

CIESM Congress Session : Cumulative impacts of stressors

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Moderator's Synthesis

The five presentations of the session 58 "Cumulative impacts of stressors" have addressed this issue from different angles of view but with a general objective of understanding the effects of one or several pressures on the marine ecosystems. It was also intended to develop new tools able to foresee the evolution of the environmental status and to assess the main risks of degradation and of non achievement of good and sustainable conditions. These aims meet the expectations of public authorities and decision-makers which ask the scientific community to provide a sound basis for setting environmental targets and elaborating management measures.

The discussion showed that is often difficult to establish clear links between one stressor and its impact on the ecosystem. i.e. to determine the cause of an observed change and to foresee the effect of a new management measure on the ecosystem (including the socio-economic component). To address the complexity of the problem, innovative approaches based on modeling (spatial or not) and integrative methods are developing and appear to be promising.

However, models face issues that need to be carefully considered in order to reduce - and possibly quantify - uncertainties and strengthen modeling results : - the scarcity of some observation data imposes certain simplifications and sometimes make difficult model validation - the need for a high quality expertise in various disciplines to configure models (e.g. setting weighting coefficients).

