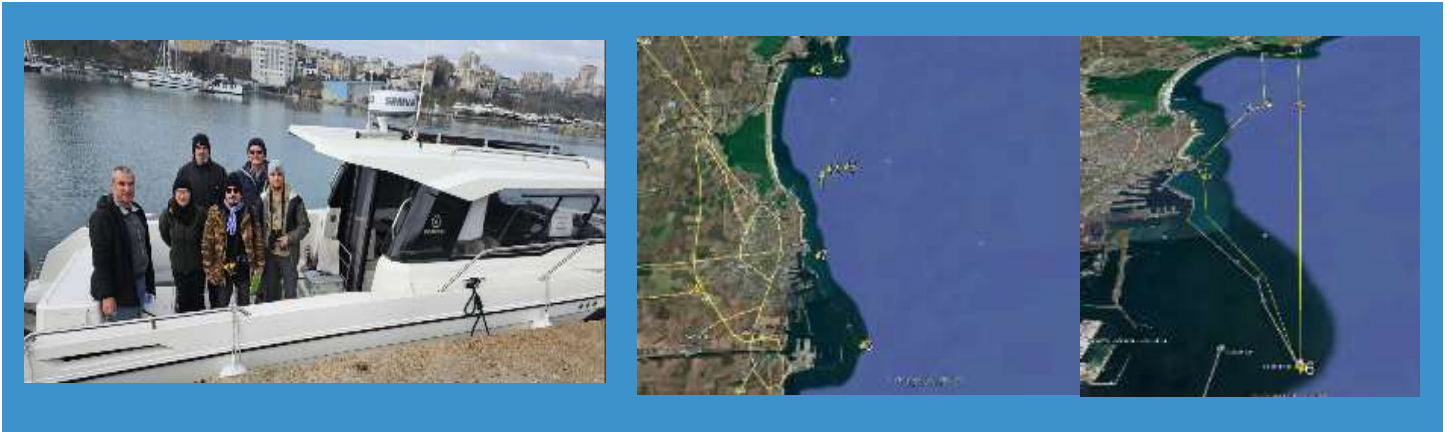


COMPETENCE CENTER FOR CLIMATE CHANGE DIGITAL TWIN FOR EARTH FORECASTS AND SOCIETAL REDRESSEMENT: DTECLIMATE" SP2: ACT4D-EUTROPHICATION

MONITORING IN THE CONSTANȚA BLACK SEA SHORE - JANUARY 28TH,
2026



Our team recently carried out a boat survey in Mamaia Bay, combining vessel testing with an extensive environmental sampling effort.

This campaign supports the expansion of ongoing research from Lake Siutghiol into nearby shallow marine waters.

The survey covered multiple key locations, starting near the GeoEcoMar buoy and the RAJA pipeline discharge area. The team then moved north toward Cape Midia and the entrance of Midia Harbor, before heading south again through central Mamaia Bay, the northern breakwater of Constanța Harbor, and finally near the iconic Constanța Casino.

At each station, water samples were collected from a depth of 3 meters to analyze key parameters such as oxygen, nitrogen, phosphorus, and conductivity. The team also gathered zooplankton and phytoplankton samples to better understand the biological dynamics of the area. This field campaign marks an important step in extending lake research into coastal environments, offering valuable insights into the connection between inland and marine ecosystems.





P1120721

P1120722

P1120724

P1120725

Station 1 - GeoEcoMar Buoy 44°13'30.24N,
28°40'31.32E
Water Temp - 4.68, Air Temp - 5.3
O2 - 9.64
Conductivity -
pH - 8.29, Turbidity - 10.7, Total P - mg/l
Birdlife - Great Crested Grebe - 1 individual

Station 2 - RAJA Pipeline - 44°13'48.48N,
28°40'58.5E
Water Temp - 4.75, Air Temp - 4.5
O2 - 9.57
Conductivity - 23,187
pH - 8.24, Turbidity 10.4, Total P - mg/l
Birdlife - *Larus cachinnans* - 3 individuals,
Phalacrocorax carbo - 1 individual



P1120733

P1120734

P1120735

P1120736

P1120737

Station 3 - Petromidia - 44°18'49.68N, 28°39'56.82E
Water T - 4.91, Air T - 4.5
O₂ - 9.14
Conductivity - 25,088
pH - 8.45, Turbidity - 9.70, Total P - mg/l
Birdlife - *Podiceps cristatus* - 3 individuals, *Larus cachinnans* - a individuals, *Phalacrocorax carbo* - 1 individual.

Station 4 - Midia Point, end of the
breakwater - 44°19'20.16N, 28°41'25.2E
Water T - 5.10, Air T - 4.7
O₂ - 9.83
Conductivity - 25,353
pH - 8.41, Turbidity - 11.5, Total P - mg/l
Birdlife - *Fulica atra* - 7 individuals,
Podiceps nigricollis - 23 individuals, *Anas platyrhynchos* - 1 individual, *Podiceps cristatus* - 3 individuals, *Phalacrocorax carbo* - 9 individuals, *Larus cachinnans* - 3 individuals.



Station 5 - Mamaia Larg - RAJA outfall - 44°13'52.02N, 28°42'2.34E

Water temp - 4.77, Air temp - 4.1

O₂ - 9.07

Conductivity - 23,721

pH - 8.72, Turbidity - 27.4, Total P - mg/l

Avifauna -

Station 6 - Northern end of the breakwater at the Port of Constanța - 44°5'54.72N, 28°42'49.5E

Water temp. - 4.86, Air temp. - 4.4

O₂ - 10.12

Conductivity - 23,210

pH - 8.39, Turbidity - 9.76, Total P - mg/l

Birdlife - Black-necked Grebe - 70 individuals, Great Crested Grebe - 15, Red-necked Grebe - 5 individuals, Great Cormorant - 40 individuals, European Shag - 4 individuals, Caspian Gull - 15 individuals.

Station 7 - Constanța Casino - 44°9'50.64N, 28°40'16.62E (no biological samples collected)

Water T - 4.87, Air T - 4.3

O₂ - 10.13

Conductivity - 25032

pH - 8.47, Turbidity - 9.87, Total P - mg/l

