

FISHBYTES

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THE NEWSLETTER OF THE FISHERIES CENTRE

ICES Study Group on Elasmobranch Fishes

A meeting of the ICES Study Group on Elasmobranch Fishes was held at ICES headquarters in Copenhagen, Denmark on the 15th-18th of August 1995. Ramon Bonfil, a Ph.D. student doing an analysis of the assessment and management of elasmobranch fisheries in the Fisheries Centre, was among the seven participants (H. Marquez de Silva; M.G. Pawson; M.H. DuBuit; M. Stehmann; P. Walker; S. Miklevoll) and two observers from ICCAT (H. Nakano and Y. Uozumi) who attended. They have produced a report on the available information and the status of elasmobranch fish stocks and their fisheries in European and Eastern North American waters. This meeting was an important first step towards a more organized and integrated approach to the study of elasmobranchs and their fisheries in the N. Atlantic and opened the possibility of several future joint meetings and workshops on key issues for the sustainable exploitation of elasmobranchs.

Discussions during the meeting included the state of knowledge on some of the population dynamics processes relevant to fisheries assessment and management, a review of the ecological role, reproductive dynamics, and predation of elasmobranch species. A major task was to prepare synopses of the extent of commercial and sport fisheries in which elasmobranchs are targeted or caught as by-catch for Belgium,

Canada, Denmark, France,
Germany, Iceland, Ireland,
Netherlands, Norway, Portugal,
Spain, U.K. and the U.S.A.

The final report of the meeting will be available sometime in September. Interested parties should contact the ICES Secretariat, Palaegade 2-4, DK-1261 Copenhagen K, Denmark (<http://www.ices.inst.dk/>).

VISITING SCHOLAR FROM NORWAY

A visiting fisheries economist from Norway, Ussif Rashid Sumaila, will be a guest of the Department of Economics and the Fisheries Centre for one year starting from August this year.

Mr. Sumaila is currently a Research Fellow at the Christian Michelsen Institute (CMI) in Bergen, Norway. CMI is a leading multidisciplinary development research institute in Scandinavia. Researchers at CMI are engaged in a wide spectra of activities ranging from the environment, natural resource management, macro economic planning, ethics, morality and religion to demography.

In addition to his position at CMI, Mr. Sumaila is currently working on a Ph.D. at the University of Bergen, Norway. His dissertation focuses on the application of game theory in the management of the Arcto-Norwegian cod and the hake stock off the Namibian coast. This work is supported by the Norwegian Research Council under the research program "Man and the Biosphere".

My Working Holiday

by Daniel Pauly

People may be wondering about what I've been doing besides scuba diving between early May, when I returned to ICLARM in the Philippines, and late August, when I left. Basically, what I did was write, write and write book chapters, journal articles, commission reviews, software manuals, etc., the products of various ICLARM projects I must now conclude, and of new ventures, e.g. three papers on marine mammals. A few of these papers have already been published e.g. a postscript on *Anecdotes and the Shifting Baseline of Fisheries*, in *Trends in Ecology and Evolution* 10 (10), 1995, and a detailed description of a plan to describe all major trophic fluxes on the World Ocean using Ecopath models (*Fish Production, Catches and the Carrying Capacity of the World Oceans* in NAGA the ICLARM Quarterly 18(3), 1995). A dozen other items are still in press. Of these, four are books (including one in French), and one a CD-ROM (The San Miguel Bay Story), thus assuring my participation in the next (early 1996) party for "UBC authors and their (1995) books". Also, I attended three conferences: in Noumea, New Caledonia in late July, in Nairobi, Kenya in mid August and Tampa, USA in late August, where I spoke on "When is Fishery Management Needed?", on "Population Dynamics of African Freshwater Fishes: toward an ecological framework for sustainable fishery", and on "Principles of Marine Ecology Applied to the Establishment of Marine

Fisheries Reserves" respectively. I am pleased to be back in Vancouver, hoping I'll be able to think and read, rather than write all the time. (Dr. Pauly is a Professor at the Fisheries Centre, UBC, and is Principal Science Adviser for International Centre for Living Aquatic Resource Management (ICLARM), Manila, Philippines.)

Management and Assessment of Sockeye and Chinook Salmon in B.C. in 1995

(Dr. Michael Henderson, DFO Vancouver)

Dr. Henderson's seminar, the first of the Fisheries Centre Seminar series on September 15th, outlined the historical catch and escapement trends of the salmon resource of British Columbia. The audience was provided with a quick overview of the historical total catch estimates of sockeye, chum and pink stocks in B.C.. Catches have in general been increasing with sockeye catches reaching an all time high in 1993. Increases in catch have been attributed to (1) a management policy designed to increase the number of fish onto spawning grounds, and (2) favorable marine environmental conditions. Coho and chinook catches on the other hand are on the decline.

Dr. Henderson then outlined historical catches by region and by fishery sectors. British Columbia salmon stocks are assessed into four regions: the northcoast (which includes the Skeena & Nass rivers and Queen Charlotte Islands region), the southcoast (which includes the Fraser river system), the westcoast of Vancouver Island, and the central coast. The commercial fishery harvests approximately 93% of the total catches, with the remainder taken by the recreational and aboriginal food fisheries. Looking at total catch by region the southcoast (Fraser river) and northcoast (Skeena and the Nass) stock complexes account for 75 to 85% of total salmon

production. Total sockeye catch data show a four year cycle pattern with the majority of the sockeye catches coming from the Fraser river stock complex. Total catches of pink salmon show no clear return time pattern, with the majority of catches divided between the north, south and central coast regions. Fraser river pink dominate the majority of catches in the southcoast region which only return in harvestable levels every other year. Chum salmon stocks by region tend to show the same pattern as sockeye, with large numbers taken in the northern Vancouver Island fisheries. Although the commercial fleet takes approximately 93% of the total salmon catch, the recreational sector takes approximately 20% of the chinook and coho catches. Allocation by sector is a fiercely contested issue especially with the decline in both chinook and coho catches over the last 15 years.

Although total escapement estimates for sockeye, pink and chinook stocks show an increasing trend, chinook catches are decreasing. This decrease in catches may be attributed to increased marine predation on juveniles by mackeral and hake off the westcoast of Vancouver Island associated with changes in ocean conditions due to El Ninos in '92 and '93, and overfishing and habitat degradation in the St. of Georgia. Coho escapement patterns are decreasing due to overfishing by essentially an unregulated recreational fishery, and habitat degradation associated with increasing urban development.

Dr. Henderson then fielded questions which highlighted some of the contentious management issues that must be dealt with now and in the future. The bycatch of weaker or endangered stocks, such as coho in seine fisheries and steelhead in chum or sockeye fisheries, future decisions over allocation between the commercial and recreational sectors, along with the reduction in the commercial fleet size were among the management issues discussed.

Dr. Henderson concluded the seminar on a somber note predicting the continued decline of future chinook and coho production and closure of other fisheries, such as pacific cod, sablefish and westcoast Vancouver Island and Queen Charlottes herring stocks.

NEW BOOK

The Canadian Heritage Rivers Board and Breakwater Publishers of Newfoundland held the official launch of the new Canadian publication *Voyages - Canada's Heritage Rivers* at the Vancouver Aquarium on Sunday, September 24, 1995. *Voyages* is a rich and diverse collection of stories, photographs and illustrations that celebrate the twenty-seven rivers nominated to the Canadian Heritage Rivers System (CHRS) during its first ten years (1984-1994). The launch was held in conjunction with British Columbia Rivers Day to raise awareness of Canada's heritage rivers and the importance of wise stewardship of our rivers.

Produced by the Quebec-Labrador Foundation, edited by Lynn Noel, and illustrated by Hap Wilson, *Voyages* is about Canada's river heritage- past, present and future. It is about the vital role rivers have played in the development of this country's land, culture and peoples. It is about the ten year legacy of the Canadian Heritage Rivers System (CHRS), a national river conservation program which recognizes and protects some outstanding examples of Canada's river heritage.

The book features, among others, British Columbia's Kicking Horse River and British Columbia river conservationists Mark Angelo and Paul Thompson. Mark Angelo is chair of the British Columbia Outdoor and Recreation Council and the initiator of British Columbia Rivers Day. Paul Thompson is the Communications Coordinator of the Outdoor Recreation Council of British Columbia. Angelo and Thompson state that "protecting the