

Editorial

The Mediterranean Sea is an unusual basin that has interesting characteristics for ocean dynamics studies. As it is a semi-enclosed sea under a semi-arid climate, it appears to behave as a negative estuary: the water loss by evaporation over the year exceeds the water input from precipitation and river runoff. This generates an increase in salinity that is compensated by an intense exchange at the strait of Gibraltar, through which it exports salty water to the Atlantic at depth and imports fresher water at the surface. This feature is linked to the strong seasonality observed in the Mediterranean water mass structure, with a vertical temperature stratification of the surface layer that is enhanced in summer and destroyed in winter, and a great impact on sea level variability due to seasonal density changes. Even sea level does not display great tidal amplitudes as in other ocean basins: its temporal evolution at different scales reflects the consequences of the climatic variability in the region.

The featured article in this issue of *Scientia Marina* is “Comparison of satellite altimetry sea level anomalies and hydrographic observations in the Mediterranean Sea”, written by F.M. Calafat and M. Marcos. The authors use two complementary sources of data to obtain information on the characteristics of sea level variability over a period of 15 years. In situ measurements of temperature and salinity allow the changes in water height linked to variable density conditions to be computed. Also, the satellite observations of sea level that are now available through radar altimetry and—in the most recent last period—through mass determination by gravimetric space missions provide a different way of estimating the steric sea level that can then be compared with in situ determinations. An analysis of these data sets provides the opportunity to examine the representativeness and limitations of the existing hydrographic information and to determine the best way to use it for sea level variability studies.

This issue also includes the obituary of Dr. Miquel Massutí Oliver (1930-2012), a renowned fisheries oceanographer from the Spanish Institute of Oceanography in the Balearic Islands, and the biography of Dr. Carles Bas, the fourth director (1983-1987) of the Spanish National Research Council's Institute of Fisheries Research (Instituto de Investigaciones Pesqueras, IIP).

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