Sea Around Us

The Sea Around Us: Some activities planned for 2001-2002

By Daniel Pauly

The first two years of the Sea Around Us Project (July 1999 to June 2001) are completed, and so - largely - is our coverage of the North Atlantic, which led to rather impressive results. The reason why these have not been noticed by more than those colleagues who participated at meetings where they were presented orally, is that it takes some time for just-completed reports and journal articles to be published. Thus, it is only in the next months that our quantitative analyses of the impact of fisheries on North Atlantic ecosystems will become widely available.

Also, some highlights from our work will be presented in the form of a mini-symposium on "Fisheries-Induced Changes in Marine Ecosystems" to be held in Boston, on February 16, during the 2002 meeting of AAAS.

In the meantime, the project staff are retooling (see e.g., article by Sumaila, on fish trade), and getting ready to tackle the regions to be covered in year three of the project, viz. the Central and South Atlantic, the former including the Gulf of Mexico and the Caribbean in the West, and North West Africa and the Gulf of Guinea in the East, while the latter is to cover the rest of the Atlantic all the way to Antarctica.

Our studies will include among others (i) the spatial integration of ecosystem studies previously conducted in the Gulf of Mexico; (ii) the reconstruction of deficient catch time series in the Caribbean and West Africa; (iii) the establishment of a sound baseline to evaluate changes in the status of West African ecosystems; (iv) the inclusion of biomass time series in Ecosim analyses of the pelagic ecosystems off South America and South America; and (v) an examination, using Ecopath with Ecosim, of the interactions between key elements of the Antarctic ecosystem.

The results of these studies will feed into the global fisheries catch and other maps that we have begun to develop (watch the Fisheries Centre web site this fall).

This is a lot of work, and it is obvious that it can be tackled only in collaboration with a vast number of local and regional colleagues, whom we have begun to identify and contact. One of the first fruits of these interactions is the planning, recently initiated, of an international symposium on "Marine fisheries, ecosystems and societies in West Africa: half a century of changes" to be held in June 2002 in Dakar, Senegal, West Africa.

The symposium's goals are to examine how the shelf ecosystems, modes of exploitation, and governance of fisheries in West Africa (Morocco to South Africa) have changed as a result of the widespread increase in fishing pressure from the 1950s to the present. All contributions are expected to address long-term

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The Sea Around Us Project Newsletter

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2001 Oscar E. Sette Award Recipient

On August 20, 2001, the Sea Around Us PI, Dr Daniel Pauly, was awarded the 2001 Oscar E. Sette Award. This award for outstanding lifetime contribution has been presented annually since 1991 by the Marine Fisheries Section of the American Fisheries Society. Past award winners include, among others, Lloyd Dickie, Douglas Chapman, Saul Saila, William C. Leggett, William E. Ricker, and Edward D. Houde.

Congratulations to Dr Pauly from everyone at the Sea Around Us Project!

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The Sea Around Us website may be found at www.fisheries.ubc.ca/projects/saup, and contains up-to-date information on the project.

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changes, contrast the present situation with earlier baselines, and, based thereon, to evaluate the impacts of fishing, interpret prevailing trends, and propose alternative policy scenarios.

For a number of practical reasons (notably having to deal with two languages without assured funding for simultaneous translations), the symposium will be divided in two parts: (1) a two day session dedicated to present the results of the 'SIAP' project, based in Conakry, Guinea, funded by the European Commission (EC), and devoted to the analysis of ecosystem changes in Cape Verde, Gambia, Guinea, Guinea Bissau, Mauritania and Senegal), and conducted in French; and (2) a three-day session for presentations from other parts of West Africa, and global perspectives relevant to the West African experience, to be conducted in English.

The participants will be invited researchers, fishery managers, and representatives of non-governmental organizations (NGOs), notably of conservation-orientated NGOs. The Symposium's Local Organizing, Coordinating and Scientific Committees are composed, among others, of representatives of the following institutions: SIAP project; Sub-Regional Commission of Fisheries (CSRP, Dakar, Senegal); Centre for Oceanographic Research of Dakar-Thiaroye (CRODT), Dakar, Senegal; Institute for Research and Development (IRD), France; Fisheries Committee for the Central-eastern Atlantic (CECAF), Accra, Ghana; and The Sea Around Us Project.

External support will be sought to help fund various elements of the symposium (translations, rentals, publications) and to subsidise participants' travelling expenses. Various means of diffusing the symposium's results will be explored, in addition to a complete set of proceedings; and a special issue of a scientific journal.

Another related activity recently initiated by the *Sea Around Us* Project is the re-encoding of data from the famous Guinean Trawling Survey, conducted in 1963-64 on the West African shelf, from Gambia in the Northwest to Congo in the Southeast This will make available to West African and other researchers a dataset that had been inaccessible for decades, but also to provide a baseline for evaluating changes in ecosystems that were then largely unexploited.

Contact us if you are interested.

The Sea Around Us project is a Fisheries Centre partnership with the Pew Charitable Trusts of Philadelphia, USA. The Trusts support nonprofit activities in the areas of culture, education, the environment, health and human services, public policy and religion. Based in Philadelphia, the Trusts make strategic investments to help organisations and citizens develop practical solutions to difficult problems. In 2000, with approximately $4.8 billion in assets, the Trusts committed over $235 million to 302 nonprofit organisations.

How global is world fisheries trade?

By Ussif Rashid Sumaila

The extent to which the market for fish and fish products have been globalised has been so far investigated mainly by comparing the prices of a given type of fish in different parts of the world. For instance, Ashe and Hannesson (in press) compared the prices of different forms of whitefish in Europe and North America. They found that prices of the same product of whitefish are 'co-integrated' not only among European countries but also across the North Atlantic, to North America. They therefore concluded that the market for whitefish is global, thus confirming a preliminary analysis by Hannesson (1999).

The degree of globalisation in the trade for fish and fish products can be quantified by looking at fisheries trade flow data reported in FAO (2000). The basic hypothesis is that fisheries trade is not global if a large percentage of the value of landings in each region of the world remains within the region. The converse would imply that world fisheries trade is global.

FAO (2000) reports data on fishery trade flows for 1995 to 1997. Table 1 was extracted from the data therein, and presents: (i) the total traded value of fish caught in each of 18 regions of the world, (ii) the part of this value that remains within the region, and (iii) the percentage of the total traded value of catch that is exported out of the regions.

Overall, Table 1 shows that up to 77% of the total world traded value of fish between 1995 and 1997 were exported to regions outside of those that generated the catches. For all regions of the world except North America, Eastern Europe and the European Union (EU), over 90 percent of the values of catch are exported. The EU exports about 20 percent of their catch values, while North America exports just over 70 percent. The developing regions of the world, as expected, export very large percentages of their fish values. In the case of West Africa, for example, about 97 percent of fish values produced in the region are

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Table 1: Trade values (average 1995-1997) by region of the world (US$ Million)

	Traded value		% Outside region
Regions	**Total**	**Within region**	
Oceania (developing)	308	0.01	100
Northwestern Africa	914	0.13	100
Southern Asia	1,776	10.09	99
Central America	1,493	29.72	98
Western Europe (non-EU)	5,197	124.32	98
Eastern Africa	587	17.78	97
Western Africa	1,109	35.77	97
Caribbean	346	14.43	96
Central Africa	63	2.96	95
Oceania	1,430	97.86	93
China	4,978	364.68	93
South America	5,880	450.01	92
East and Southeast Asia	9,482	801.93	92
Near-East	344	35.88	90
Eastern Europe	311	40.75	87
Northern America	6,046	1,670.76	72
European Union	10,068	7,928.63	21
Other regions	4,552	174.16	96
Total	**50,332**	**11,626**	**77**

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exported. These numbers indicate clearly that the market for fish and fish products are global.

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A comparison with a major food crop further stresses the point made here: only 4–5 percent of global production of rice was traded in the global market from 1980 to 1995 (Maclean 1997). The contrast with fish is glaring, even though the percentage for rice refers to tonnage, and the numbers in Table 1 to values.

This simple analysis shows that most of the values derived from fish caught from various regions of the world are exported. We interpret this to mean that the market for fish and fish products are highly global. The implication of this conclusion is that to deal with fisheries problems in an effective and comprehensive manner, we need global level studies of fisheries to support global level fisheries management policies. This if anything provides a reason for the broad geographical scope of the Sea Around Us project.

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Sea Around Us Principal Investigator briefs Pew Ocean Commission

The Pew Oceans Commission has been set up in 2000 to study and report on threats to living resources in US waters and the measures needed to restore and sustain the health of the marine environment. The Commission, composed of leaders from business, science, government, and the conservation and fishing communities, includes members from all of the coastal regions of the USA and federal, state and local governmental perspectives. The principal focus of the Commission will be its report to Congress containing the recommendations of the members that is scheduled for publication in February 2002.

In addition to preparing its formal report, the Commission also works to increase public understanding of the principal threats to marine biodiversity, and to educate the public about the importance of coastal resources to the US economy. This is accomplished through interim papers and reports issued by the Commission, extensive use of the Internet and other media, and through regional hearings.

One of these regional hearings, held in Rockland, Maine, provided an opportunity for Daniel Pauly, Principal Investigator of the Sea Around Us to present on June 12, 2001 recent project results, notably maps of fish biomass showing a broad and accelerating decline across the North Atlantic.

We hope that the Commission will succeed in reining in, at least for the USA, the excess fishing effort that is causing this decline.