

Theme Session H

The future of sustainable harvesting strategies

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Sustainability has become a watchword in the recent development of fisheries management. It is an integral part of maximum sustainable yield (MSY), which has become the chosen reference level for European fisheries management under the Common Fisheries Policy and has also been proposed in other jurisdictions. An increasing number of fish stocks within ICES are now managed according to agreed management plans and harvest control rules (HCR), most of which have been evaluated by ICES to be in accordance with the precautionary approach and in conformity with longterm sustainable exploitation and the ICES MSY framework. In turn, it has been recognized that HCRs and sustainability must be extended beyond single or multiple fish stocks, to encompass environmental, social, and economic sustainability.

HCRs and sustainability objectives should go hand in hand under an Ecosystem Approach to Fisheries Management (EAFM), but in many cases the sustainability objectives have been defined only in general terms, particularly for the social and economic domains, but also, arguably, in some ecosystem contexts (e.g. biodiversity and foodwebs). The evaluation procedures for HCRs, modelling and estimation methodologies, definition of biological references, as well as the definition of acceptable risk relative to these reference points and sustainability objectives, is currently addressed in a range of ICES expert groups and EU Framework Projects (e.g. MYFISH and SOCIOEC).

We invite papers that examine sustainability and HCRs, particularly (but not exclusively) in the context of multi-species and multicontextual objectives, as well as analytical approaches that can evaluate management strategies and the trade-offs between potentially conflicting ecological, economic and social objectives.

Papers presented could also address the following issues:

- The purpose and usage of reference points (limit, precautionary, MSY, target, trigger);
- Definition of acceptable risk relative to reference points;
- Sensitivity of simulation-testing models to assumptions and error structures;

- Lessons learned in the implementation of management plans and HCRs (single or multispecies), including behavioral responses of fishers;
- Concrete steps to advance the use of management plans in EAFM and methods to assess impacts;
- The effect of multispecies interactions on single-species reference points;
- Use of environmental, social, and economic sustainability criteria in management plans and HCRs.