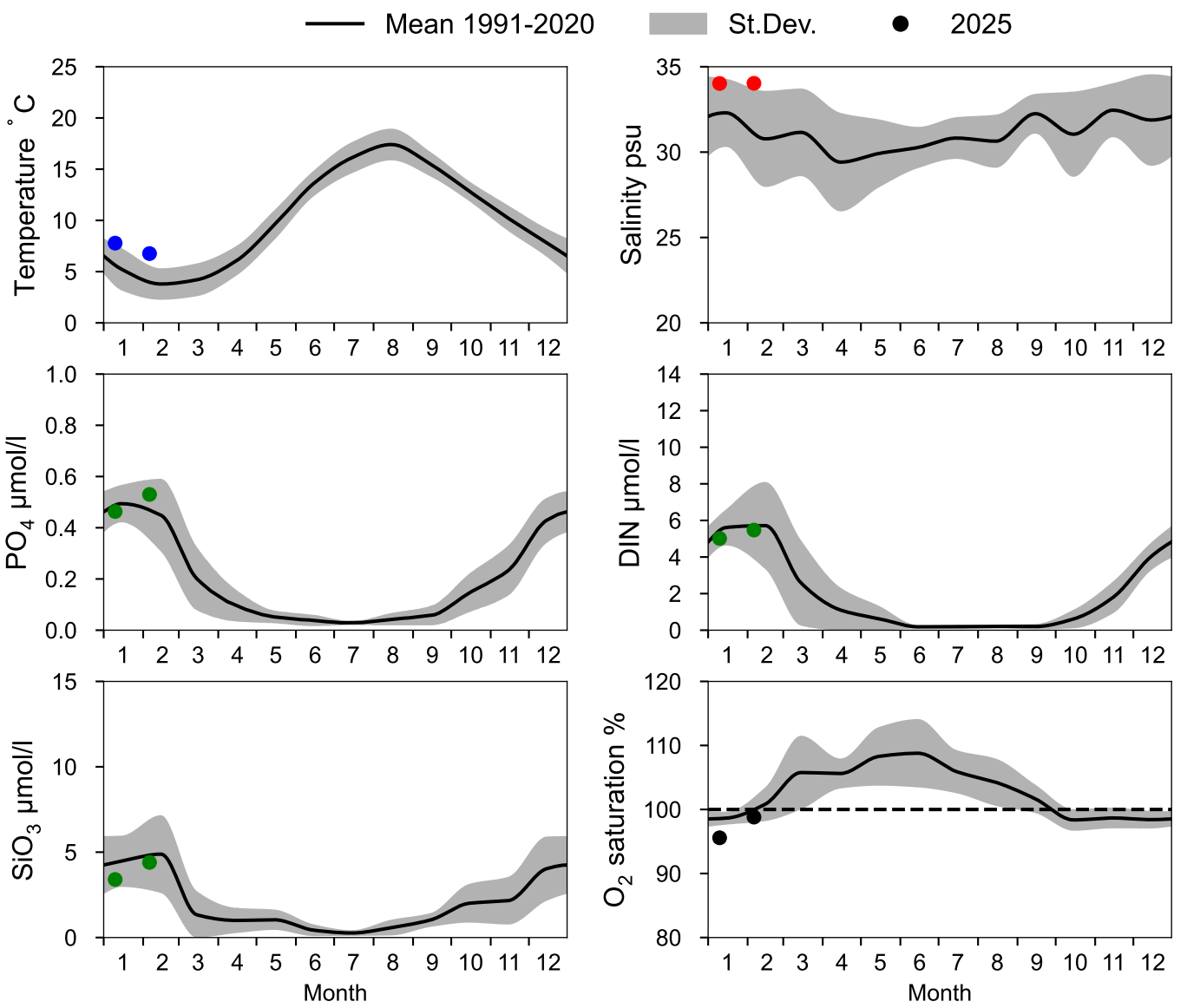


Vertical profiles Å16
February

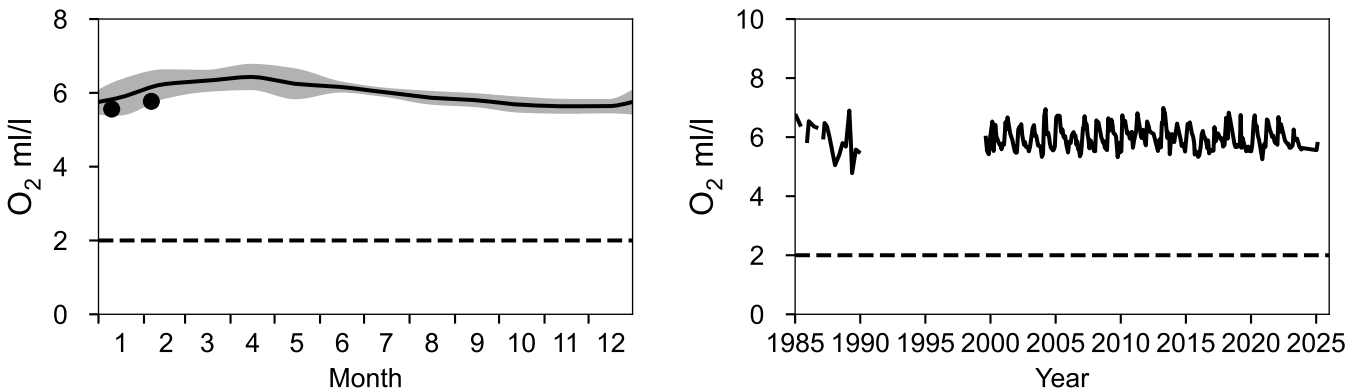


STATION Å17 SURFACE WATER (0-10 m)

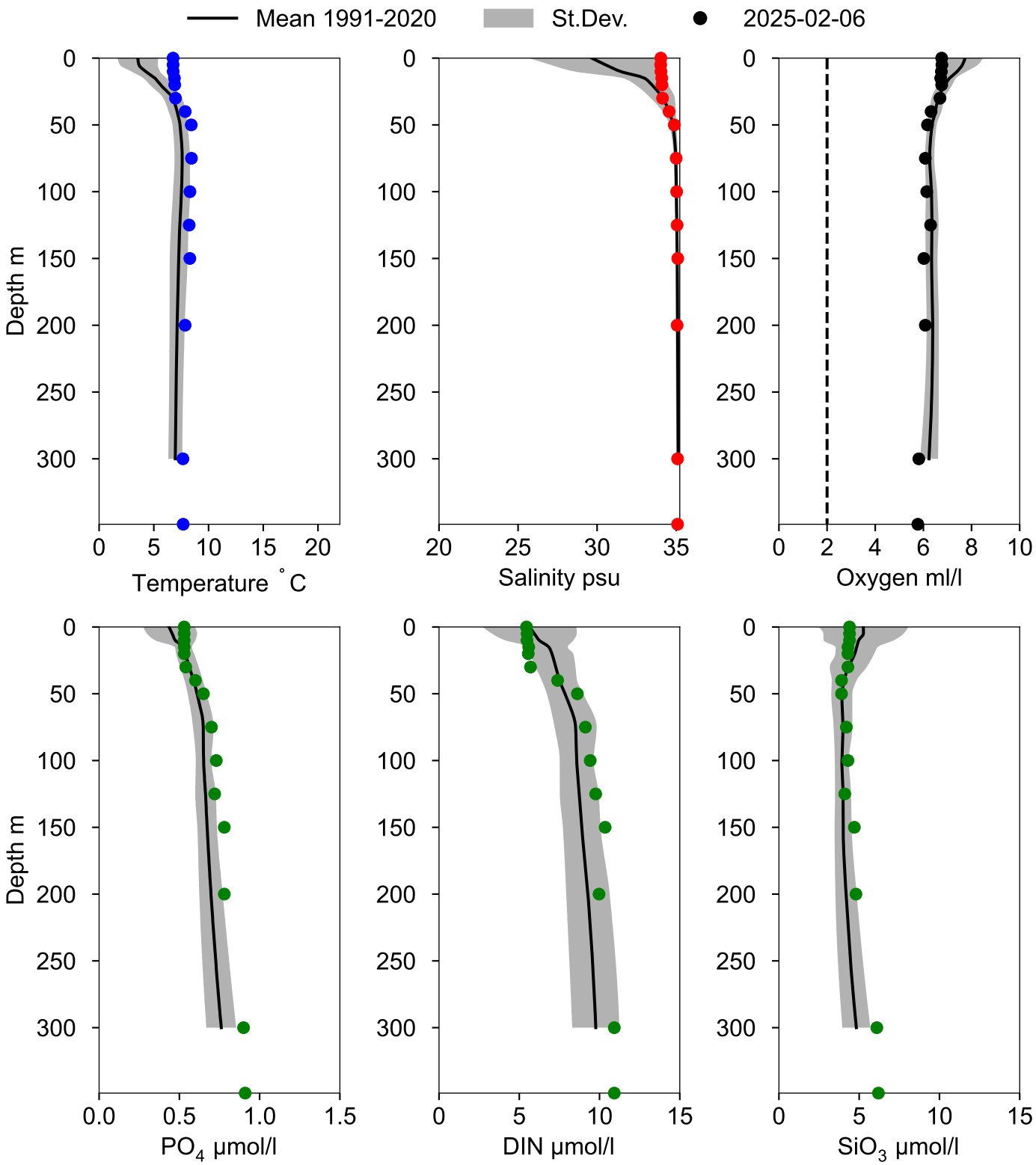
Annual Cycles



OXYGEN IN BOTTOM WATER (depth >= 300 m)

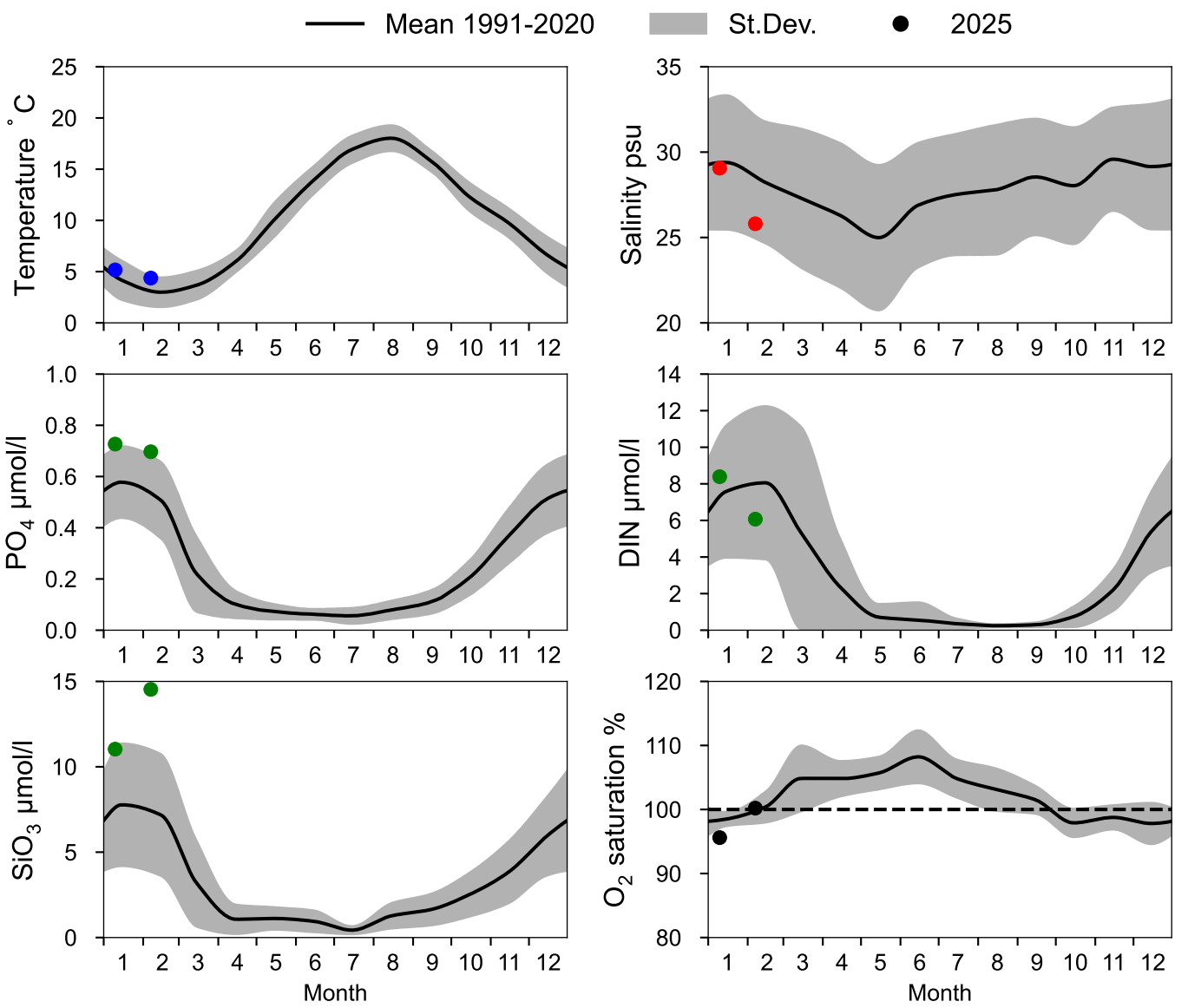


Vertical profiles Å17
February

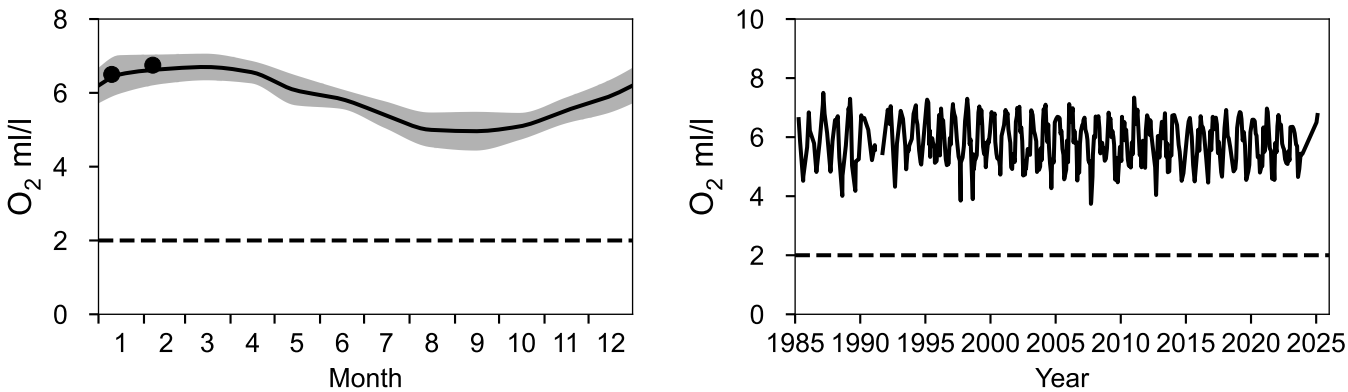


STATION P2 SURFACE WATER (0-10 m)

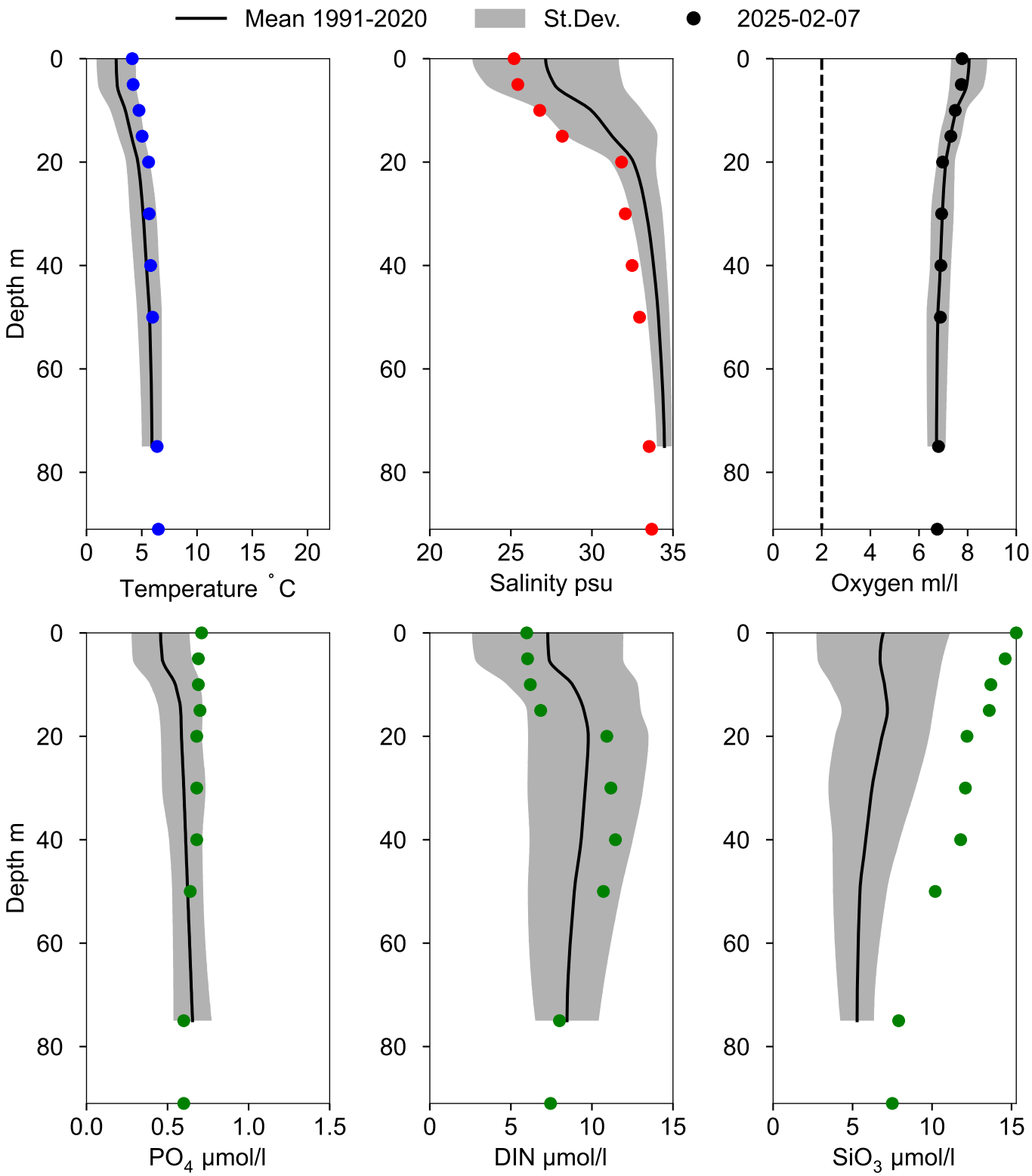
Annual Cycles



OXYGEN IN BOTTOM WATER (depth >= 75 m)

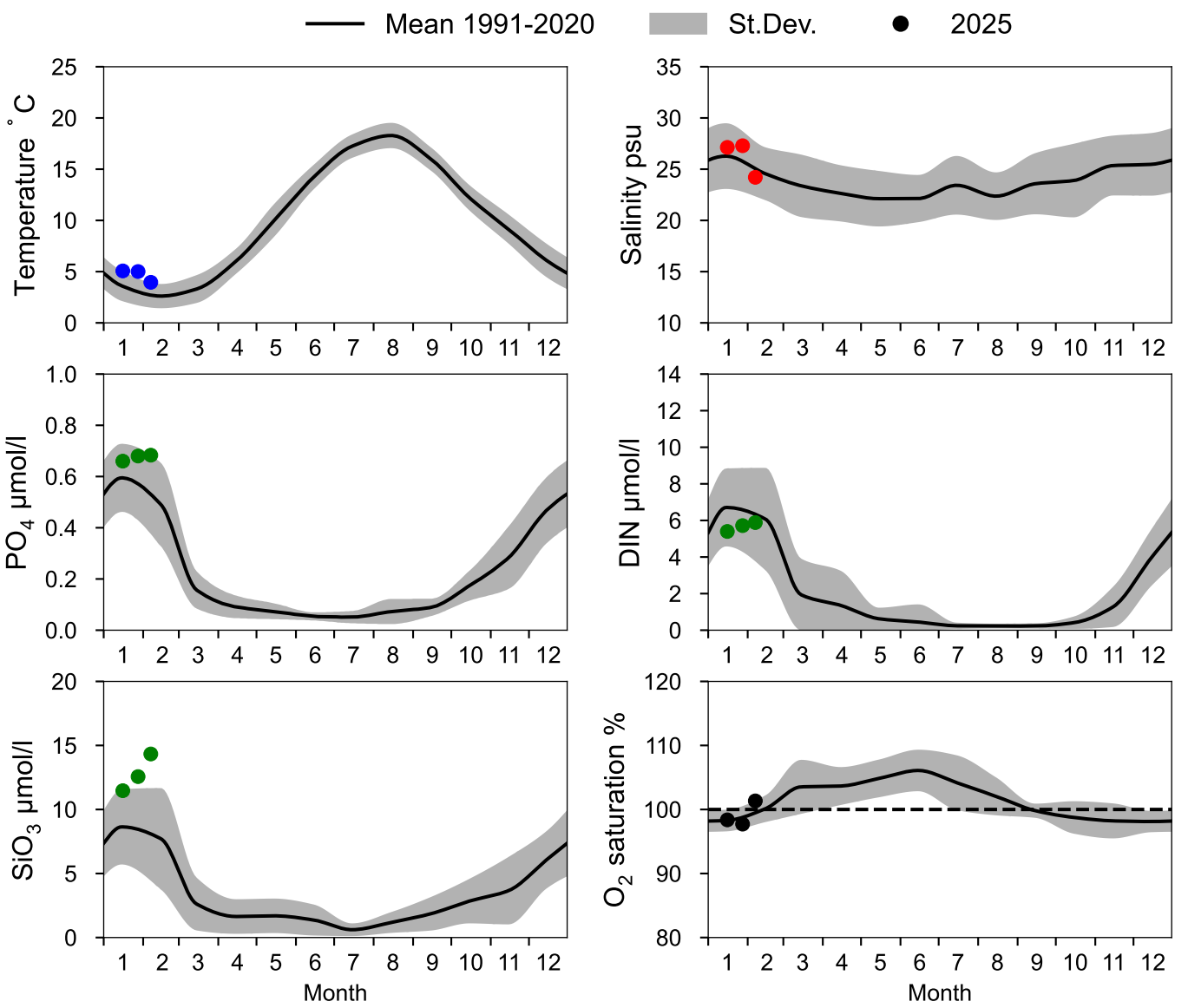


Vertical profiles P2
February

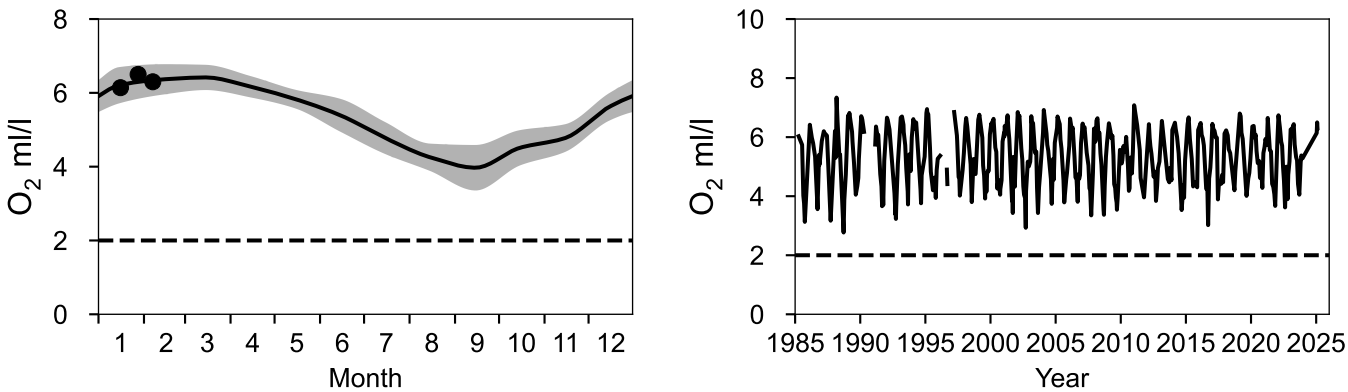


STATION FLADEN SURFACE WATER (0-10 m)

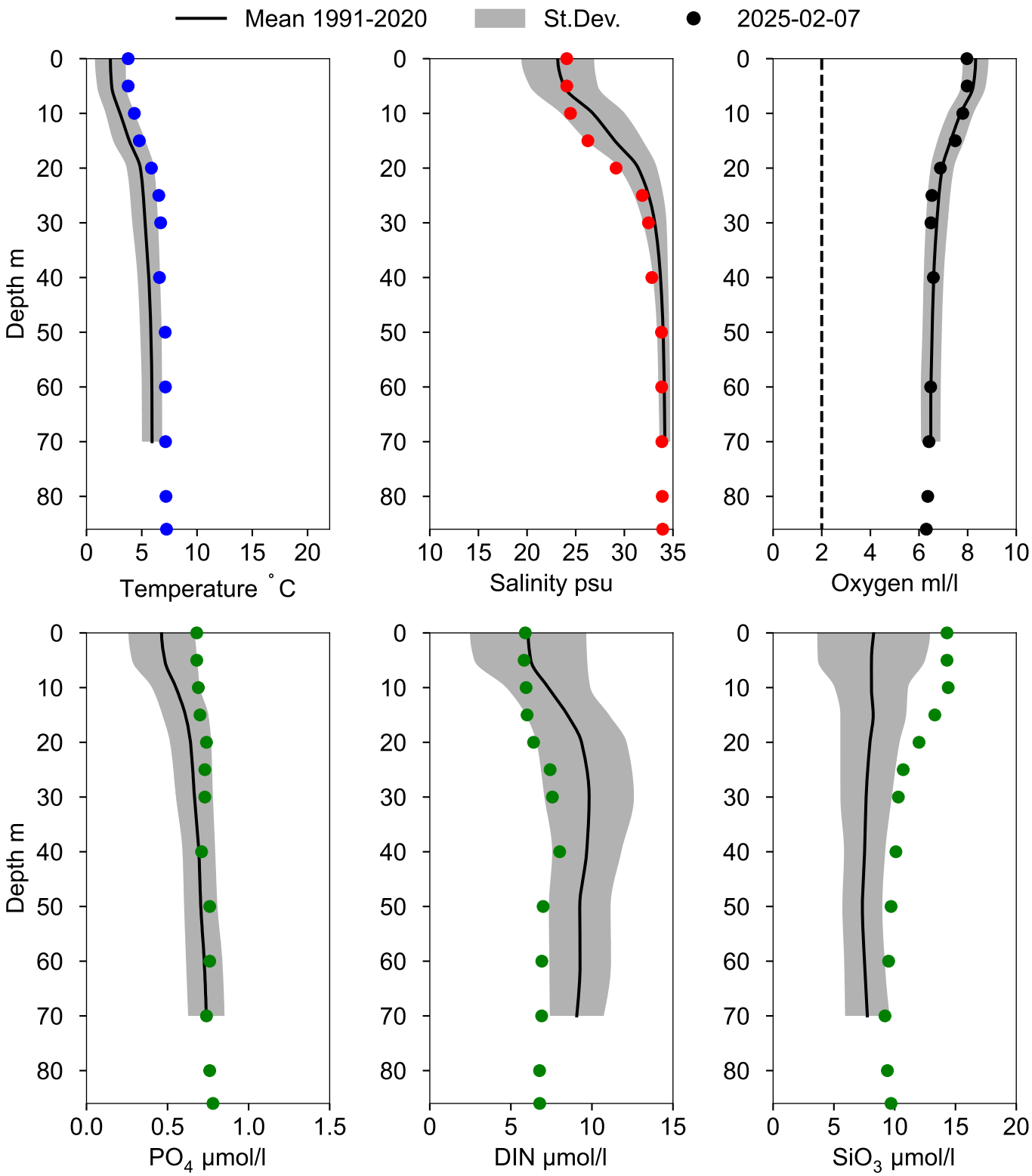
Annual Cycles



OXYGEN IN BOTTOM WATER (depth >= 74 m)

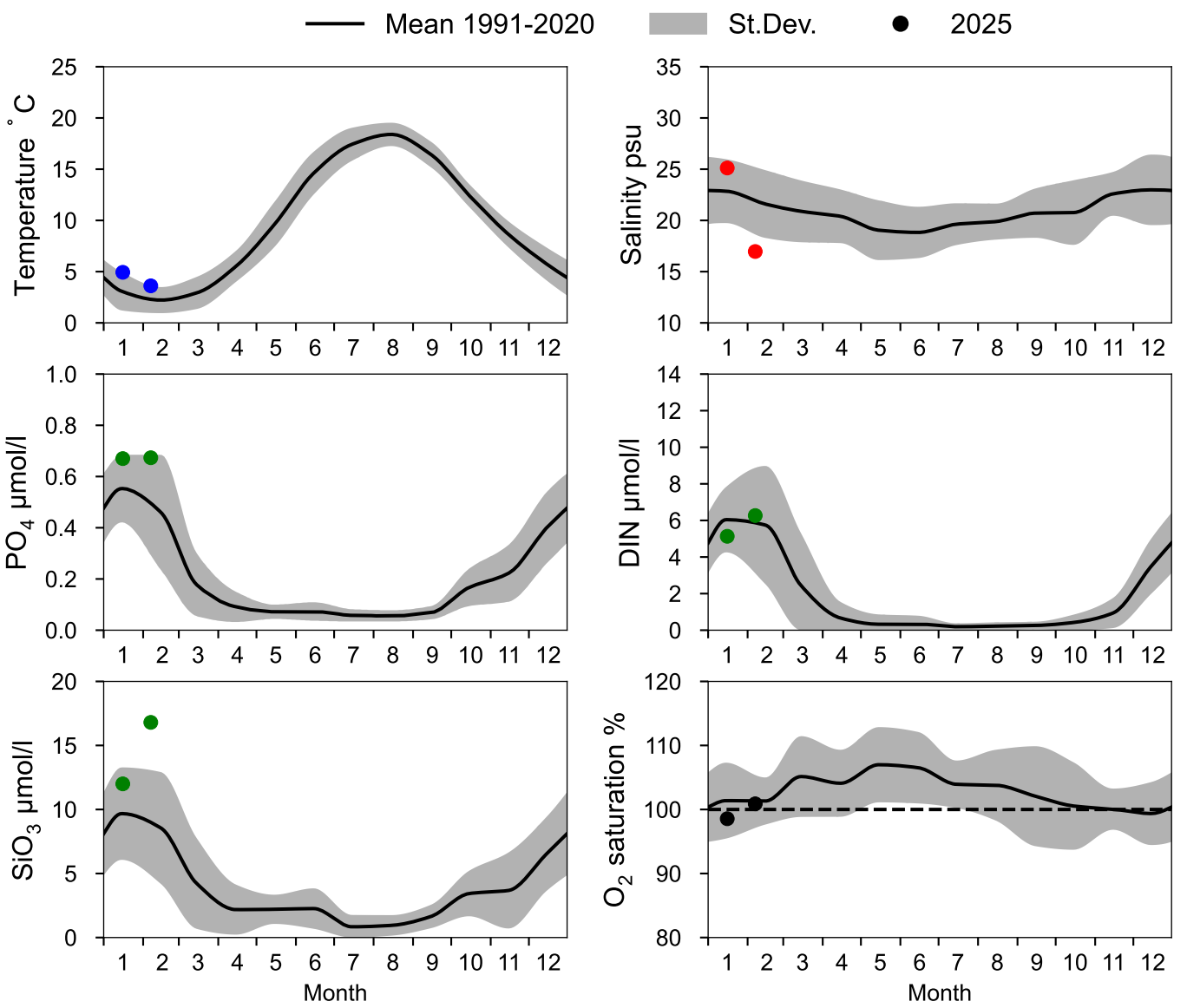


Vertical profiles FLADEN
February

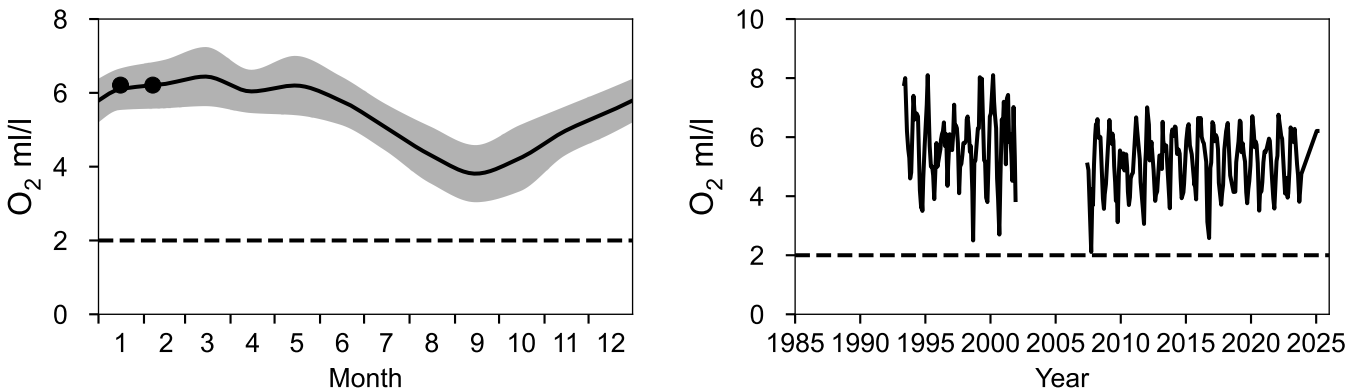


STATION N14 FALKENBERG SURFACE WATER (0-10 m)

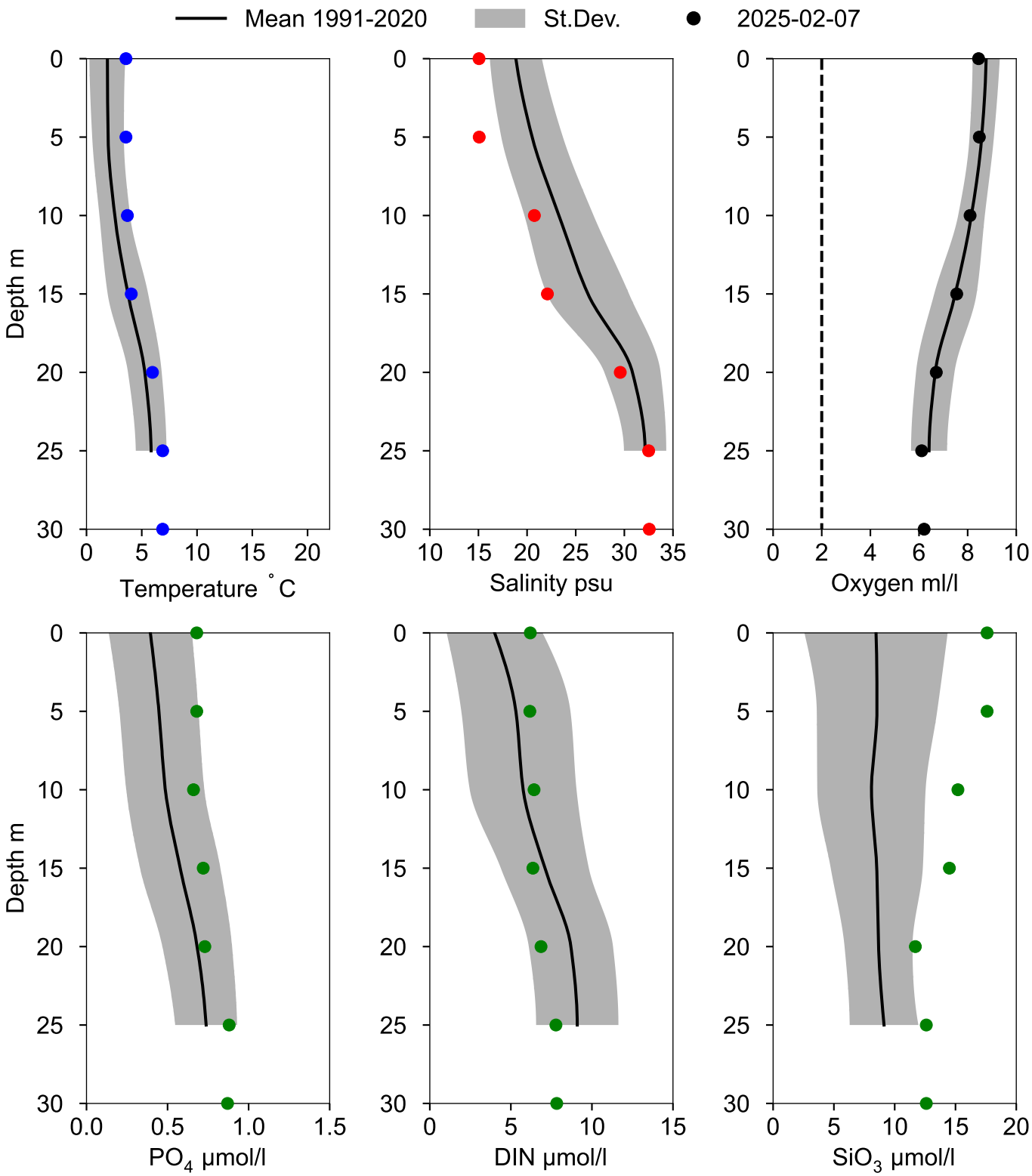
Annual Cycles



OXYGEN IN BOTTOM WATER (depth >= 25 m)

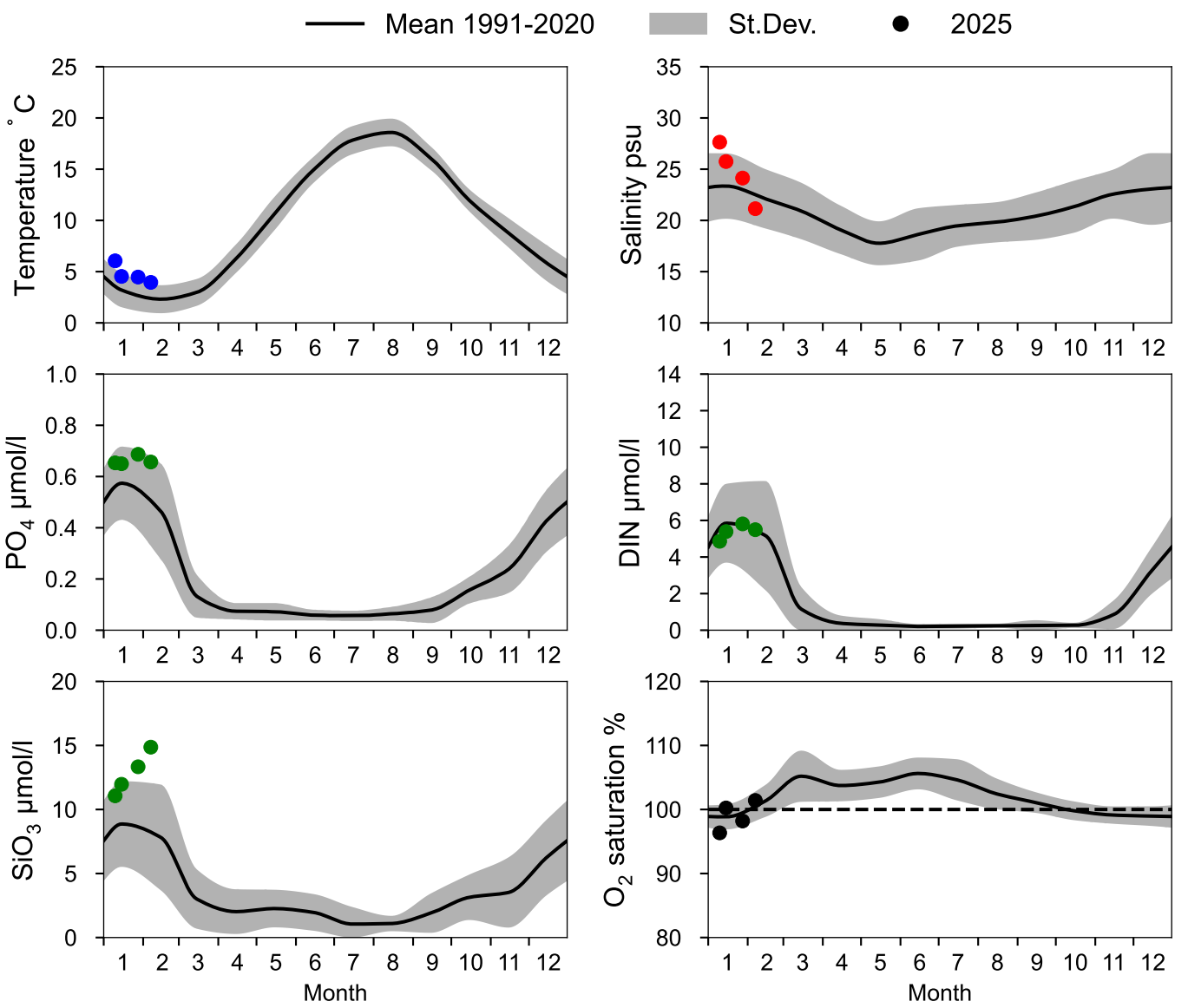


Vertical profiles N14 FALKENBERG
February

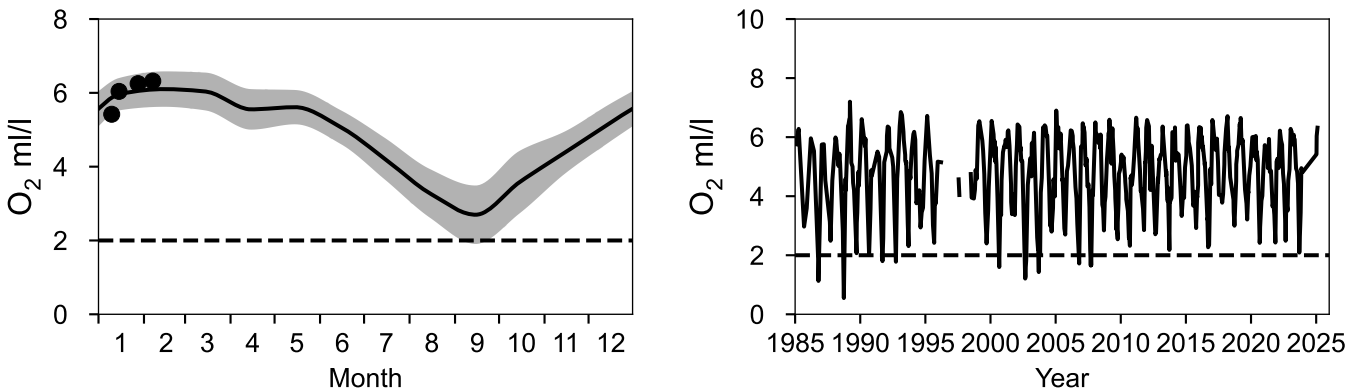


STATION ANHOLT E SURFACE WATER (0-10 m)

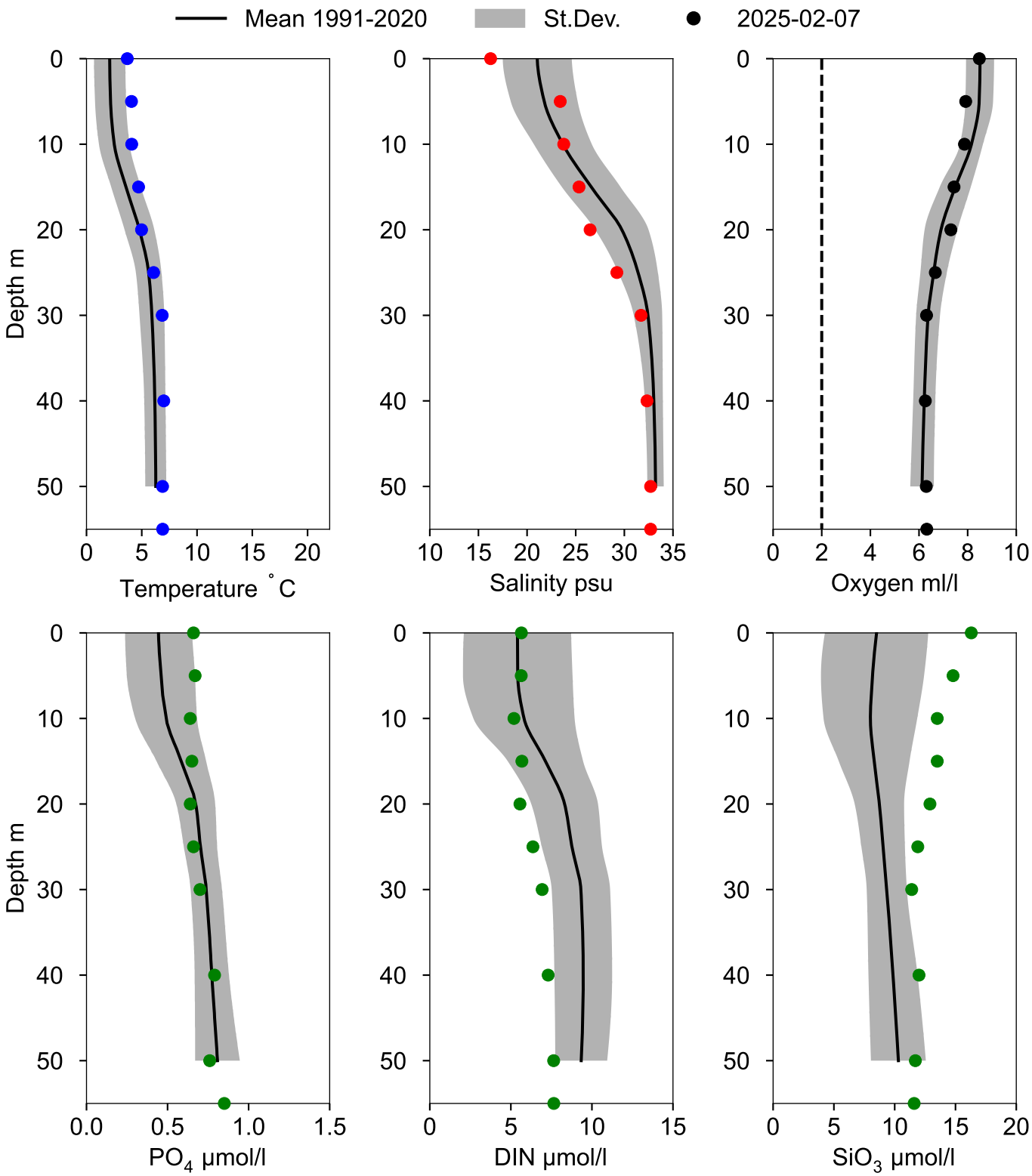
Annual Cycles



OXYGEN IN BOTTOM WATER (depth >= 52 m)

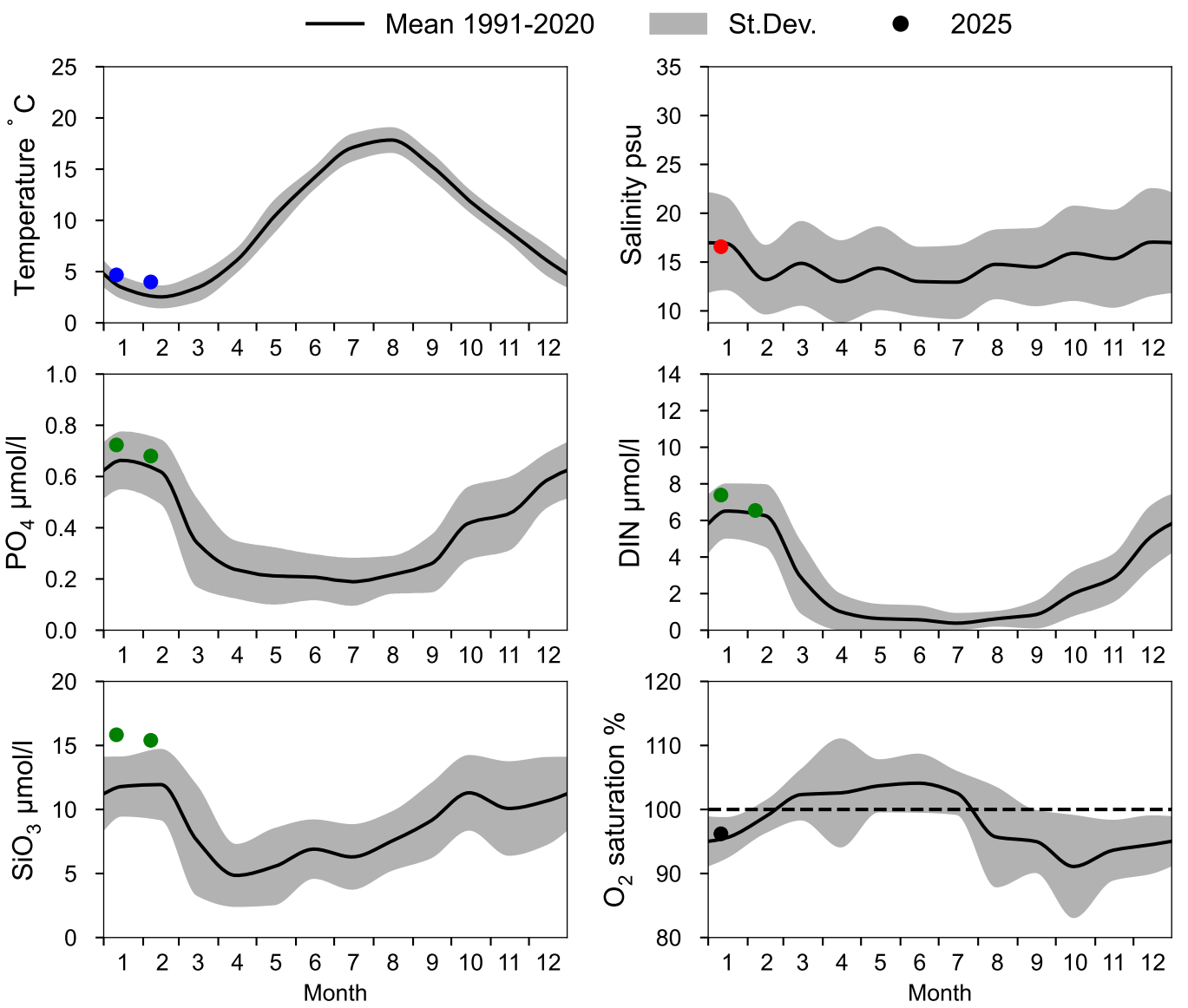


Vertical profiles ANHOLT E
February

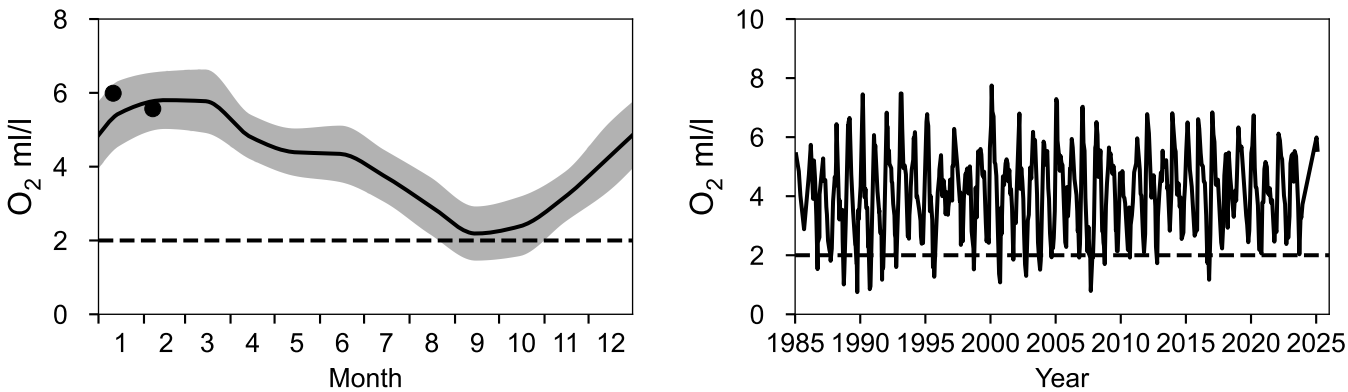


STATION W LANDSKRONA SURFACE WATER (0-10 m)

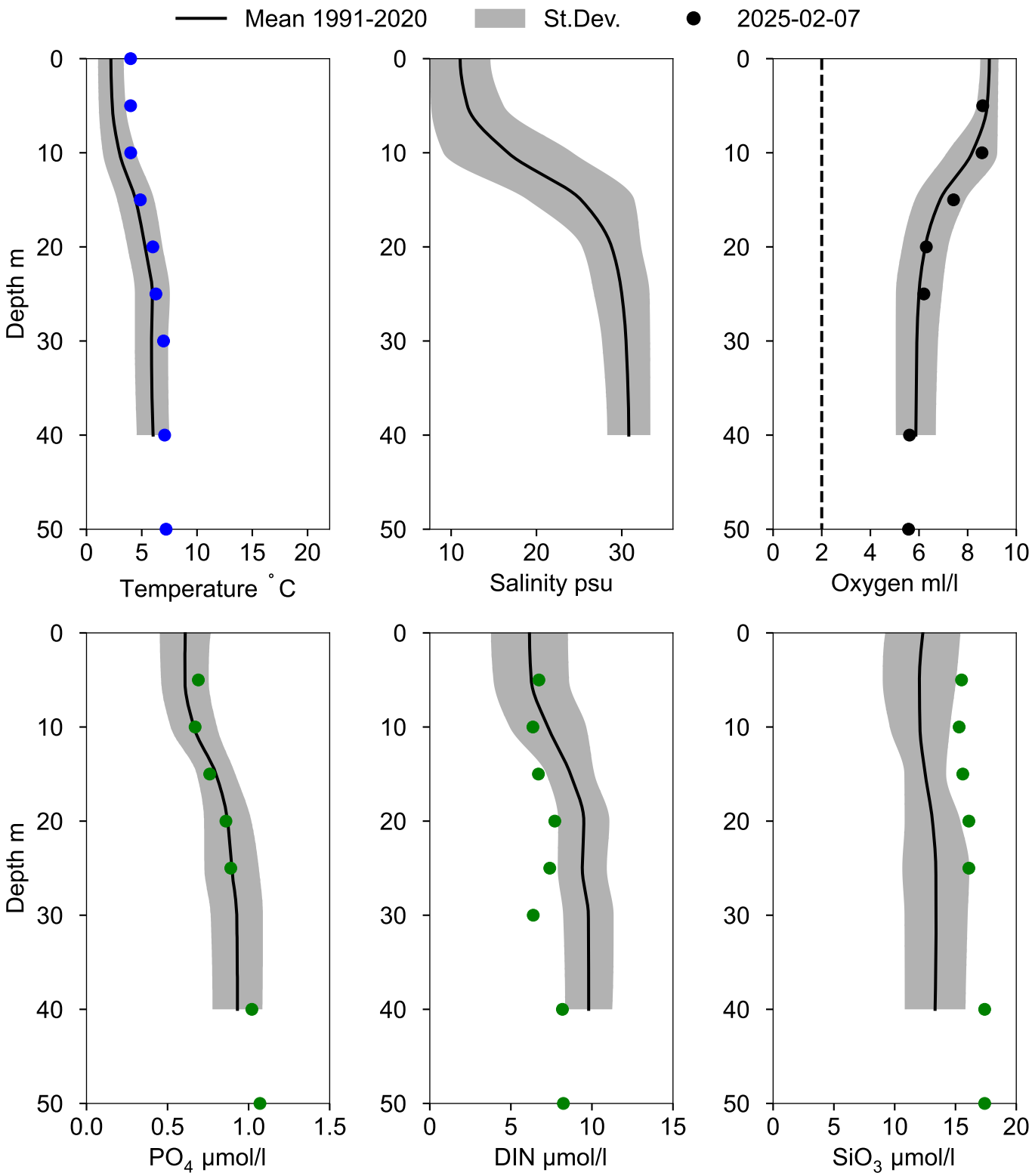
Annual Cycles



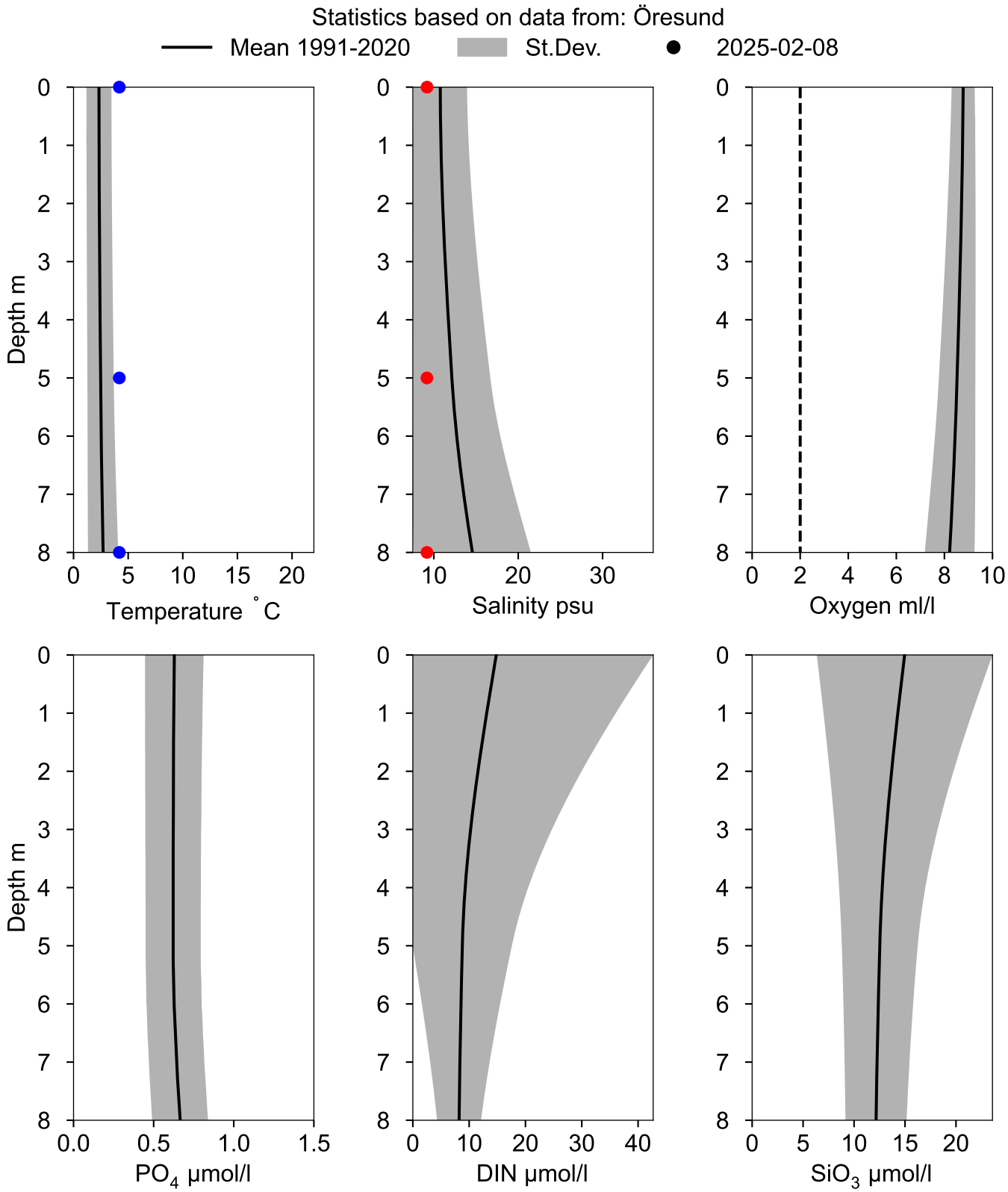
OXYGEN IN BOTTOM WATER (depth >= 40 m)



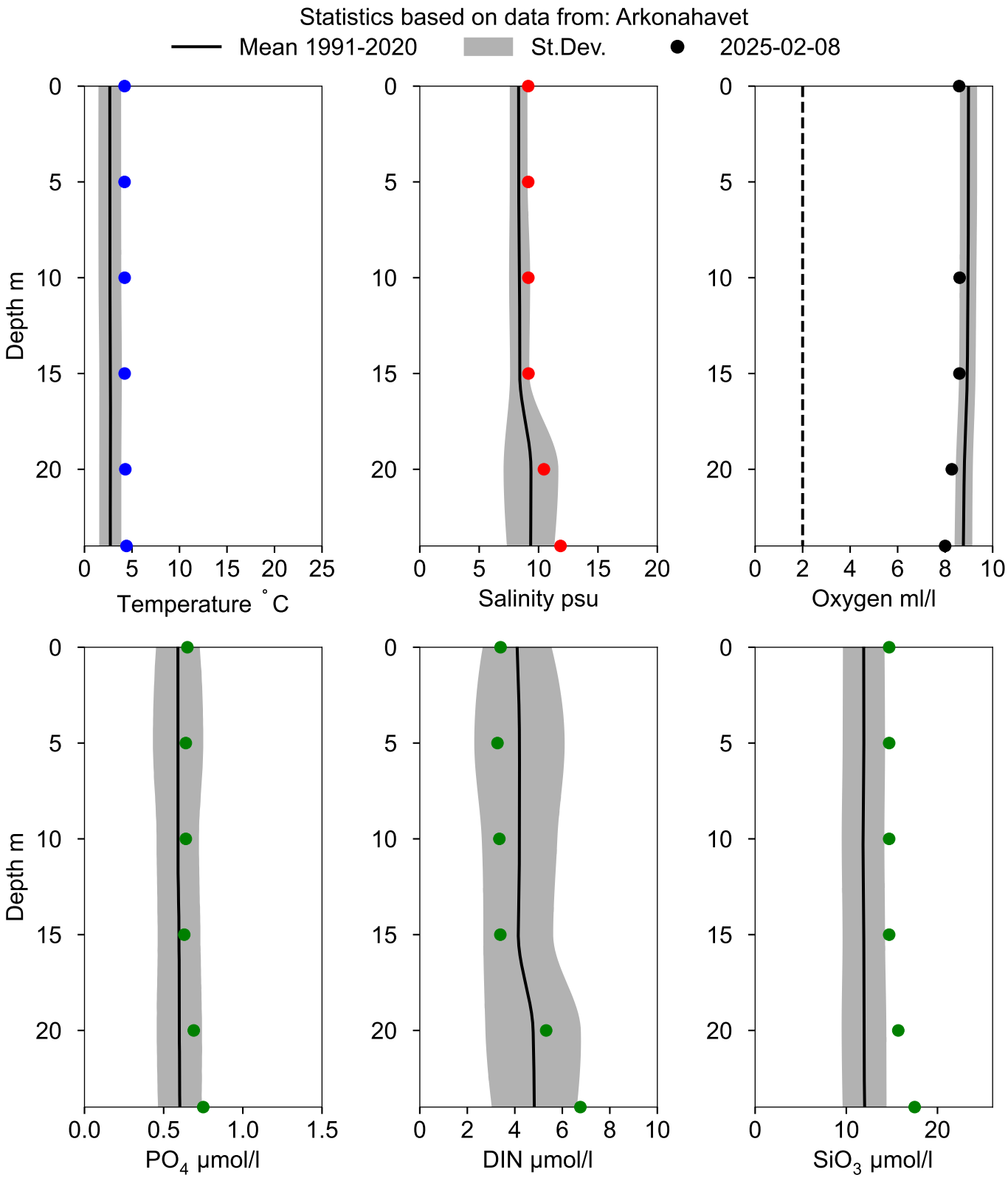
Vertical profiles W LANDSKRONA
February



Vertical profiles FLINTEN-7
February

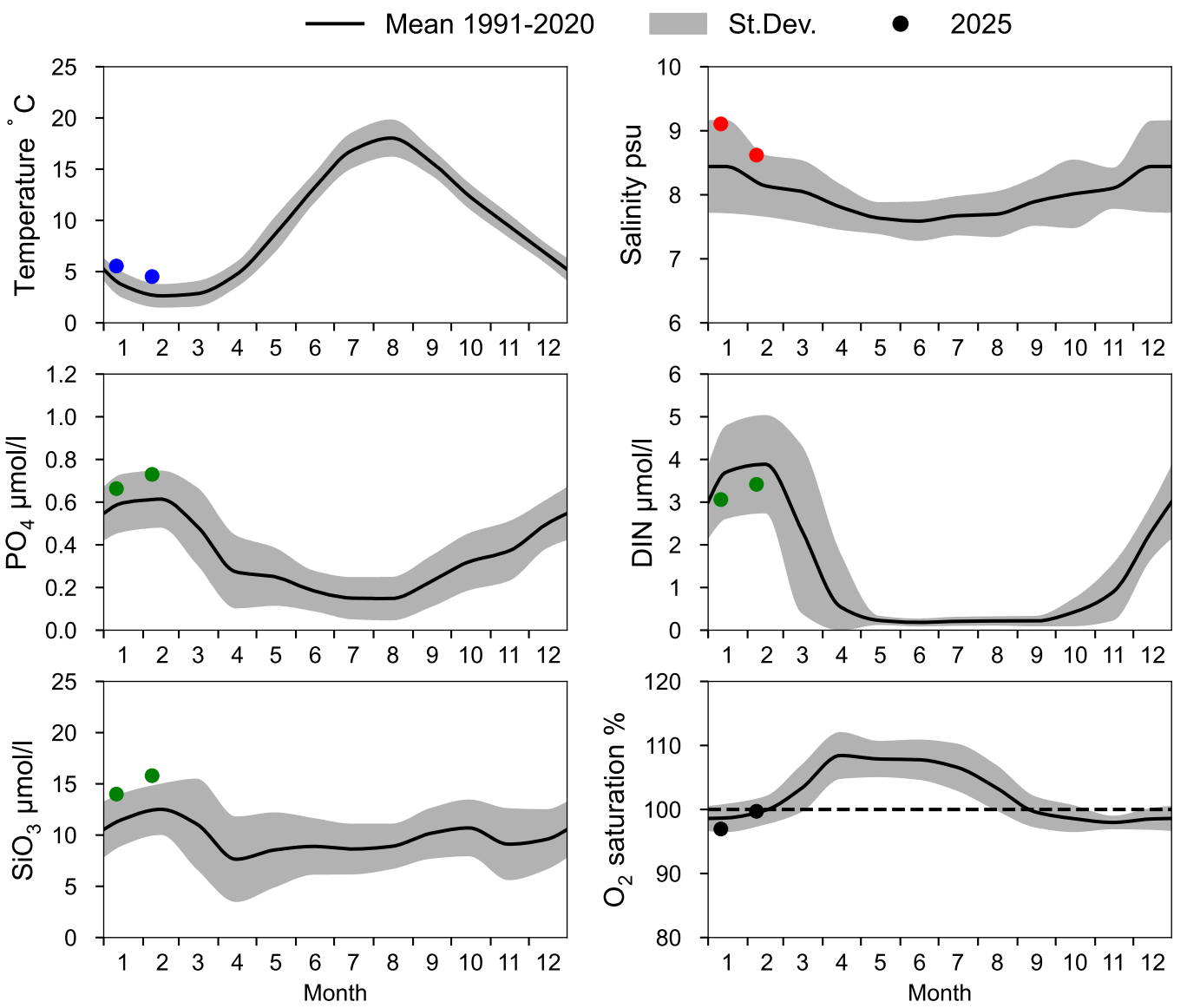


Vertical profiles 441 STEVNS KLINT
February

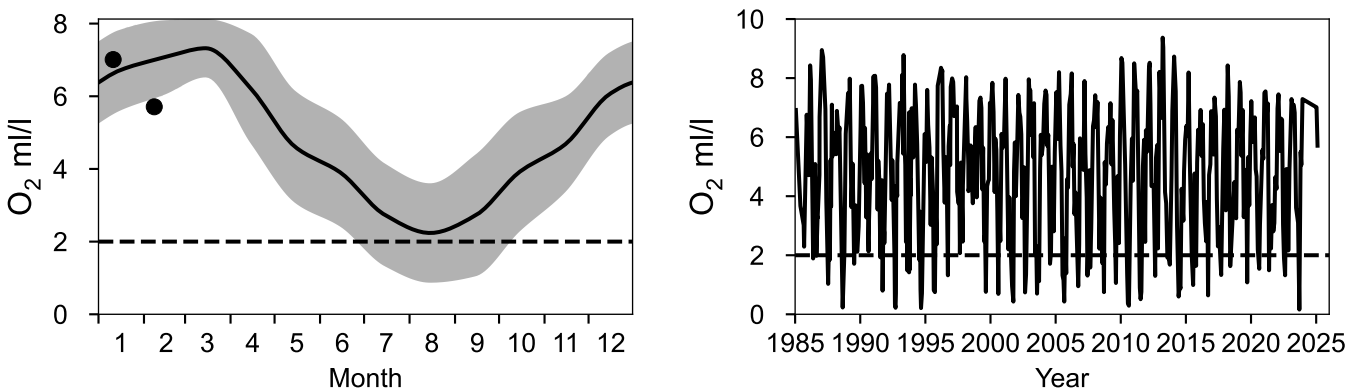


STATION BY1 SURFACE WATER (0-10 m)

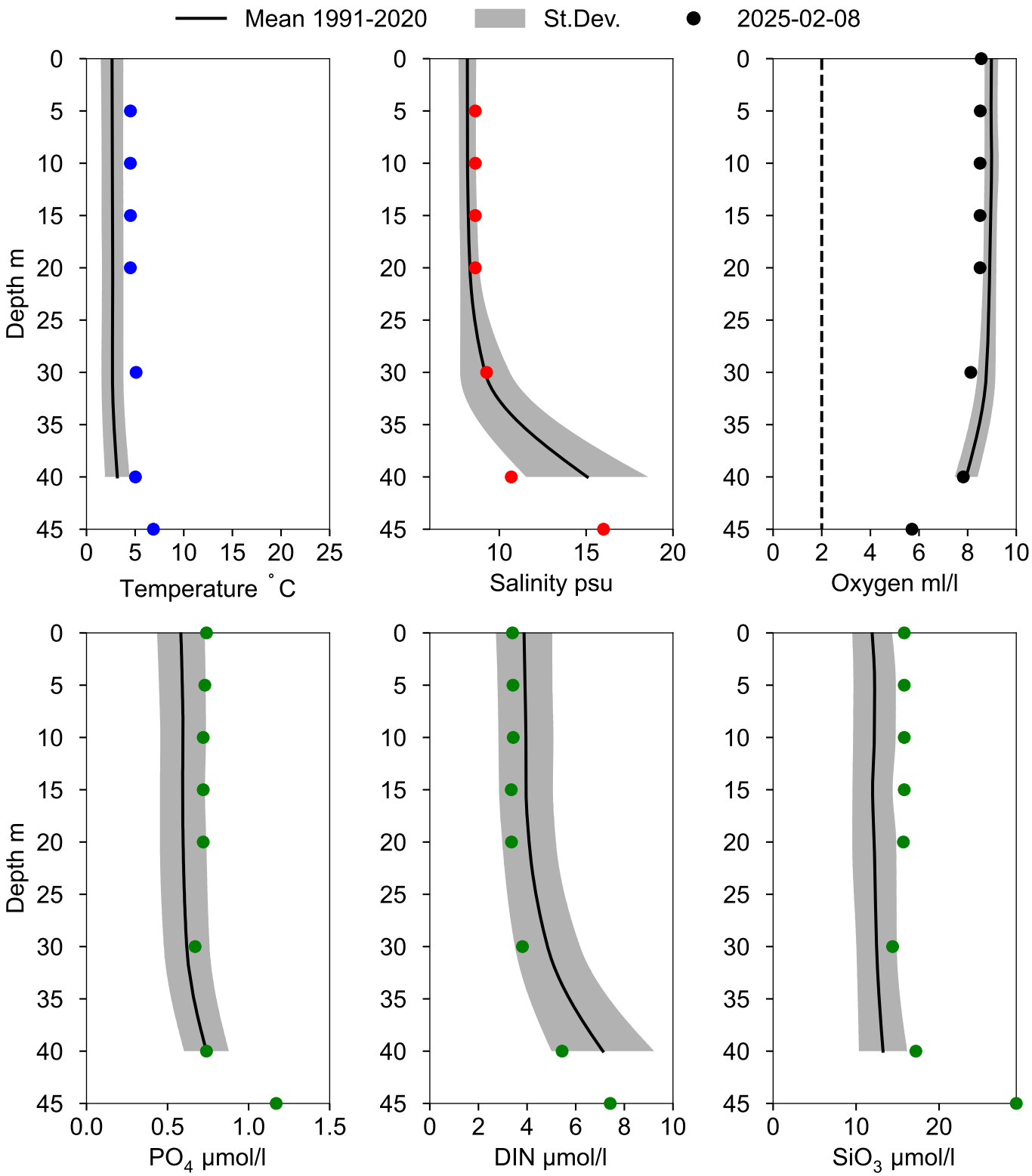
Annual Cycles



OXYGEN IN BOTTOM WATER (depth >= 39 m)

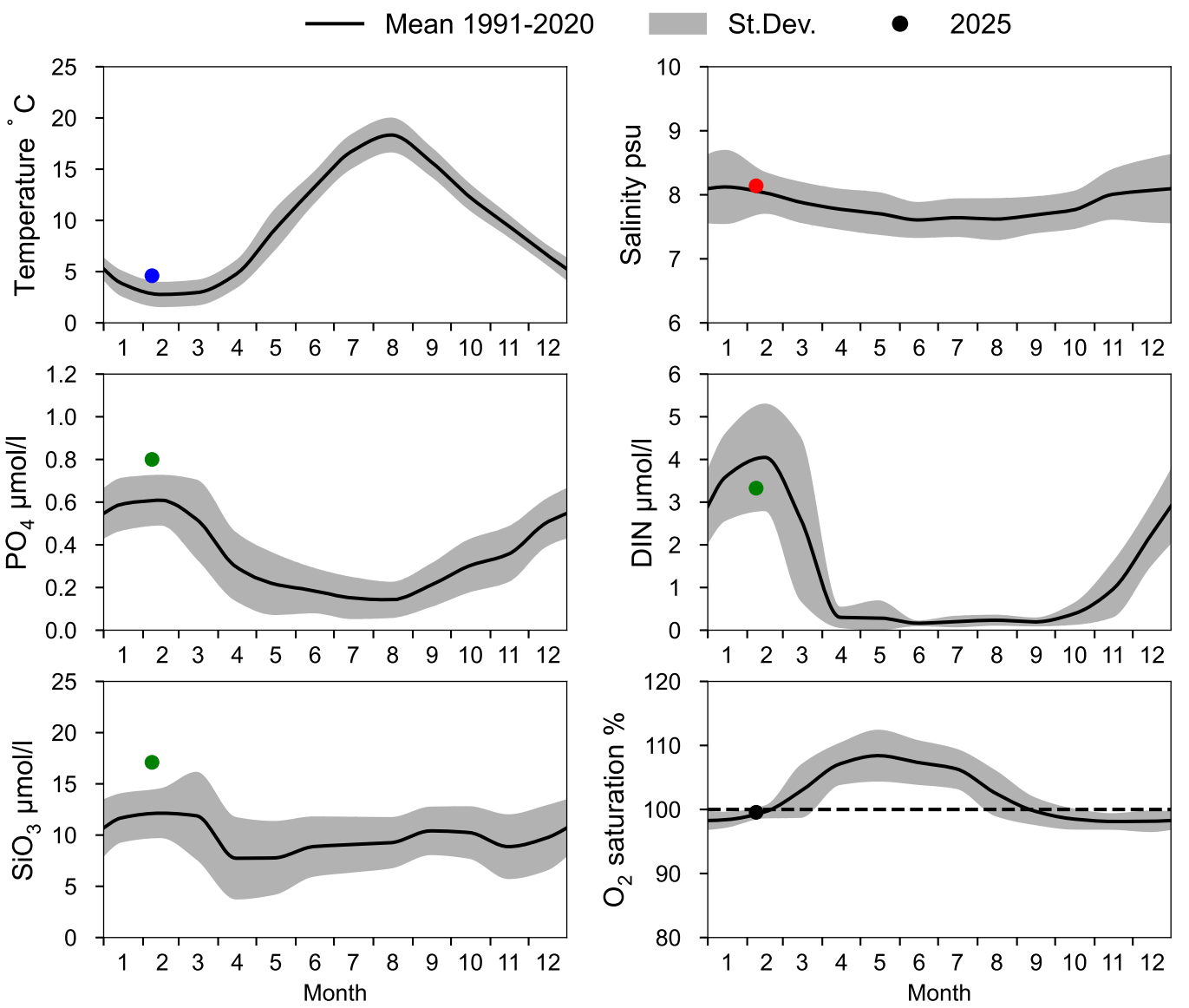


Vertical profiles BY1
February

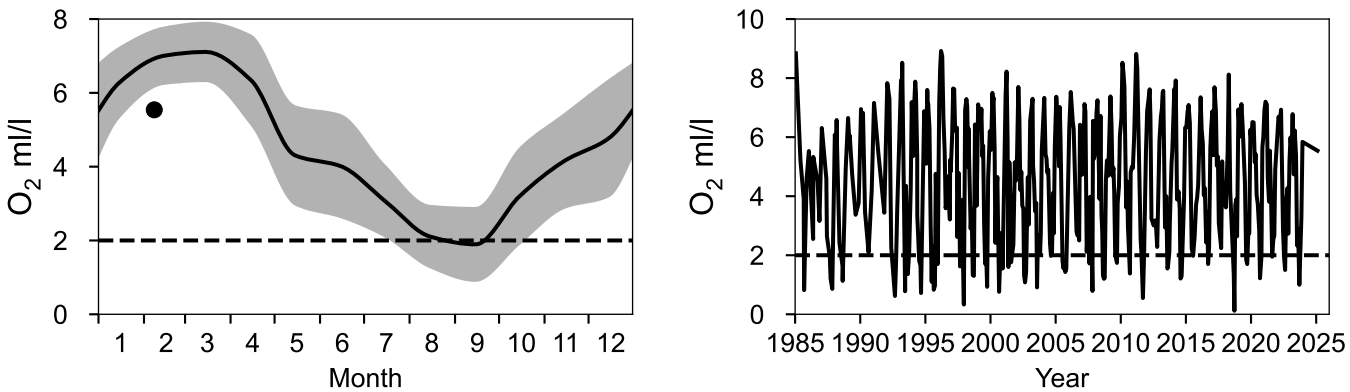


STATION BY2 ARKONA SURFACE WATER (0-10 m)

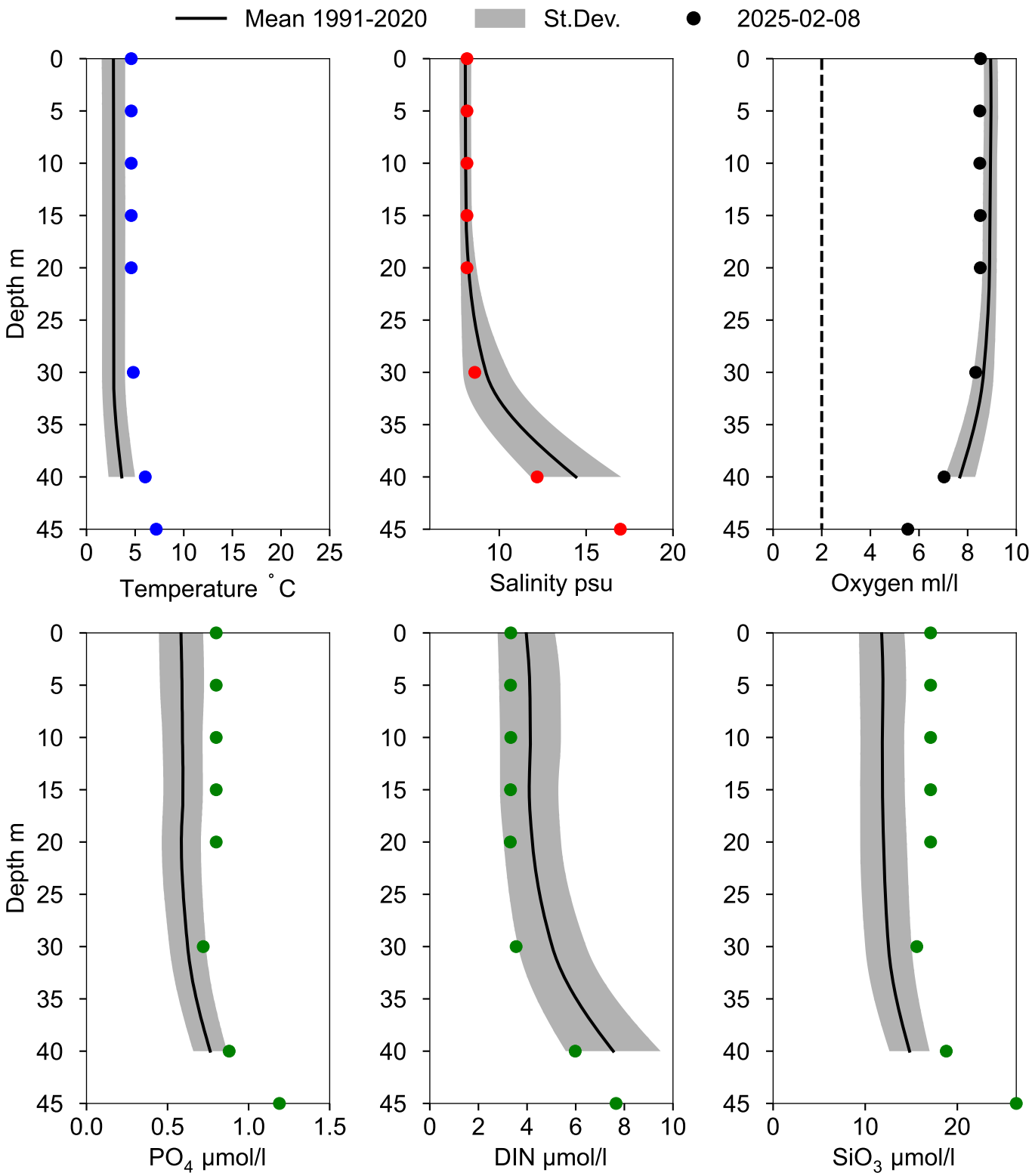
Annual Cycles



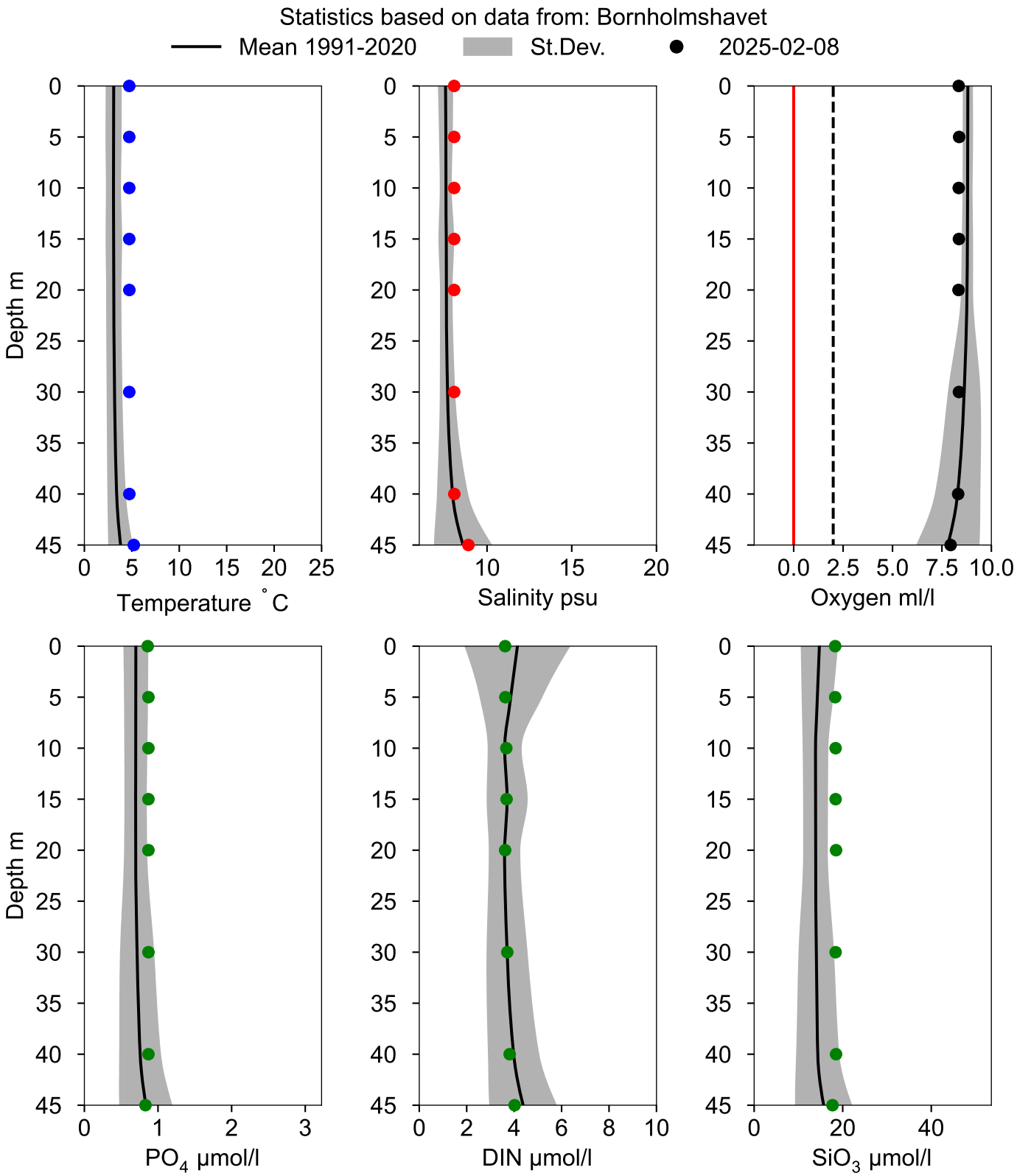
OXYGEN IN BOTTOM WATER (depth >= 40 m)



Vertical profiles BY2 ARKONA
February

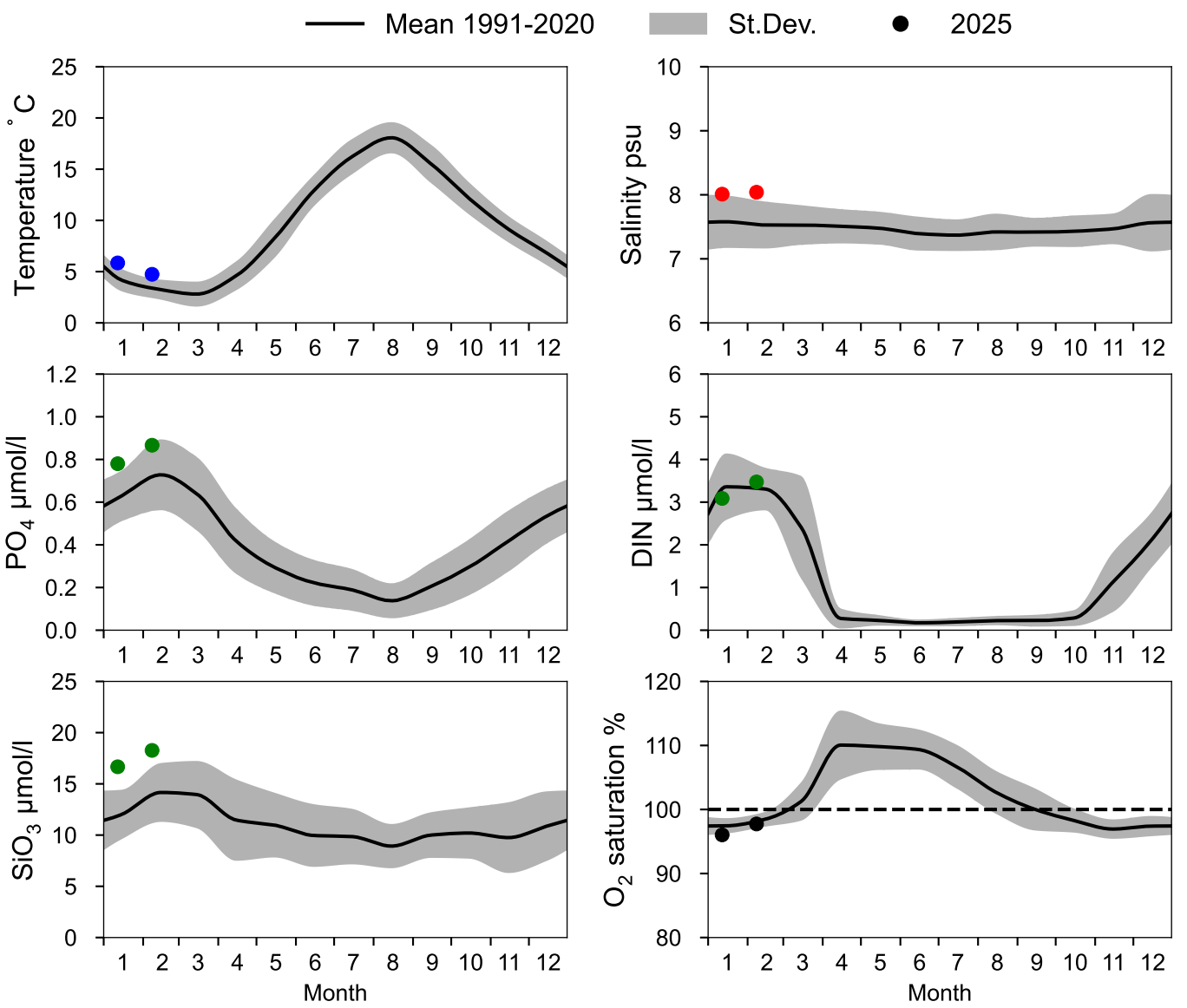


Vertical profiles BY3 HAMRARNE SUND
February

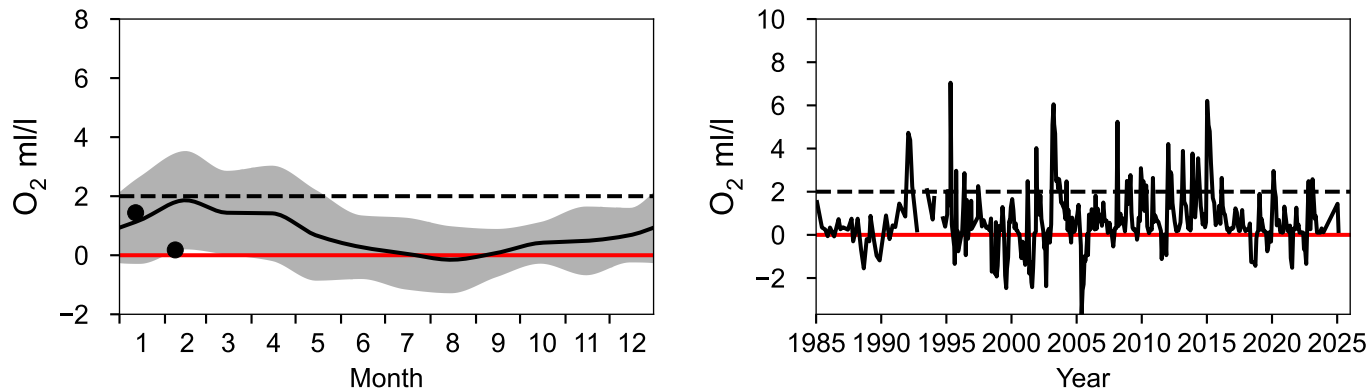


STATION HANÖBUKTEN SURFACE WATER (0-10 m)

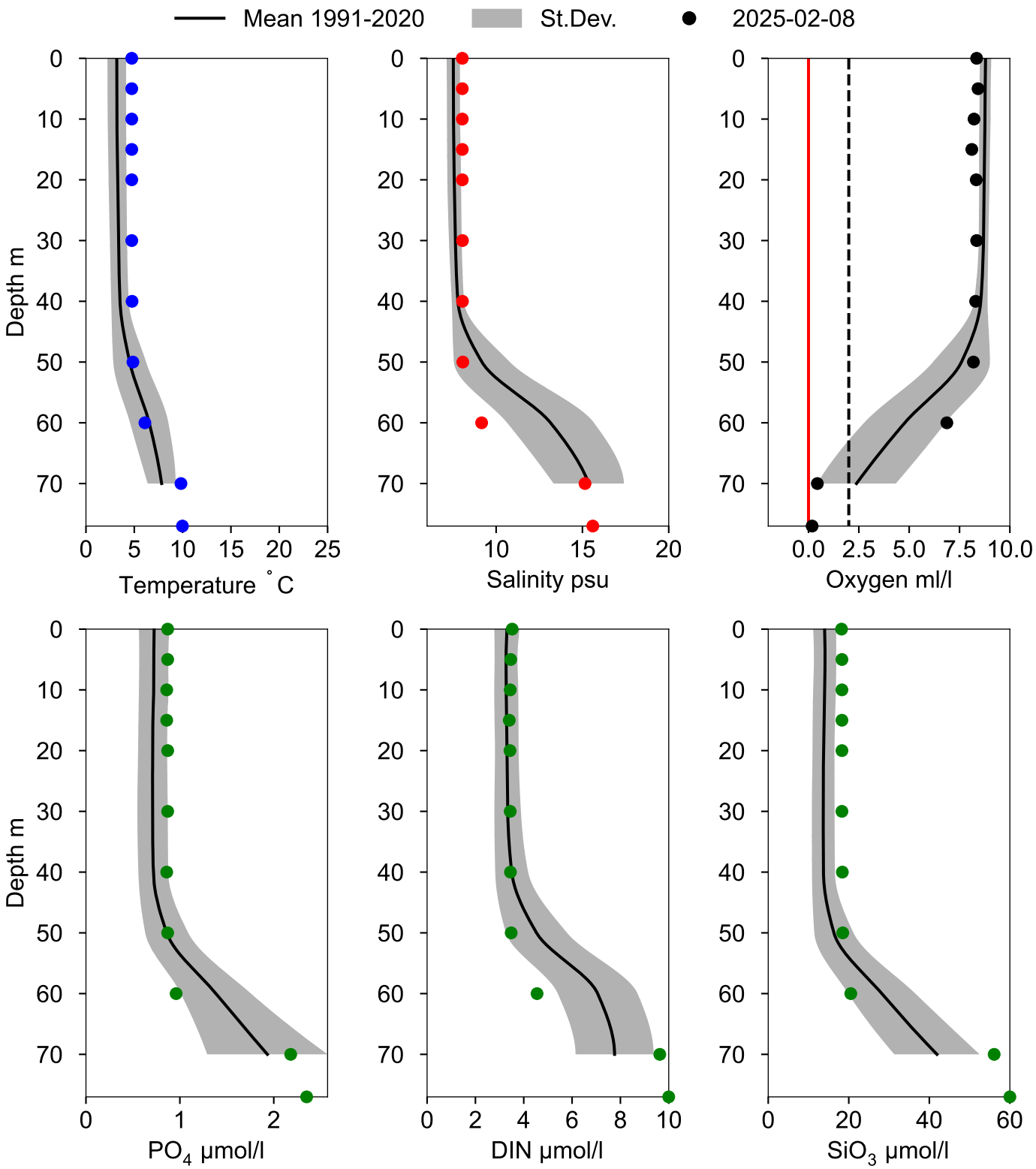
Annual Cycles



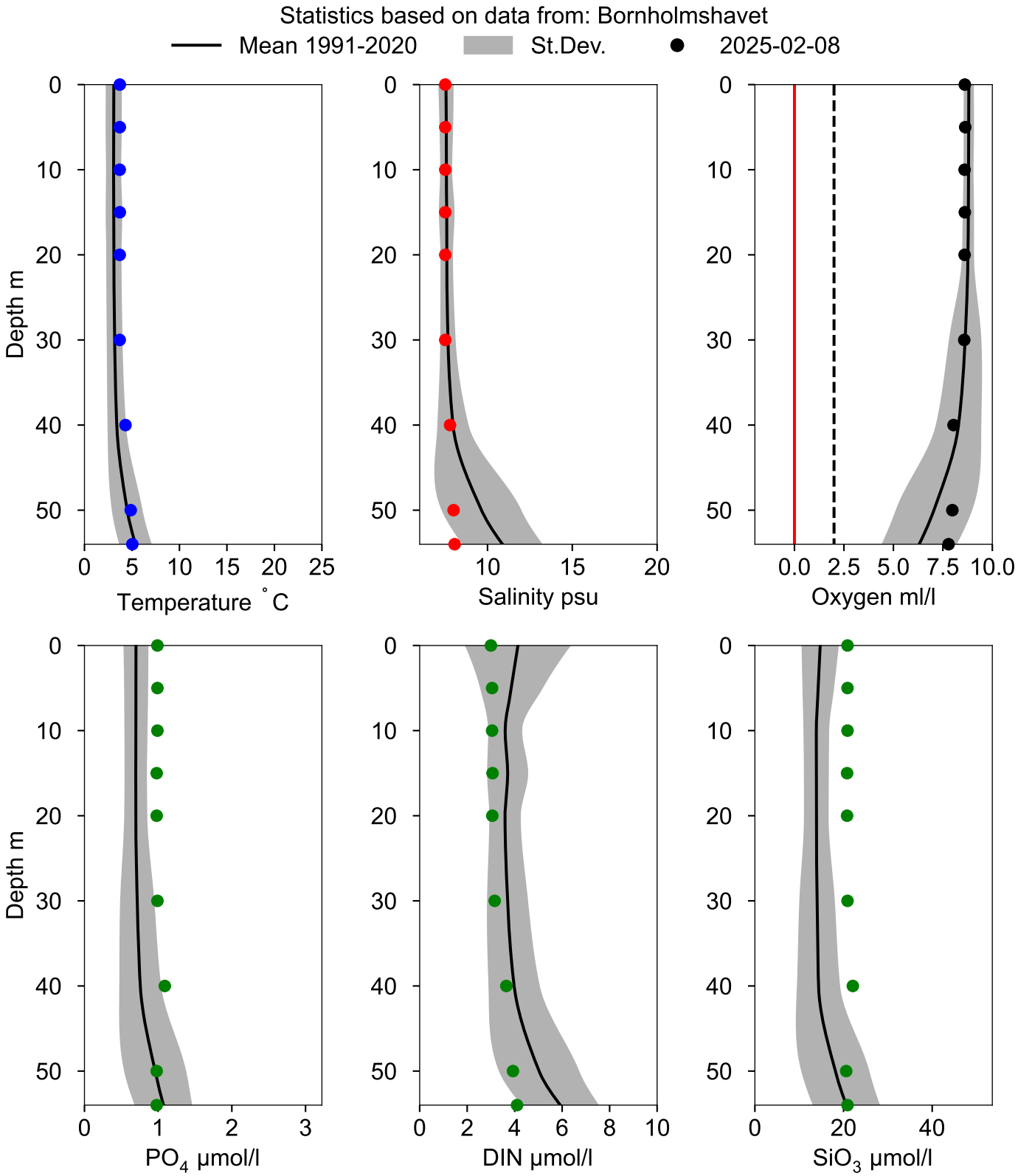
OXYGEN IN BOTTOM WATER (depth >= 70 m)



Vertical profiles HANÖBUKTEN
February

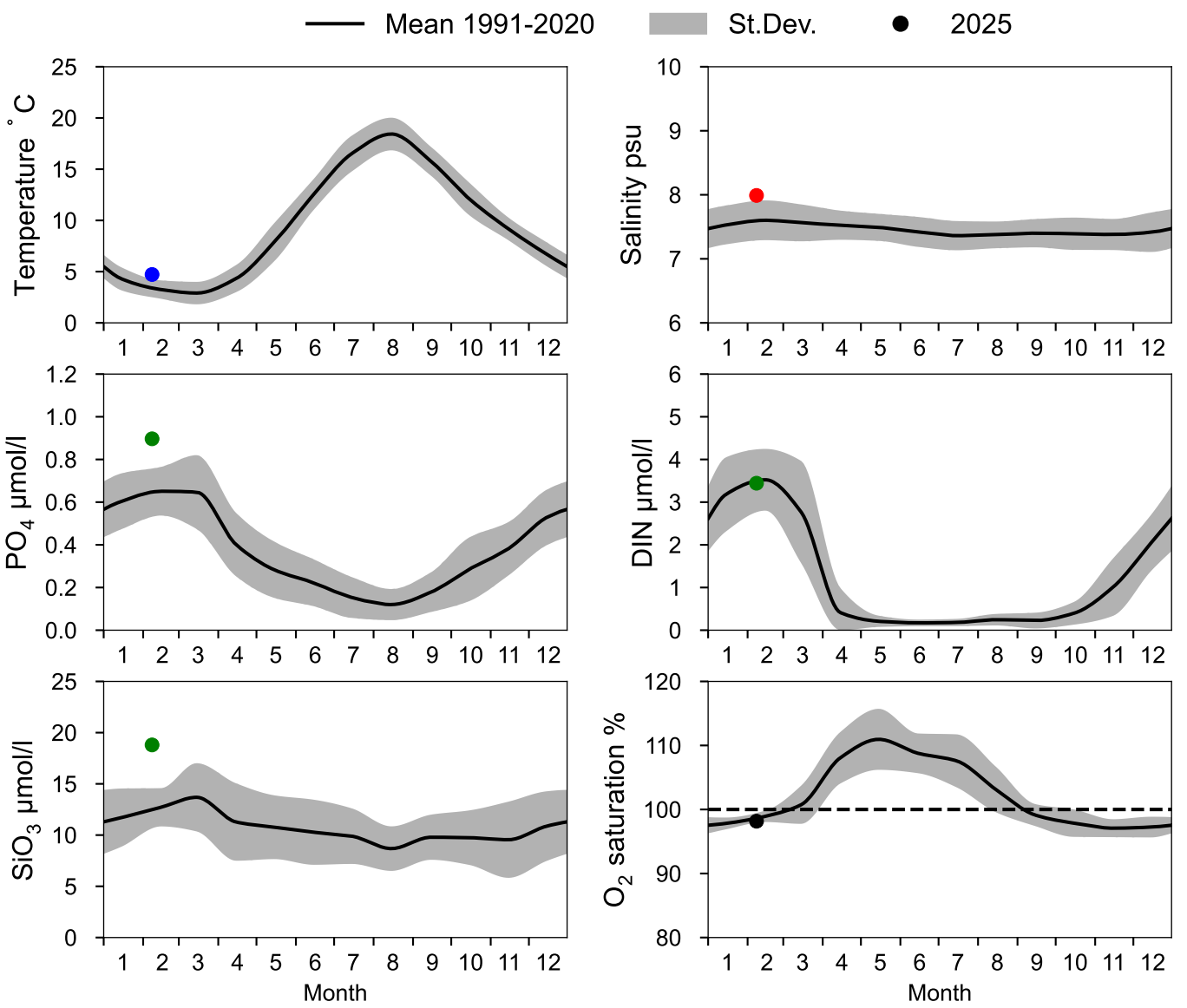


Vertical profiles HANÖBUKTEN-KBV
February

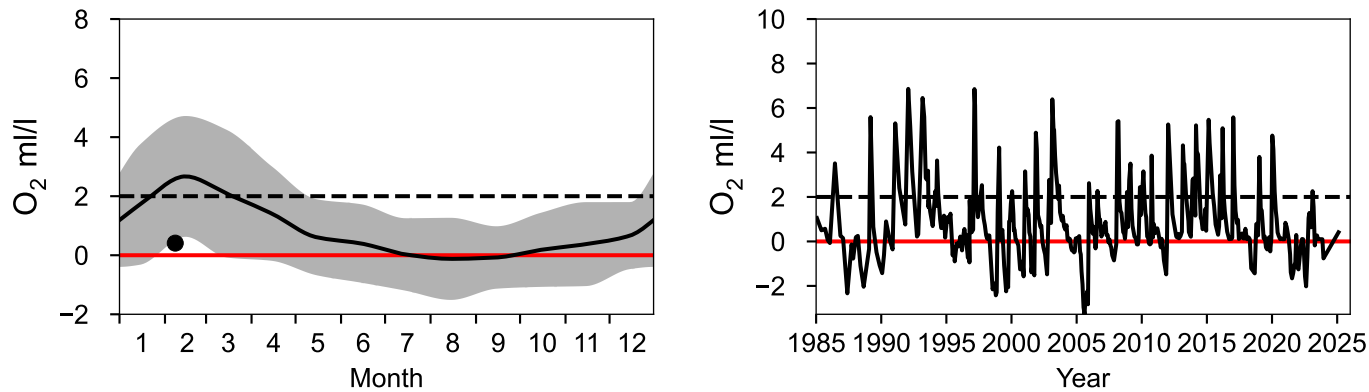


STATION BY4 CHRISTIANSÖ SURFACE WATER (0-10 m)

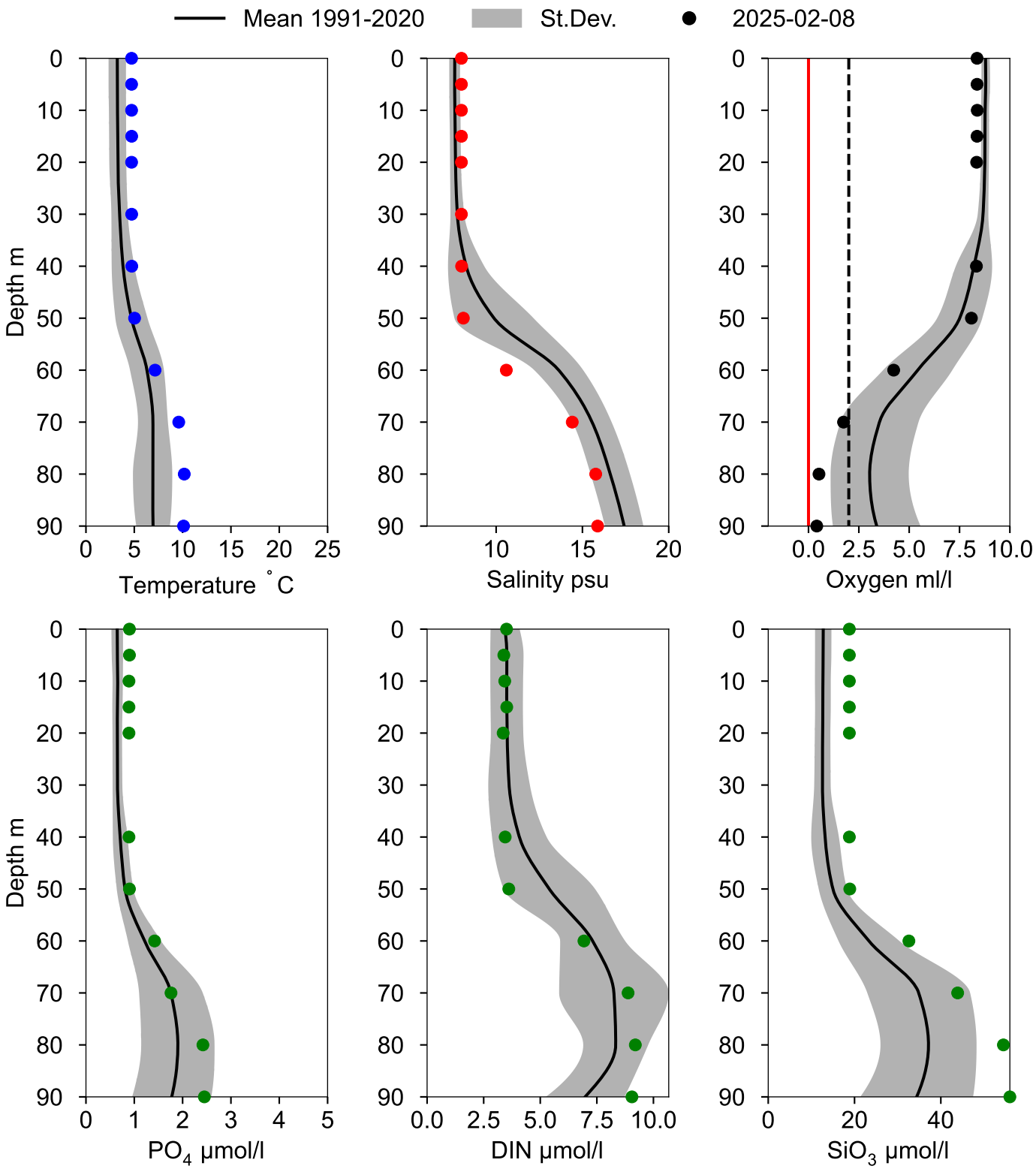
Annual Cycles



OXYGEN IN BOTTOM WATER (depth >= 80 m)

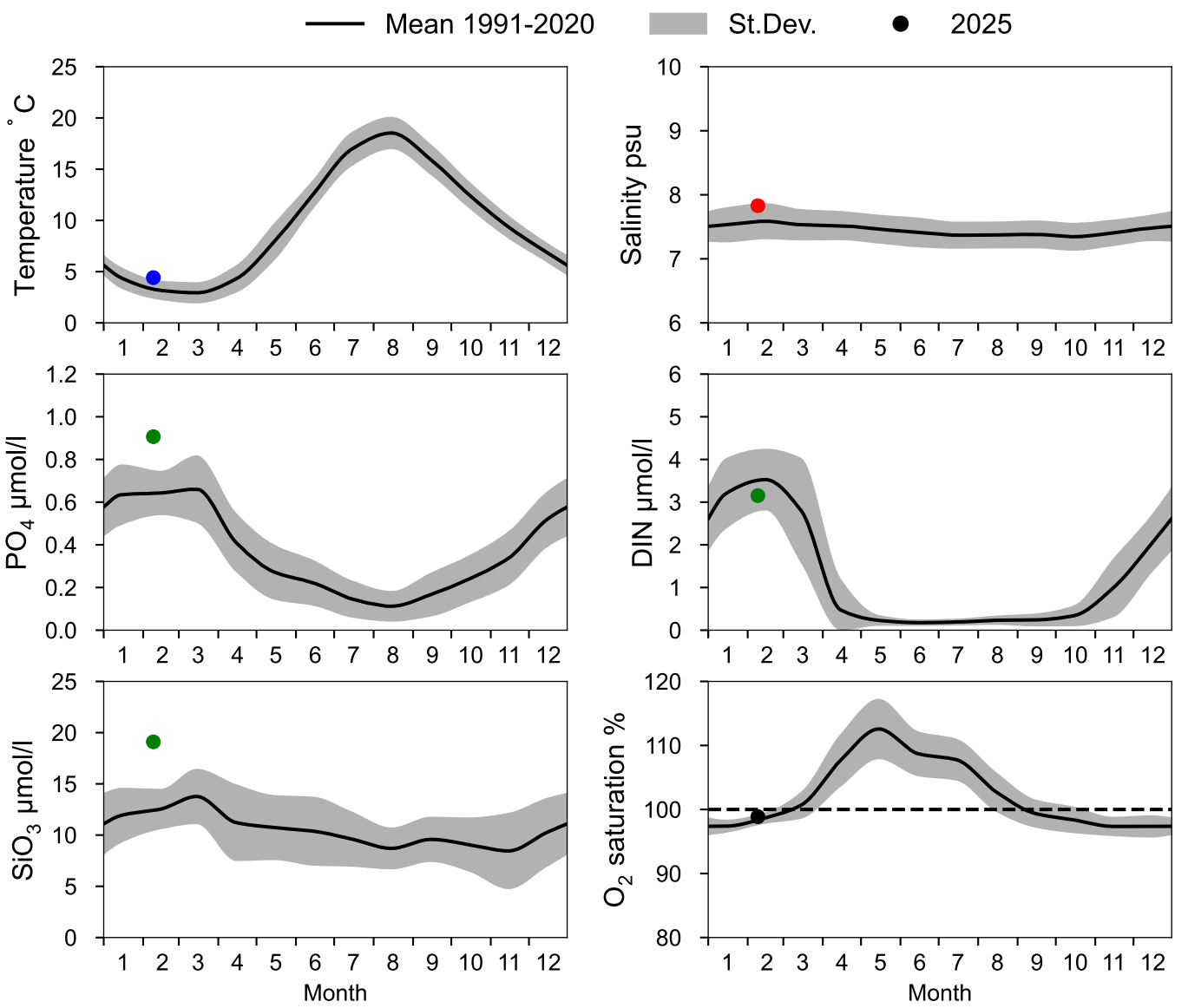


Vertical profiles BY4 CHRISTIANSÖ
February

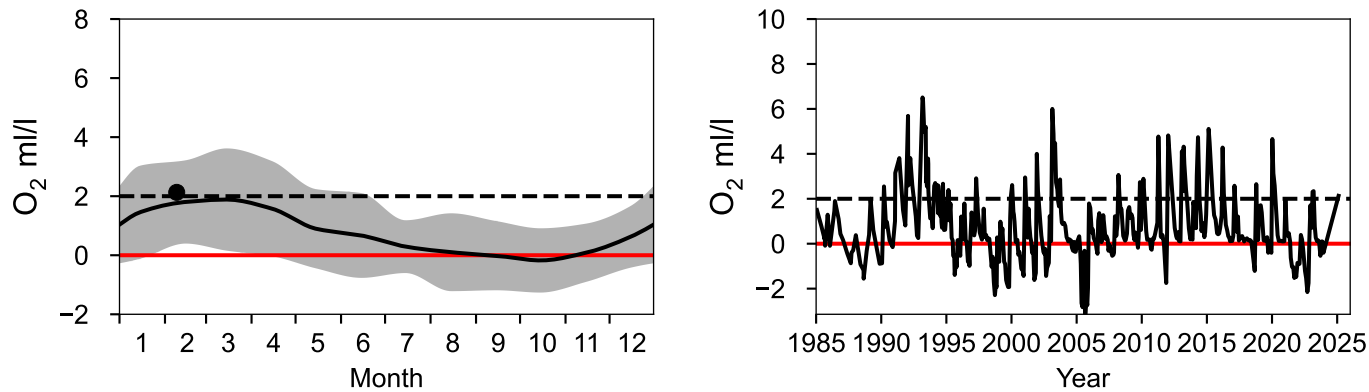


STATION BY5 BORNHOLMSDJ SURFACE WATER (0-10 m)

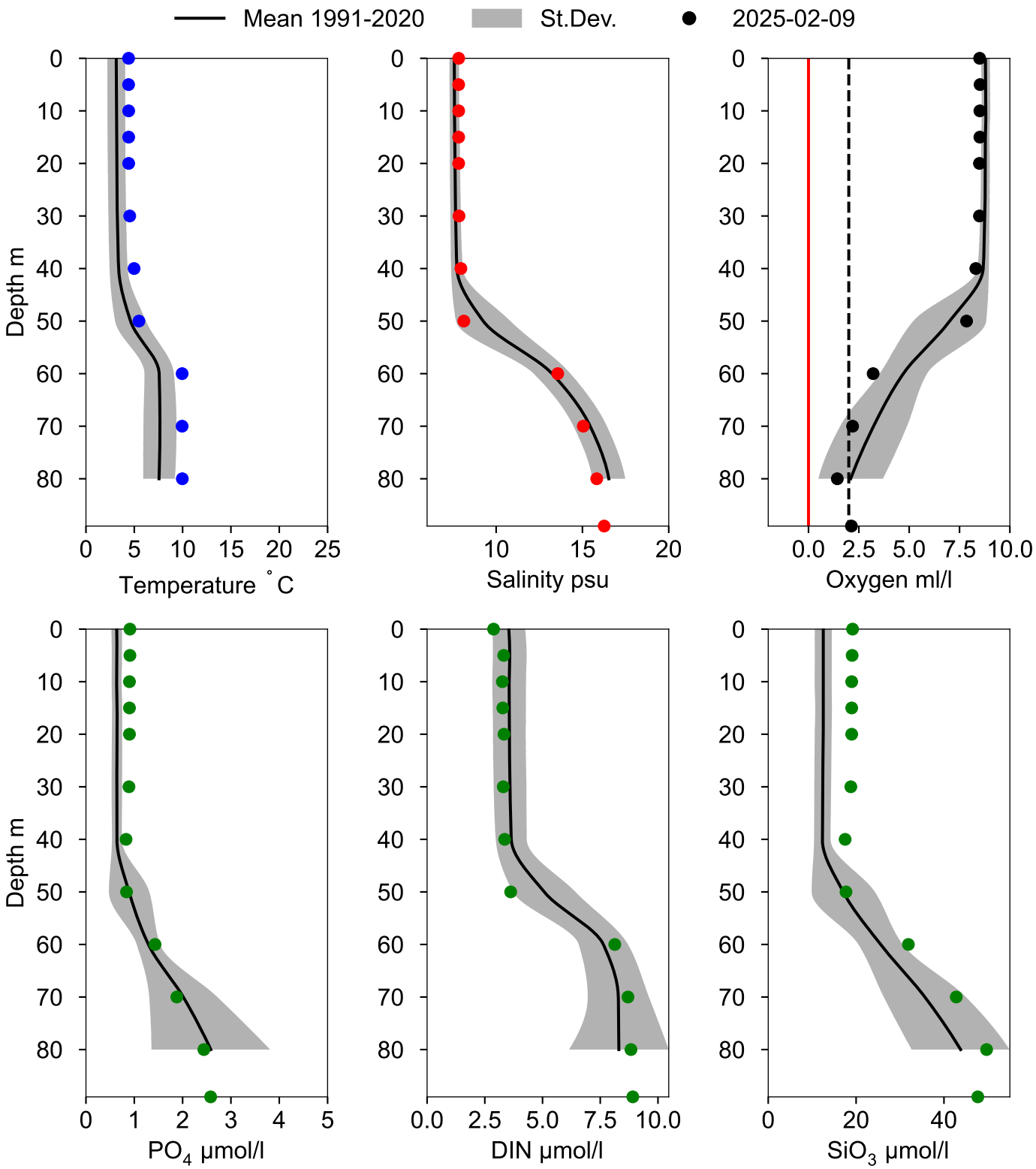
Annual Cycles



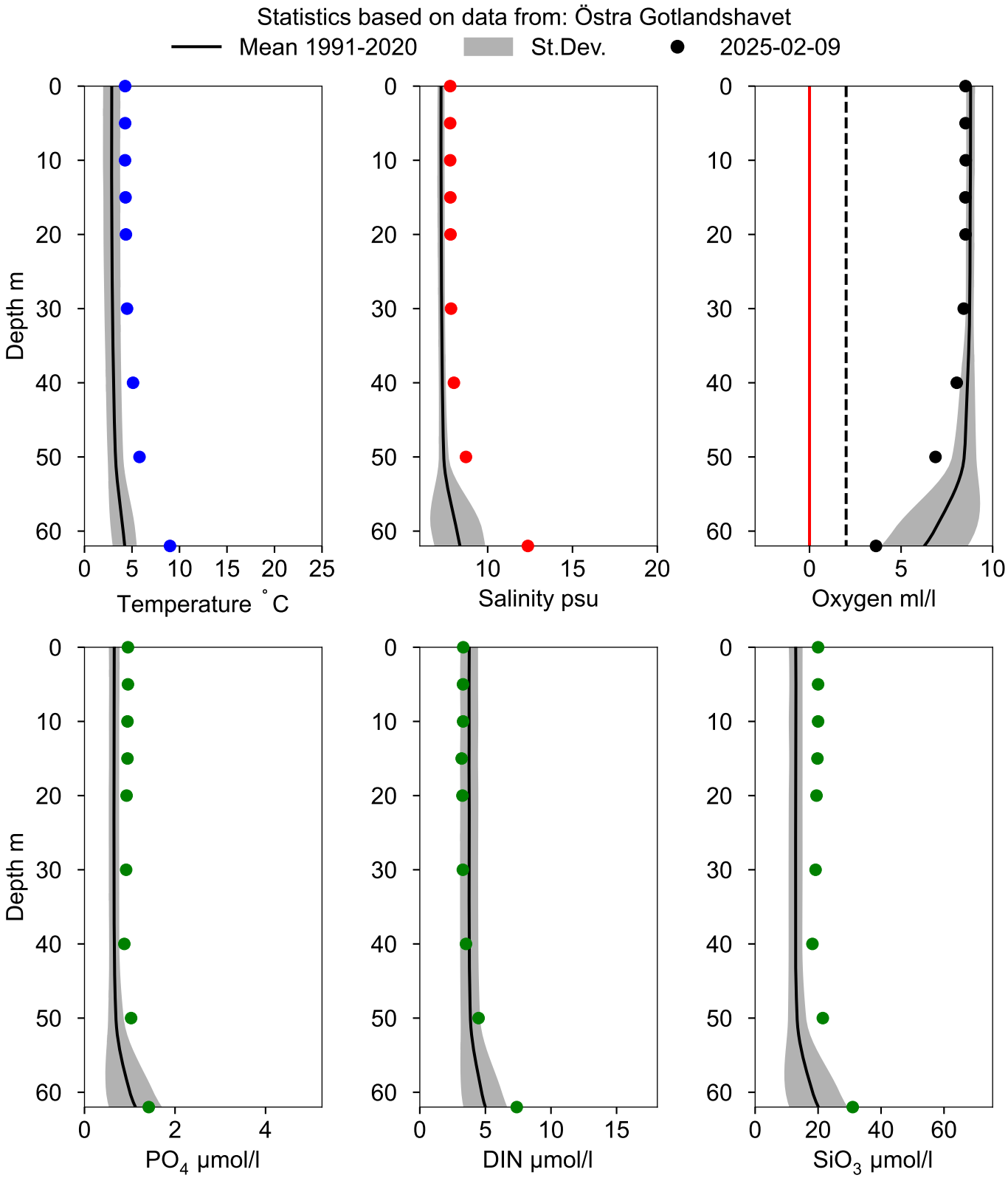
OXYGEN IN BOTTOM WATER (depth >= 80 m)



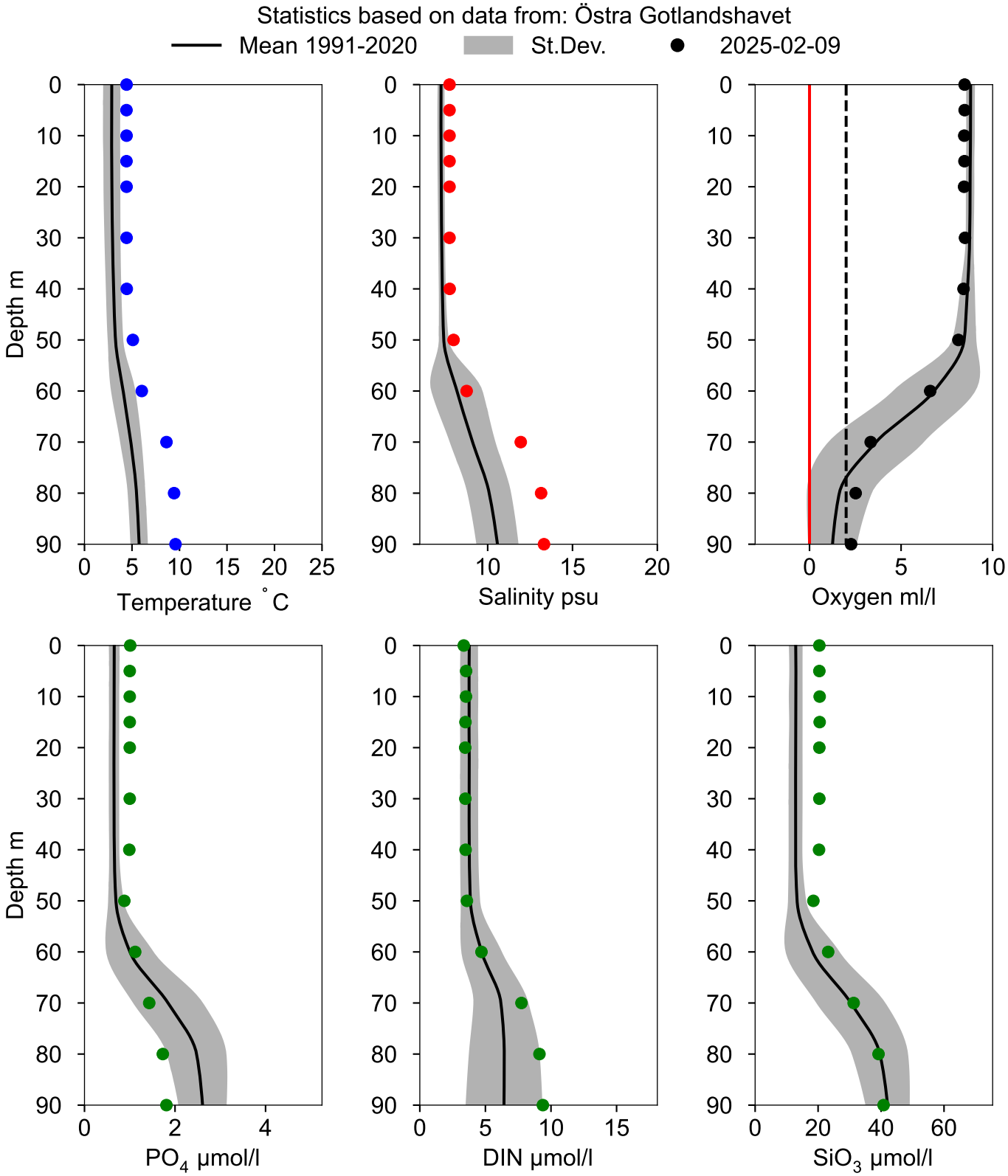
Vertical profiles BY5 BORNHOLMSDJ
February



Vertical profiles STOLPE TRÖSKEL
February

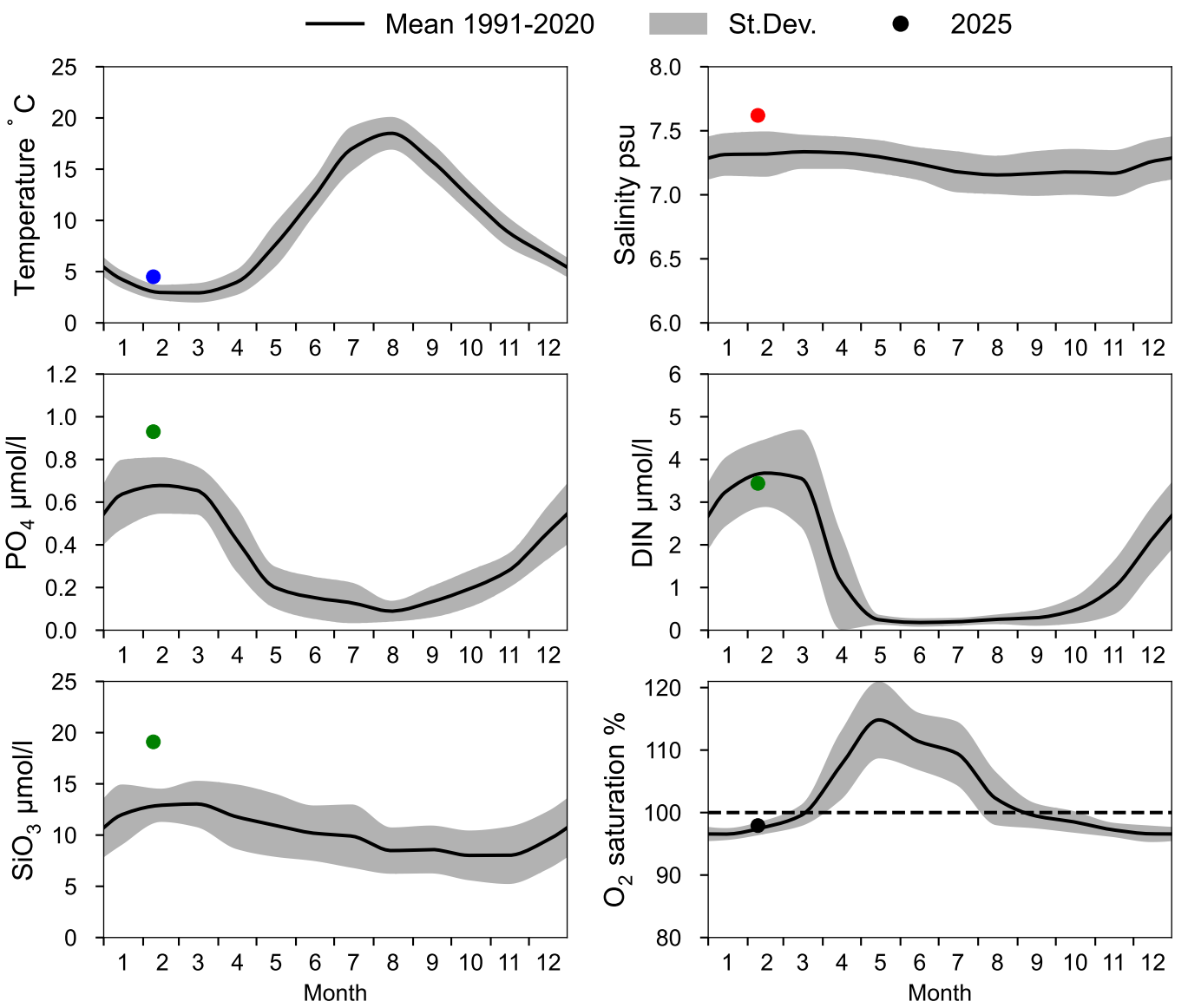


Vertical profiles BY7 STOLPE RÄNNA
February

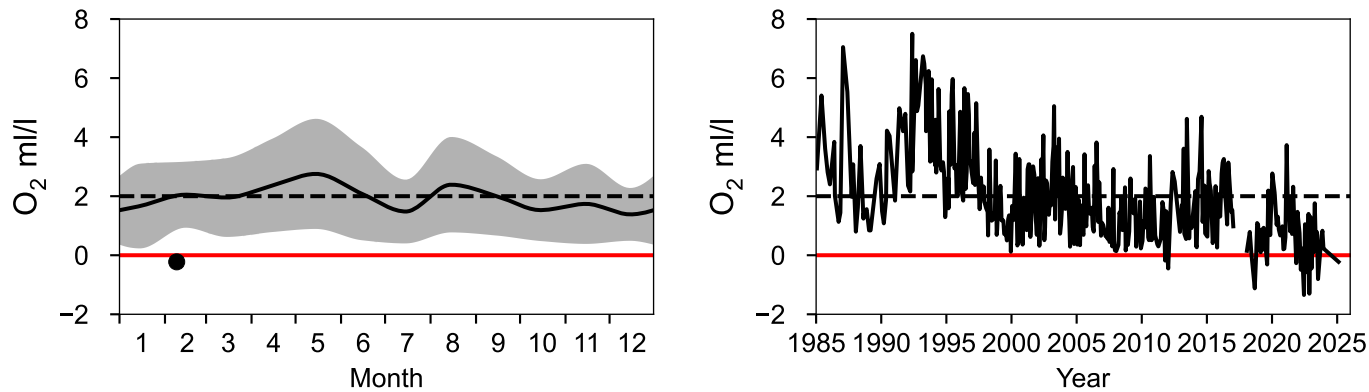


STATION BCS III-10 SURFACE WATER (0-10 m)

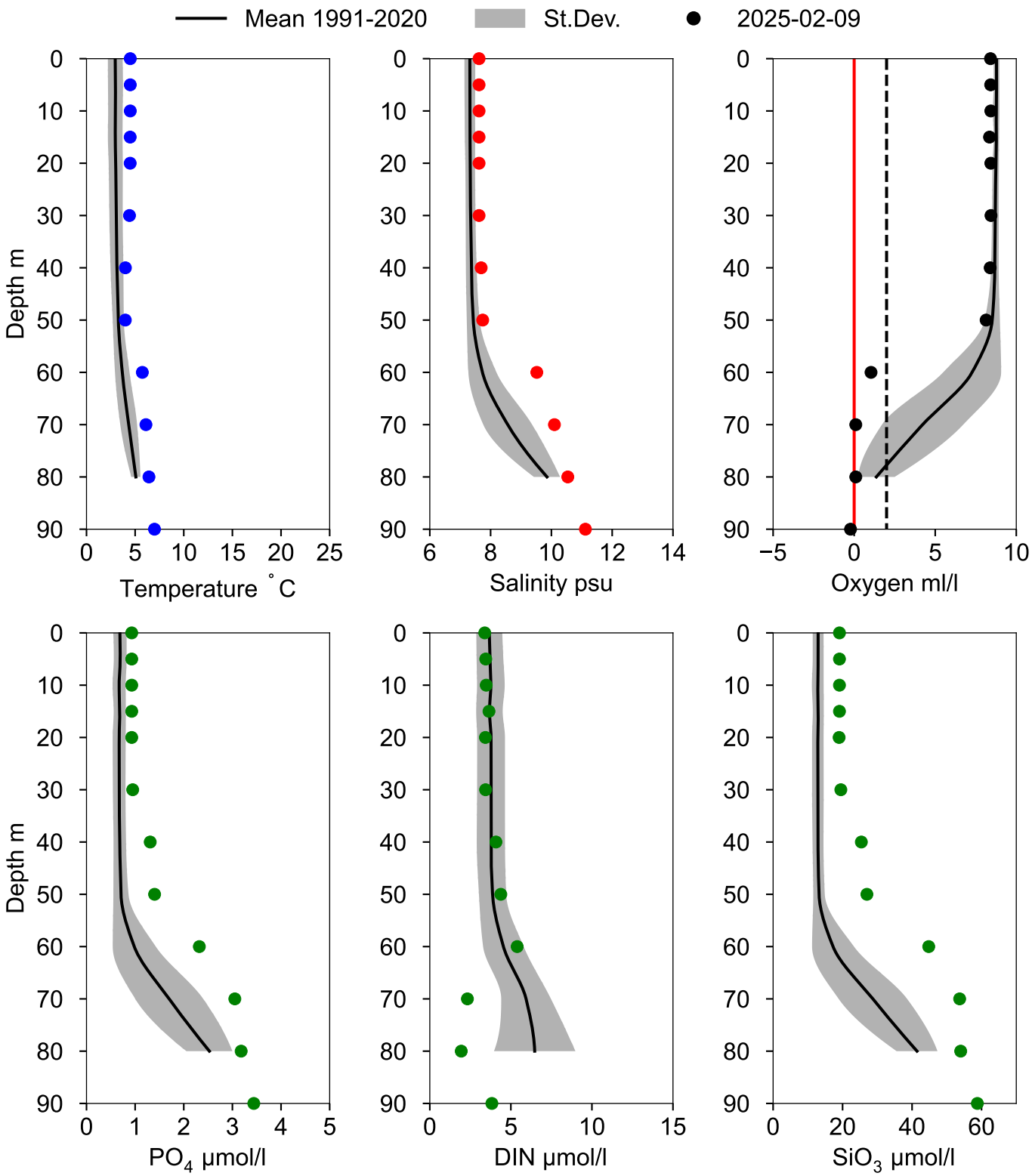
Annual Cycles



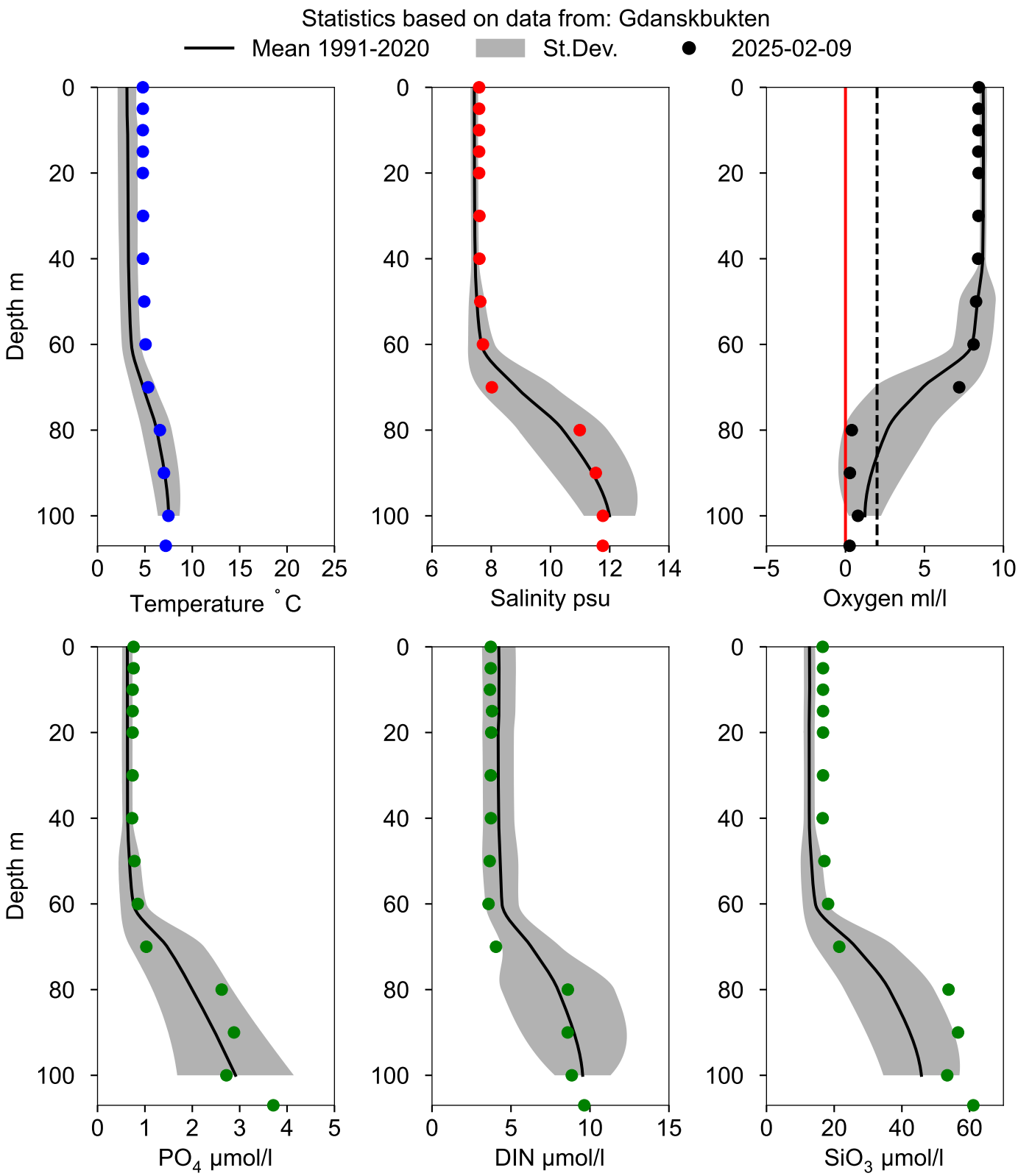
OXYGEN IN BOTTOM WATER (depth >= 80 m)



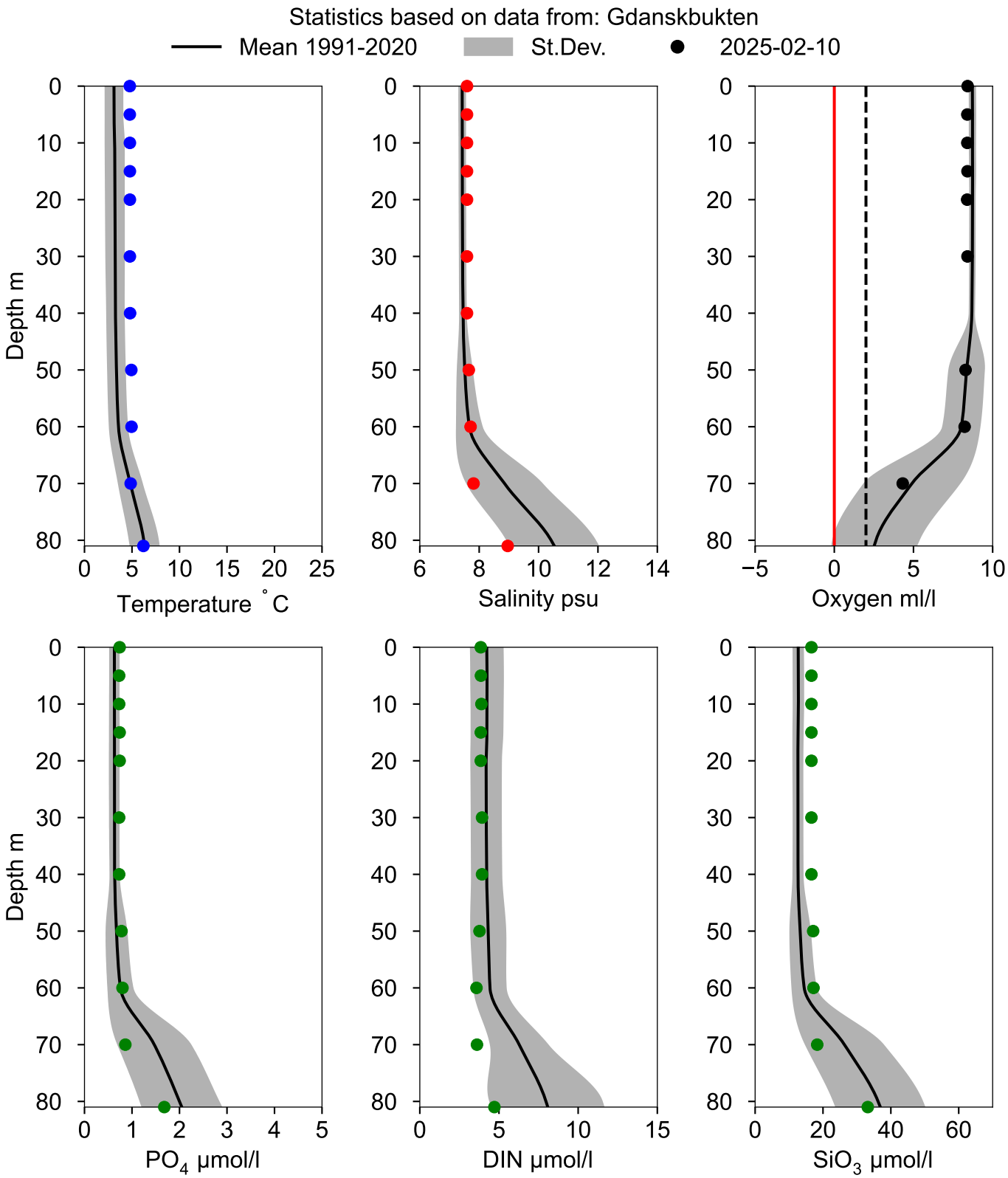
Vertical profiles BCS III-10
February



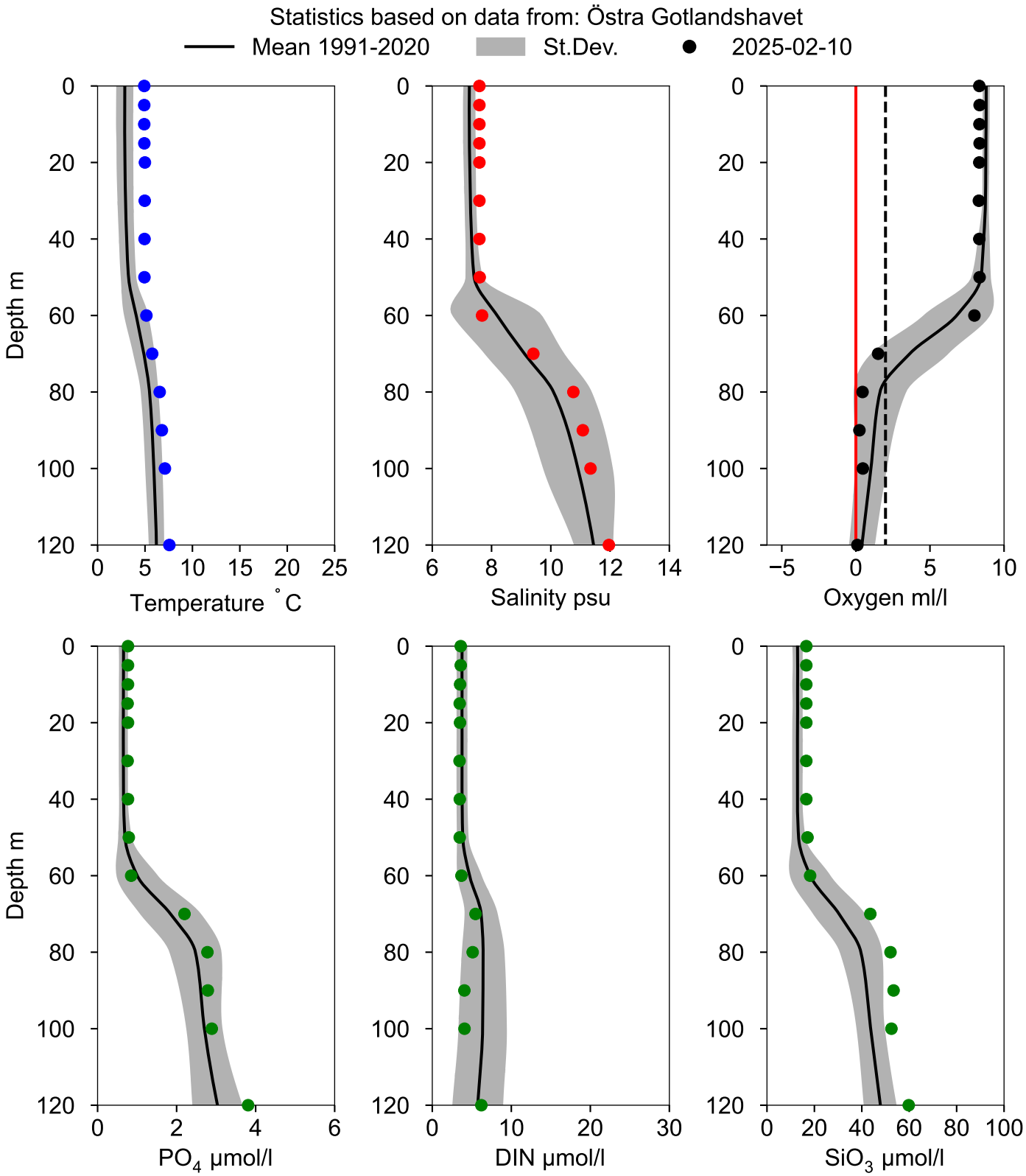
Vertical profiles PL-P1
February



Vertical profiles PL-P63
February

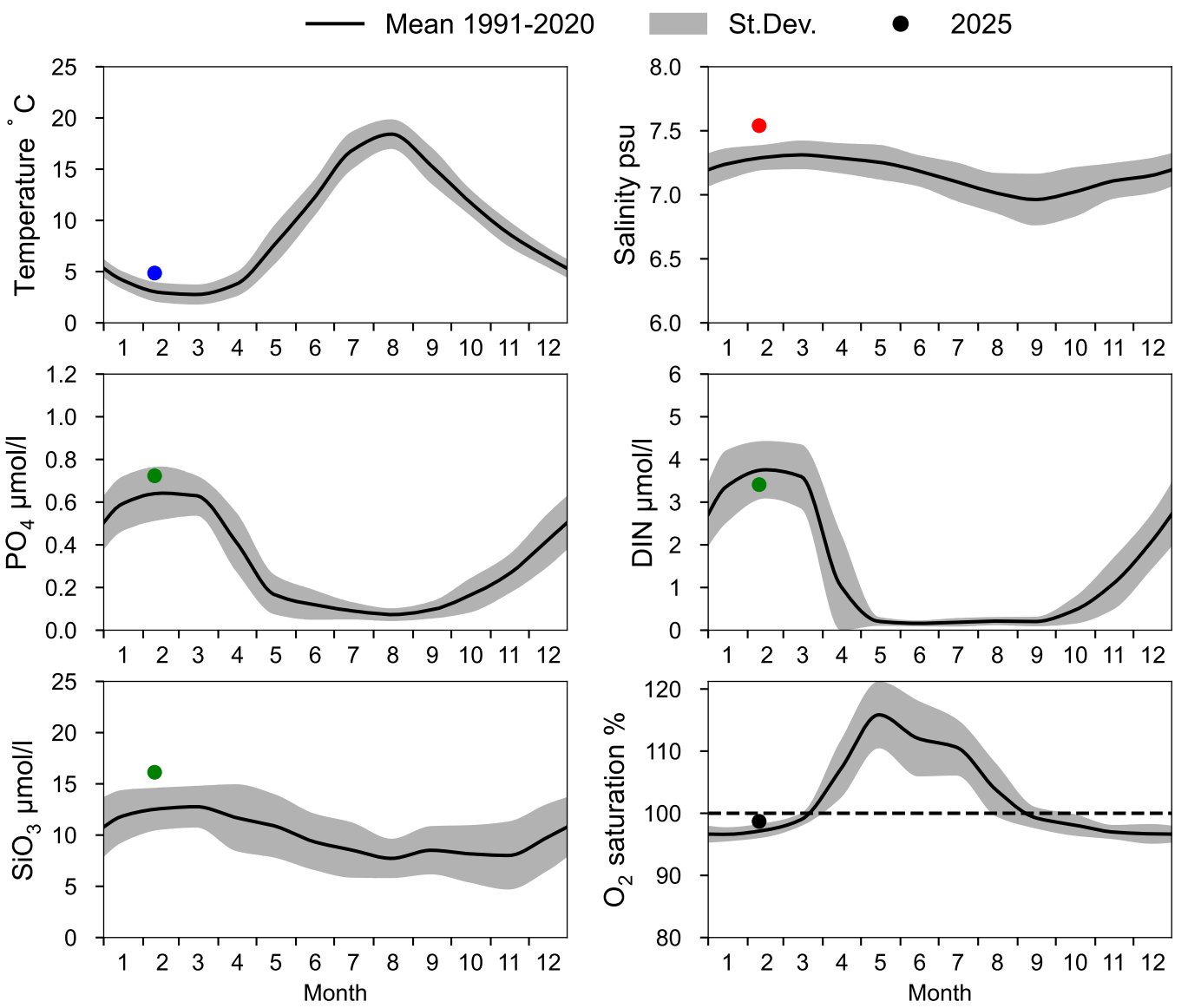


Vertical profiles BY9 KLAIPEDA
February

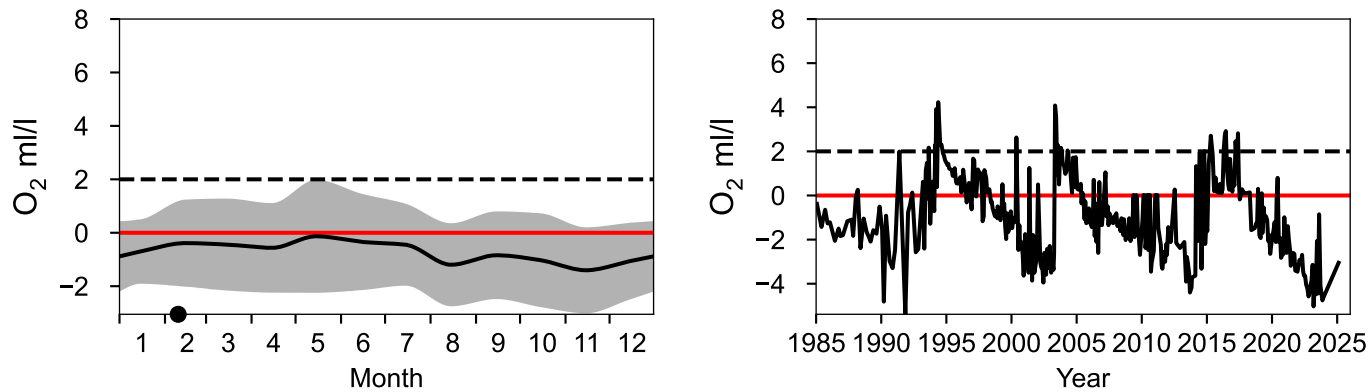


STATION BY10 SURFACE WATER (0-10 m)

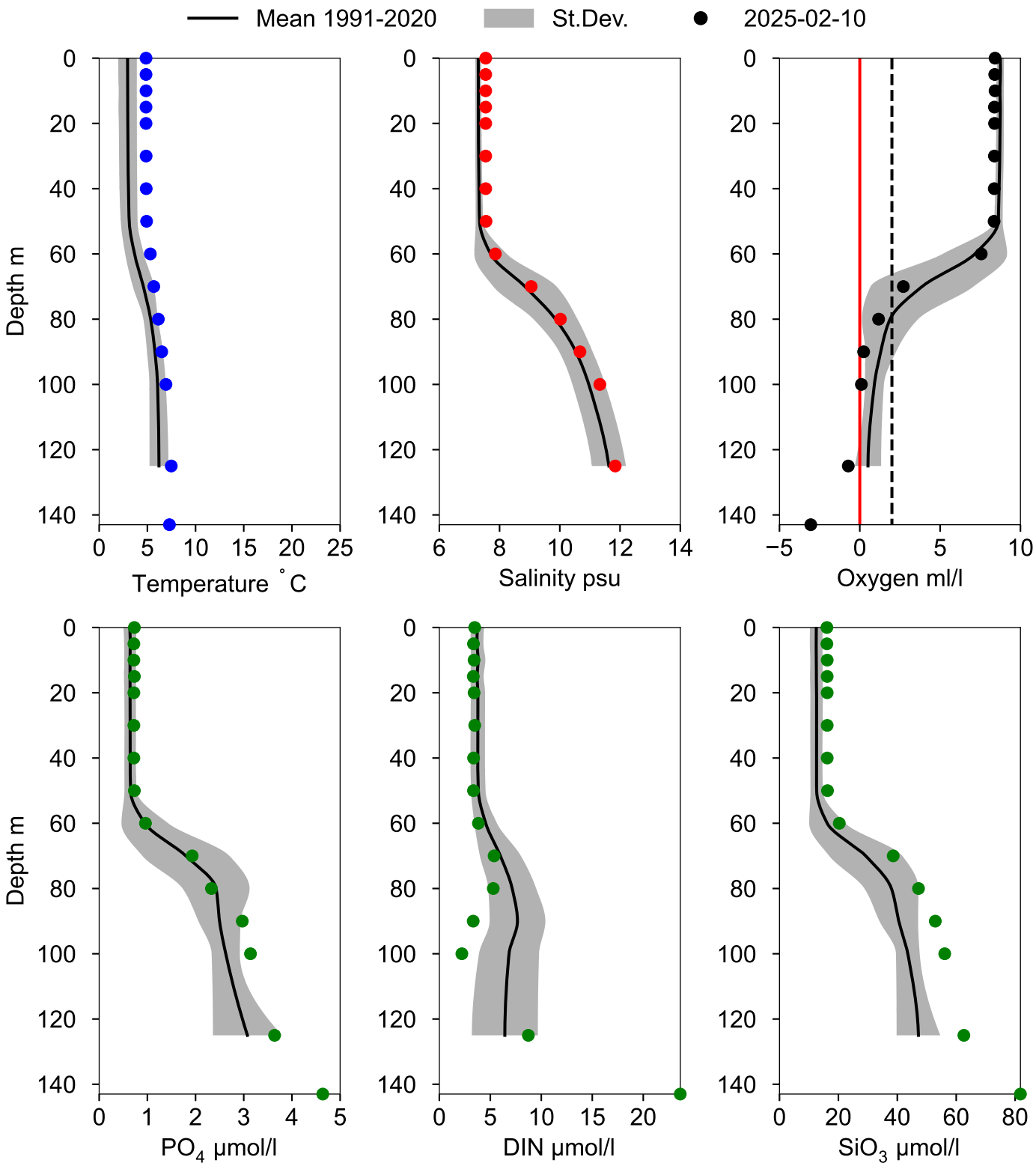
Annual Cycles



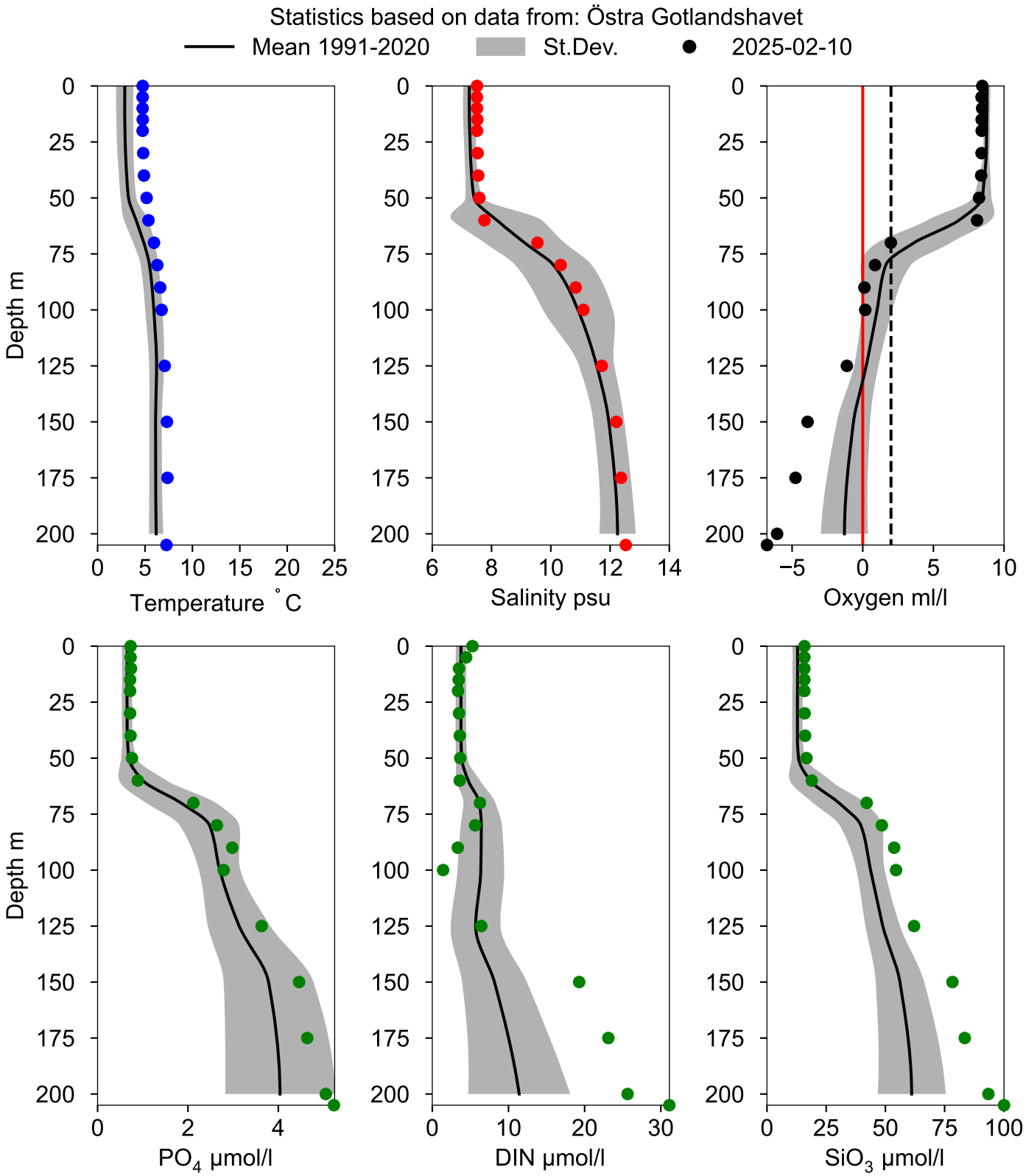
OXYGEN IN BOTTOM WATER (depth >= 125 m)



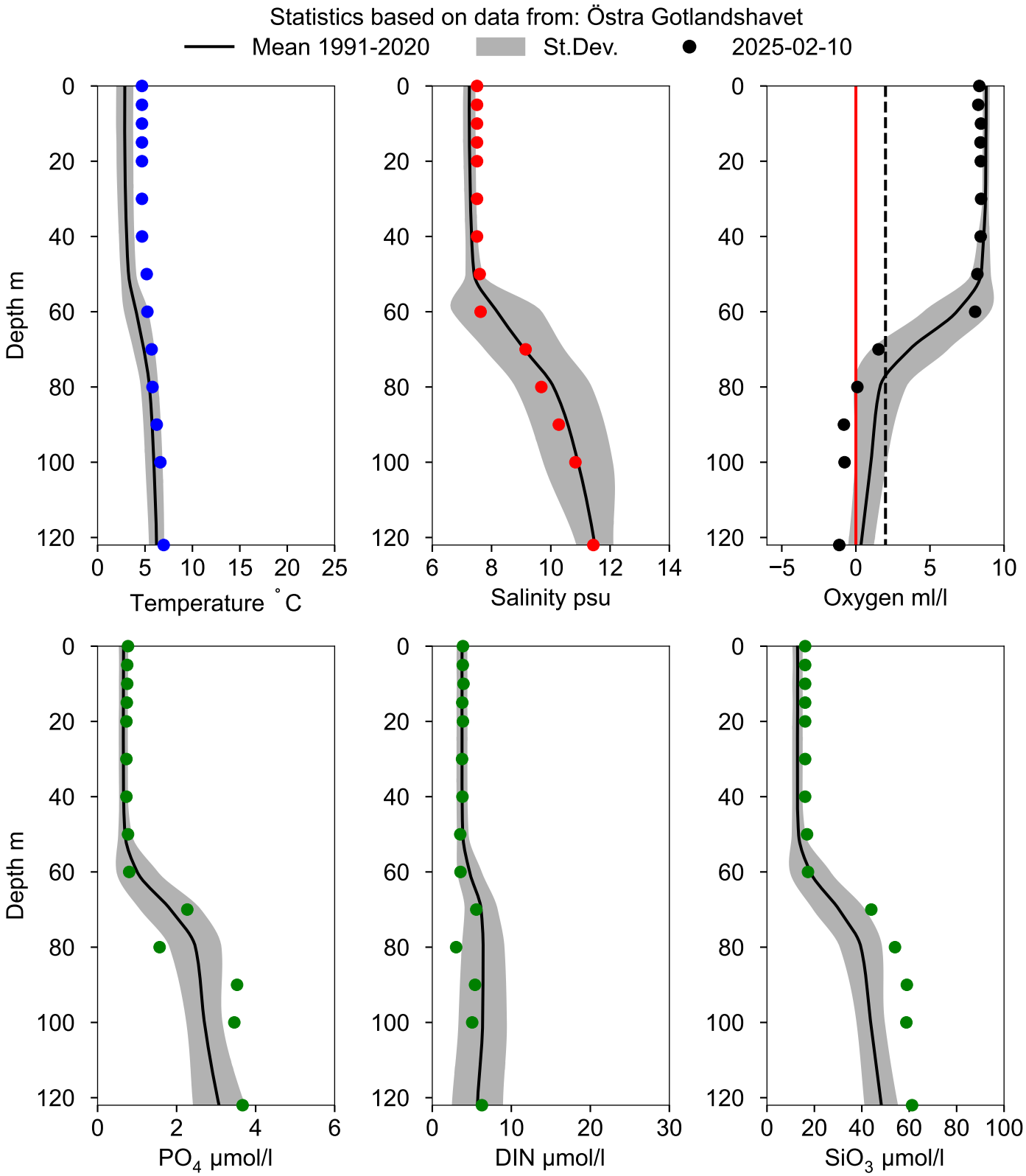
Vertical profiles BY10
February



Vertical profiles BY11
February

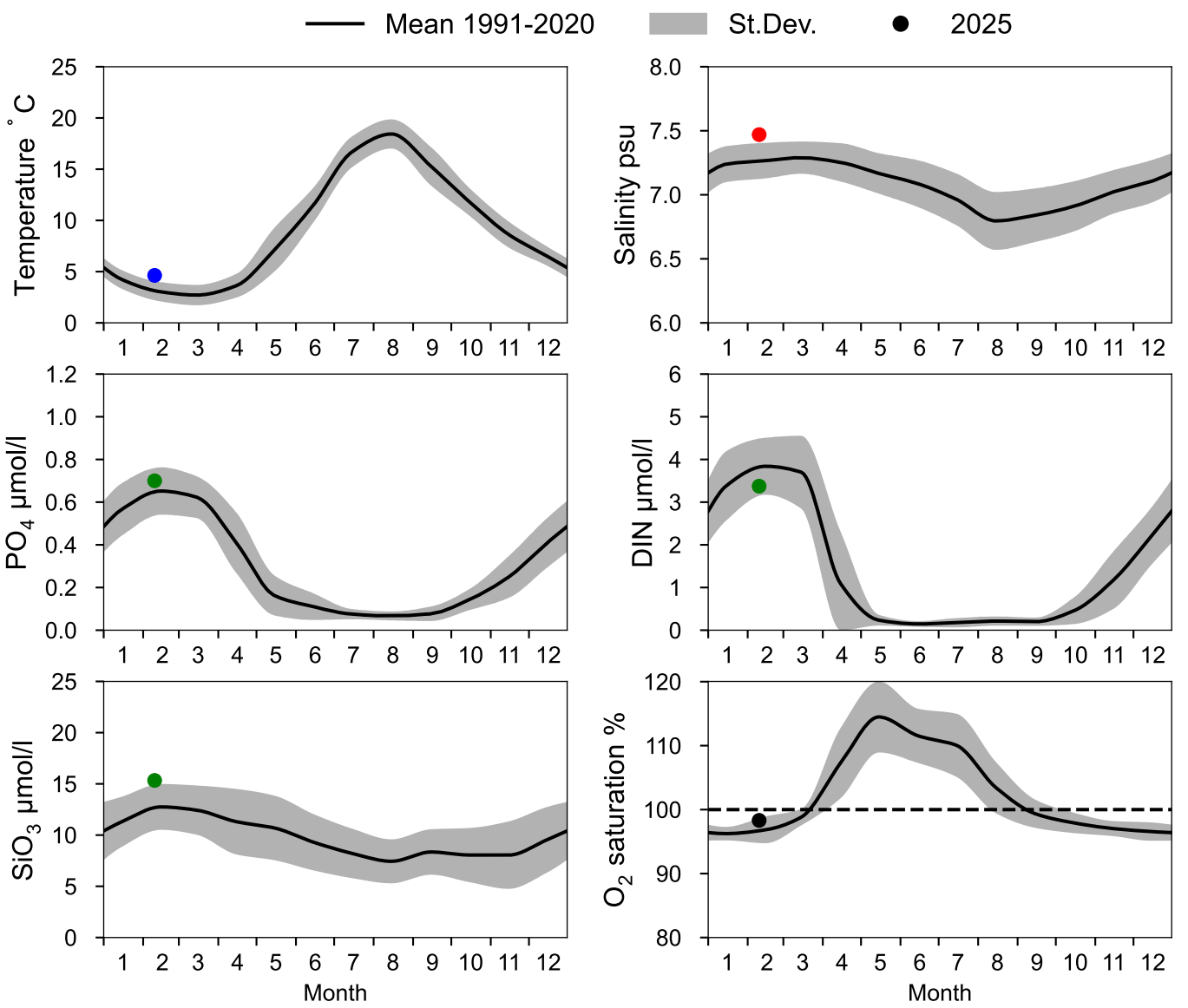


Vertical profiles BY13
February

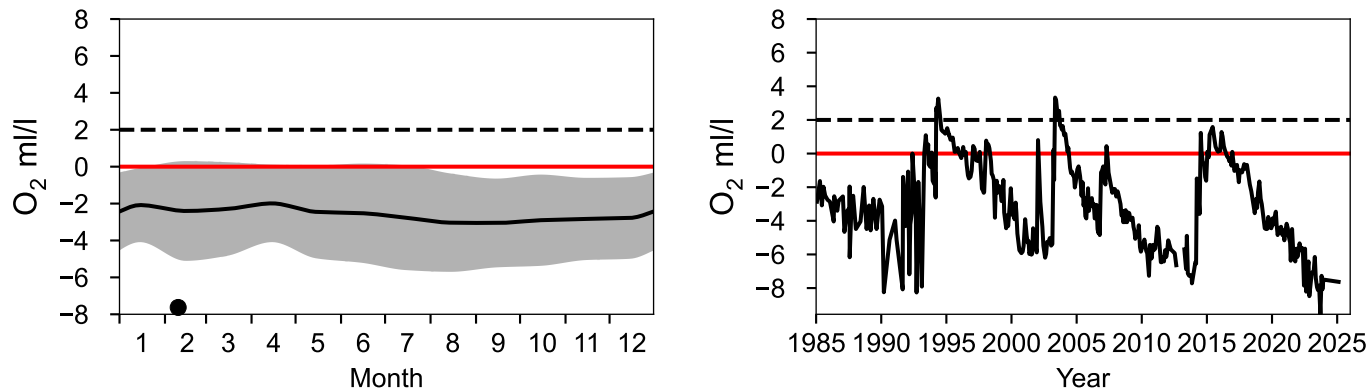


STATION BY15 GOTLANDSDJ SURFACE WATER (0-10 m)

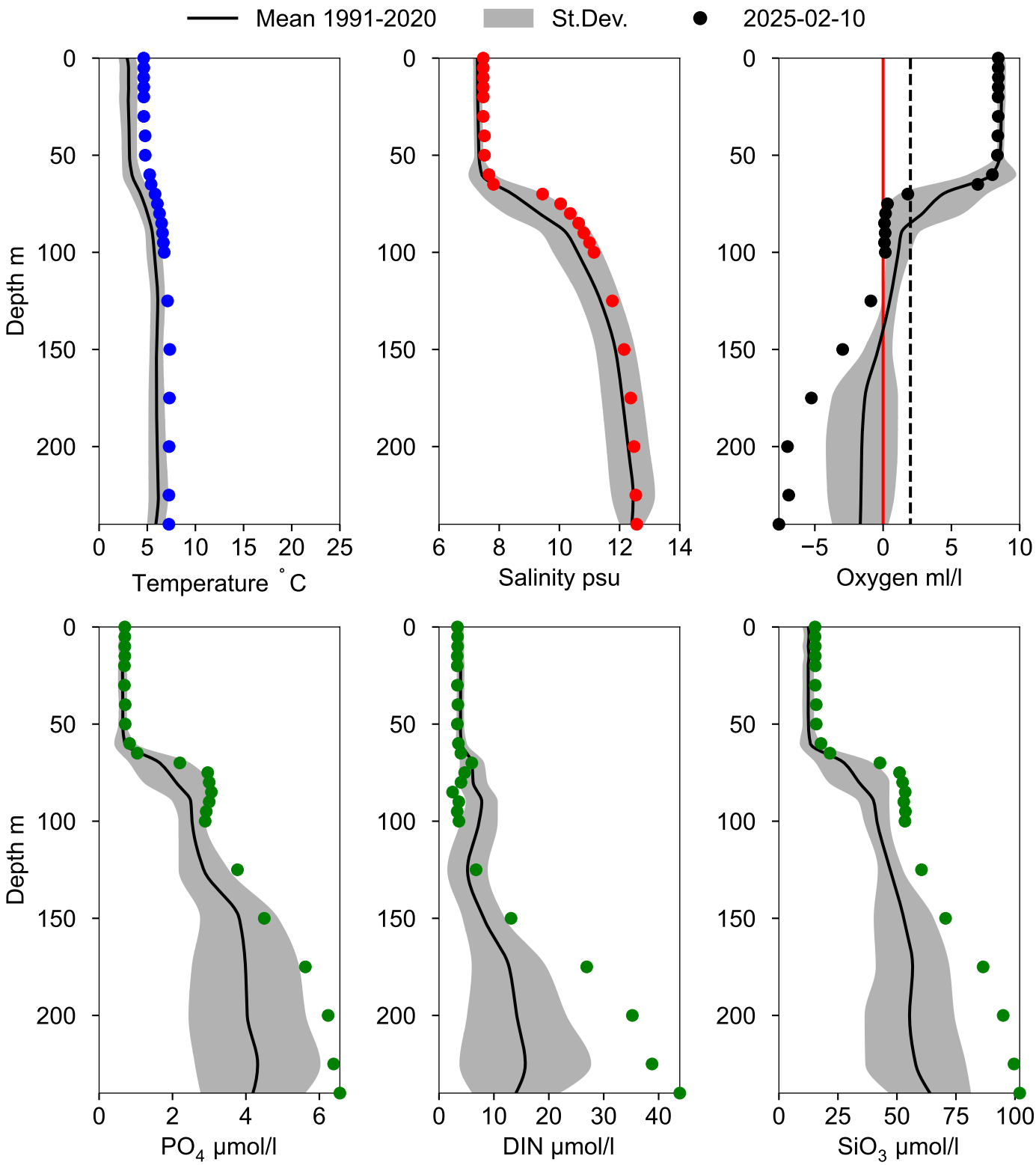
Annual Cycles



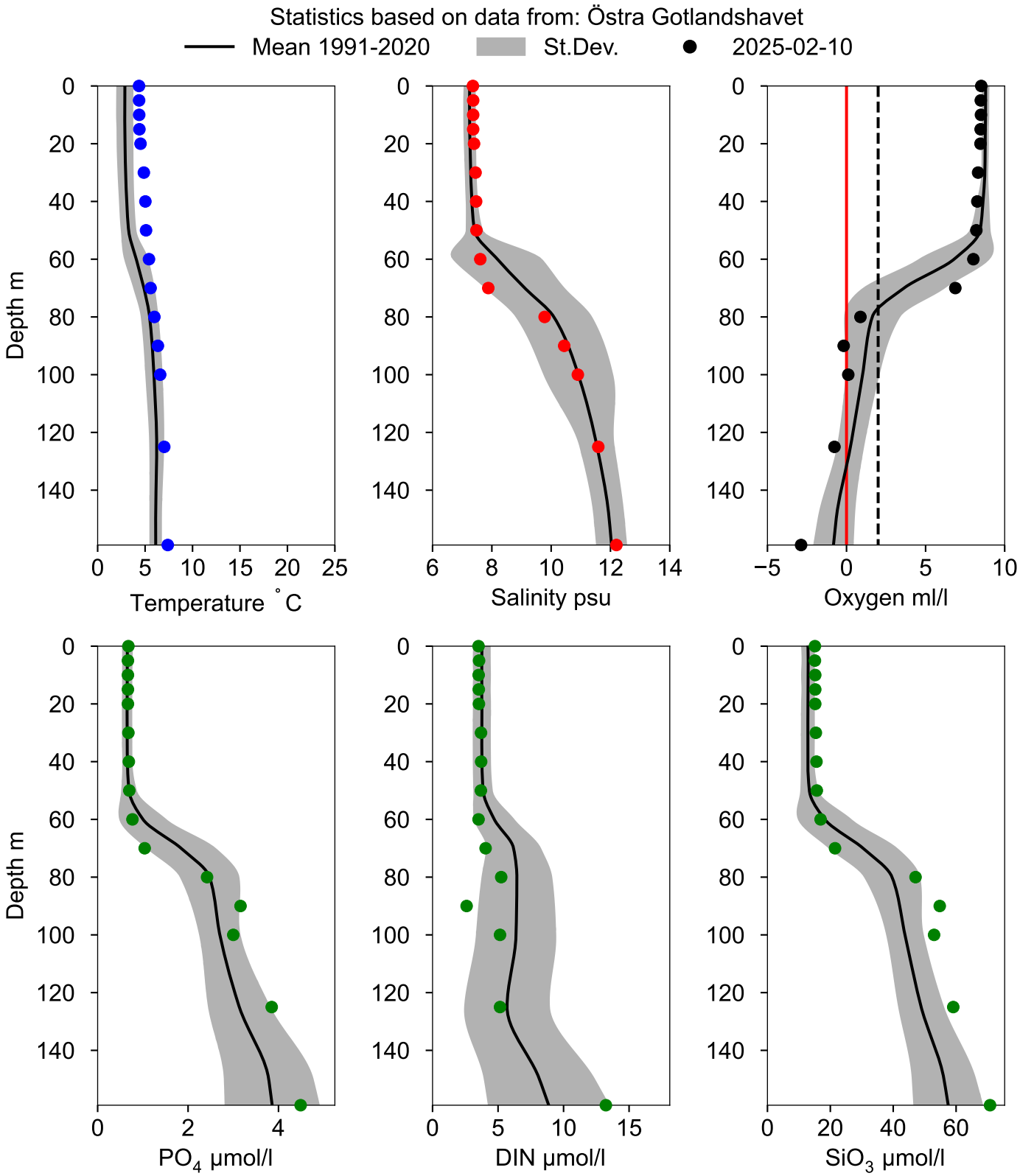
OXYGEN IN BOTTOM WATER (depth >= 225 m)



Vertical profiles BY15 GOTLANDSDJ
February

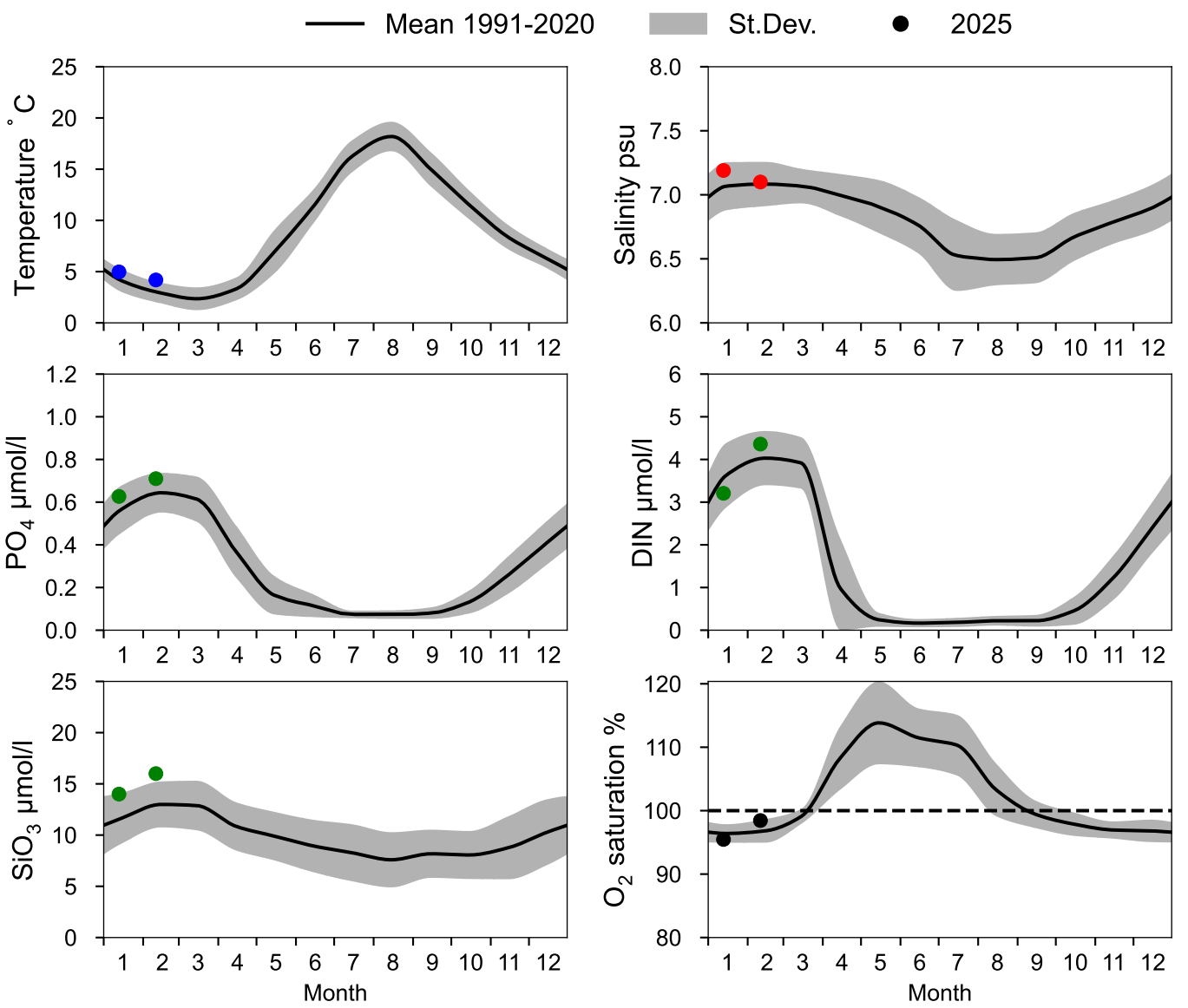


Vertical profiles BY19
February

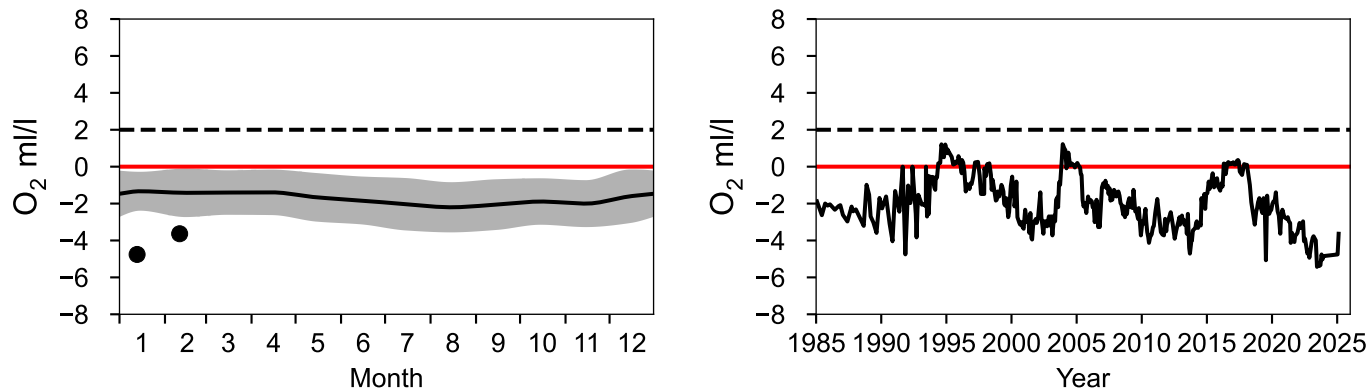


STATION BY20 FÅRÖDJ SURFACE WATER (0-10 m)

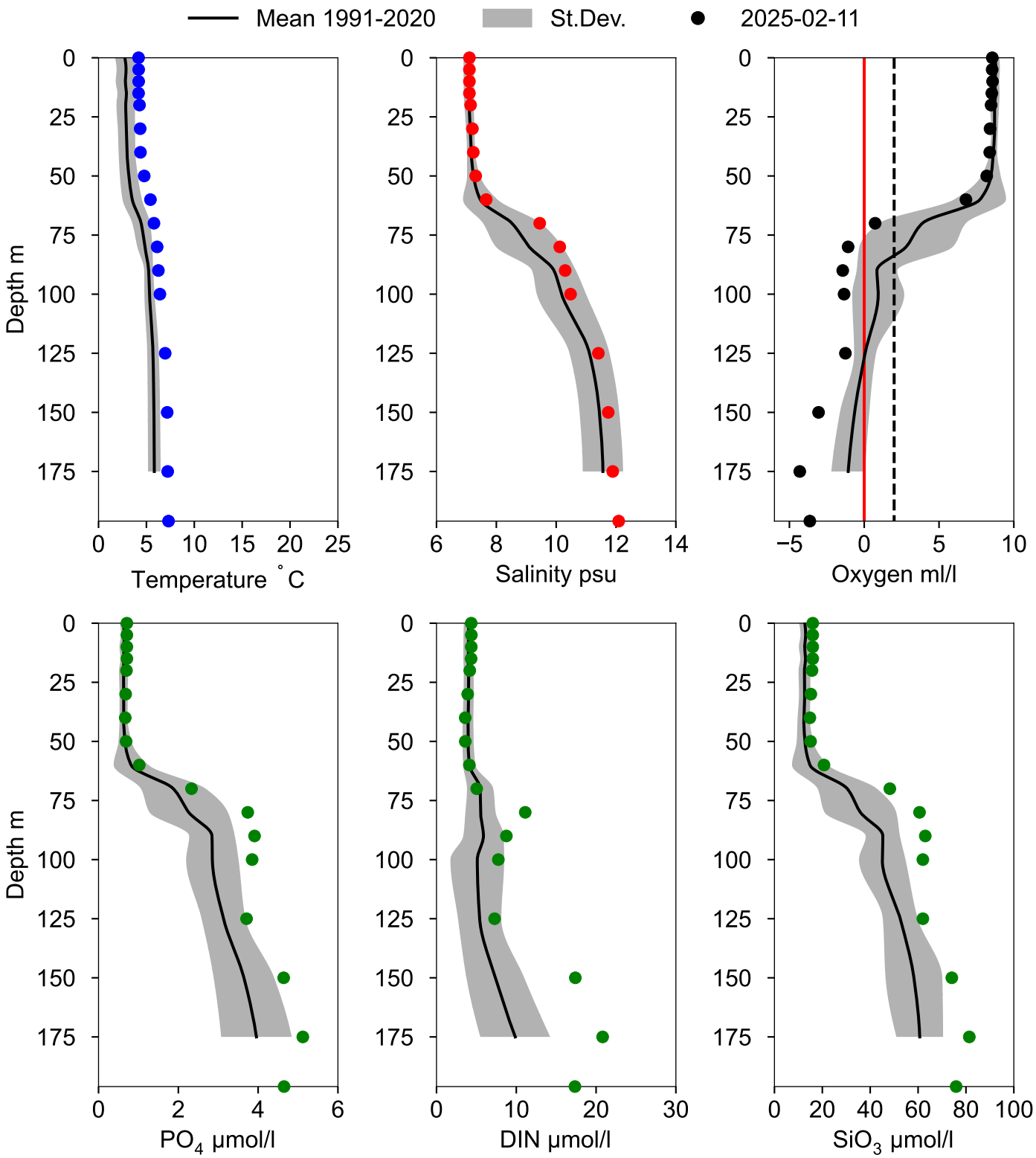
Annual Cycles



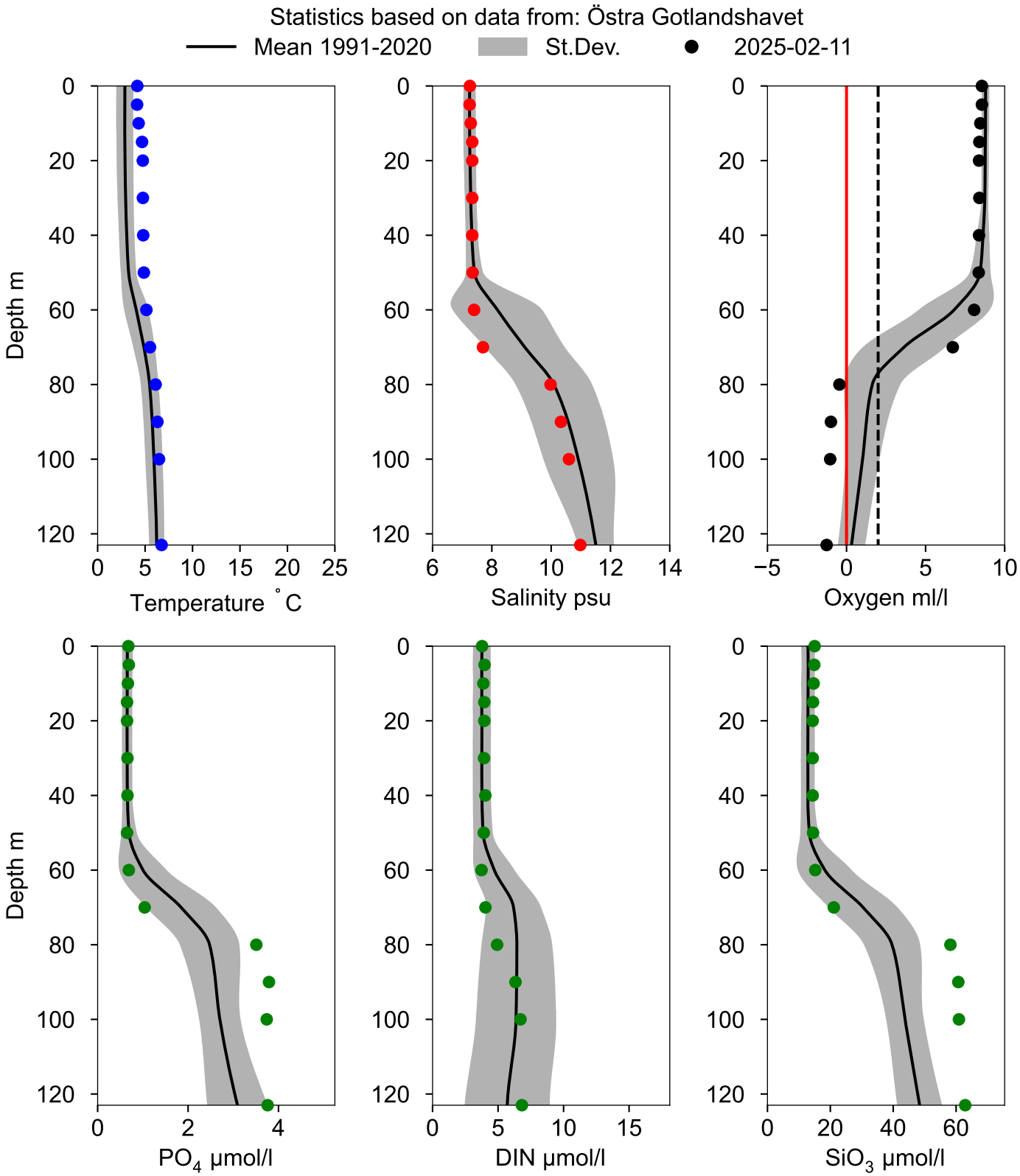
OXYGEN IN BOTTOM WATER (depth >= 175 m)



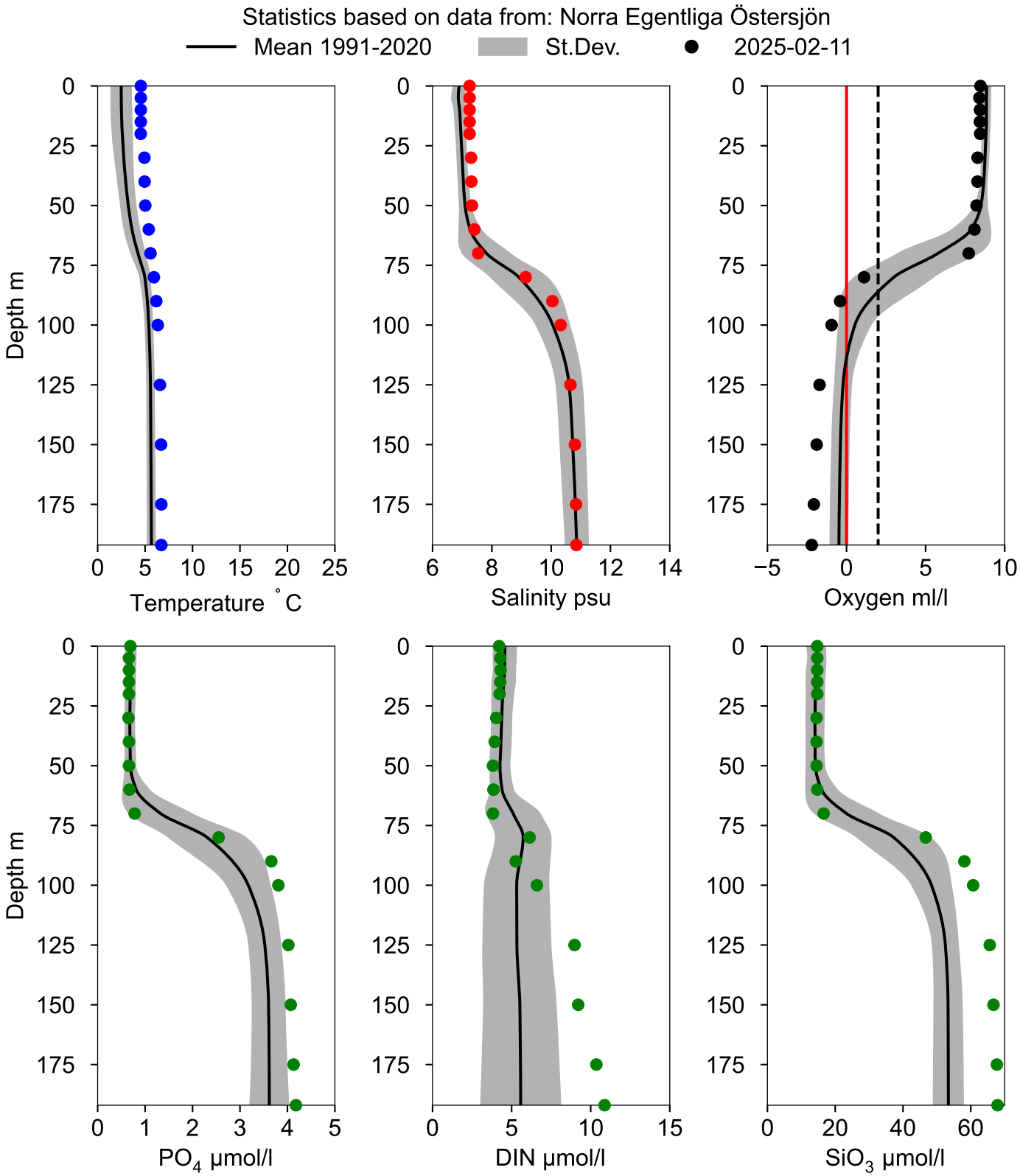
Vertical profiles BY20 FÅRÖDJ
February



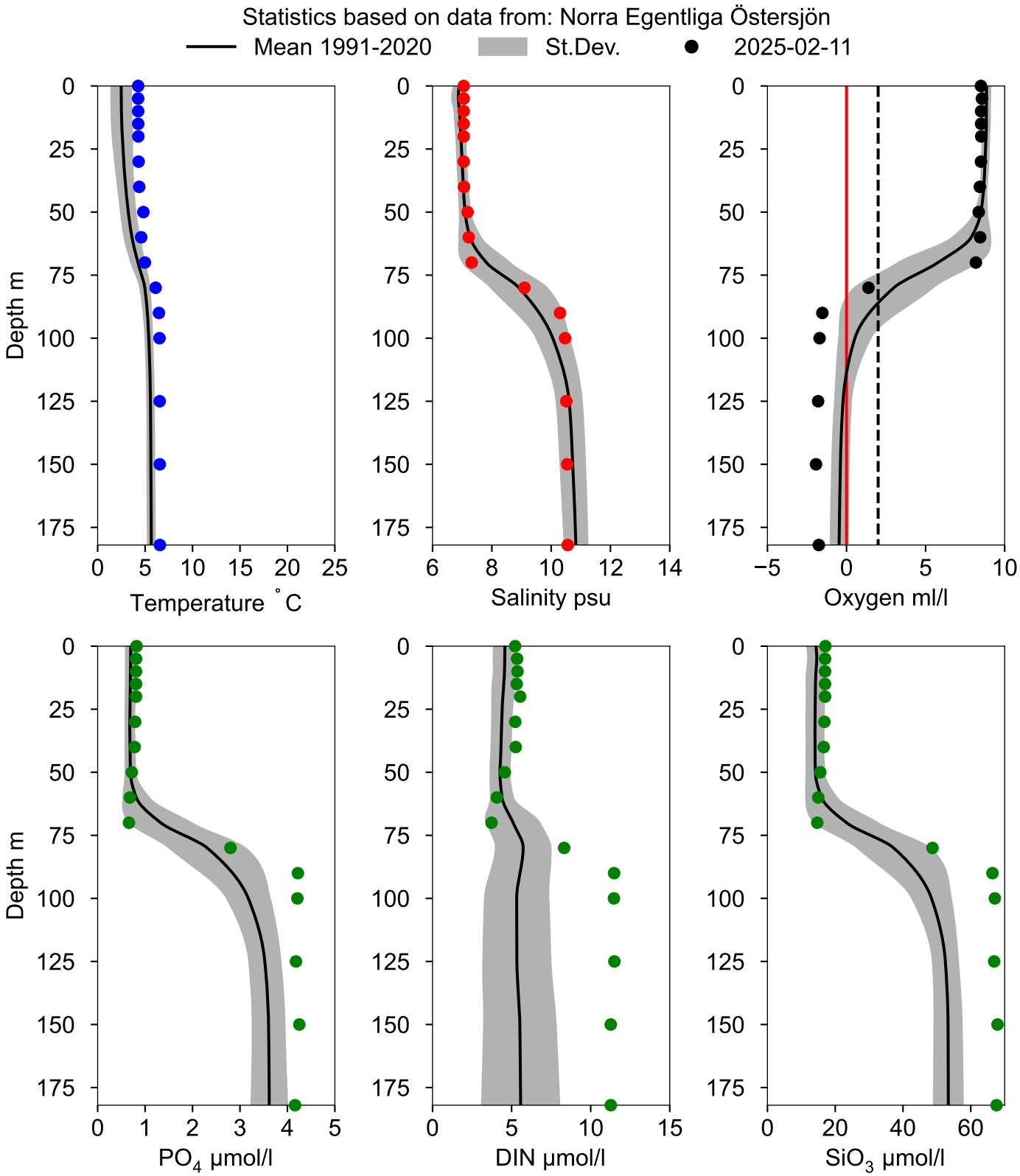
Vertical profiles BY21
February



Vertical profiles BY28
February

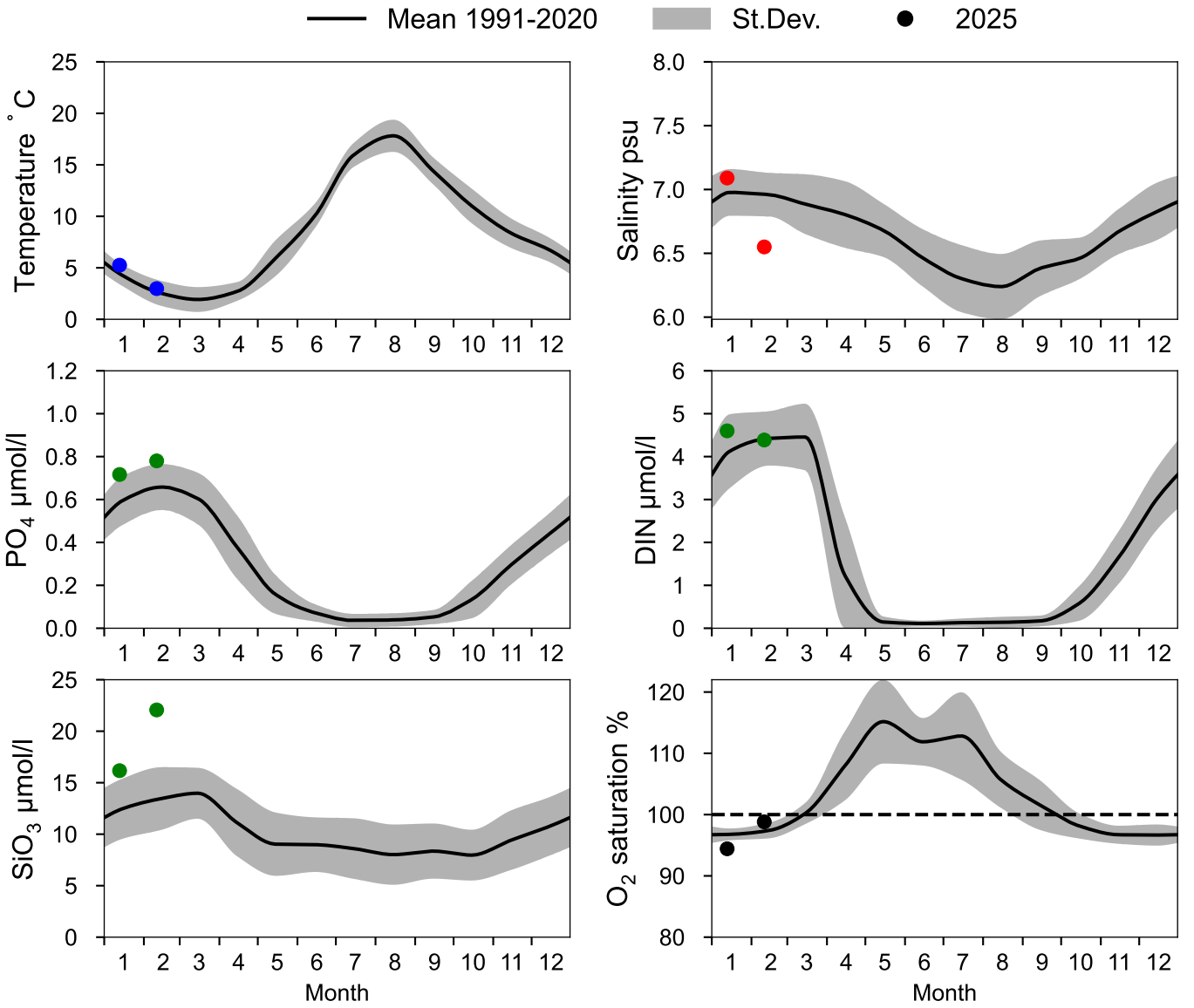


Vertical profiles BY27
February

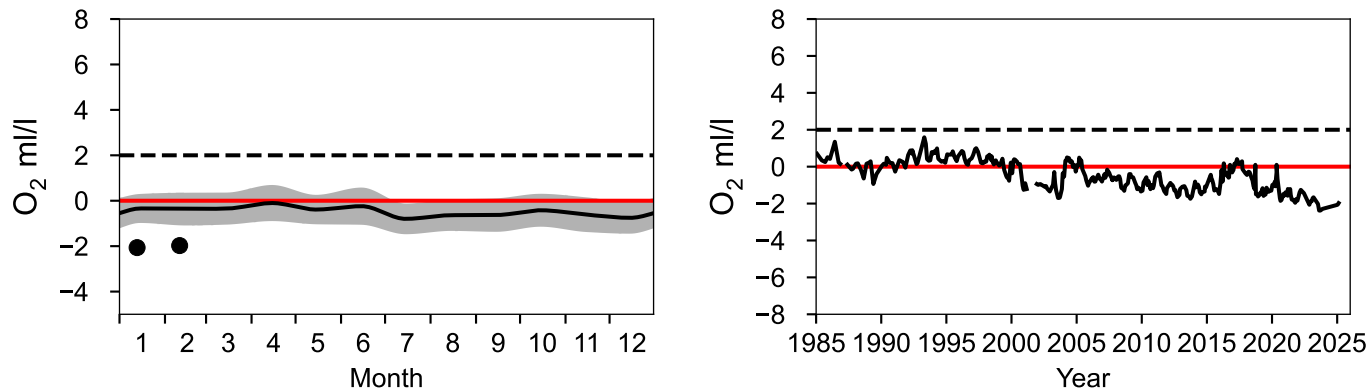


STATION BY29 / LL19 SURFACE WATER (0-10 m)

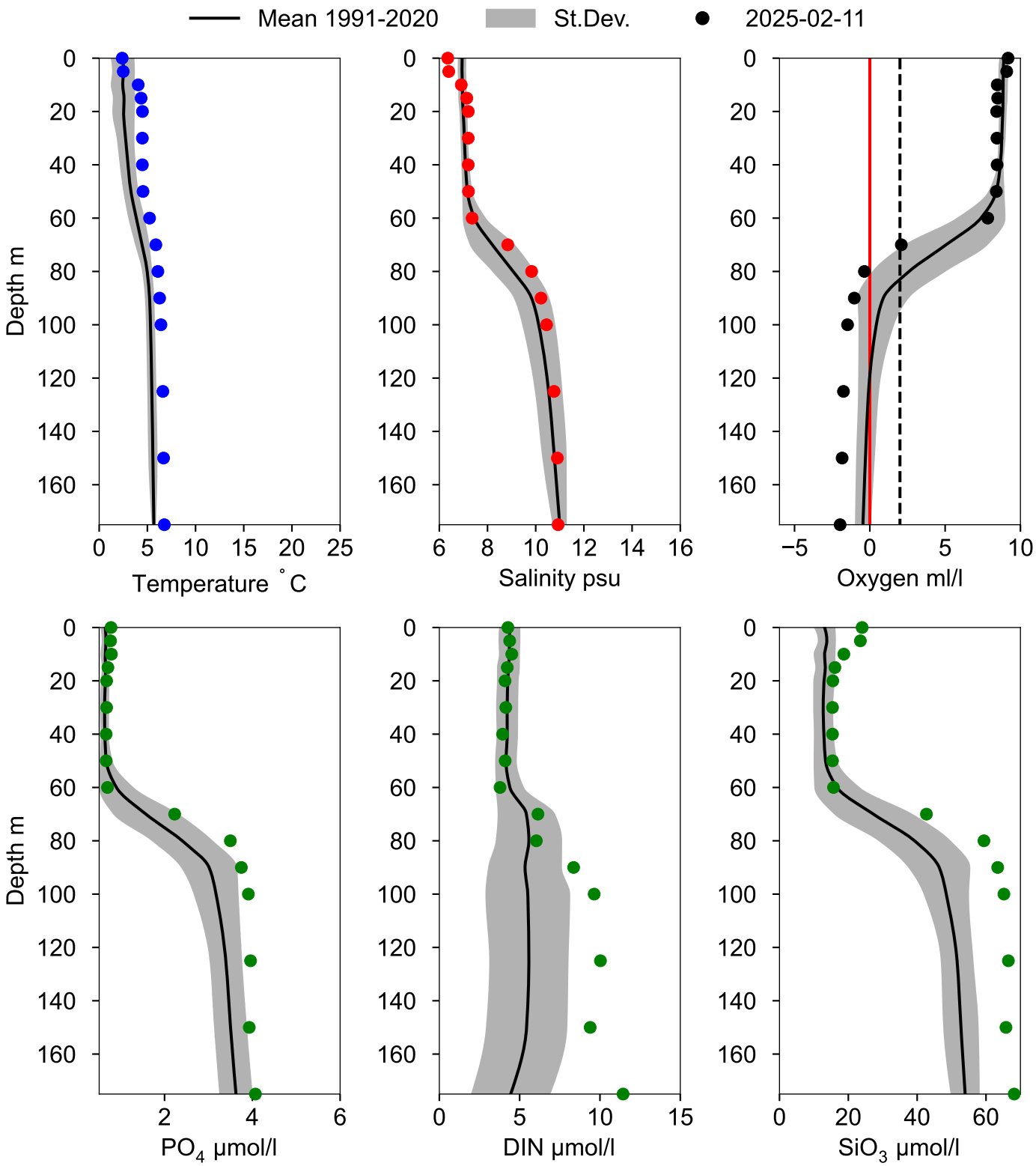
Annual Cycles



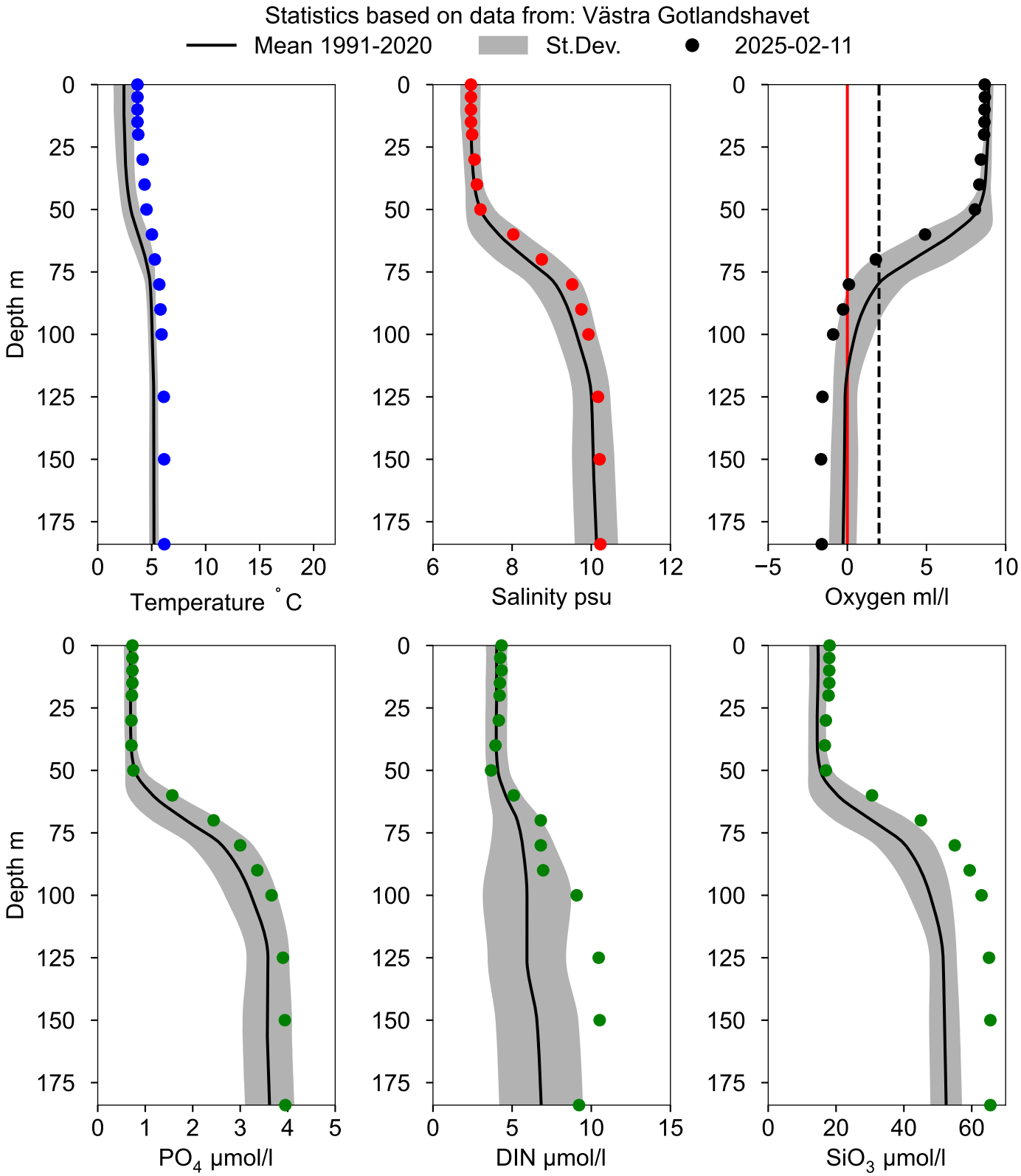
OXYGEN IN BOTTOM WATER (depth >= 150 m)



Vertical profiles BY29 / LL19
February

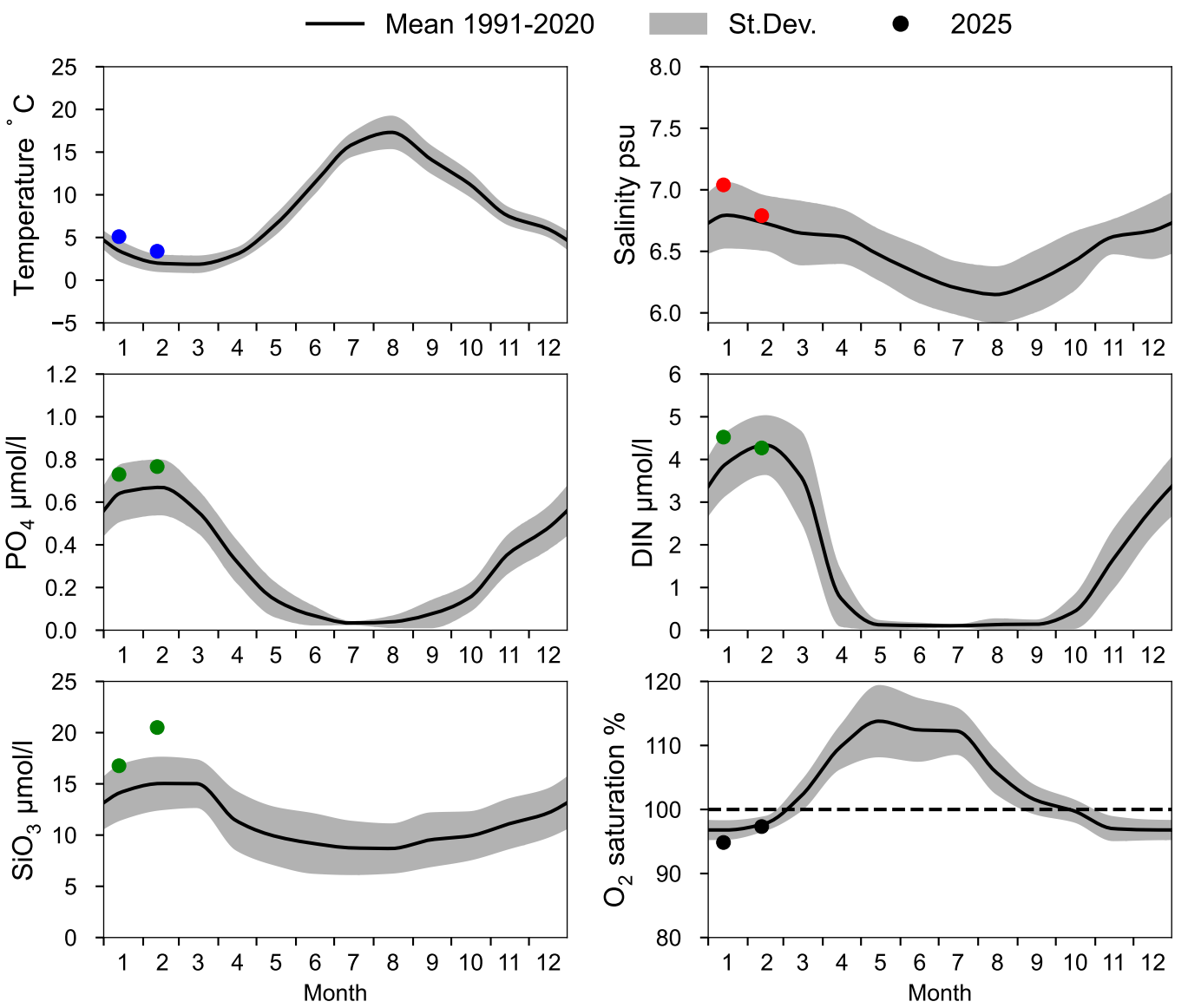


Vertical profiles BY30
February

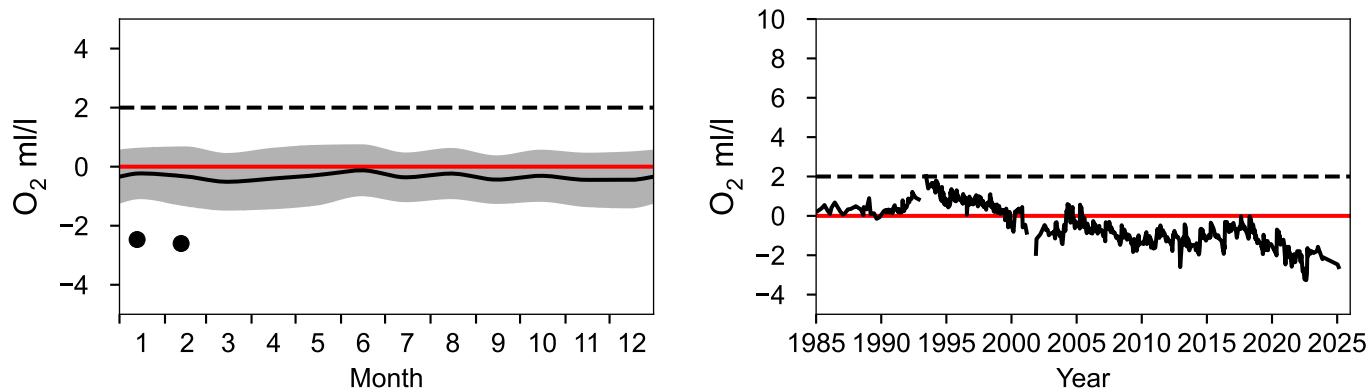


STATION BY31 LANDSORTSDJ SURFACE WATER (0-10 m)

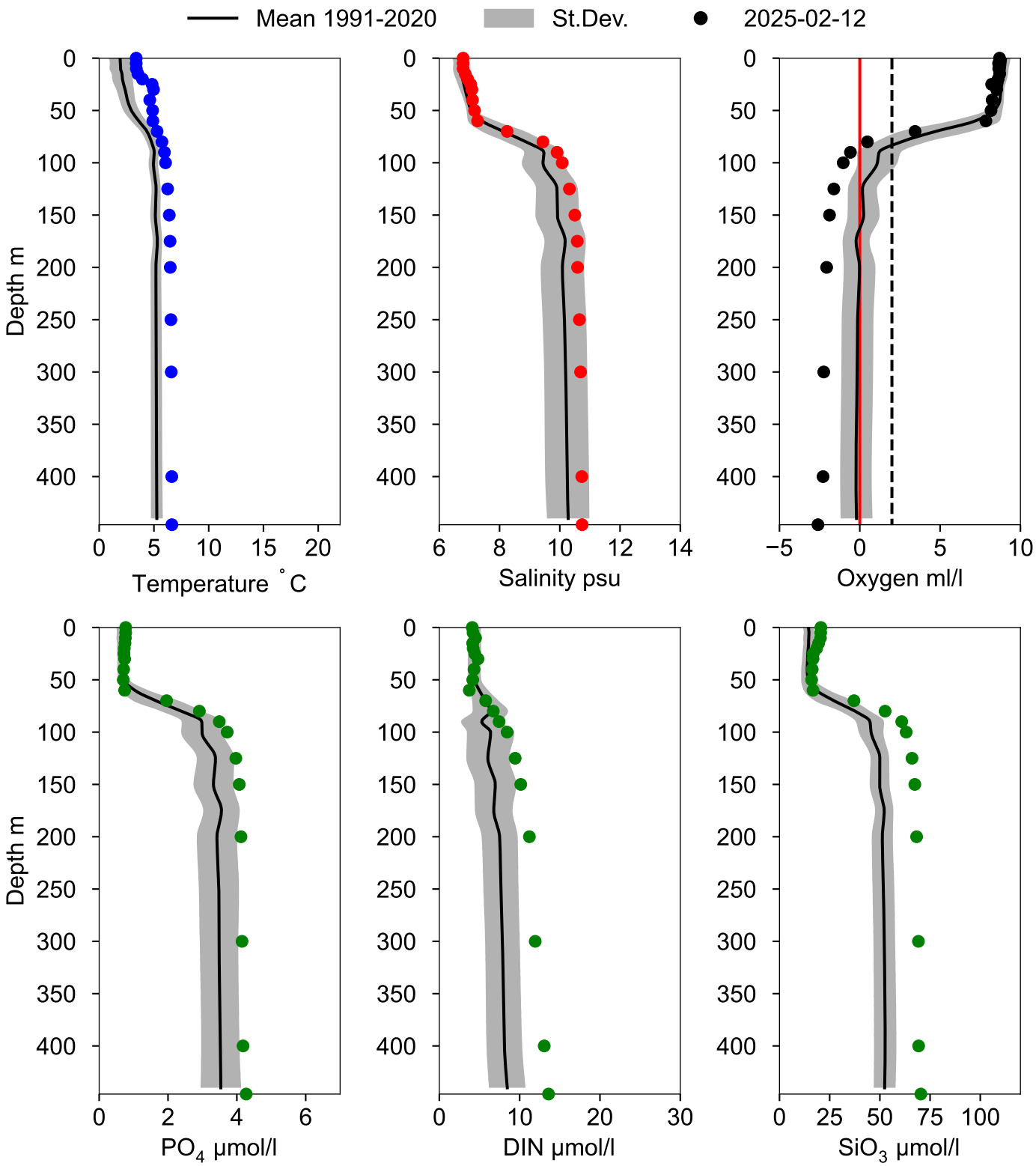
Annual Cycles



OXYGEN IN BOTTOM WATER (depth >= 419 m)

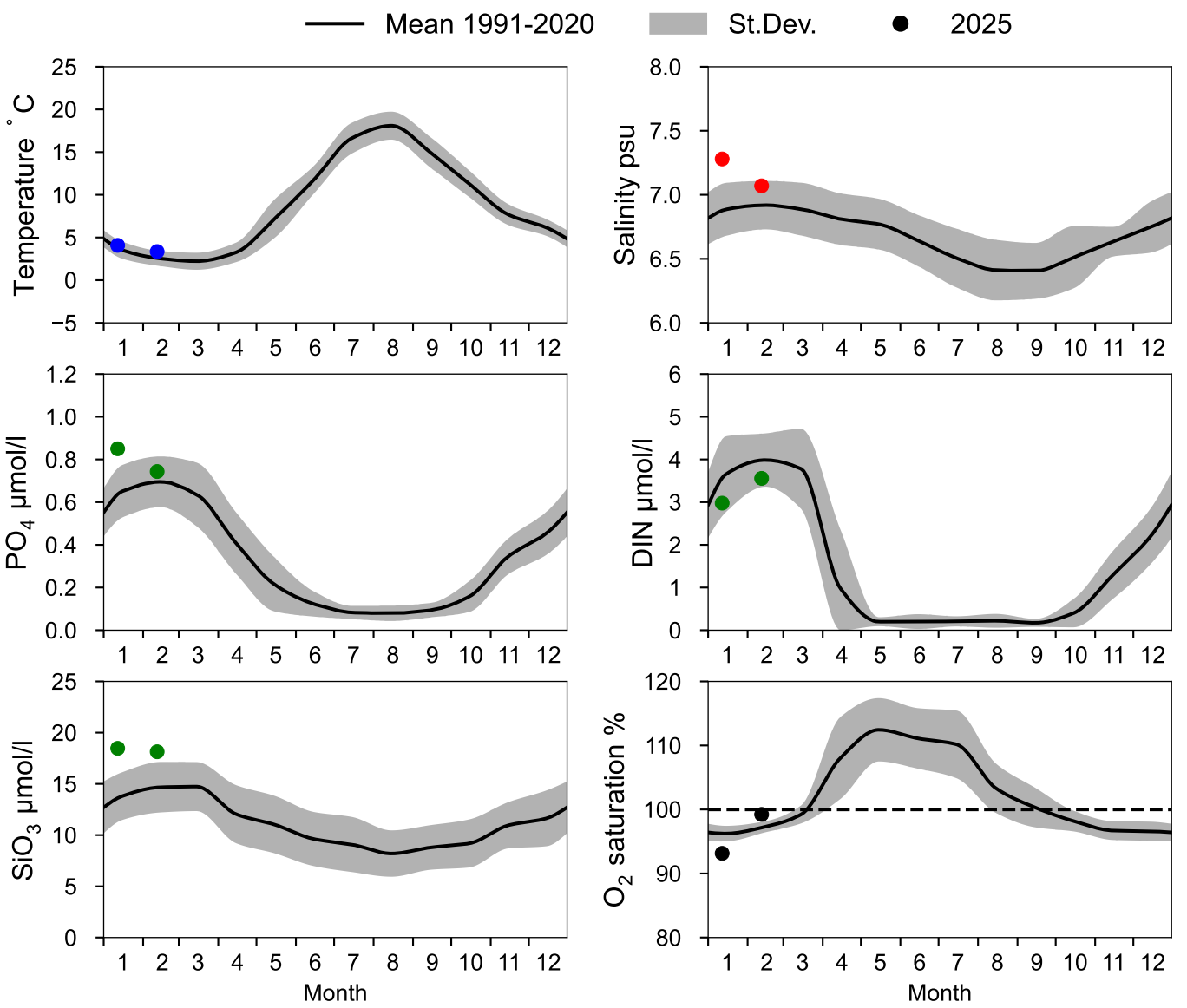


Vertical profiles BY31 LANDSORTSDJ
February

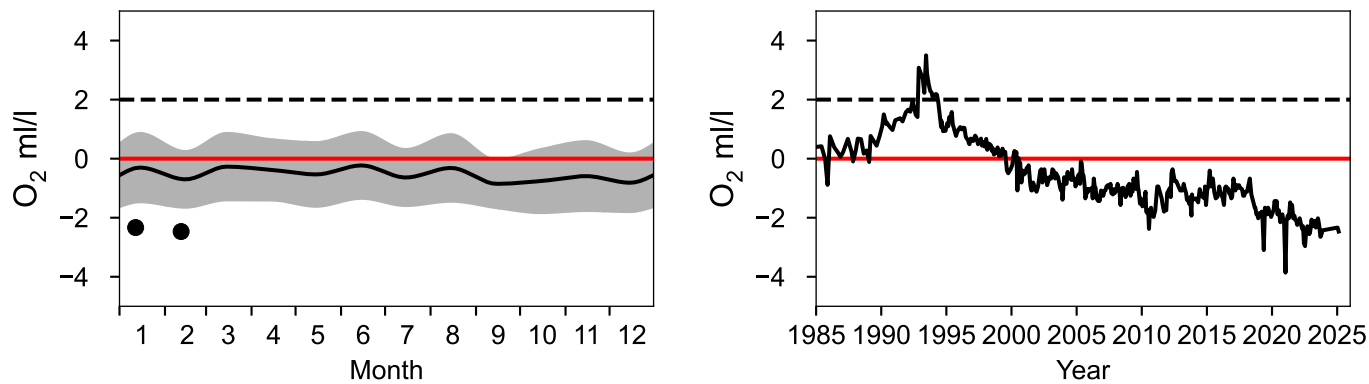


STATION BY32 NORRKÖPINGSDJ SURFACE WATER (0-10 m)

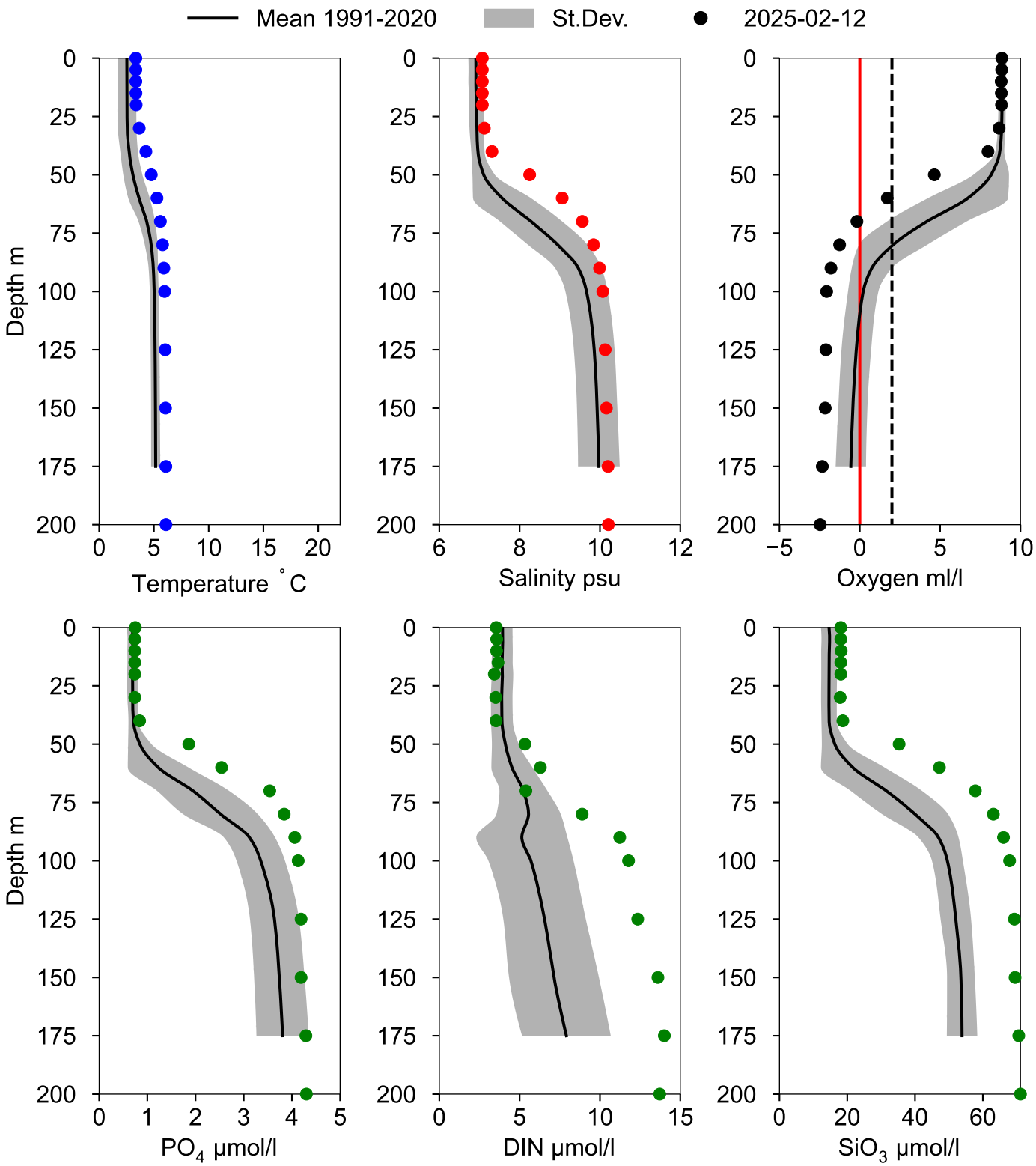
Annual Cycles



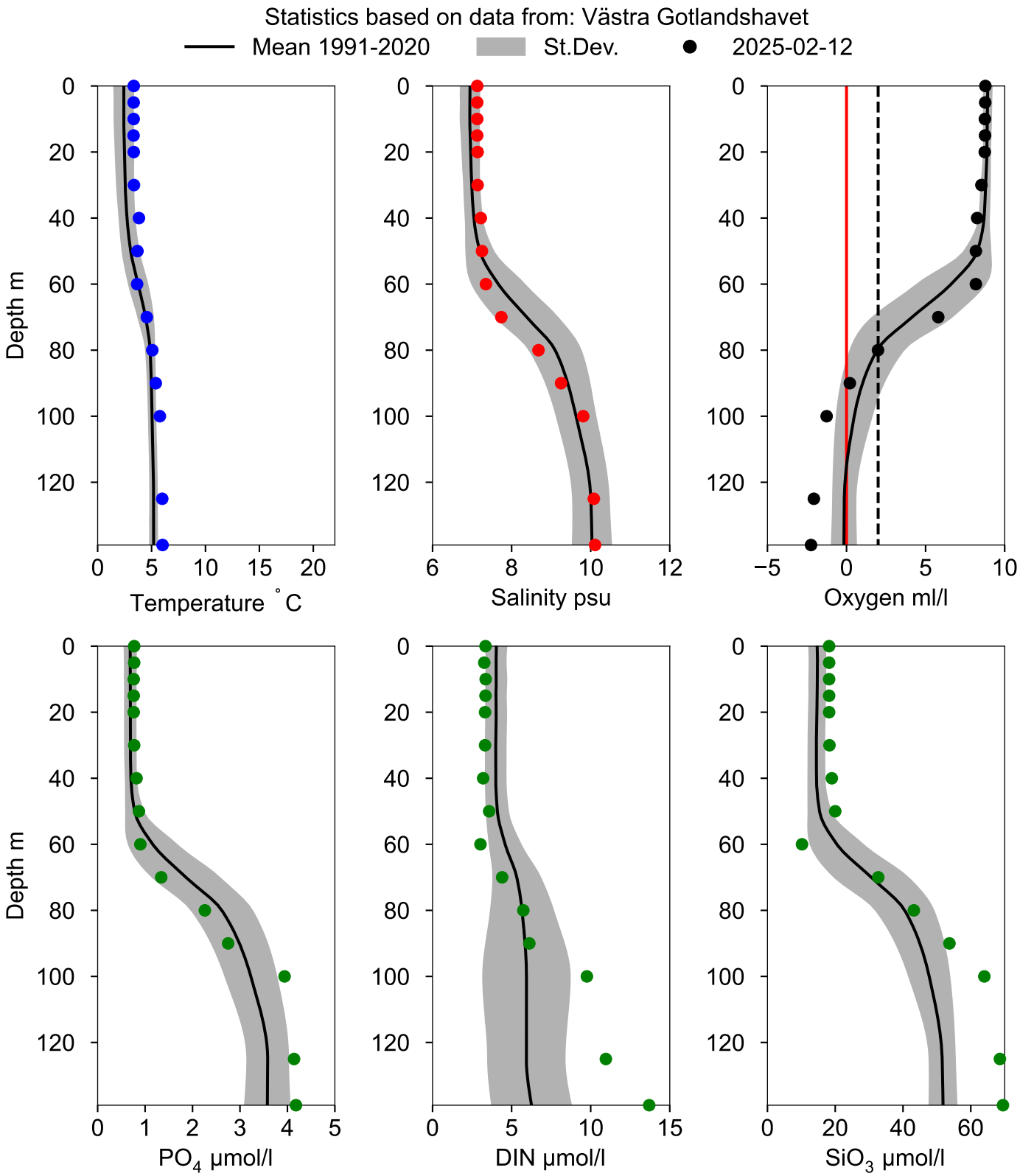
OXYGEN IN BOTTOM WATER (depth >= 175 m)



Vertical profiles BY32 NORRKÖPINGSDJ
February

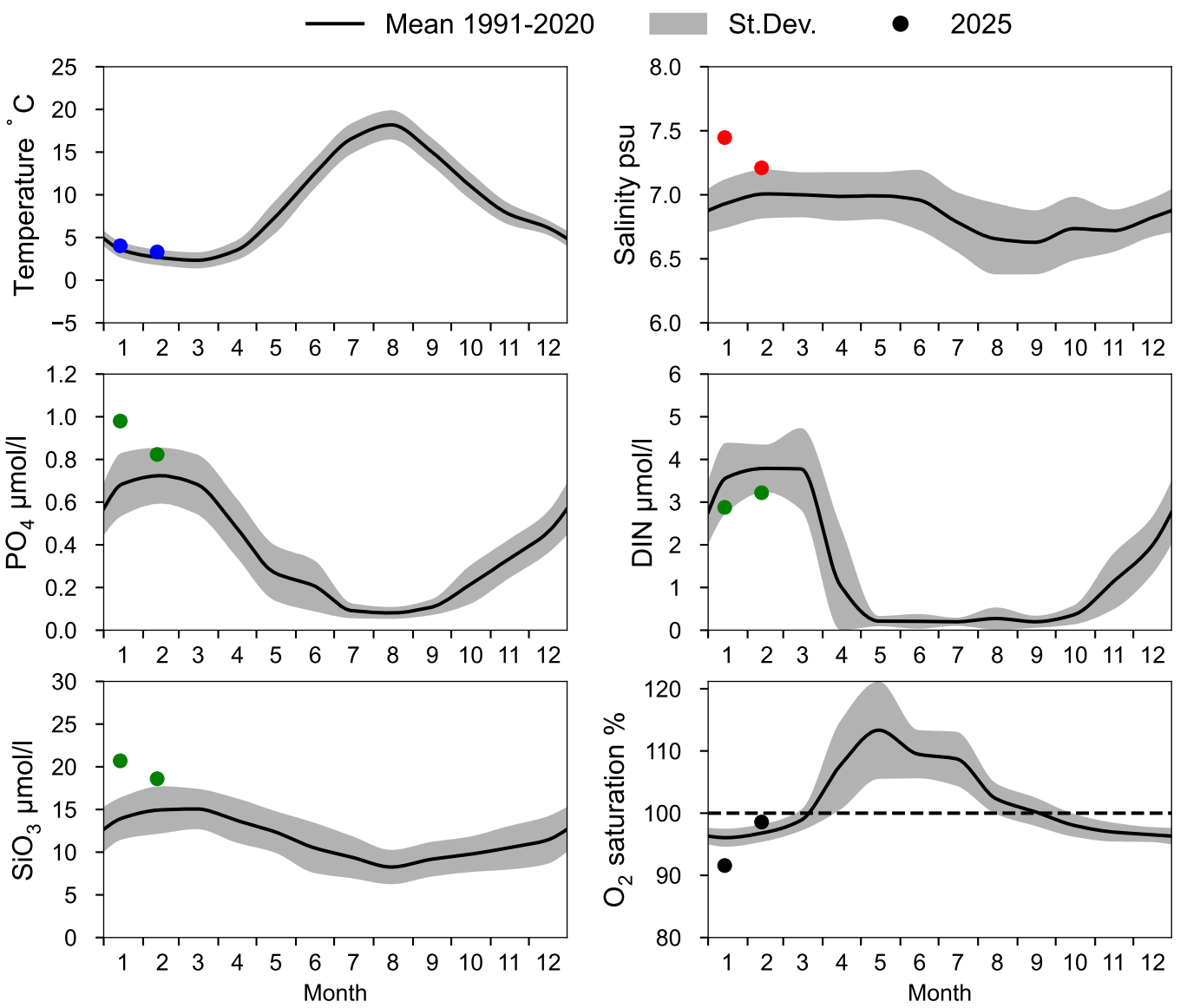


Vertical profiles BY36
February

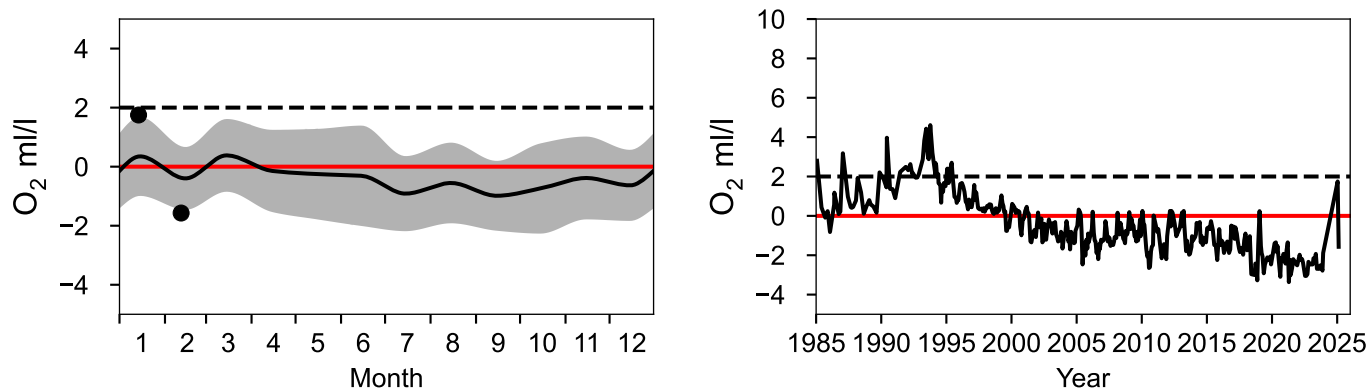


STATION BY38 KARLSÖDJ SURFACE WATER (0-10 m)

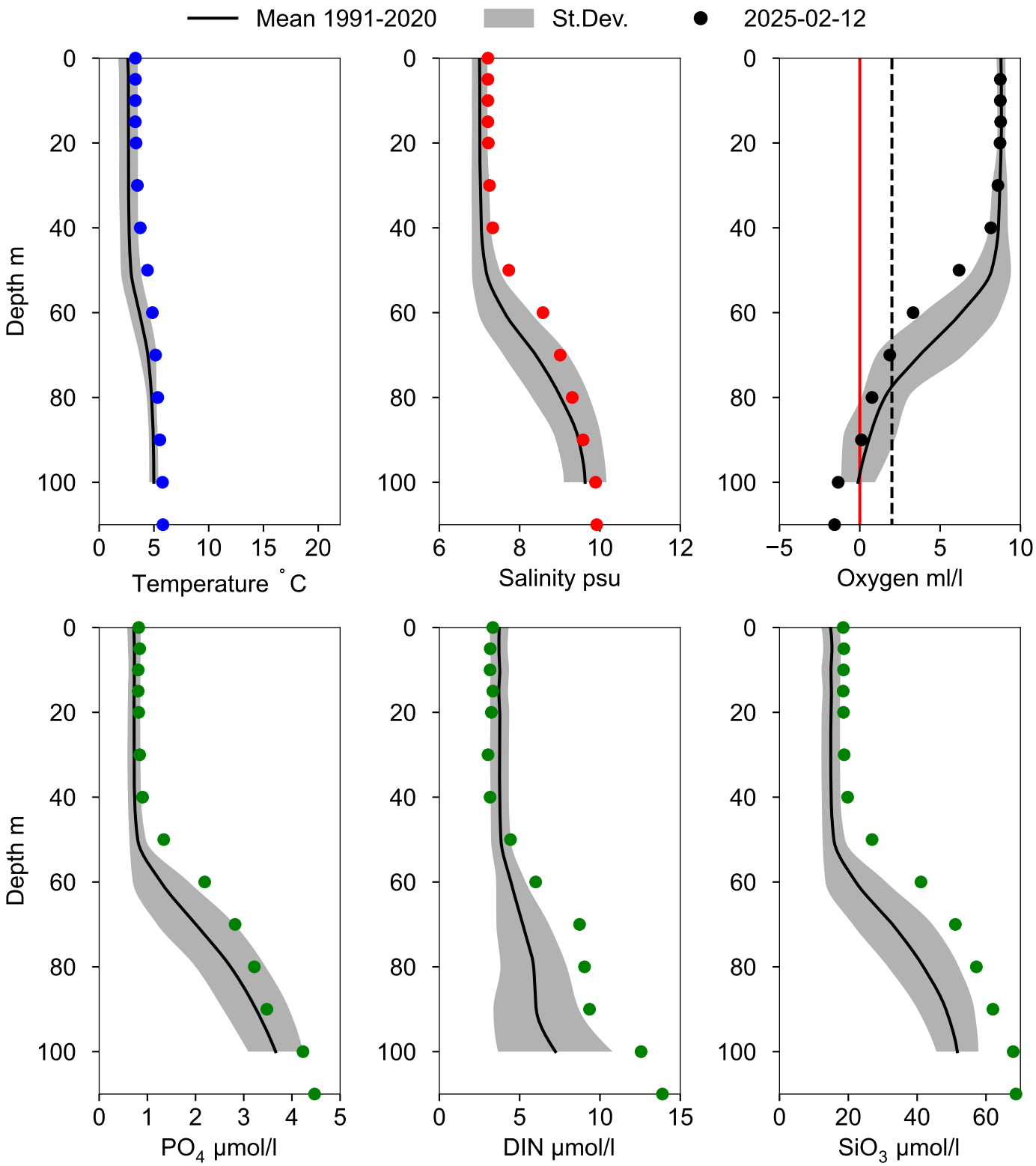
Annual Cycles



OXYGEN IN BOTTOM WATER (depth >= 100 m)

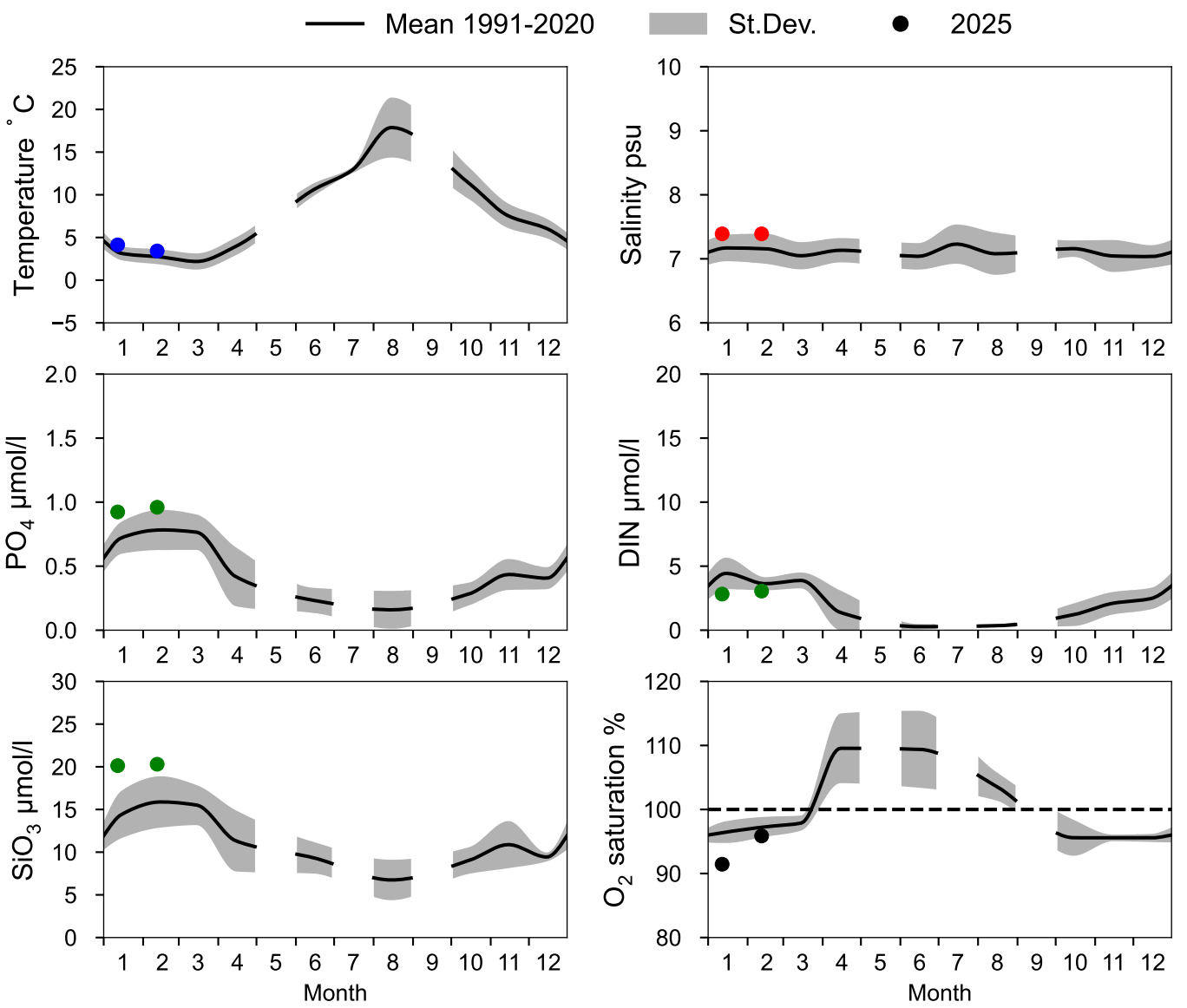


Vertical profiles BY38 KARLSÖDJ
February

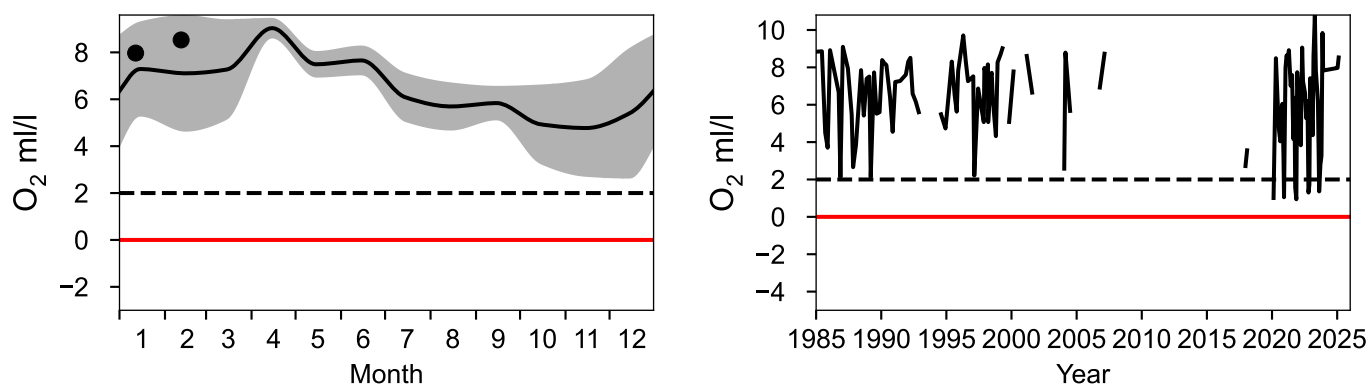


STATION BY39 ÖLANDS S UDDE SURFACE WATER (0-10 m)

Annual Cycles



OXYGEN IN BOTTOM WATER (depth >= 40 m)



Vertical profiles BY39 ÖLANDS S UDDE
February