Posters

Theme 2: A new era in environmental monitoring and assessment: what is at stake?

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On the use of automated approaches for addressing Pelagic Habitats Indicators for the Marine Framework Directive (MSFD)

In order to make European marine ecosystems reach a Good Environmental Status, European countries have defined monitoring and management strategies with reference to descriptors of the Marine Strategy Framework Directive (MSFD). For addressing biodiversity state in pelagic habitats in the North-East Atlantic region, three common diversity indicators were elaborated, based on plankton life-forms, biomass/abundance and community composition, in the frame of an Ecosystem Approach for Regional Habitat Assessmeents (EcApRHA) project. In order to calculate these indicators, phytoplankton monitoring is being implemented, which is based mainly based on discrete sampling and reference laboratory methods as microscopic identification and counts, as well as pigment analysis. However, sampling frequency (fortnightly to monthly and mainly in coastal stations) is not fitted to follow phytoplankton dynamics. In order to increase both the spatial and temporal resolution and to gather useful complementary information for calculating indicators, automated approaches are currenty being applied to monitoring in the North Sea-Channel region, in the framework of both DYMAPHY (2010-2014) and JERICO-Next (2015-2019) European projects, coupled with observing systems and environmental monitoring platforms. There is an increasing need to improve their operability as well as their discrimination of phytoplankton groups.

Keywords : Marine Strategy Framework Directive – Pelagic Habitat Indicators – Phytoplankton - Automated techniques