



NEW BRUNSWICK NORTH WATER QUALITY REPORT

Prepared By

Danielle Dempsey
Nicole Torrie
Rachel Woodside
Anne McKee

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Version

V1

Contact

P: 1-902-442-4660
E: info@cmar.ca
W: www.cmar.ca

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1 Introduction

The New Brunswick Department of Agriculture, Aquaculture, and Fisheries (DAAF) measures [essential ocean variables](#) around the coast of New Brunswick through their Coastal Monitoring Program. This Program is a collaboration between DAAF, the Centre for Marine Applied Research (CMAR), Fisheries and Oceans Canada Gulf Region, and several third-party field contractors.

This document presents deployment details and summary figures of Water Quality data collected in the **North** region of the province (Figure 1 and Figure 2). The data are available for download from the New Brunswick [Open Data Portal](#).

This document should be considered as a guide only, since data collection and retrieval are ongoing. The information may be revised pending ongoing data collection and analyses.

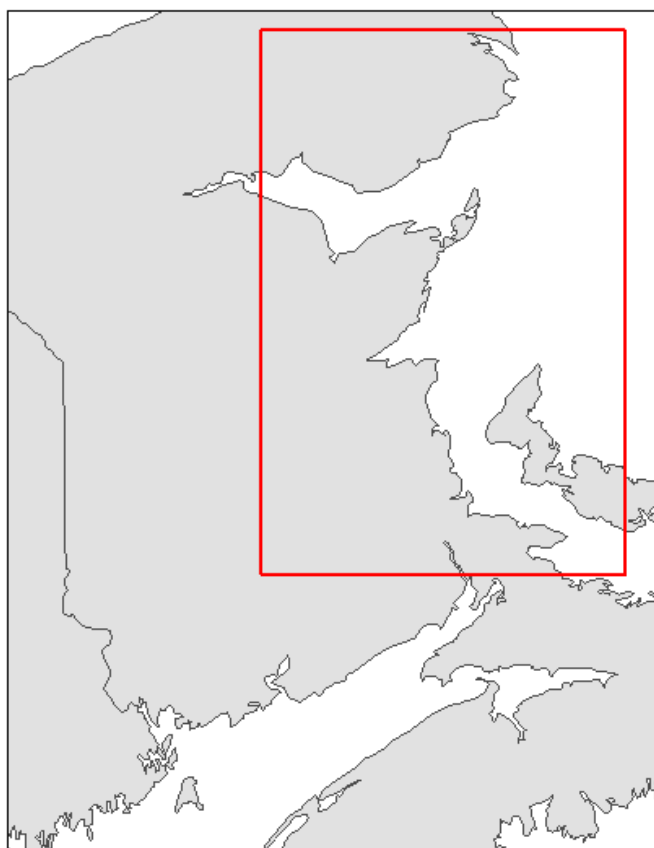


Figure 1: New Brunswick North sampling region (red box).

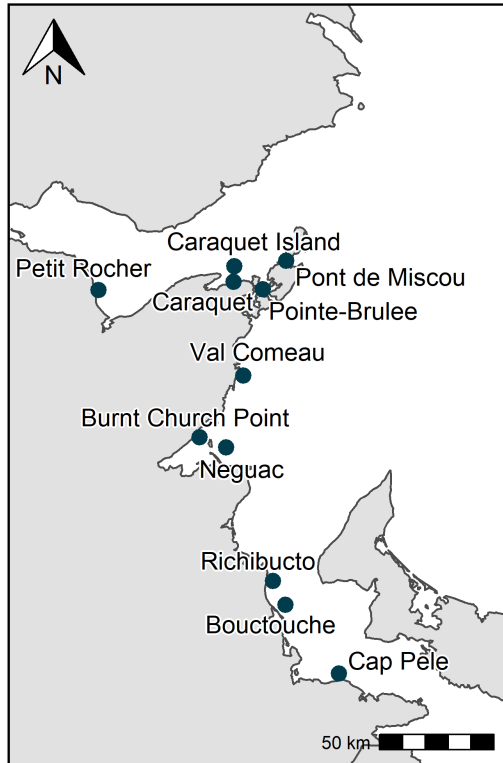


Figure 2: Sampling stations in the New Brunswick North sampling region.

1.1 Data Collection

DAAF collects temperature, pH, dissolved oxygen, and salinity data following [CMAR Coastal Monitoring Program](#) procedures. Stationary moorings called “sensor strings” are deployed at a station for several months to a year. A typical sensor string consists of a rope attached to the seafloor by an anchor and suspended by a sub-surface buoy, with sensors attached at various depths (Figure 3). Data are logged every 10 minutes to 1 hour, depending on the sensor and settings. Sensors must be retrieved to offload the data. Sensors are typically retrieved by triggering an acoustic release.

The raw sensor data is sent to CMAR for processing. CMAR generates summary reports of the data (e.g., this document) and sends the final datasets to the New Brunswick Open Data Portal for publication. CMAR also hosts links to the published reports and datasets on their [Data Access Map](#).

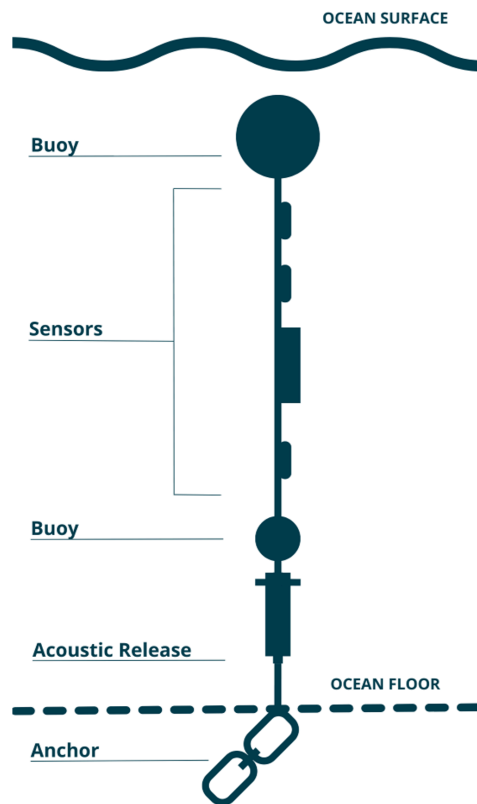


Figure 3: Example sensor string configuration (not to scale).

1.2 Quality Control

CMAR applied an automated Gross Range test to the data to identify outlying and unexpected values. For consistency with the CMAR Water Quality data, each data point was assigned a flag of "Pass", "Fail", or "Suspect/Of Interest" (IOOS, 2020).

Observations flagged as "Pass" were within the measurement range listed in the sensor specifications sheet. These observations are shown in the figures below. Observations flagged as "Fail" were outside of the measurement range and are not shown in the figures. "Suspect/Of Interest" flags highlight unusual events or poor quality data and are shown in the figures. All flags were reviewed by human experts.

Note that quality control was not applied to flag sensor drift or data spikes in this version of the report, but may be in future versions.

2 New Brunswick North Water Quality Data

Water Quality data is presented by waterbody. For each waterbody, there is a table of deployment details followed by figures showing the data at each station. Note the differences in scales between figures (x-axis, y-axis, and colour).

2.1 Baie de Shippegan

Table 2: Deployment details for Baie de Shippegan.

Station	Deployment Date	Retrieval Date	Latitude	Longitude	Configuration	Variables Measured
Pointe-Brulee	2024-11-27	2025-08-19	47.7749	-64.7344	sub-surface buoy	dissolved oxygen (% sat) pH salinity temperature

2.1.1 Pointe-Brulee

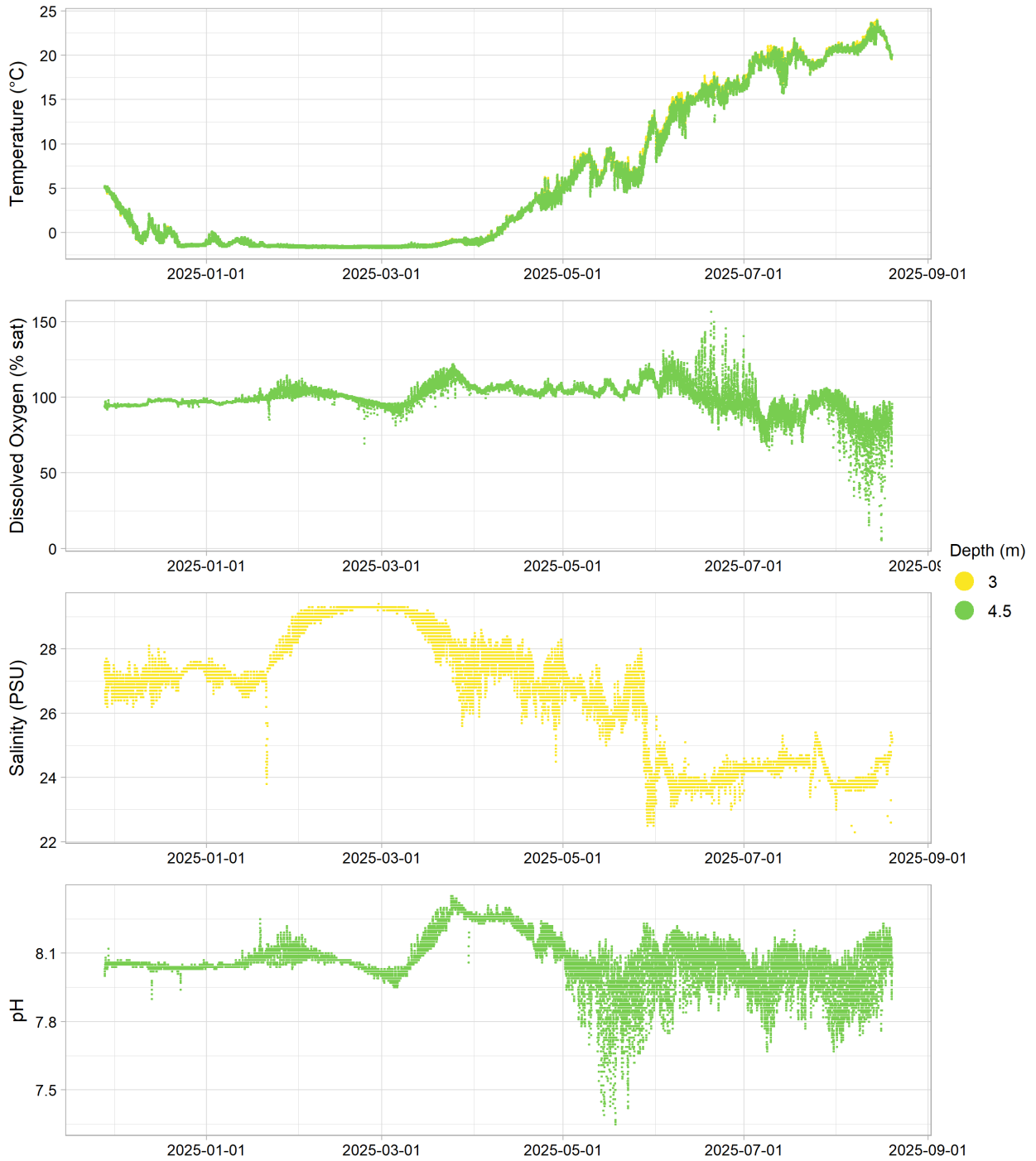


Figure 4: Pointe-Brulee water quality data.

2.2 Baie des Chaleurs

Table 3: Deployment details for Baie des Chaleurs.

Station	Deployment Date	Retrieval Date	Latitude	Longitude	Configuration	Variables Measured
Petit Rocher	2025-06-05	2025-09-21	47.7715	-65.6914	sub-surface buoy	depth pH temperature

2.2.1 Petit Rocher



Figure 5: Petit Rocher water quality data.

2.3 Caraquet Harbour

Table 4: Deployment details for Caraquet Harbour.

Station	Deployment Date	Retrieval Date	Latitude	Longitude	Configuration	Variables Measured
Caraquet	2024-11-27	2025-07-29	47.8043	-64.9037	sub-surface buoy	dissolved oxygen (% sat) pH salinity temperature
Caraquet Island	2025-06-04	2025-09-17	47.8652	-64.9006	sub-surface buoy	depth pH temperature

2.3.1 Caraquet

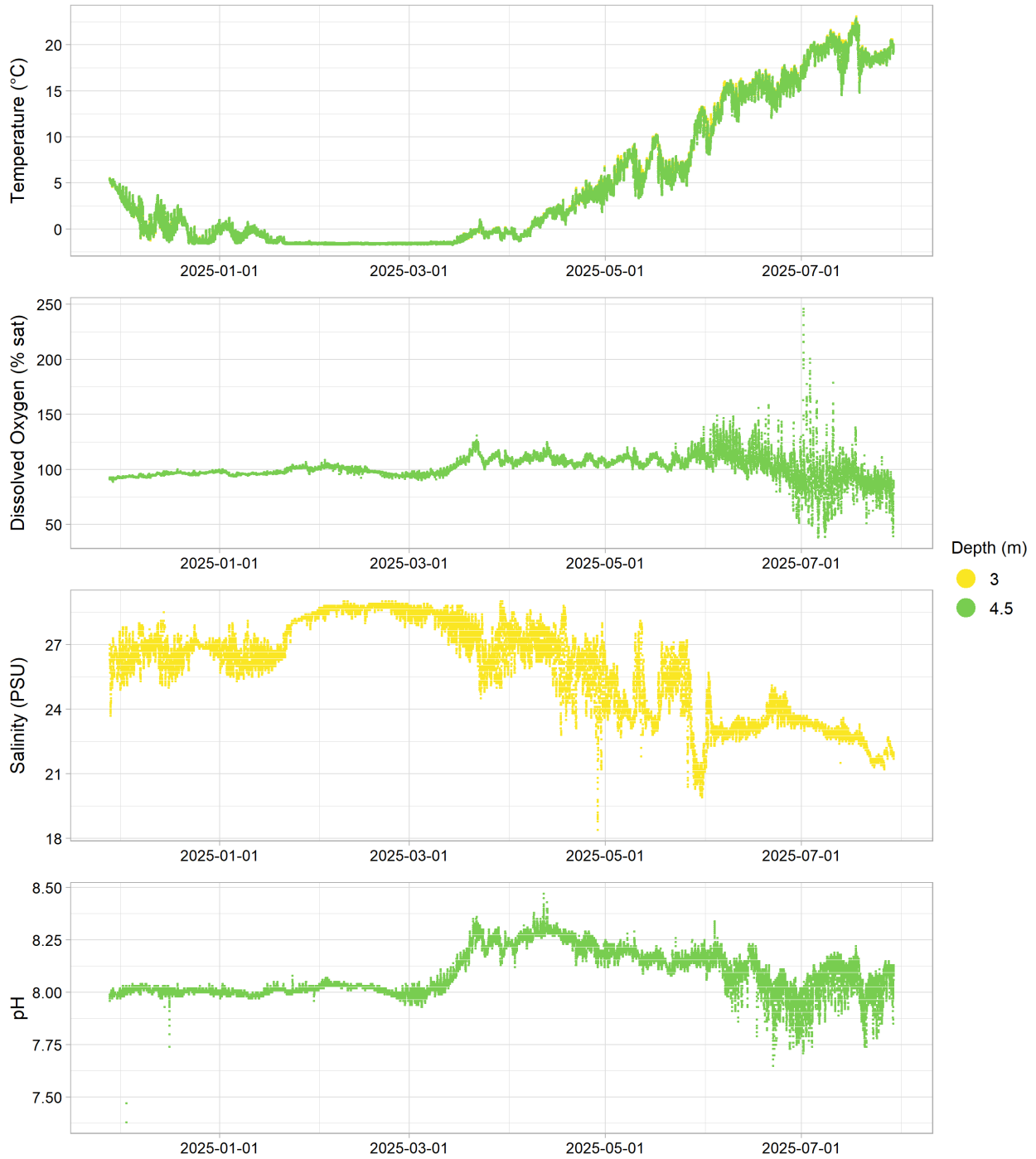


Figure 6: Caraquet water quality data.

2.3.2 Caraquet Island

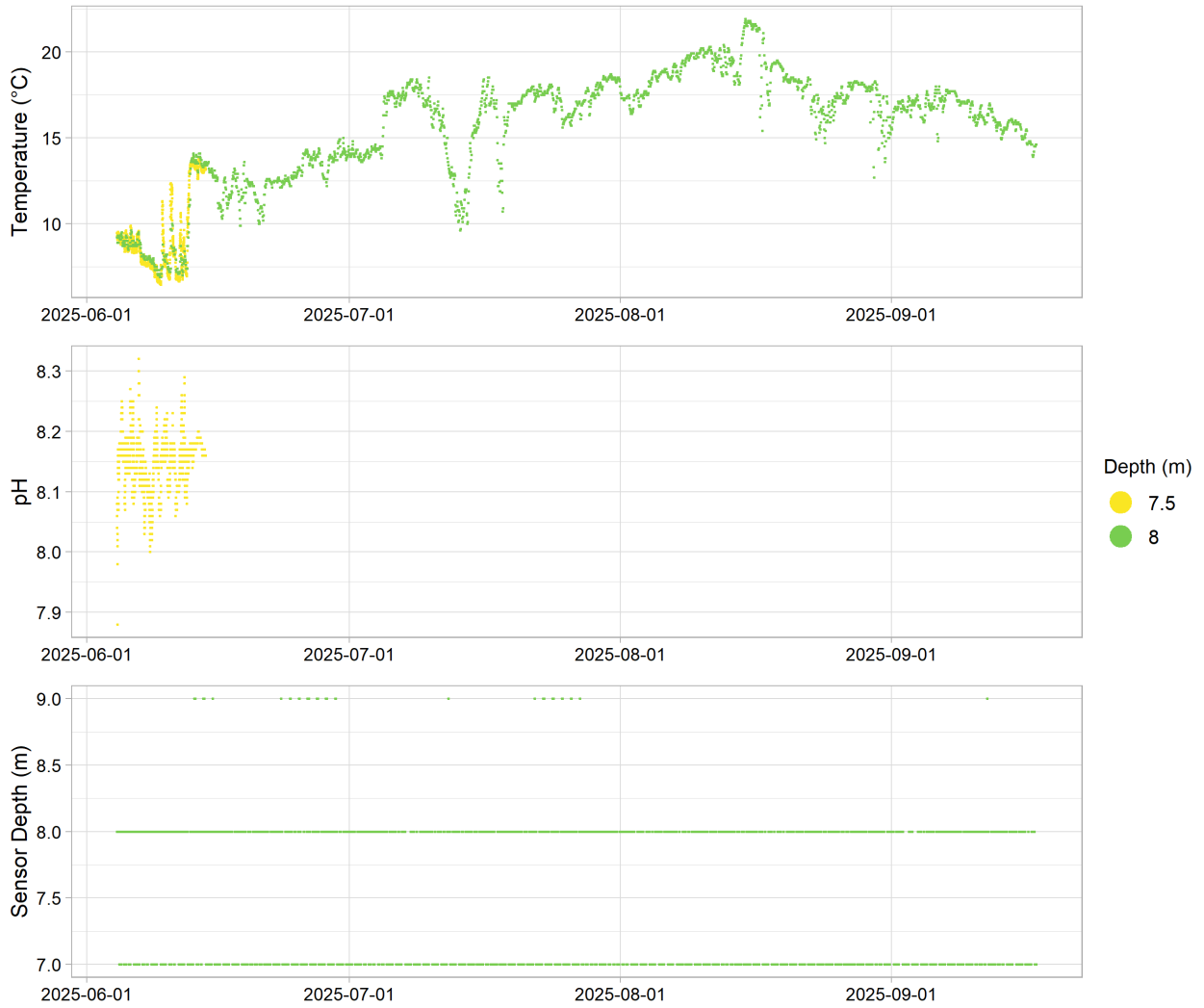


Figure 7: Caraquet Island water quality data.

2.4 Gulf of St. Lawrence

Table 5: Deployment details for Gulf of St. Lawrence.

Station	Deployment Date	Retrieval Date	Latitude	Longitude	Configuration	Variables Measured
Neguac	2024-11-12	2025-08-06	47.1521	-64.9468	sub-surface buoy	depth dissolved oxygen (% sat) salinity temperature
Val Comeau	2024-11-12	2025-07-23	47.434	-64.8469	sub-surface buoy	depth dissolved oxygen (% sat) temperature

2.4.1 Neguac

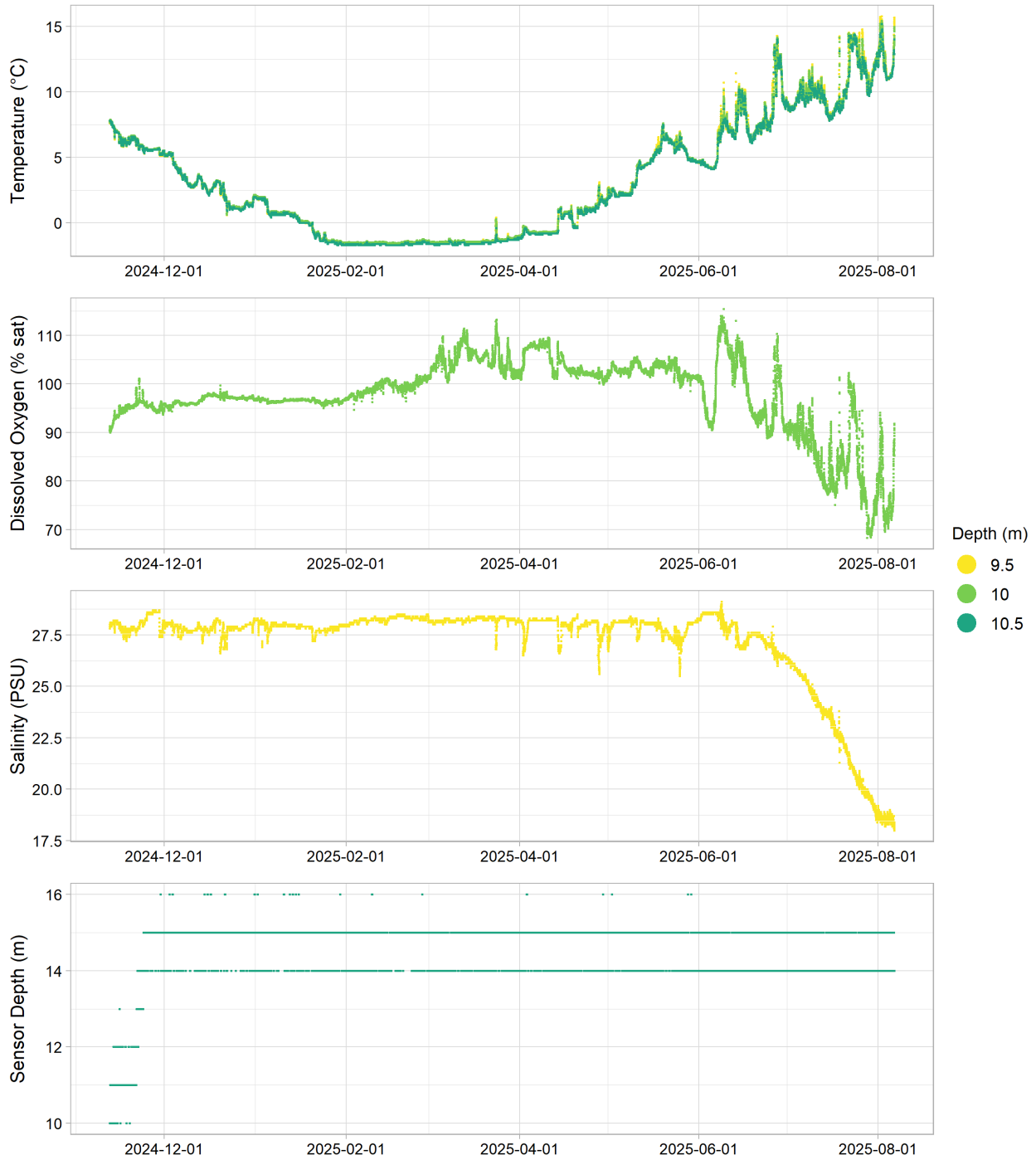


Figure 8: Neguac water quality data.

2.4.2 Val Comeau

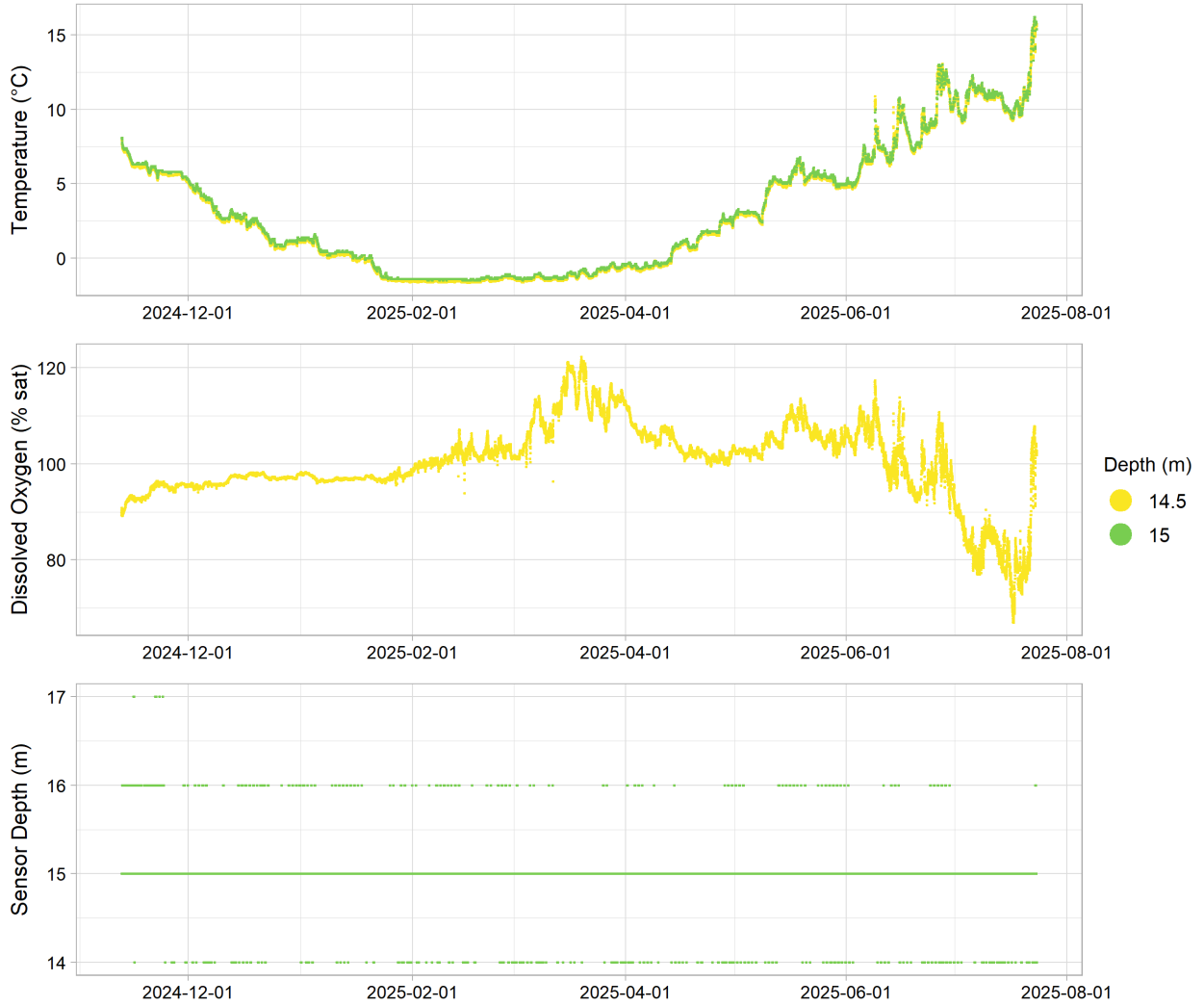


Figure 9: Val Comeau water quality data.

2.5 Miramichi Inner Bay

Table 6: Deployment details for Miramichi Inner Bay.

Station	Deployment Date	Retrieval Date	Latitude	Longitude	Configuration	Variables Measured
Burnt Church Point	2024-11-27	2025-08-12	47.1912	-65.1011	sub-surface buoy	dissolved oxygen (% sat) pH salinity temperature

2.5.1 Burnt Church Point

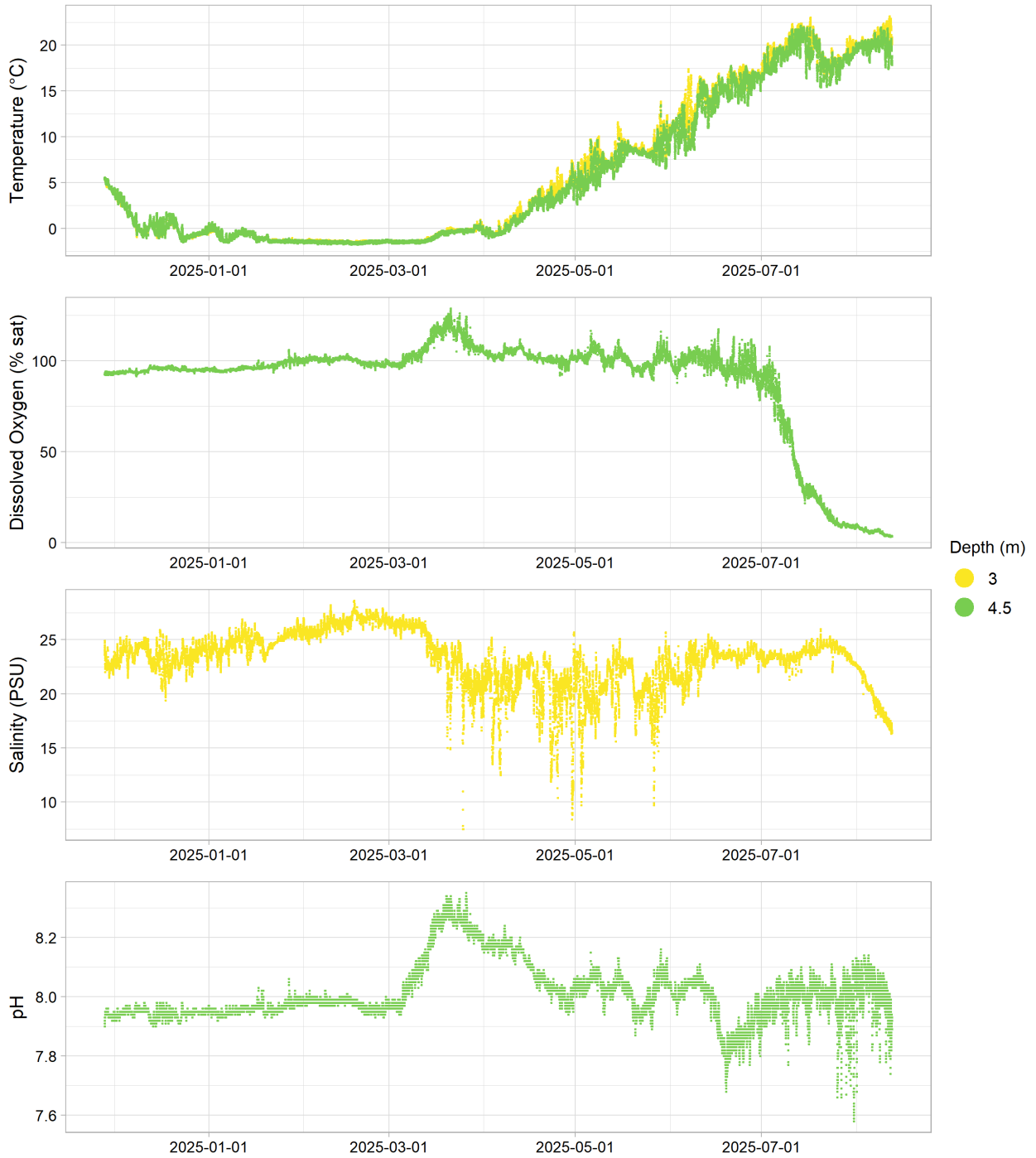


Figure 10: Burnt Church Point water quality data.

2.6 Miscou Channel

Table 7: Deployment details for Miscou Channel.

Station	Deployment Date	Retrieval Date	Latitude	Longitude	Configuration	Variables Measured
Pont de Miscou	2024-11-27	2025-08-20	47.8865	-64.598	sub-surface buoy	dissolved oxygen (% sat) pH salinity temperature

2.6.1 Pont de Miscou

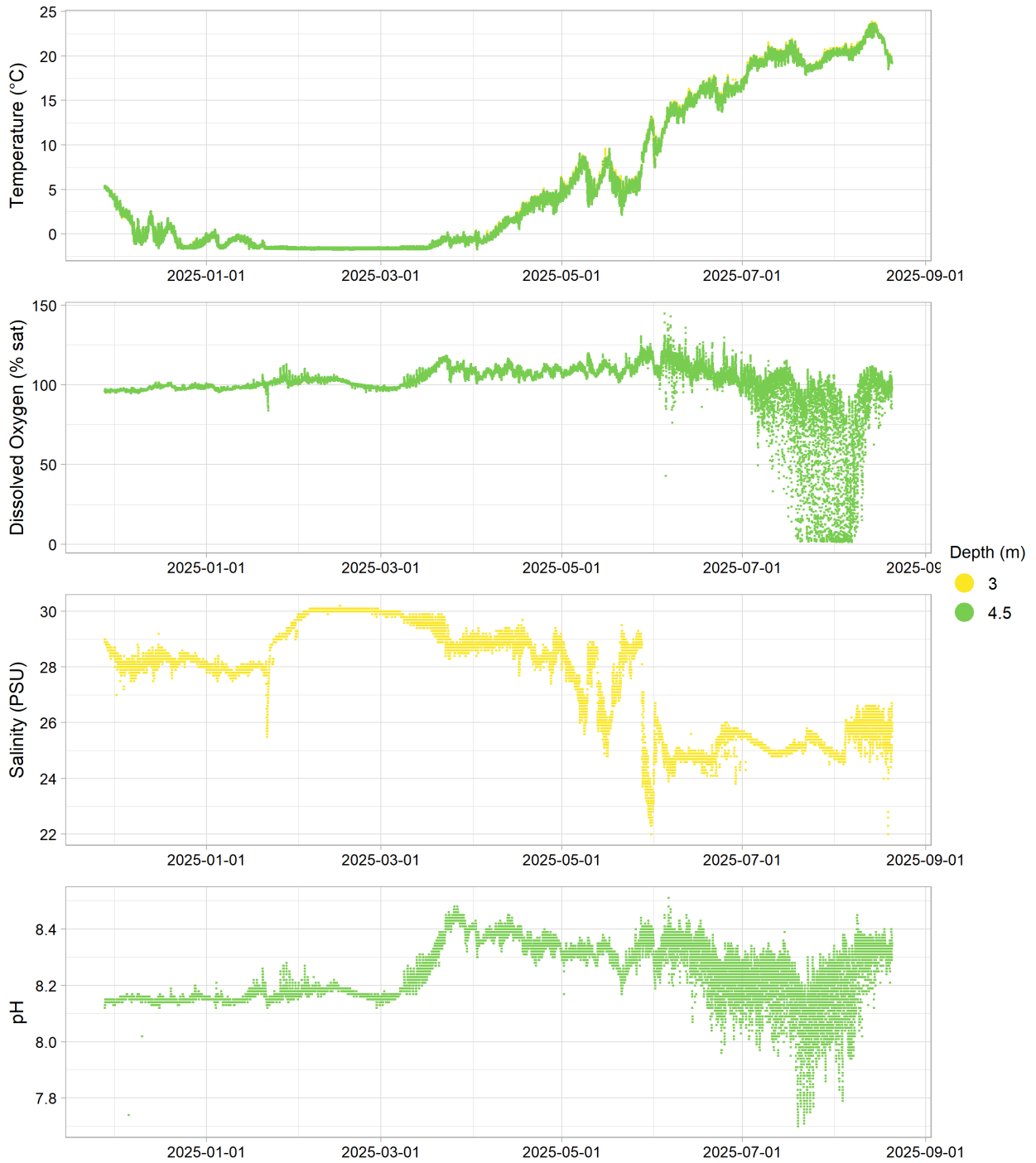


Figure 11: Pont de Miscou water quality data.

2.7 Northumberland Strait

Table 8: Deployment details for Northumberland Strait.

Station	Deployment Date	Retrieval Date	Latitude	Longitude	Configuration	Variables Measured
Bouctouche	2025-06-06	2025-10-22	46.5321	-64.6025	sub-surface buoy	depth dissolved oxygen (% sat) pH salinity temperature
Cap Pele	2024-11-27	2025-06-03	46.2607	-64.2915	sub-surface buoy	depth dissolved oxygen (% sat) salinity temperature
Cap Pele	2025-06-03	2025-10-20	46.2613	-64.2913	sub-surface buoy	depth dissolved oxygen (% sat) pH salinity temperature
Richibucto	2025-06-06	2025-10-22	46.6259	-64.6757	sub-surface buoy	depth dissolved oxygen (% sat) temperature

2.7.1 Bouctouche

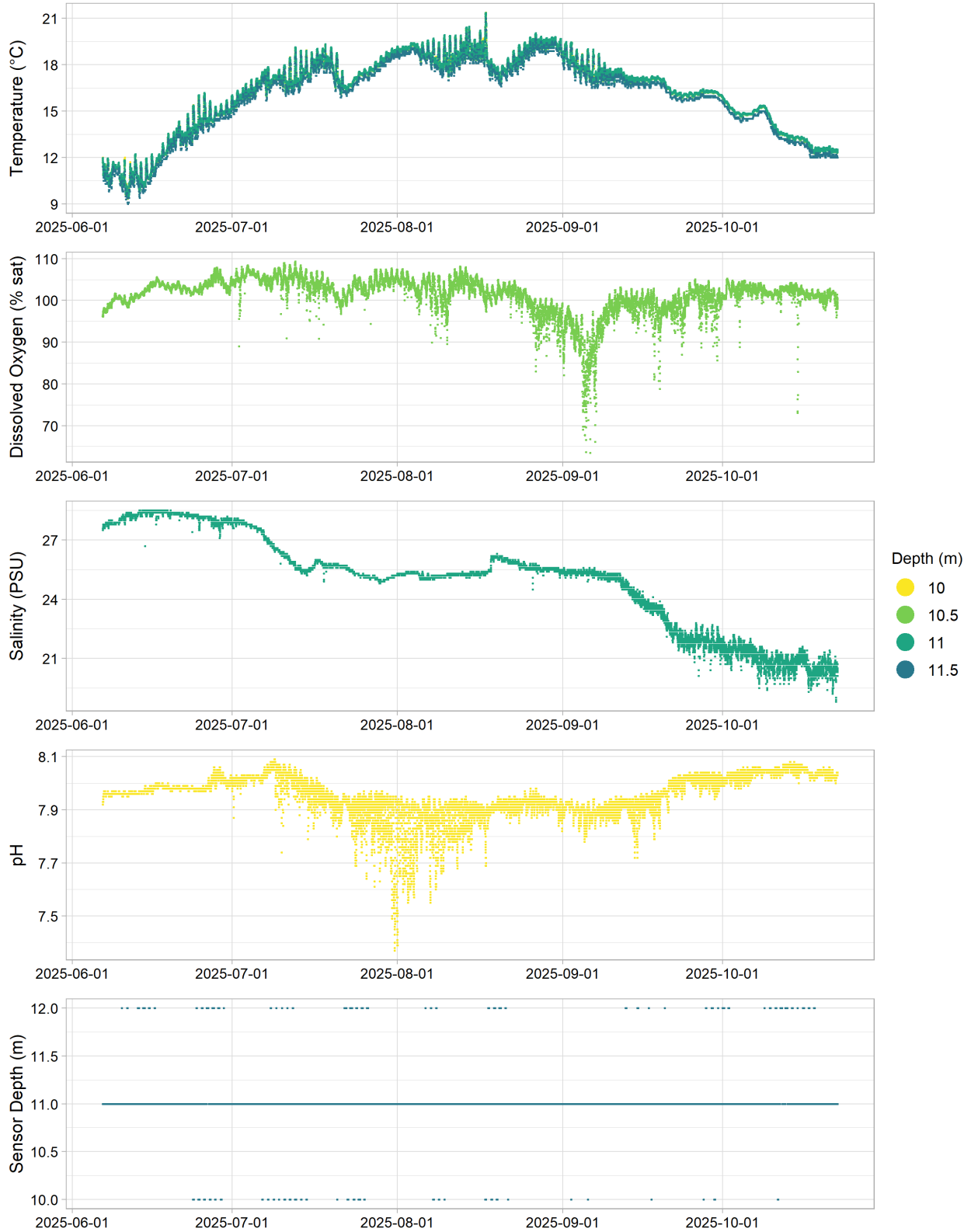


Figure 12: Bouctouche water quality data.

2.7.2 Cap Pele

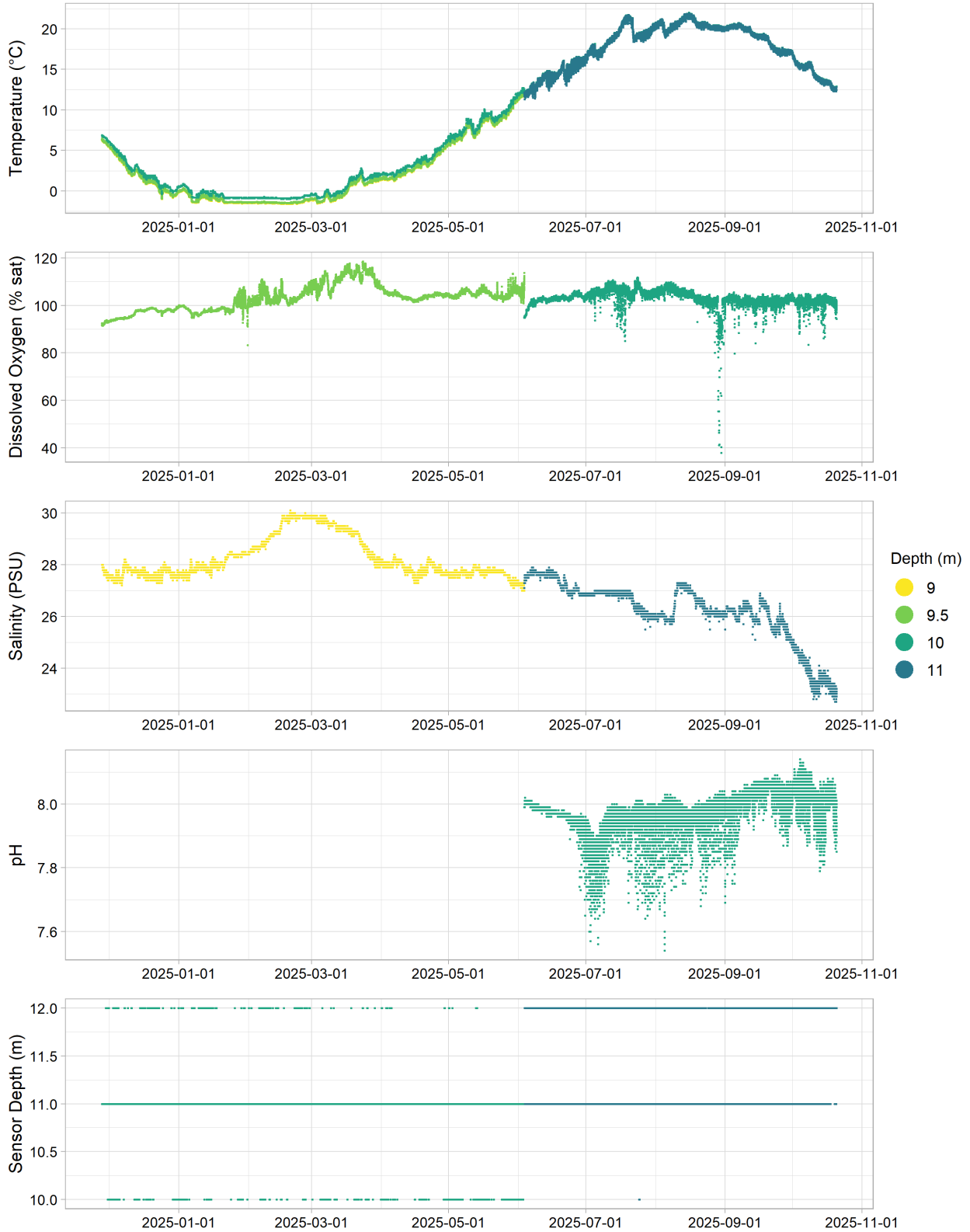


Figure 13: Cap Pele water quality data.

2.7.3 Richibucto

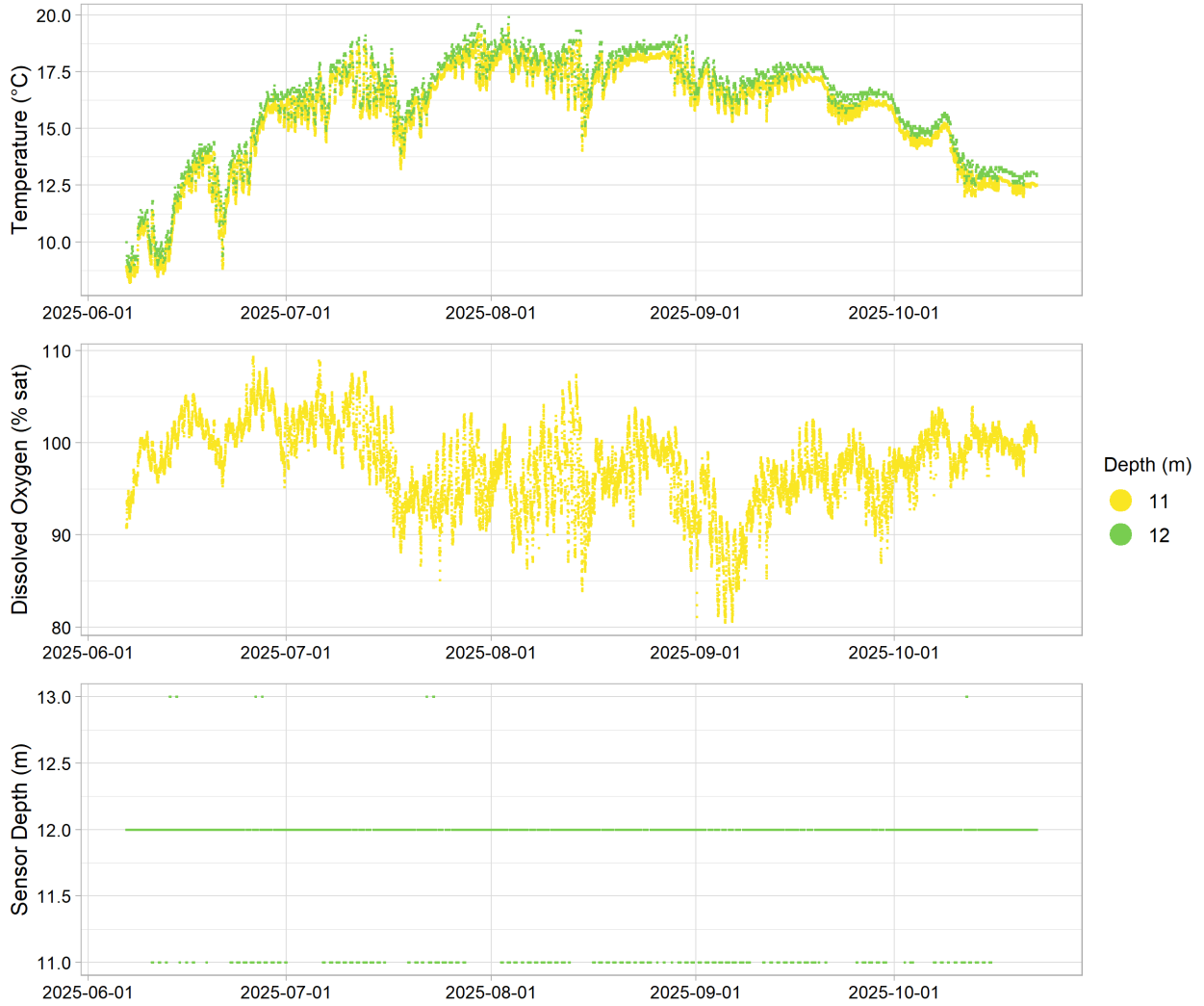


Figure 14: Richibucto water quality data.

3 Data Acknowledgement

CMAR and DAAF aim to prioritize data collection and processing efforts that best serve coastal interest holders. If you use this Coastal Monitoring Program Water Quality data in a project or for decision making, please complete our [anonymous questionnaire](#) with your feedback. Please cite the report and/or datasets used.

4 Document History

Table 9: Document history.

Version	Date	Amendments
V1	2026-04-01	New document.

References

IOOS. (2020). QARTOD manual for real-time oceanographic data quality control flags (1.2). https://cdn.ioos.noaa.gov/media/2020/07/QARTOD-Data-Flags-Manual_version1.2final.pdf