

## Preface and Acknowledgement

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The present report is the second part of the scientific output of the first phase of the Sea Around Us Project<sup>1</sup> targeting the North Atlantic. This project was initiated and is funded by the Pew Charitable Trusts, Philadelphia, USA, and designed to investigate the impacts of fishing on marine ecosystems. To this aim, the project collected and analysed catch data and ecosystem information, and has developed a suite of analytical tools during its early phase, including ecosystem models<sup>2</sup>. This task has been undertaken in collaboration with a global network of scientists providing data, expertise and peer review<sup>3</sup>. An important feature of the approaches and methods used to produce these results is that they do not compete with the elaborate single-species methodology traditionally used in fisheries management. Thus, we are able to build on the findings of fisheries science, and to complement traditional approaches.

The following report, available as electronic PDF file, free of charge from our web-site ([www.fisheries.ubc.ca](http://www.fisheries.ubc.ca)), contains three sections:

1. The first section, on biomass trends, presents a synthesis of 23 mass-balance (Ecopath) models for the period from 1880 to the 1990s (with emphasis on the second part of the 20<sup>th</sup> century), explains the methodology used to construct and validate models based on ancient data sets, and illustrates this with a model of the North Sea in the 1880s;
2. The second section presents models describing ecosystems of the Western Atlantic: Lancaster Sound, West Greenland, the Gulf of Maine, as well as the Middle Atlantic and the southern coasts of the United States. The Gulf of Maine and the Lancaster Sound models represent the mid 1980s, the others the late 1990s.
3. The third section presents models of Icelandic waters (at two time periods, 1950 and 1997), the Faroe Islands and ICES area Vb (late 1990s), the Azores Archipelago (late 1990s), the Bay of Biscay, France (1970 and 1997), and the Atlantic coast of Morocco (mid-980s).

We thank the Pew Charitable Trusts for the ongoing support of the Sea Around Us project, and the project team for their dedication. We would also like to thank all the external collaborators and colleagues for their willingness to work with us, and for their efforts in constructing the models and providing useful data in a timely manner.

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<sup>1</sup> The other reports on the output of the Sea Around Us Project cover the catch data, and policy evaluation (see Foreword).

<sup>2</sup> See Pauly, D. and Pitcher, T. 2000. Methods for Evaluating the Impacts of Fisheries on North Atlantic Ecosystems. Fisheries Centre Research Reports 8 (2), 195pp.

<sup>3</sup> See Annex 1 of Zeller *et al.* (2001).