

SESSION 4: How comparable are ecological assessment criteria and approaches worldwide?

INTERCALIBRATION OF CRITERIA FOR THE ASSESSMENT OF FISH FAUNA IN MEDITERRANEAN TRANSITIONAL WATERS

A. Franco(1), A. Pérez-Ruzafa(2), P. Franzoi(1), M.Koutrakis(3), M. Lepage(4), P. Torricelli(1), Bouchoucha M.(5), Drouineau H.(4), A. López-Capel(2), C. Marcos (2), J. Oliva-Paterna(6), F. Riccato(1), A. Sapounidis(3), D. Verdiell-Cubedo(6)

1. University of Venezia, Dep. Environmental Sciences, Italy
2. Universidad de Murcia, Depto. Ecología e Hidrología, Spain
3. Fisheries Research Institute, National Agricultural Research Foundation, Greece
4. Cemagref, France
5. Ifremer, France
6. Universidad de Murcia, Dpto. Zoología y Antropología, Spain

The intercalibration process, aimed at evaluating the comparability of the classification tools for fish fauna BQE in Mediterranean transitional waters, started in 2009. French, Greek, Italian and Spanish teams participated. In the Mediterranean ecoregion most of transitional waters are represented by coastal lagoons, which are typically characterised by a relative shallowness, sheltered conditions, and different degrees of fresh water inputs. Such conditions often result in a high habitat diversity and heterogeneity, even within a single lagoon water body, leading to a high spatial natural variability of the associated fish assemblages. Different devices are employed locally for the sampling of fish assemblages in Mediterranean lagoons, each one having a particular size-selectivity, a habitat-specific efficiency (e.g. seine nets) or an ability of integrating fish samples over larger spatial scales (e.g. fyke nets). These differences may induce some problems when simply exchanging datasets for the intercalibration exercise. These considerations led to the choice of performing the intercalibration exercise in a different and original way with respect to the other BQEs: participants gathered on a common water body at the same time and same sampling stations, where each team carried out sampling with its own methodology. The selected lagoon for this first exercise was the hyperhaline lagoon of Mar Menor, Spain. Sampling was carried out in 7 sites, likely representing different ecological status levels (between high and good status), by using different seine nets (Greece, Italy and Spain), fyke nets (France) and visual census techniques (Spain). Habitat variability was also taken into account by sampling vegetated (seagrass) and non vegetated habitats in each site. Different assessment criteria were applied by each team to their own dataset, and results were compared. A certain agreement was detected among results from different methods. This, combined with the significant differences observed among the fish assemblage samples taken with the different sampling methodologies, highlighted the importance of calibrating the classification tool on the basis of the sampling methodology. Further comparative analyses are needed and another intercalibration exercise was planned in Corse lagoons in 2010 in order to widen the dataset to fully assess the comparability of methods.