



**WICOS (Implementation of the water quality monitoring in the Western Iстриan 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 MARCH 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 Iстриan coast (WIC), as required by the program WICOS. In the

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.

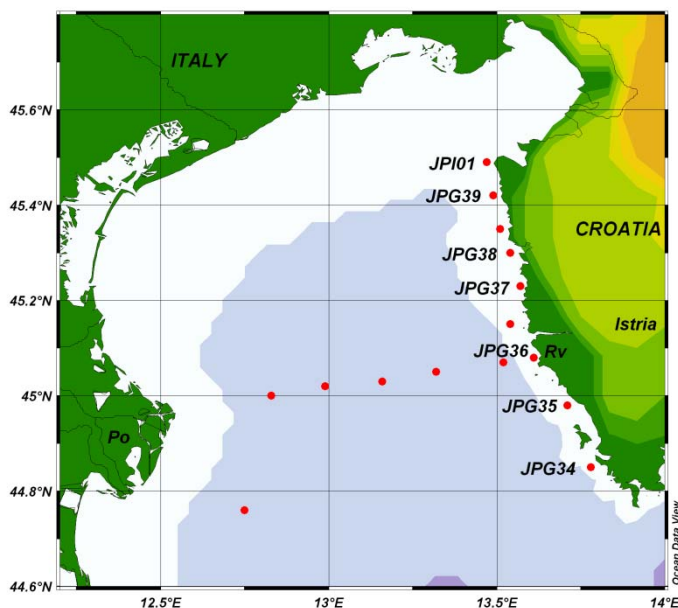


Figure 1.

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 western Istrian coast (profiles WIC) was performed on March 13<sup>th</sup> 2009, while the one between Rovinj and the Po delta (Po-RV) on the 17<sup>th</sup> of the same month (Fig. 1).

The water column along the whole WIC profile was still quite homogeneous with a temperature of 9.9 °C at the northern stations, increasing slightly towards the south up to 10.6 °C, values, however, within the range of long-term averages (Fig.2).

Salinity was uniformly distributed throughout the WIC with values (37.5-37.8) next to the media, while on the surface of the station closest to the Po delta was lower, but still typical for March (~34). The inflow from the Po was above average, but to a lesser extent than in February.

Oxygen content continued to be about 100 % of saturation, and chlorophyll *a* concentration was minimal (0.3-1 µg/L) throughout the water column of the WIC profile, as usual in the winter season. However, chlorophyll *a* values significantly higher than average were measured on surface at stations close to the Po delta (2-5 µg/L).

Nutrient concentrations were very low and uniformly distributed along the WIC (Fig.3).

Sea color was generally greenish blue and transparency, as assessed by measurements with the Secchi disc (12-18 m), was similar to that of February, but above average.

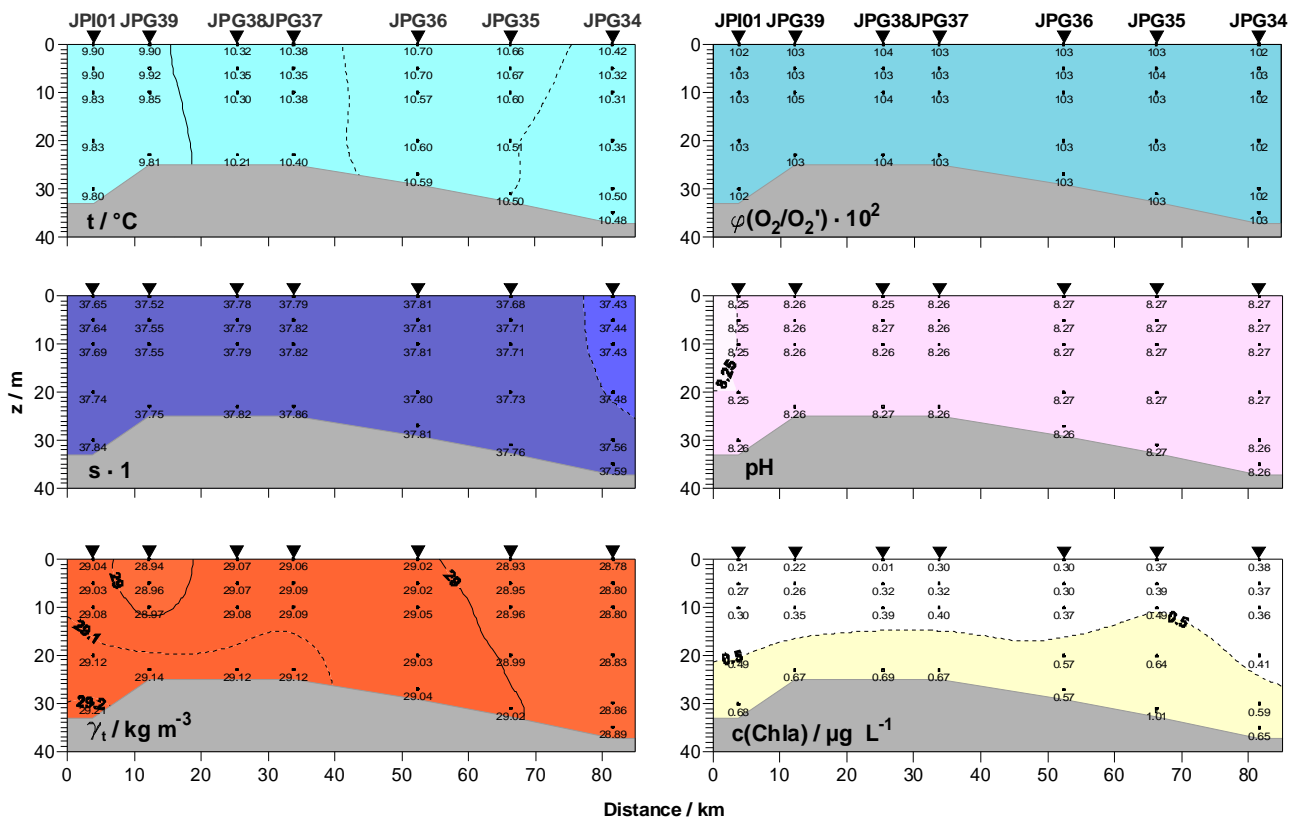


Figure 2.

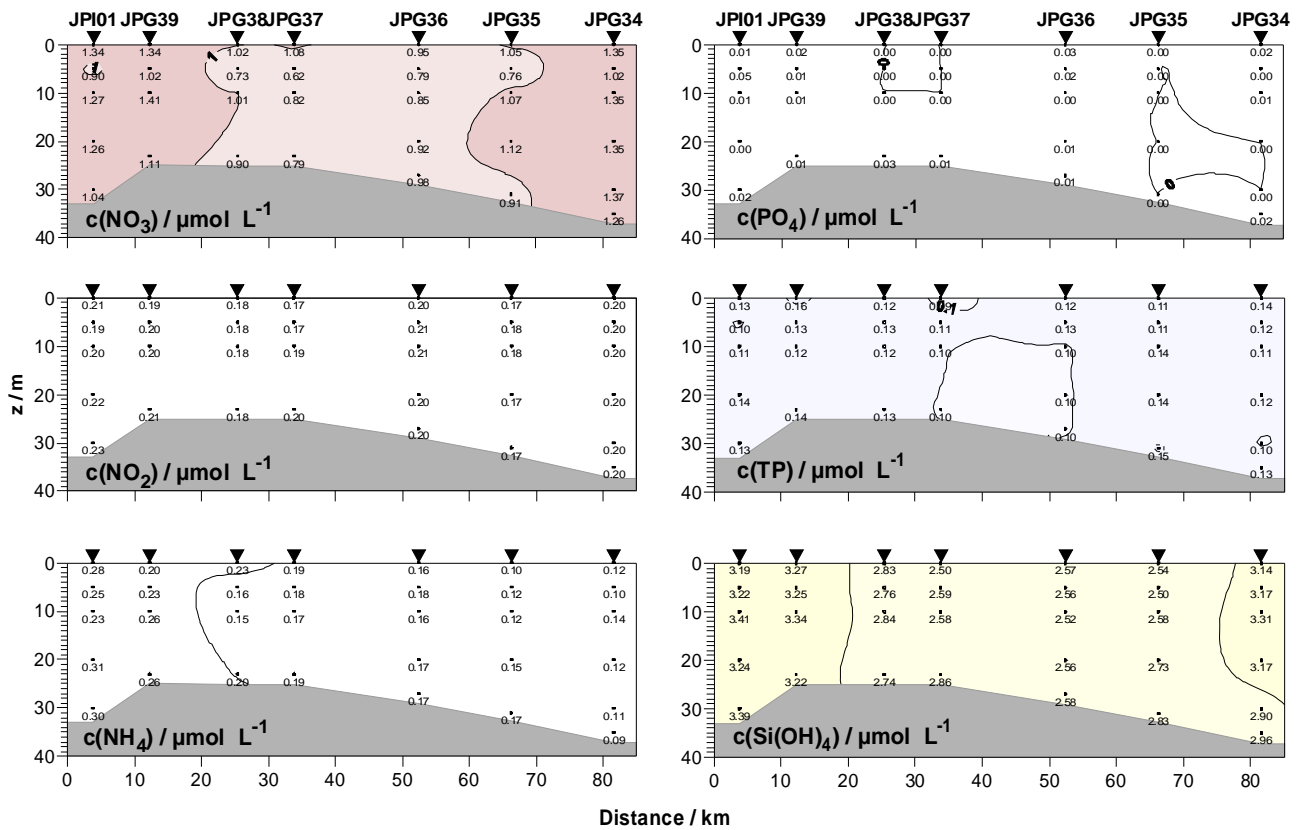


Figure 3.

### Unusual phenomena

Like in the previous months, mucilaginous aggregates were not present, although marine snow was evidenced in larger quantities compared to the previous months. Medium sized flocks (<1) cm and filaments long up to about 10 cm were rare or abundant in the central and western areas of the basin. At the station off the Po delta, the jellyfish *Aequorea aequorea* was noted.