

Short CV

Giuseppe Civitarese (gcivitarese@ogs.trieste.it)

Research field

After having accumulated twenty years of experience in the chemical oceanography and marine biogeochemistry fields in Mediterranean and Arctic, recently, he has contributed to the discovery of the circulation mechanism called Bimodal Oscillating System (BiOS) in the Central Mediterranean area, which affects, to varying degrees, the large scale circulation, the thermohaline properties distribution and the ecosystem dynamics of the Mediterranean Sea. At present, his attention is focussed on the study of the implication of the BiOS on the ecosystem dynamics in the Ionian and Adriatic Seas, through the extensive use of classical and innovative observing platforms (research vessel, satellites, floats, buoys).

Recent Projects

- **AdMedPlan** (Influence of thermohaline circulation variations in the Eastern Mediterranean on the plankton community of the South Adriatic: ecological and genetical approach), 2015-2019, HR, (Project Team Member).
- **BIOSIST** (Integration of the biological dimension in the observing systems), 2016-2018, I, (600,000 €, P.I.).
- **CRELEV-2016** (Cretan and Levantine seas, Med-SHIP programme), 2016, EU (EuroFleets2, 30,000 €, P.I.).
- **PERSEUS** (Policy-oriented marine Environmental Research in the Southern European Seas), 2012-2015, EU (100,000 €, subtask leader).
- **MedGES** (Studio integrato dell'influenza dei processi fisici e dei fattori antropici sullo stato degli ecosistemi costieri e profondi del Mediterraneo Centrale), 2012-2014, I (750,000 €, P.I.).

Some relevant publications

Civitarese G., M. Gačić, M. Lipizer, and G. L. Eusebi Borzelli, 2010. On the impact of the Bimodal Oscillating System (BiOS) on the biogeochemistry and biology of the Adriatic and Ionian Seas (Eastern Mediterranean). *Biogeosciences*, 7, 3987-3997.

Gačić M., G. L. Eusebi Borzelli, G. Civitarese, V. Cardin, S. Yari, 2010. Can internal processes sustain reversals of the ocean upper circulation? The Ionian Sea example. *Geophys. Res. Lett.*, 37, L09608, doi:10.1029/2010GL043216.

Gačić M., K. Schroeder, G. Civitarese, S. Cosoli, A. Vetrano, and G. L. Eusebi Borzelli, 2013. Salinity in the Sicily Channel corroborates the role of the Adriatic–Ionian Bimodal Oscillating System (BiOS) in shaping the decadal variability of the Mediterranean overturning circulation. *Ocean Sci.*, 83-90, 2013, doi: 10.5194/os-9-83-2013.

Gačić M., G. Civitarese, V. Kovačević, L. Ursella, M. Bensi, M. Menna, V. Cardin, P.-M. Poulain, S. Cosoli, G. Notarstefano, and C. Pizzi, 2014. Extreme winter 2012 in the Adriatic: an example of climatic effect on the BiOS rhythm. *Ocean Sci.*, 10, 513-522, 2014. doi:10.5194/os-10-513-2014.

Cardin, V., G. Civitarese, D. Hainbucher, M. Bensi, and A. Rubino, 2015. Thermohaline properties in the Eastern Mediterranean in the last three decades: is the basin returning to the pre-EMT situation? *Ocean Sci.*, 11, 53-66, 2015. doi:10.5194/os-11-53-2015.

Lavigne H., G. Civitarese, M. Gačić, and F. D'Ortenzio, 2018. Impact of decadal reversals of the north Ionian circulation on phytoplankton phenology. *Biogeosciences*, 15, 4431-4445. doi:10.5194/bg-15-4431-2018.

Menna M., N.C. Reyes Suarez, G. Civitarese, M. Gačić, A. Rubino, P.-M. Poulain, 2019. Decadal variations of circulation in the Central Mediterranean and its interactions with mesoscale gyres. *Deep-Sea Res. II*, <https://doi.org/10.1016/j.dsr2.2019.02.004>