



WICOS (Implementation of the water quality monitoring in the Western Istrian Coastal Sea) is an Adriatic New Neighbourhood Programme-INTERREG/CARDS-PHARE Project, with main objectives:

- **Scientific support to the implementation of a strategy for the environmental protection and sustainable development of the sensitive coastal Adriatic Sea areas (CAOS)**
- **Estimation of long-term changes in the Adriatic ecosystem**
- **Evaluation of the relative importance of climatic fluctuations and oceanographic conditions variability vs. the anthropogenic impact of eutrophication.**

Since the observed area is Northern Adriatic, WICOS could easily be retained as continuation of the REQUISITE project, measuring the same parameters and having a complete view in the Northern Adriatic ecosystem. As in REQUISITE, our partner is Struttura Oceanografica Daphne; ARPA-ER, Cesenatico, Italy.

The WICOS project started in August 2008 and will last for one year.

BULLETIN FOR APRIL 2009

The bulletin was primarily edited in accordance to measurements, and observations of the scientific and technical staff of Center for Marine Research (CMR) of the Ruđer Bošković Institute.

The description of the state in the marine ecosystem refers to the profile of seven stations 1 Nm distant from the western Istrian coast (WIC), as required by the program WICOS. In the

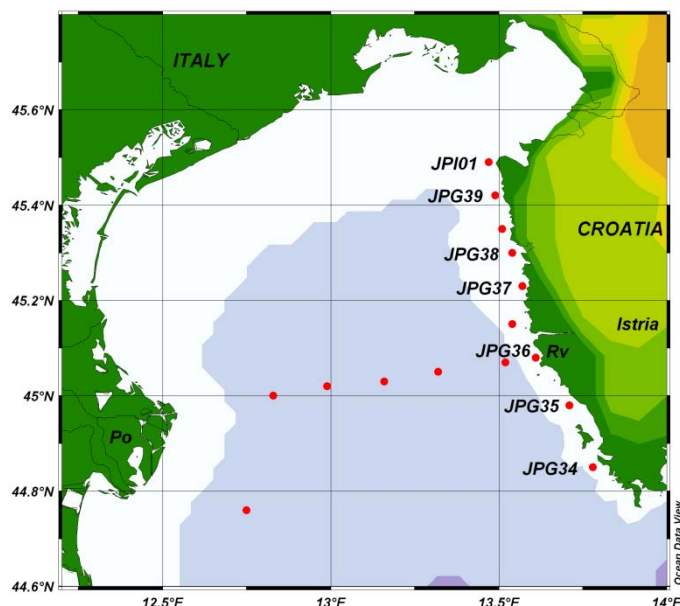


Figure 1.

case that the sampling along the Rovinj-Po River Delta (RV-Po) was performed in the next few days to the measurement along the WIC, all data obtained were compared and described in the bulletins.

The monitoring of the RV-Po profile is realized within the Croatian National Monitoring Program (Projekt "Jadran"), for which are available time series data from 1965 and is representative for the waters along the northern Adriatic. The profile includes 14 stations up to the limit of Italian territorial waters, of which at seven are performed complete measurements of all oceanographic parameters.

The measurement cruises were carried out using the oceanographic vessel "Vila Velebita" of the CMR.

Situation at sea

The sampling along the WIC profile was performed on the 9th of April, while that at the stations between Rovinj and the Po River Delta (RV-Po) on the 8th of the same month.

The water column has been slightly stratified with temperature values about 11,0°C near the bottom along the whole profile. At the surface layer of the northern stations, the temperature was 14,7 °C and decreased slightly toward the southern stations, to 12,6 °C (Fig. 2).

Salinity varied a little over most of the WIC profile (37,5-38,0), while at the southern station surface layer, the closest to the Gulf of Kvarner, it was lower (36,9; Fig. 2). Off the mouth of the Po River a somewhat lower value was measured, but still near the long-term average (~34).

The level of oxygen saturation continued to be about 100%, as in the previous months, the concentration of chlorophyll *a* was low (0,2-0,5 µg/L) throughout the water column of the WIC profile. Chlorophyll *a* values, significantly higher than usual, were measured in the surface layer at the stations off the Po Delta (up to 3,0 µg/L) (Fig. 2).

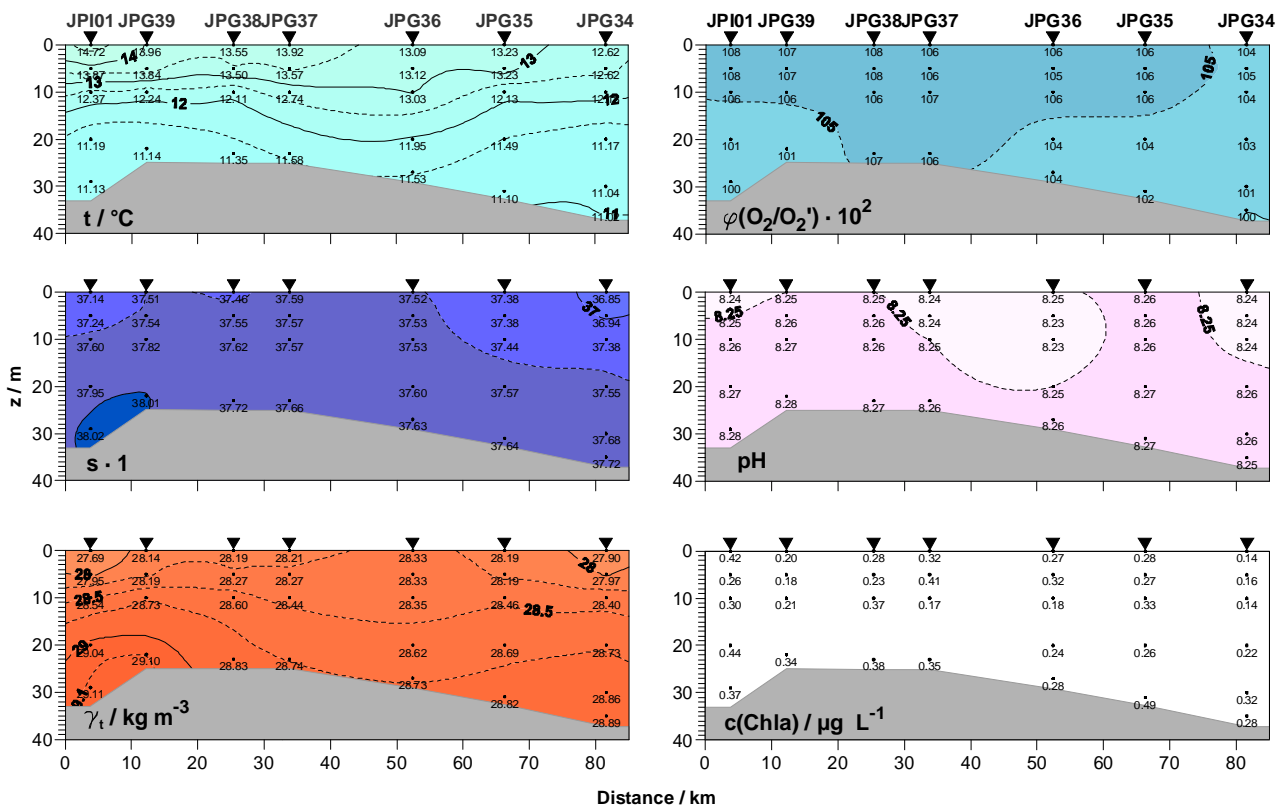
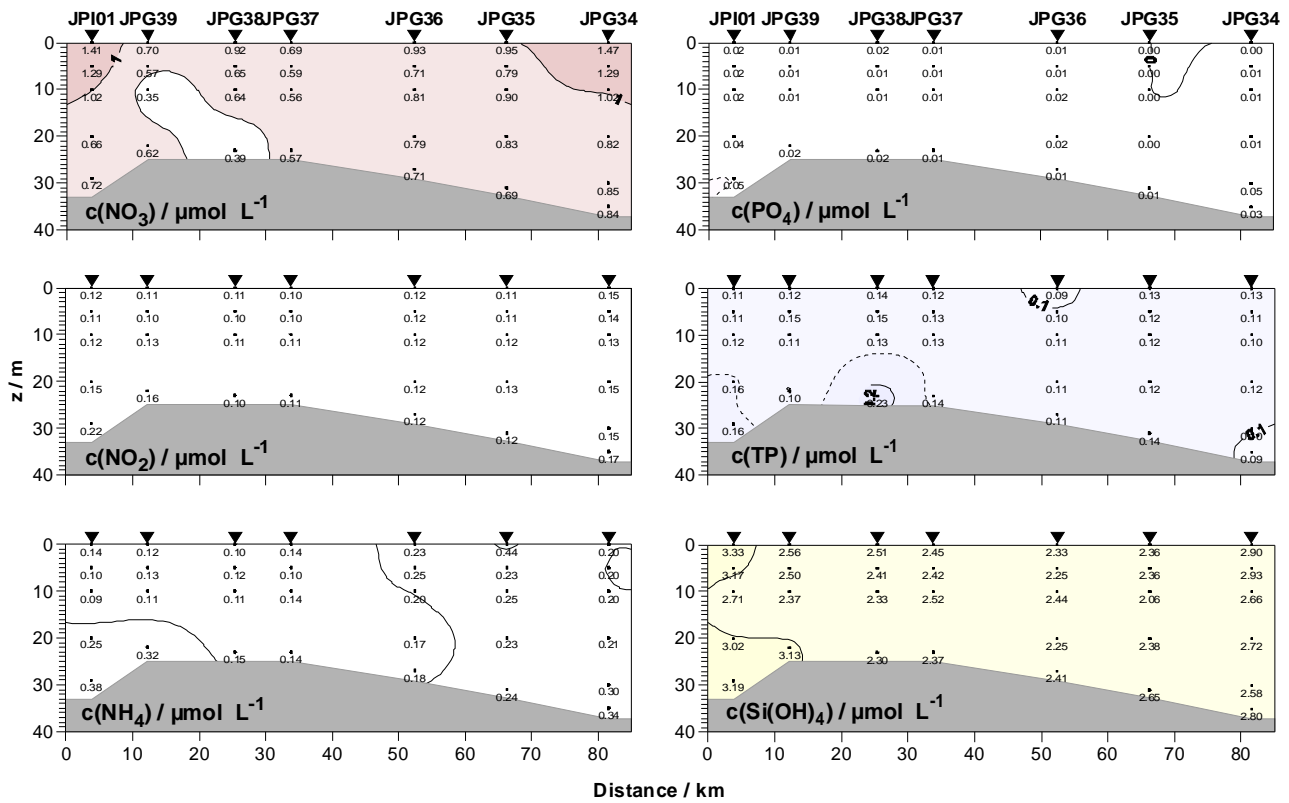


Figure 2.

Nutrient concentrations were low and homogeneously distributed along the WIC profile (Fig. 3).

The sea color was generally greenish blue and transparency (12-15 m), as assessed by measurements with the Secchi disc, was similar to March.



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Figure 3.

Unusual phenomena

Like in the previous months, there was no presence of mucilaginous aggregates, but marine snow was present in larger quantities compared to the previous months. Flakes were rare or moderately abundant medium sized < 1 cm in the central and western areas of the basin and rare long filaments up to about 10 cm at 10-15 m of depth have been noted. At the station 12 Nm off the Po delta one jellyfish *Aequorea aequorea* has been detected.