

Mini-Symposium on Ecosystem Effects of Fishing, 1996

Introduction

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For more than a century the main customers of advice from fisheries scientists have been the fishing industry and its managers. The focus to date has been on how to optimize the sustainable yield of the main target species in the short and long term. Rarely was advice sought regarding the wider consequences of fishing on other components of the marine ecosystem such as benthos, non-commercial species of fish, seabirds and marine mammals. Recently a new clientele has arisen which views fisheries as an anthropogenic perturbation of marine ecosystems, with important potential impacts on their overall structure and dynamics. Both old and new customers have begun to request advice on these potential impacts, particularly the negative ones.

The papers in this section were first presented at a mini-symposium during the 1996 ICES Annual Science Conference in Reykjavik, Iceland. Together they provide an impression of the diversity of the topic. Fisheries affect marine ecosystems directly through mortality, the discarding of by-catch, and the physical disturbance of habitats. These direct effects can, in the long term, lead to changes in ecosystem structure and function, as well as to evolutionary changes in the genetic composition of the affected populations. The Mini-Symposium was convened in order to provide a forum for the exchange of ideas and insights on these issues.

The eight papers included here do not provide a full coverage of how fishing affects marine ecosystems. At the Mini-Symposium it was therefore suggested that ICES should convene a more comprehensive symposium on this topic. This symposium is scheduled to take place in Montpellier, France, organized by ICES and SCOR, from 16 to 19 March 1999 and aims at providing a global synthesis of research on the impacts of fishing on marine ecosystems. In addition, the intention is to report on new methods for quantifying impacts at the ecosystem level, and to provide a forum for discussions of how objectives related to nature conservation can be integrated in future fisheries management.

To understand and quantify how fisheries affect marine ecosystems in all ways is one of the great challenges for fisheries science at the turn of the century. We hope that the papers included in this volume will serve to attract wider attention to this important issue.

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