

ICHNUSSA2018

Principal Investigator
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(CNR-IAMC)*



RV G. Dallaporta
category: Regional
gross register tonnage (GT): 285
length overall (m): 35.3
breadth (m): 7.7
depth (m): 4.1
draft (m): 3.0
service speed (kn): 11.5

Cruise Location
Corsica Channel
North Tyrrhenian Sea
Golfo di Asinara
Bonifacio Strait

Disciplines
Oceanography

Activities
Water sampling
Pretreatment and analysis of water samples
Stations recovery
Sea placement

Main Equipment
CTD SBE911plus, SADC,
LADCP, Dosimat for dissolved oxygen analysis, surface drifters

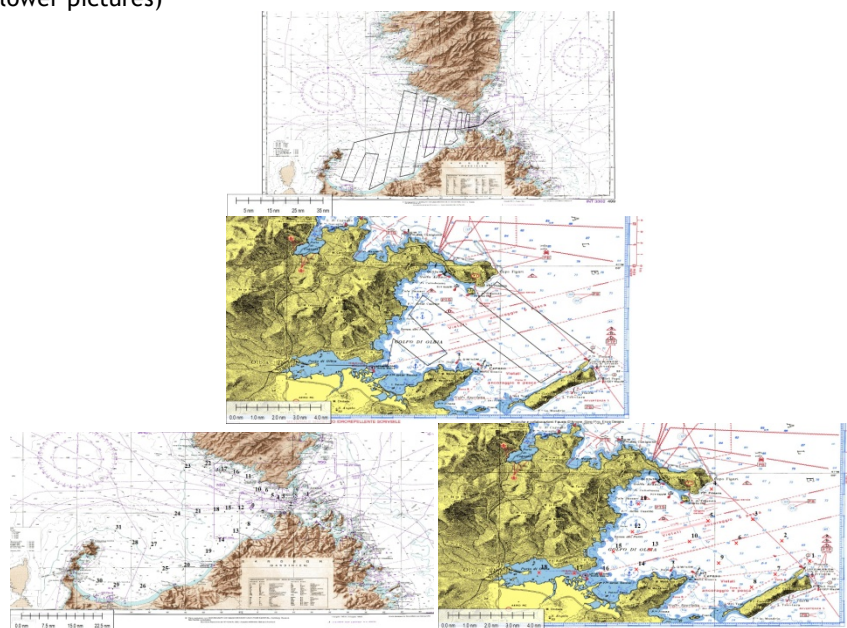
Scientific collaboration
University of Genova

The sampling plan of the ICHNUSSA2018 proposes a route already covered in previous cruises since 2012 to acquire data for the activities of Calibration and Validation (Cal/Val) of oceanographic ecosystem or forecasting numerical models at different scales. Then the aim is also to study the inter-annual variability of biogeochemical and physical properties of the water masses in crucial areas for understanding the circulation and exchange between basins, in particular the transport of heat and salt in the Mediterranean.

The ICHNUSSA2018 is designed to approximately replicate the stations of previous cruises MedGOOS, MedCO or MedOc and ICHNUSSA from 2012 to 2017 (Figures 1).

The oceanographic cruise is planned in order to collect an oceanographic dataset in the area between Corsica and Sardinia to: i) initialize, calibrate and validate ecosystem or operational hydrodynamic models at different scales with in situ and satellite data; ii) monitor the physical characteristics of the waters crossing the Strait; iii) evaluate the transport of water, salt and heat in the Mediterranean and analyze whether the interannual variability of water mass properties are due to climate change; iv) ordinary maintenance of deep water moored chain for the inclusion of the data in a 20 years old CNR dataset.

Figures 1: Investigated areas of Asinara Gulf/Bonifacio Strait (left column) and Olbia Gulf (right column) with LADCP/SADCP lines (upper pictures) and CTD stations (lower pictures)



Cucco A., A. Ribotti, A. Olita, L. Fazioli, B. Sorgente, M. Sinerchia, A. Satta, A. Perilli, M. Borghini, K. Schroeder, and R. Sorgente, (2012), Support to oil spill emergencies in the Bonifacio Strait, western Mediterranean, Ocean Science Special Issue, "The MyOcean project: scientific advances for operational ocean monitoring and forecasting", Eds. P. Brasseur, M. Bell, J. A. Johannessen, P.-Y. Le Traon, and A. Schiller, 8, 4, 443-454, doi:10.5194/os-8-443-2012

Cucco A., Sinerchia M., Ribotti A., Olita A., Fazioli L., Sorgente B., Perilli A., Borghini M., Schroeder K. Sorgente R., (2012), A high resolution real time forecasting system for predicting the fate of oil spills in the Strait of Bonifacio (western Mediterranean), Marine Pollution Bulletin, 64, 6, 1186-1200, <https://doi.org/10.1016/j.marpolbul.2012.03.019>

Sorgente B., R. Sorgente, A. Olita, L. Fazioli, A. Cucco, A. Perilli, M. Sinerchia, A. Ribotti, (2012), Effects of protection rules and measures in an important international strait area: the Bonifacio Strait, Journal of Operational Oceanography, 5, 1, 35-44, <https://doi.org/10.1080/1755876X.2012.11020130>