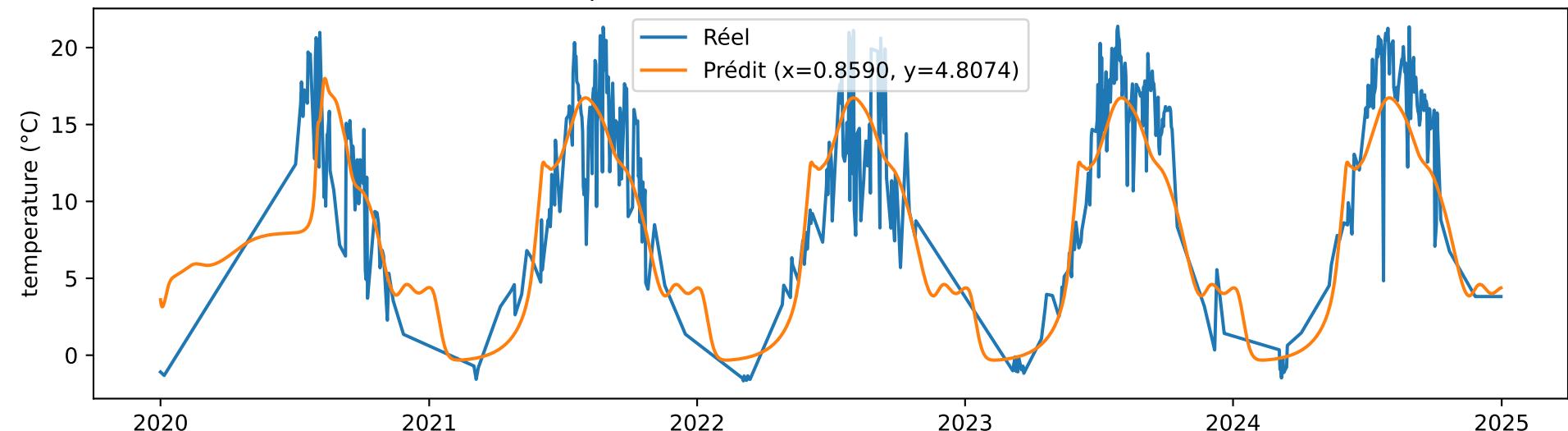
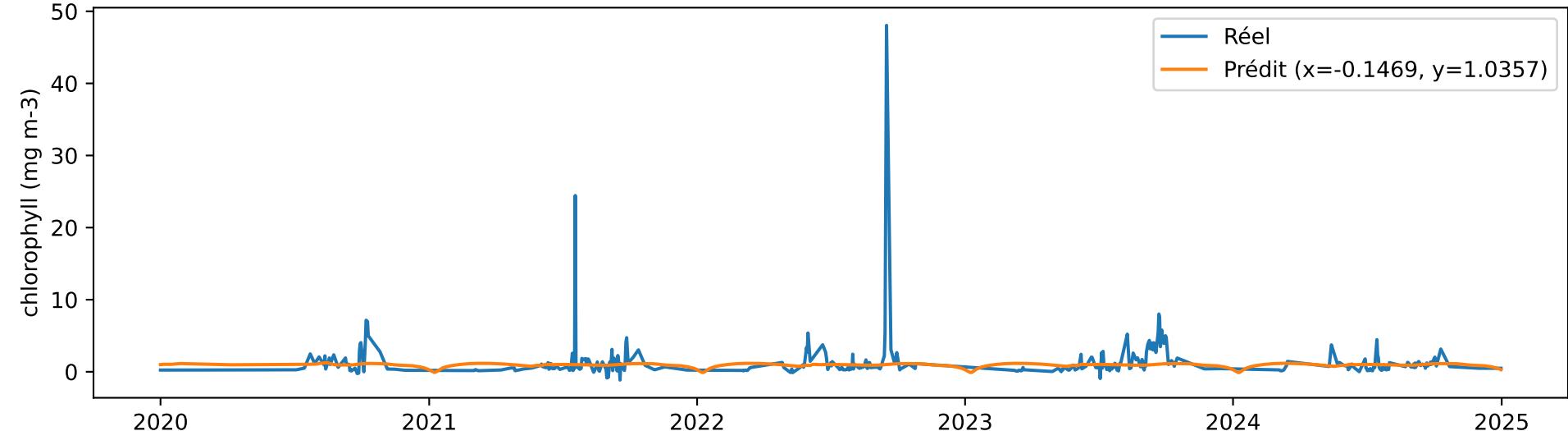


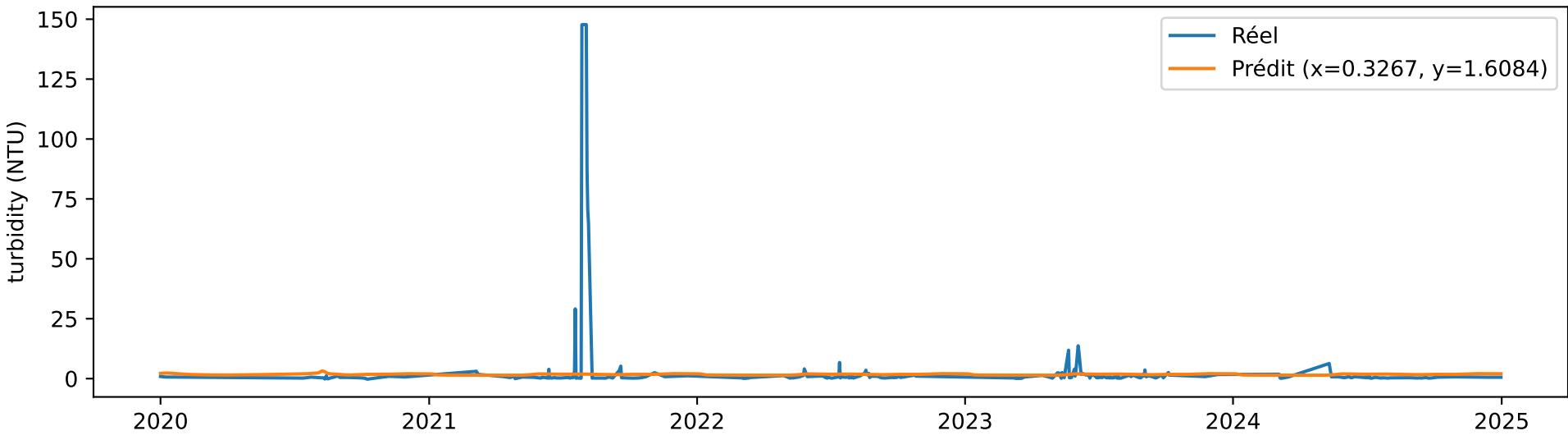
temperature (°C) — RMSE=2.847 R2=0.788



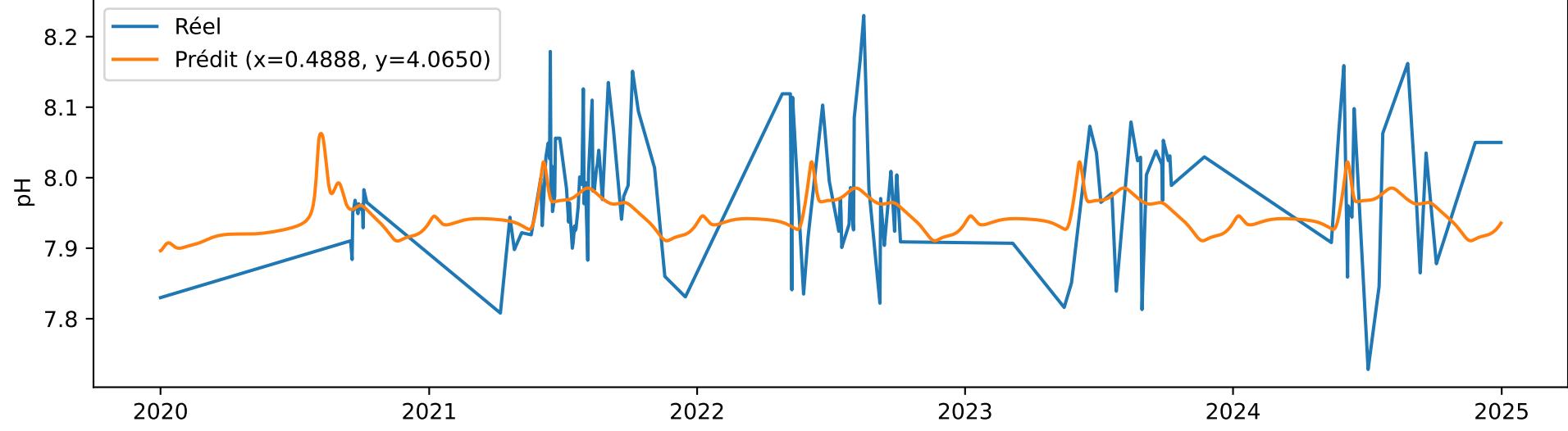
chlorophyll (mg m⁻³) — RMSE=2.163 R2=0.010



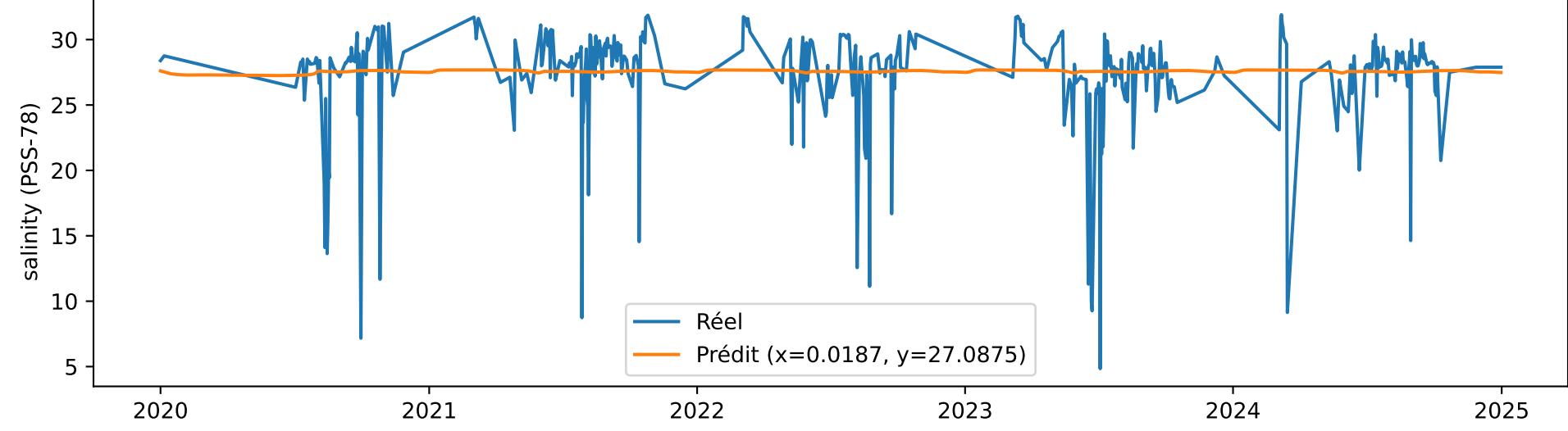
turbidity (NTU) — RMSE=9.750 R2=0.001



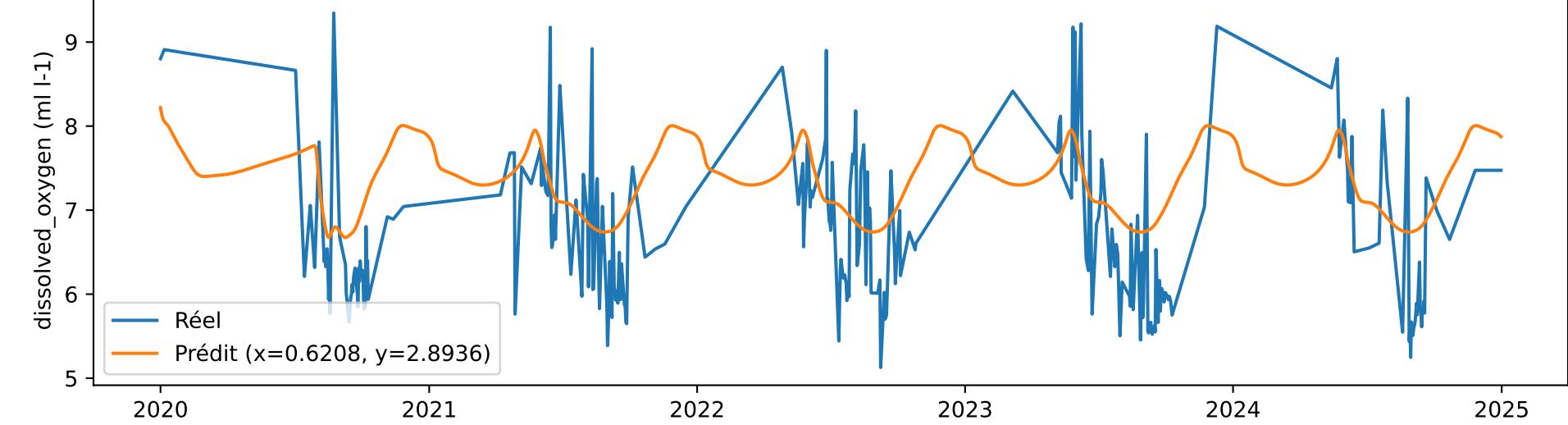
pH — RMSE=0.077 R2=0.096



salinity (PSS-78) — RMSE=2.756 R2=0.002



dissolved_oxygen (ml l⁻¹) — RMSE=0.875 R2=0.157



Résultats LSTM multivarié (après OLS)

Période entraînement : 2000-02-16 -> 2019-12-31

Période test : 2020-01-01 -> 2024-12-31

Metrics par variable (après transformation optimale) :

- temperature ($^{\circ}$ C): RMSE=2.8466, R2=0.7884 (x=0.859036, y=4.807440, R2_opt=0.788447)
- chlorophyll (mg m-3): RMSE=2.1630, R2=0.0104 (x=-0.146902, y=1.035674, R2_opt=0.010438)
- turbidity (NTU): RMSE=9.7495, R2=0.0006 (x=0.326706, y=1.608357, R2_opt=0.000597)
- pH: RMSE=0.0774, R2=0.0963 (x=0.488790, y=4.065028, R2_opt=0.096335)
- salinity (PSS-78): RMSE=2.7559, R2=0.0018 (x=0.018652, y=27.087480, R2_opt=0.001770)
- dissolved_oxygen (ml l-1): RMSE=0.8754, R2=0.1568 (x=0.620830, y=2.893553, R2_opt=0.156794)