Sessions

SESSION 1: Introductory Session

The journey to set targets and limits in fisheries management.

Session contents

The main part of this session focuses on the history of the MSY concept and the journey of setting targets and limits on world's fisheries and its implication for today's fisheries management.

Keynote speakers: Poul Degnbol (AAU) and Pamela Mace (MPI, NZ)

SESSION 2: Science and Management in a Societal Setting

Conveners: Barrie Deas (NFFO), Robert Stephenson (DFO Canada/UNB) and Anna Rindorf (DTU Aqua)

Session contents

This session concentrates on how science is brought to reflect societal priorities, how management is brought to reflect scientific advice in practice and how adaptive management can be implemented in slowly reacting legislative systems. This session initiates the scientific sessions to ensure that application in practice is brought into focus before hearing the scientific presentations as society and implementation is a top priority of the work presented. The session is subdivided into three smaller interactive sessions, each of which is initiated with short talks to spark discussion. These short talks are meant to spark discussion and are elevator talks or pecha-kucha talks rather than longer scientific talks. Each session has an appointed facilitator and rapporteur who together will write a synthesis based on all presentations in their subsession and the subsequent discussion. The sessions will end with group summaries presented in plenary and a panel discussion with the facilitators in each group.

Barrie Deas
Barrie Deas has been Chief Executive of the National Federation of Fishermen's Organisation (NFFO) since 1995. He is Chairman of the North Sea Advisory Council's Demersal Working Group, a member of the Executive Committee of the North West Waters Advisory Council and a vice-president of Europeche.

Robert Stephenson
Robert Stephenson has been a research scientist with the Canadian Department of Fisheries and Oceans (DFO, St. Andrews Biological Station) since 1984, and is currently Visiting Research Professor at the University of New Brunswick (UNB). He is Principal Investigator of the Canadian Fisheries Research Network – a Natural Sciences and Engineering Research Council (NSERC)-funded network that is linking academics, industry and government in collaborative fisheries research across Canada. Stephenson has worked extensively on the ecology, assessment, and management of Atlantic herring, and more broadly on issues related to fisheries resource evaluation and Fisheries Management Science. Current research interests include the integration of ecological, economic social and institutional aspects of management, development of integrated coastal zone management, implementation of the ecosystem approach (particularly in fisheries and aquaculture), and development of policies and strategies for sustainability of marine activities.

Anna Rindorf
Anna Rindorf works on investigating and modelling predator-prey interactions, growth, survival and spatial distribution of commercially exploited fish stocks in the North Sea, on estimating management reference points to ensure MSY and precautionarity and on the quantification of trade offs between different ecosystem considerations and the use of trade off information in management. She coordinates the FP7 project Myfish and is head of the Technical University of Denmark (DTU) section on Ecosystem Based Marine Management. Read more about Anna Rindorf here:
www.dtu.dk/english/Service/Phonebook/Person?id=39786&tab=1

Session 1: Introductory Session

Linking targets and limits to practical management

Poul Degnbol

The maximum sustainable yield (MSY) concept and its associated targets and limits have risen to become a core guideline for policy while it was developed and first implemented at a time, when both fisheries science and fisheries policy were embedded in understandings of nature and society which were very different from those industry stakeholders, civil society, policy makers and scientists deal with today. The presentation will discuss the tensions which arise when concepts, policies an institutions with different historical roots and representing different interests are brought together to find practical solutions to targets and limits in today's policy landscape. On this basis, key shortcomings of some current fisheries management institutions will be identified and potential remedies discussed. The presentation will close with a discussion of the responsibilities of marine scientists as agents for change of practical management in their roles as scientists and as advisers.

The journey to set targets and limits in fisheries management

Pamela Mace

Defining and implementing targets and limits for our world's wild fisheries has been instrumental in ending overfishing and rebuilding depleted fish stocks, particularly in the last two decades. Here I document and explore the early and recent evolution of target and limit reference points and their role in promoting ecologically sustainable fisheries, as well as the areas where we need to continue our efforts. There has been substantial progress in recent times, but there is still much that needs to be accomplished, and many challenges for the future.

Along the way, there have been numerous critiques of reference points including estimation problems, their appropriateness, difficulties effectively implementing reference point-based harvest strategies, and multispecies, ecosystem, economic and social issues. The concept of maximum sustainable yield (MSY) has, and still does, come in for a disproportionate amount of criticism. An epitaph for the concept was written almost 40 years ago, but MSY didn't die because it is enshrined in UNCLOS and many national legislations, and no operationally superior construct has gained prominence. However, its interpretation has continued to evolve over the years and many alternative, often related, fisheries management targets have subsequently been developed. Limit reference points are a more recent innovation and it is interesting that some former targets are evolving to become limits.

Despite problems, the pervasiveness and effectiveness of reference points in fisheries science and management is currently stronger than ever. I argue that in many cases this has resulted because of the changing emphasis from target reference points to limit reference points. Reference points that are defined as limits to be avoided with high probability are usually taken more seriously – in the sense that they are treated less flexibly – than targets that are to be achieved on average. These are also arguably more relevant for multispecies, ecosystem, economic and social issues. More importantly, targets and limits have new-found importance due to much stronger legislation, policy statements, and binding international declarations with time-bound deadlines for implementation.