

# EVATIR 2018

Principal Investigator  
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## **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  
**Tyrrhenian Sea  
Ligurian Sea**

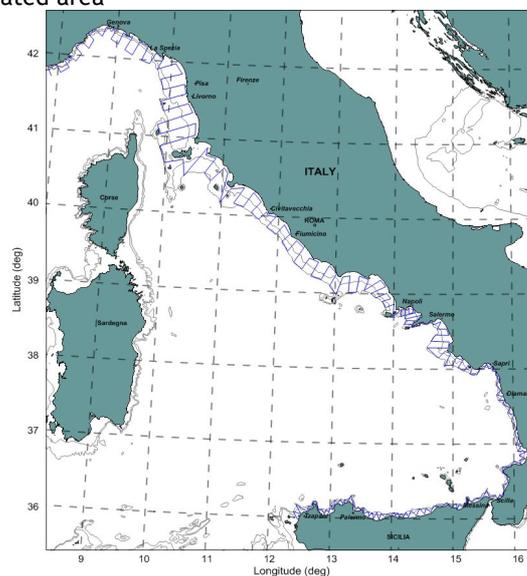
Disciplines  
**Oceanography  
Biology Resources  
Marine ecology and monitoring**

Activities  
**Fish sampling  
Stations recovery  
Acoustic survey**

Main Equipment  
**Seabird CTD911plus and  
rosette, Echosounder SIMRAD  
EK 60 with GPT and split  
beam transducers 38, 70, 120 e  
200 khz, Simrad ITI Trawl  
monitoring system**

One of the main objectives of fisheries biology is to give support to the research on the exploitation status of biological resources and on the effects of environment. Substantial improvements were made in the basic knowledge on physics, chemistry, biology, geology and on ecosystems. However, the ability to foresee the response of the ecosystem to the combined effects of fishing and climatic variability is still rudimentary. In this context, many reasons have brought the international scientific community to propose the adoption of multidisciplinary approaches for the study of marine ecosystems. However, this type of studies cannot leave the evaluation of the state of the marine ecosystems and the biological resources out of consideration. The survey "Evatir 2018" will carry out an acoustic investigation on the Italian continental shelf of Tyrrhenian and Ligurian seas. It is part of the MEDIAS (International Acoustic Survey of the Mediterranean), a specific module of the European Data Collection Framework (EU Reg. 199/08 and EU Dec. 1251/2016). Each year, the involved European Member States (Italy, Spain, France, Croatia, Slovenia and Greece) conduct specific surveys at sea for the acoustic assessment of small pelagic fish biomass. These assessments are made available to the EU and to the GFCM (General Commission for Mediterranean Fisheries). During the survey "Evatir 2018", attention will be focused on the physical aspects of the sea and on the biology of small pelagic fish populations (sardine, anchovy, round sardinella, etc.). The survey will be able to provide data on abundance and distribution of the target species and on environmental conditions in the study area. Such data will allow conducting studies on the vertical and horizontal distribution patterns of the schools in relation to the main physical variables of the sea. The data acquisition protocol foresees that acoustic data are acquired during daytime and nighttime, with vessel speed around 10 knots, along transects perpendicular to the coast over the whole Italian continental shelf (see Figure 1). Trawl hauls will be performed with pelagic net, for fish species identification and for estimating size class distributions. At the end of each transect and at some intermediate points of the longest transect, CTD casts will be collected in order to measure some physical variables of the sea. Since the multidisciplinary approach characterizes this type of research, different collaborations have been established in order to join various competences for an effective development of the research.

Figure 1: Investigated area



A. Bonanno, M. Barra, G. Basilone, S. Genovese, P. Rumolo, S. Goncharov, S. Popov, B. Buongiorno Nardelli, D. Iudicone, G. Procaccini, S. Aronica, B. Patti, 1 G. Giacalone, 1 R. Ferreri, I. Fontana, G. Tranchida, S. Mangano, M. Pulizzi, A. Gargano, A. Di Maria And S. Mazzola (2016). Environmental processes driving anchovy and sardine distribution in a highly variable environment: the role of the coastal structure and riverine input. *Fish. Oceanogr.* 25:5, 471-490

P. Rumolo, A. Bonanno, M. Barra, E. Fanelli, M. Calabro, S. Genovese, R. Ferreri, S. Mazzola, G. Basilone G. (2016). Spatial variations in feeding habits and trophic levels of two small pelagic fish species in the central Mediterranean Sea. *Marine Environmental Research*, 115, 65-77