

FISHBYTES

THE NEWSLETTER OF THE FISHERIES CENTRE – UNIVERSITY OF BRITISH COLUMBIA
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Putting Fishers' Knowledge to Work

By Nigel Haggan

The world's first international conference on the resource management application of fishers, knowledge took place at UBC in August 2001. The conference was inspired by Bob Johannes, whose 1981 Book 'Words of the Lagoon', was the first serious study in this area, and co-hosted by the UBC Fisheries Centre, UBC First Nations House of Learning and the BC Aboriginal Fisheries Commission. Over 200 people from 23 countries and 36 North American First Nations attended. The conference was generally felt to be successful in 'stepping beyond' fishers' frustration that their knowledge is ignored, and scientists' standard position that the knowledge is anecdotal, and cannot easily be captured in the reports, tables and graphs they are used to.

In this issue...

**Conference Report:
Putting Fishers' Knowledge to Work**

Visitors to the Fisheries Centre

Fisheries Catches in China

And, as always, lots of News and Notes!

International research was well represented, predominantly by young researchers, reflecting the 'newness' of the field, (however ironic this 'newness' may appear to indigenous and commercial fishers). Case studies included small scale and commercial marine and freshwater fisheries in tropical and temperate

environments. Examples ranged from turtles through temperate and tropical multi-species fisheries to the aquarium trade. The conference followed themes relating to the use of fishers' ecological knowledge about fishing practices in environmental management; the relationships between fishers' knowledge and management; methods for obtaining fishers' knowledge; ethical issues relating to collaboration between fishers, managers, academics and industry; and the role of fishers' knowledge in the ecological and social as well as the economic valuation of aquatic ecosystems.

The strong Canadian First Nations presence contributed to spirited discussions on the role of indigenous peoples in resource management, appropriate use of knowledge and accreditation of informants. Presentations by Arnie Narcisse and Chief Simon Lucas of the BC Aboriginal Fisheries Commission illustrated how transmission of culture and knowledge down the generations is vital to the survival of species and ecosystems. We were also privileged to watch a slide show of a traditional dance to welcome returning salmon, courtesy of Ron Hamilton of the Nuu-Chah-Nulth Nation on the west coast of Vancouver Island. This was followed by a reception featuring traditional west coast foods and a performance by Heiltsuk Nation dancers.

Conference proceedings will be issued as a Fisheries Centre Research Report, with a peer-reviewed book to follow. 'Spinoff' activities include development of a concept for an international centre or unit for research and application of fishers' knowledge and a follow-up conference.

Financial contributions are gratefully acknowledged from BC Hydro; BC Ministry of Environment, Lands and Parks; The David Suzuki Foundation; the Department of Indian and

Continued on page 2 - Fishers' Knowledge

Chinese Visitors to the Fisheries Centre

By Nigel Haggan

Prof. Zhang Xiaoquin of the Chinese Academy of Fishery Sciences (CAFS) and Mr Cheng Jiayong, of the Fishery Industrial Policy and Marketing division of the Chinese Bureau of Fisheries visited the Centre in July to discuss Fisheries Centre work and explore collaboration. This was followed in October by a delegation of nine senior fisheries officials led by Mr. Wang Xihua, Deputy Director General, Bureau of Fisheries, Ministry of Agriculture and Mr. Situ Jiantong, Vice President, (CAFS). Their purpose was to explore the state of Canadian fisheries law, policy, regulation management and trade with special reference to trade dispute settlement and subsidies in the context of WTO. As these interests would be covered elsewhere on their cross-country tour, our presentation focussed on ecosystem science with examples from Hong Kong and China.

A brief description of the Centre led into a presentation by Eny Buchary and Rashid Sumaila on ecosystem and bio-economic modelling for ecosystem restoration in Hong Kong and adjacent Chinese waters. Reg Watson then described the new global mapping methodology developed for Sea Around Us Project that re-assigns reported catch to the marine ecosystems they were most likely to have come from. Lastly, Daniel Pauly used the mapping methodology to show that the reported Chinese catch is significantly higher than the productive

capability of Chinese marine ecosystems. (See accompanying article, "Catch 44", this page.) He ascribed this to 'minor bureaucrats' over-reporting to meet production targets.

In the ensuing discussion, suggestions that higher catches were due to a mixture of enhancement, increased fleet size, power and gear developments, were countered by reference to ever-longer fishery closures in Chinese waters and experience in



Reprinted from "China caught out as model shows net fall in fish." *Nature* (414, 29 Nov. 2001, p. 477).

Canada where increases in fleet size and capability drove east coast cod stocks to the brink of biological extinction. Special thanks to Mr Cai Wenguo for coordinating the visit and to FC graduate student Lucy 'Yajie' Liu for translating at both visits. The debate will continue.



Imagine government officials labouring long into the night around hard uncomfortable tables, putting the final touches to a plan for national development. Later the shiny new plan is published, and will surely save the nation. Imagine the dismay of fisheries catch officers seeing their catch figures don't match up to the plan. So they adjust the figures accordingly. This scenario will be familiar to many who have worked on fisheries in the developing world. However, when the nation is China, whose reported catch is 15% of the global total, the misdemeanor takes on a whole new perspective, especially if someone can prove the suspicious figures are wrong.

Reg Watson and Daniel Pauly have just proven that, since 1988, the Chinese have reported to FAO catches that are about double the actual amount. They used a world spatial catch allocation model developed as part of the Sea Around Us project – soon to be available to all of us on the SAU web site. The work is published in *Nature* (414, 29 Nov 2001, pages 534-536, www.nature.com) and much attention by the media has been stirred up by our friend Nancy

Baron at SeaWeb. The analysis is based on material published in a recent Fisheries Centre Research Report 9(2), by Daniel Pauly, Reg Watson, and Lilian Pang, which may be found as a PDF file at www.fisheries.ubc.ca/Reports/fcrr.htm



Fishers' Knowledge - Continued from page 1

Northern Affairs, Canada; Fisheries and Oceans, Canada; Fisheries Renewal BC and UNESCO. We also

thank the Coasts Under Stress project (www.coastsunderstress.ca) for intellectual input to the conference design and the organising committee for abstract review. Special thanks to

the Fisheries Centre and BCAFC staff who coordinated travel and the 1,001 other arrangements these events involve.



News and Notes - Part 1



Congratulations to **Dr Ussif Rashid Sumaila**, who has been appointed Assistant Professor in Fisheries Economics from November 1st 2001.

Congratulations to **Sean Cox**, who

will be returning to Canada following a period in the US as a post-doctoral fellow with Jim Kitchell. In September, 2002, Sean will be taking up a faculty position in Resource and Environmental Management at Simon Fraser University in Burnaby, BC. Sean completed his PhD in Zoology with Carl Walters in 2000.

The Fisheries Centre is pleased to announce that this year's Cecil and Kathleen Morrow Scholarship, endowed by Cecil B. Morrow in honour of his parents, Cecil and Kathleen Morrow, and worth \$2600 p.a., is to be awarded to graduate student **Tom Okey**. The scholarship will support Tom's visit to research laboratories in Russia in order to develop an ecosystem model of the Sea of Okhotsk and its fisheries. When he returns, he will be writing short paper for a Fisheries Centre's Research Report, an illustrated article for *Fishbytes* and submitting some photos for our new photo gallery on our web site, www.fisheries.ubc.ca.

Welcome to **Robyn Forrest**, who has recently arrived at the Fisheries Centre from Sydney, Australia. In Sydney, she worked at the University of Sydney on a diverse range of projects, which included modelling for New South Wales Fisheries and experiments in intertidal ecology. Robyn holds a BA from Curtin University, Australia and a BSc (Hons) in Marine Ecology from the University of Sydney. Whilst at the Fisheries Centre, she will be working

on the Sea Around Us Project, focusing on estimating illegal and unreported fishing. Robyn plans to start a Masters degree at the Fisheries Centre in 2002.

Correction

Dr Maria (Deng) Lourdes Palomares was incorrectly identified as a post-doctoral fellow in the September/October 2001 issue of *FishBytes*. She is actually a research fellow with the Sea Around Us project.

Database of BC Fisheries Catches

The Fisheries Centre has produced an electronic database of commercial catch statistics (1951-1995), which is available from the Fisheries Centre for \$20 Cdn. To order, email events@fisheries.ubc.ca or call (604) 822-0681. For more information, see *FishBytes* Vol. 7 Issue 4 (July/August 2001).

Workshop

Back to the Future: Methods and Results Workshop - February 20-22, 2001, at the Fisheries Centre, UBC. Participants from outside the Fisheries Centre are welcome. Output from the workshop will be a published Fisheries Centre Research Report. Please register with Claire Brignall (events@fisheries.ubc.ca). Offers of papers should be addressed to Nigel Haggan (n.haggan@fisheries.ubc.ca). "Back to the Future" seek to establish past ecosystems as policy goals for fisheries and marine ecosystems. It offers a solution to the present fisheries crisis by balancing fisheries with conservation, and by seeking the active consent and co-operation of coastal communities. At this workshop, discussion papers will review the methodology for BTF and provide

status reports on current BTF projects in the Hecate Strait, Newfoundland, Hong Kong, and elsewhere. There will be plenty of time set aside for roundtable discussions, trial simulations, and the drafting of agreed papers on methodological issues. For details visit www.fisheries.ubc.ca/events/workshops

Symposium

Marine Fisheries, Ecosystems and Societies in West Africa: Half a Century of Change - Dakar, Senegal, June 24-26, 2002. This international symposium has two main components. The first is a presentation of the results of the Fisheries Information and Analysis System project (FIAS; also known in French as *Système d'Information et d'Analyses des Pêches, SIAP*) and their implications to the management of fisheries in the sub-region. The second is a presentation of new approaches to fisheries analysis in West Africa and their impact on natural ecosystems and society. This will involve a critical analysis of past data sets (e.g., as far back as the early 1900s) and their possible consequences to future fisheries management practices. Fisheries scientists connected with the FIAS project as well as representatives from non-governmental organisations, decision- and policy-makers, and international experts with particular interests within the region will attend both components. The symposium will be held in French and in English with simultaneous multilingual translations. Proceedings of the symposium will be published through the Institut de Recherche pour le Développement (IRD), a French science and technology research institution. Contact Dr Daniel Pauly (d.pauly@fisheries.ubc.ca) and/or Dr M.L. Palomares (m.palomares) of The Sea Around Us Project, or Dr. J. Michael Vakily of the FIAS project for information on this symposium.

News and Notes - Part 2

Conference Calls

Coastal Zone Asia-Pacific, "Improving the State of the Coastal Areas" – Bangkok, Thailand, May 12-16, 2002. This international conference is the first of its kind for the Asia-Pacific region that aims to promote innovative approaches and best practices to improve the state of the coastal areas. Researchers, communities, coastal managers, policy makers and others interested in sharing the practical solutions to address problems in these coastal areas are invited to attend. Abstracts (paper, poster, or video presentations) are due 15 January 2002. Registration fee is \$150 US (or \$85 US for students). For more information, visit www.vims.edu/czap, or contact Dr Ratana Chuenpagdee, Conference Co-ordinator, Virginia Institute of Marine Science, PO Box 1346, Gloucester Point, Virginia, USA, 23062, phone (804) 684-7335, fax (804) 684-7843, or email ratana@vims.edu

The **Third International Conference on Recreational Fishing** – Darwin, Australia, May 22–24, 2002, to be hosted by Australia's Northern Territory. The Conference is a forum for members of the recreational fishing fraternity including managers, researchers, policy makers, industry representatives and the angling public to discuss issues relevant to the sustainable management of recreational fishing through the new millennium. The theme of the Conference is "Regional Experiences for Global Solutions". For further information, contact John Harrison – Amateur Fishermen's Association of the Northern Territory (afant@octa4.net.au), or Anne Coleman – Fisheries Division, DPIF (anne.coleman@nt.gov.au). The Fisheries Centre's Tony Pitcher is among the members of the International Steering Committee. Conference secretariat: Convention Catalysts International GPO Box 2451 Darwin, Northern Territory, Australia, 0801, phone +61 8 8981 1875, fax +61 8 8941 1639, email convention.catalysts@norgate.com.au, or visit

www.conventioncatalysts.com.au or the Fisheries Centre's website.

The **Fourth World Fisheries Congress** - Vancouver, BC, May 2-6, 2004. The theme of this conference is "Reconciling Fisheries with Conservation". Previous Congresses were in Athens (#1, 1992), Brisbane (#2, 1996) and Beijing (#3, 2000). Dr Tony Pitcher and Dr Paul Hart are co-chairs of the Programme Committee, while Dr Bruce Ward from the BC Government Fisheries Unit is in charge of local arrangements and Dr Max Stocker from DFO sits on the Steering Committee. More details will be published in *FishBytes* as they become available.

Publications

Two new publications from the Alaska Sea Grant College Program:

Cold Water Diving for Science is the proceedings of the American Academy of Underwater Sciences 21st Annual Scientific Diving Symposium. Topics include diving safety, physiology, technology, techniques, and research investigations in chemistry, geology, archaeology, and biology. Students and professionals in the field of underwater science will find the book useful.

Marketing and Shipping Live Aquatic Products is the proceedings of Marketing and Shipping Live Aquatic Products: Second International Conference and Exhibition. This book has information key to improving efficiency and profitability in the industry, in 42 contributions by researchers, managers, fishermen, growers, buyers, wholesalers, shippers, and retailers.

Contact: Alaska Sea Grant College Program, University of Alaska Fairbanks, PO Box 755040, Fairbanks, Alaska, USA, 99775-5040, phone (907) 474-6707 or (888) 789-0090, fax (907) 474-6285, email FYPUBS@uaf.edu.

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Opinions expressed in this newsletter do not necessarily reflect those of the Fisheries Centre or its members.

Be sure to visit the Fisheries Centre's website, www.fisheries.ubc.ca, and follow the links to *FishBytes*. There, you'll also find details on Fisheries Centre projects, publications, faculty and students, as well as information on upcoming Fisheries Centre events.

