

COMPETENCE CENTER FOR CLIMATE CHANGE DIGITAL TWIN FOR EARTH FORECASTS AND SOCIETAL REDRESSEMENT: DTECLIMATE" SP2: ACT4D-EUTROPHICATION MONITORING IN THE CONSTANȚA BLACK SEA SHORE



CHALLENGING WEATHER CONDITIONS OFFSHORE

The monitoring team went into the field on 12 March 2026. Although the forecast was favorable, a dense fog bank reduced visibility shortly after leaving Port Tomis.

Offshore, long swell waves made it difficult to remain stationary at the sampling points, so only 3 of the 7 planned stations could be investigated – all located in the Mamaia Area.

GENERAL AVIFAUNAL OBSERVATIONS

Offshore bird activity was low in both diversity and abundance, with only a few individuals observed, including *Phalacrocorax carbo*, *Larus cachinnans*, and *Podiceps nigricollis*.

DIFFICULT WEATHER CONDITIONS OFFSHORE





Out at sea, birdlife was limited in both diversity and numbers, with only a few individuals of *Phalacrocorax carbo*, *Larus cachinnans*, and *Podiceps nigricollis* observed.

Port Tomis - conditions at departure

The document notes: *"Dirty water, with floating debris at the surface, including small specimens of Aurelia aurita."* Bird species recorded in the port included:

- ***Gavia arctica*** - 1 individual
- ***Podiceps nigricollis*** - 7 individuals
- ***Larus cachinnans*** - approx. 40 individuals
- ***Fulica atra*** - 2 individuals
- ***Phalacrocorax carbo*** - 10 individuals
- ***Phalacrocorax pygmaeus*** - 2 individuals
- ***Larus ridibundus*** - 5 individuals

A single *rapanier* vessel was observed among the leisure and intervention boats.



Station 1 - GeoEcoMar Beacon

Physico-chemical data:

- Water temperature: 7.72°C
- Air temperature: 8°C
- O₂: 14.27 mg/l
- Conductivity: 1893 µS/cm
- pH: 8.73
- Turbidity: 11.4 NTU

Avifauna:

- 26 individuals of *Phalacrocorax carbo*



Station 2 - RAJA Discharge Area

Physico-chemical data:

- Water temperature: 10.5°C
- Air temperature: 7°C
- O₂: 16.65 mg/l
- Conductivity: 1922 µS/cm
- pH: 8.86
- Turbidity: 7.86 NTU

Avifauna:

- 1 individual *Podiceps nigricollis* (disturbed by the vessel)
- *Larus cachinnans*



Station 5 - Offshore Mamaia

Physico-chemical data:

- Water temperature: 7.82°C
- Air temperature: 7°C
- O₂: 17.20 mg/l
- Conductivity: 1780 µS/cm
- pH: 8.6
- Turbidity: 6.27 NTU

Avifauna:

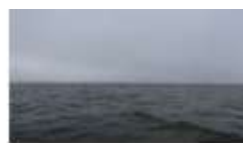
- *Larus cachinnans*



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