

DANIEL PAULY

Curriculum Vitae (as of May 2008)

Summary

Dr. Daniel Pauly is a French citizen, born 1946 in Paris, France. He grew up in the French-speaking part of Switzerland, but completed high school and university studies in the Federal Republic of Germany, where he earned a ‘Diplom’ (= MSc) in 1974 and a Doctorate in Fisheries Biology in 1979 at the University of Kiel.

In 1979, he joined the International Center for Living Aquatic Resources Management (ICLARM), Manila, Philippines, as a Postdoctoral Fellow, gradually assuming increasing responsibilities as Associate Scientist, Senior Scientist and Program/Division Director. The latter positions involved management of and fundraising for what had traditionally been one of ICLARM’s largest, and most scientifically visible sets of activities.

Following a study leave to earn his ‘Habilitation’, at Kiel University (1985), Dr. Pauly directed the doctoral theses of a number of students at Kiel’s Institut für Meereskunde, where, as ‘Privatdozent,’ he also taught several courses in fish population dynamics. In 1994, he joined the Fisheries Centre, University of British Columbia (UBC), in Vancouver, Canada, as a tenured Professor, while remaining ICLARM’s Principal Science Adviser until 1997 and the Science Advisor of its FishBase project until 2000. He became Director of the Fisheries Centre in 2003.

Since 1999, Dr Pauly has served as Principal Investigator of the *Sea Around Us* Project, based at the Fisheries Centre, UBC. The project, which is devoted to studying the impact of fisheries on the world’s marine ecosystems, is supported by funding he secured from the Pew Charitable Trusts, Philadelphia, USA. Pauly’s scientific output, dedicated mainly to the management of fisheries and to ecosystem modeling, comprises authored and edited books, scientific papers and reports (a total of well over 600 items), as well as the concepts, methods and software he (co-) developed that are in use throughout the world. This includes, notably, the Ecopath modeling approach and software (see www.ecopath.org), FishBase, the online encyclopaedia of fishes (see www.fishbase.org) and, increasingly, the quantitative results of the *Sea Around Us* Project (see www.seaaroundus.org).

In 2001, Daniel Pauly was awarded the Murray Newman Award for *Excellence in Marine Conservation Research*, sponsored by the Vancouver Aquarium, and the *Oscar E. Sette Award* of the Marine Fisheries Section, American Fisheries Society. He was named *Honorary Professor* at Kiel University, Germany in Fall 2002, elected a *Fellow of the Royal Society of Canada* (Academy of Science) in Spring 2003, and became one of UBC’s ‘*Distinguished University Scholars*’ in mid-2003. The December 2003 issue of *Scientific American* listed him as one of the year’s “*50 Research Leader*.”

In 2004, he received the American Fisheries Society *Award of Excellence*, the *Roger Revelle Medal* from IOC/ UNESCO, and the *Edward T. LaRoe III Memorial Award* of the Society of Conservation Biology. In 2005, he received the *International Cosmos Prize*, from the Expo’90 Foundation, Japan, and in 2006, the *Volvo Environment Prize* (shared) from the Volvo Foundation, Sweden). In 2007, he received the *Excellence in Ecology Prize* from Inter-Research, Germany, and the *Ted Danson Ocean Hero Award* from Oceana, an international environmental organization.

Dr. Pauly is the recipient of four *Honorary Doctorates*: Aristotle University of Thessaloniki, Greece (2005), the Université de Montréal (2007), the Katholieke Universiteit Leuven, Belgium and Wageningen Universiteit (The Netherlands) in 2008. Profiles of Daniel Pauly were published in *Science* on April 19, 2002, *Nature* on Jan. 2, 2003, the *New York Times* on Jan. 21, 2003, the *Globe and Mail*, October 29, 2005, and *Cosmos Magazine* (Australia) in December 2006.

POSITIONS HELD

November 1, 2003 to present: Director, Fisheries Centre, University of British Columbia (UBC), [Acting Director from July to October 2003]

October 1994 to present: Professor of Fisheries, Fisheries Centre, UBC.

October 1994 to December 1997: Principal Scientific Adviser, International Center for Living Aquatic Resources Management (ICLARM), Manila, Philippines

1997-December 2000: Scientific Adviser, FishBase Project (), ICLARM.

July 1986 to September 1994: Director, Resources Assessment and Management Program, ICLARM (later renamed 'Capture Fisheries Management Program,' 'Coastal Resources Systems Program,' and 'Life Science Division').

July 1985 to August 1994: Senior Scientist, ICLARM.

July 1980 to June 1985: Associate Scientist, ICLARM.

July 1979 to June 1980: Post Doctoral Fellow, ICLARM.

September 1978 to April 1979: Research Assistant, Department of Fishery Biology, Institute for Marine Sciences, Kiel, Germany.

October 1974 to December 1976: Project Assistant, German Society for Technical Cooperation (GTZ), assigned to the Indonesian-German Demersal Fisheries Project, Jakarta and Semarang, Indonesia, May 1975-December 1976.

EDUCATION (1992-1969)

Management Course for Senior Staff of Centers in the Consultative Group for International Agricultural Research (CGIAR), Wintergreen, Virginia, USA, 29 June - 10 July 1992

Habilitation (Marine Sciences), Kiel University, 1985

Dr. *rerum naturalis*, Kiel University, 1979

Diplom (Fishery biology, Zoology, Physical Oceanography), Kiel University, 1974

Abitur, Abendgymnasium, Wuppertal, 1969

AWARD AND HONORARY DEGREES

Honorary Doctorate- Wageningen University, The Netherlands (2008)

Honorary Doctorate- Katholieke Universiteit Leuven, Belgium (2008)

Conservation Award, International Game Fish Association, Palm Beach, Florida, (2007; received on behalf of the FishBase Consortium)

Ted Danson Ocean Hero Award, Oceana, Washington D.C. / Los Angeles (2007)

Excellence in Ecology Prize, Inter-Research Science Center, Oldendorf/Luhe, Germany (2007)

Honorary Doctorate- Université de Montréal, Montréal, Canada (2007);

Volvo Environment Prize (shared)- Volvo Foundation, Stockholm (2006);

International Cosmos Prize -Expo '90 Foundation, Osaka (2005);

Honorary Doctorate - Department of Biology, Aristotle University, Thessaloniki, Greece (2005);

Edward T. LaRoe III Memorial Award, Society of Conservation Biology (2005);

Roger Revelle Medal, IOC/ UNESCO, Paris (2004);

Award of Excellence - American Fisheries Society (2004);

Scientific American's '50 Research Leaders in 2003' (Dec. 2003);

Distinguished University Scholar, UBC (2003);

Fellow, Royal Society of Canada - Academy of Science (2003);

Honorary Professor - Kiel University, Germany (2002);

Oscar E. Sette Award, Marine Fisheries Section - American Fisheries Society (2001);

Murray Newman Award for Excellence in Marine Cons. Research - Vancouver Aquarium (2001).

ICLARM Board of Trustees' Award for 'Best Staff' (1996).

Elvira O. Tan Memorial Award for Best Paper in Marine Fisheries (shared), Philippine Council for Aquatic and Marine Research and Development (1988)

ICLARM Post-Doctoral Fellowship (July 1979-June 1980)

Villigst Foundation Fellowship - 1970-1974, awarded by the Protestant Church of Germany to 'hochbegabte' (= 'highly gifted') university students

MEMBERSIPS IN SOCIETIES, PANELS AND BOARDS

American Fisheries Society, 1981 to 1987 and 1995 to present

Asian Fisheries Society, 1984 to 1993

Asian Fisheries Society Research Fellowship Award Scheme - Scientific Adviser, 1988 to 1993

British Sub-Aqua Club/Philippine Sub-Aqua Club, 1988 to 1997

Centre de Recherche Halieutique Méditerranéenne et Tropicale, Sète, France - Membre du comité scientifique, 2004 to present

Committee on Ecosystem Management for Sustainable Marine Fisheries, (U.S.) National Research Council (Washington, D.C.), September 1995 to 1998

Committee on Marine Science, Pacific Science Association, 1986 to 1988

Common Property Resource Network, 1986 to 1997

COMPASS/Communication Partnership for Science and the Sea - Science Advisor, 2005 to present

Deutsche Gesellschaft für Meeresforschung, 1982 to 1994

Fisheries Society of the British Isles, 1987 to 1994

International Foundation for Science, Stockholm - Scientific Adviser, 1995 to 1998

IOC/FAO Guiding Group of Experts of the Ocean Science and Living Resources Program, 1984 to 1989

IOC/SCOR Committee on Climate Changes and the Oceans - Biological Rapporteur, 1987 to 1988

IOC/SCOR. Working Group 105 on “The Impact on Fisheries Harvest on the Stability and diversity of Marine Ecosystems.” - Member, March 1996 to February 1999

IOC/SCOR Working Group 119 on “Quantitative Ecosystem Indicators for Fisheries Management.” - Associate member, 1996 to 2005

Global Footprint Network - Member, Science and Policy Advisory Council, 2004 to present

Millennium Ecosystem Assessment: Coordinating Lead Author for ‘Marine Systems’, 2002 to 2005

Natural Resources Defence Council, New York - Board Member, 2002 to 2006 (Honorary Board Member since 2007)

Network of Tropical Aquaculture Scientists, 1987 to 1997

Network of Tropical Fisheries Scientists, 1982 to 1997

Oceana, Washington, D.C. - Board Member, 2003 to present

Ocean Foundation - Member, Board of Advisors, 2005 to present

Pew Fellows Program in Marine Conservation - Member, Advisory Council (1999-2004)

Philippine Fisheries Research Society, 1980 to 1989

Royal Society of Canada (Academy of Science), 2003 to present

TerraNature, New Zealand, - Advisory Council Member, 2005 to present

Vancouver Institute - Council Member, 2006 to present.

World Wildlife Fund for Nature, Canada - Board Member, 2004 to 2006.

Zentrum für Tropische Meeresökologie, Universität Bremen, Germany. - Member of the Scientific Advisory Committee, 2004 to 2007.

EDITORIAL BOARDS

African Journal of Marine Science. Editorial Board Member, 2003 to present

African J. of Tropical Hydrobiology and Fisheries. Editorial Board Member, 1995 to present

Asian Fisheries Science. Editorial Board Member, 1987 to 1993

Boletim, Instituto Português de Investigação Marítima. Editorial Board Member, 1995 to present

Fish and Fisheries, Associate Editor, 1999 to present

Fishbyte (Newsletter of the Network of Tropical Fisheries Scientists). Editor, 1988 to 1991
Fishbyte Section of Naga, the ICLARM Quarterly, Editor, 1992-1996

Journal of Applied Ichthyology. Subject Editor for Fisheries in Developing Countries, 1985-1994

Marine of Freshwater Research (formerly *Austr. J. Mar. Freshwat. Res.*), 1997 to present

Reviews in Fish Biology and Fisheries, Editorial Board Member, 1991-1999

CONFERENCE/WORKSHOPS ORGANIZED

Atelier Ecopath: Elaboration d'un modèle de la zone maritime de Kerguelen. Muséum National d'Histoire Naturelle, Paris, 29-30 Sept. 2003

International Symposium on "Marine fisheries, Ecosystems, and Societies in West Africa: Half a Century of Change," Dakar, Senegal, 26-28 June 2002

Symposium on "Fisheries-induced changes in Marine Ecosystems," February 16, 2002, Annual Meeting, AAAS, Boston, MA

Atelier Ecopath : Construction d'un modèle de la Baie du Mont St. Michel, Golfe Normand-Breton. Avril 17-20, 2000, Département Halieutique, École Nationale Supérieure Agronomique de Rennes, France

Symposium on "Back to the Future: Restoring Ecosystems Impacted by Fisheries," February 21, 2000, Annual Meeting, AAAS, Washington, D.C.

Workshops to present the Prince William Sound Ecosystem Model and the Alaska Marine Ecosystem CD-ROM, March 28 (Alaska Department of Fish and Game) and September 29, 1999 (Exxon Valdez Oil Spill Restoration Council), Anchorage, Alaska

ACP/EU International Conference on Ocean Food Webs and Economic Productivity, July 1-3, 1998, Lisbon, Portugal

FAO/FC Workshop on the Use of Ecopath with Ecosim to Evaluate Strategies for Sustainable Exploitation of Multi-Species Resources, March, 25-27 1998, Fisheries Centre, UBC

Workshop on Modeling the Prince William Sound Ecosystem, March 2-4, 1998, Exxon Valdez Oil Spill Restoration Council, Anchorage, Alaska

Workshop on Mass-Balance Models of North Pacific Ecosystems, November 6-10, 1995, Fisheries Centre, University of British Columbia, Vancouver

Mid-Term Planning Workshop for ICLARM's Coastal Resources System Program, ICLARM Headquarters, 1-3 October 1992

Poster Session on Construction and Comparison of Trophic Models of Aquatic Ecosystems, International Council for the Exploration of the Seas, Copenhagen. October , 4-9, 1990

Workshop on Models for Yield Prediction in the Peruvian Upwelling Ecosystem, August 1987-28, Callao, Peru

ICLARM/KISR Conference/Workshop on the Theory and Application of Length-Based Methods in Stock Assessment. February 10-15, 1985. Mazara del Vallo, Sicily, Italy

Ad hoc Consultation on Fish Stock Assessment in Coral Reefs. ICLARM Headquarters, May 25-26, 1981. Manila, Philippines

ICLARM/CSIRO Workshop on the Theory and Management of Tropical Multispecies Stocks. January 12- 21, 1981, Cronulla, Australia

KEYNOTES AND OTHER FORMAL/PUBLIC LECTURES (2008-1992)

Vancouver, May 13, 2008. On the Emergence of Fisheries Conservation Biology. Opening lecture, Symposium in Honour of Ram Myers. Canadian Society for Ecology and Evolution Annual General Meeting, 11-14 May, The University of British Columbia.

Dakar, May 9, 2008. Whales and fish interactions: the scientific and policy debate. Introductory Lecture at the International Workshop on *Whales & Fish Interactions: Are Great Whale a Threat to Fisheries?* WWF and Lenfest Ocean Program, Dakar, Senegal, 8-9 May 2008.

Toronto, April 19, 2008. Impacts of Fisheries and Global Warming on Marine Ecosystems and Food Security. Atwood Memorial Lecture, Ecology and Environmental Colloquium, University of Toronto.

Wageningen, March 8, 2008. Impacts of Fisheries and Global Warming on Marine Ecosystems and Food Security. Symposium on Science and Governance at the Occasion of Dies Natalis and the Awarding of an Honorary Doctorate.

Stony Brook, February 20, 2008. Impacts of Fisheries and Global Warming on Marine Ecosystems and Food Security. Consortium for Interdisciplinary Environmental Research, Wang Center, State University of New York.

Vancouver, February 14, 2008. Science One Student Lecture. Leonard S. Klinck Building, UBC.

Bellingham, Washington, January 31, 2008. Impacts of Fisheries and Global Warming on Marine Ecosystems and Food Security. ESCI 204: Oceans: Topics in Marine Sciences, Western Washington University.

Leuven, February 5, 2008. Impacts of Fisheries and Global Warming on Marine Ecosystems and Food Security. "A future for Fisheries?" - a Symposium on Occasion of the Honorary Doctorate Awarded to Daniel Pauly by the Katholieke Universiteit Leuven, Belgium.

Washington, DC, December 5, 2007. Impact of Fisheries on Marine Ecosystems and Food Security. Oceana Headquarters.

Trieste, 28 November 2007. SeaLifeBase as a support system for modelling marine ecosystems. 6th European Conference on Ecological Modelling ECEM '07, Italy.

Pacific Grove, November 16, 2007. Fisheries and Global Warming: Impacts on Marine Ecosystems and Food Security. Hopkins Marine Station, Stanford University.

Amsterdam, 26 October 2007. Fisheries and Global Warming: Impacts on Marine Ecosystems and Food Security. "Changing Marine Environment": Seminar in Ecology and Evolution, Institute for Biodiversity and Ecosystem Dynamics, University of Amsterdam.

Cambridge, 9 October 2007. Fisheries and Global Warming: Impacts on Marine Ecosystems and Food Security. Symposium on "Earth System Revolution: Key Turning Points in the History of our Planet". Massachusetts Institute of Technology.

Vancouver, September 27, 2007. Fisheries and Global Warming: Impacts on Marine Ecosystems and Food Security. Pacific Institute for the Mathematical Sciences, 10th Anniversary Distinguished Lectures. UBC Asian Centre Auditorium.

White Rock, September 21, 2007. Fisheries and Global Warming: Impacts on Marine Ecosystems and Food Security. "More Inconvenient Truths"; Rotary Club, Earl Marriott School Surrey, B.C

Paris July 3, 2007. Presentation of *SeaLifeBase*. 12th meeting of the Subsidiary Body on Technical and Technological Advice (SBSTTA 12), Convention on Biological Diversity (CBD) and UNESCO.

Montreal, May 25, 2007. *FishBase as an Example of a Biodiversity Database*. Université de Montréal/Jardin Botanique de Montréal.

Bamfield, May 15, 2007. *Global Impact of Industrial Fishing on Marine Ecosystems and Food Security*. Inaugural Seminar - Distinguished Speaker Series. Bamfield Marine Science Centre, Vancouver Island, B.C.

New York, April 12, 2007. *Competition between Whales and Fisheries*. Symposium on the State of Conservation of Whales in the 21st Century. Pew Charitable Trusts, Varda Group and UNDP. United Nations, N.Y.

Vancouver, March 26, 2007. *Of mille-feuilles and hamburgers: how scientists can engage in society and policy*. Keynote Address. Knowledge for the Salish Sea: Towards Collaborative Transboundary Solutions. Georgia Basin - Puget Sound Research Conference, Vancouver, British Columbia, March 26–29, 2007.

Washington, March 19, 2007. *Marine Fisheries and Ocean Ecosystems: a Global Problem in Search of Policy* (with B. Worm). American Meteorological Society's Environmental Science Seminar Series. Russell Senate Office Building, Washington, D.C.

Montreal, March 15, 2007. *Major Trends in Global Fisheries and their Impacts on Ecosystems and Food Security*. Robert H. Peters Seminar in Aquatic Ecosystem Ecology. Redpath Museum, McGill University.

Vancouver, March 10, 2007. *Global Fisheries: Are The Gloom and Doom Justified?* Vancouver Institute and UBC Excellence in Research Lecture.

Victoria, February 21, 2007. *Are we past the point of no return in mining fish from the sea?* Royal Society of Canada/University of Victoria, British Columbia.

San Francisco, February 18, 2007. Introductory Lectures: (a) *An Introduction to Dedicated Access Privilege and their Economic, Environmental and Social Performance* (Mini-Symposium on New Approaches to Fisheries Management: a Deeper Look at Dedicated Access Privilege); (b) *Fishing Down the Deep – a Second Look* (Mini-Symposium on The World Last Wildlife Hunt: Deep Sea Fisheries). AAAS Annual Meeting, 2007.

Punta Cana, December 9, 2006. *Fisheries Induced Changes in Marine Ecosystems: the Role for Conservation*. Pew Fellows Program in Marine Conservation, Annual Meeting, Punta Cana Resort and Club, Dominican Republic

Lima, December 1, 2006. *La industria de harina y aceite de pescado y su impacto en las pesquerías mundiales*. Universidad Peruana Cayetano Heredia, Lima, Peru.

Lima, November 27, 2006. *Trophic Modeling of the Peruvian Upwelling Ecosystem: Towards Reconciliation of Multiple Datasets*. Opening Keynote, International Conference on the Humboldt Current System: Climate, Ocean Dynamics, Ecosystem Processes and Fisheries, Biblioteca Nacional del Peru.

- Mobile, November 1, 2006. *Global Trends in Fisheries: Impacts on Marine Ecosystems and Food Security*. Wiese Distinguished Lecture Series, Mobile, Alabama
- Göteborg, October 23, and Stockholm, 26 October, 2006. *Impact of Fisheries on Marine Ecosystems*. Contribution to Panel on “Main Challenges for Sustainable Fishery”, with the other two recipients of the 2006 Volvo Environment Prize.
- Cardiff, October 14, 2006. *Science and Ethics*. Invited lectures to the IBO Chief Examiners' Meeting. International Baccalaureate Organization.
- Hong Kong, June 24, 2006. *Trends in World Fisheries: Impacts on Marine Ecosystems and Food Security*. Invited lecture to the Marine Association of Hong Kong.
- Hong Kong, June 18 – 24, 2006. *Coral Reef Fisheries: Global Trends and Prospects. Coral Reefs: Cooperation for Better Conservation*. 1st Asia Pacific Coral Reef Symposium. Chinese University of Hong Kong.
- Manila, June 14-15, 2006. *Overfishing in Tropical Developing Countries and Strategies to 'Rollback' the Process*. Confronting the Interrelated Problems of Poverty, Growth and Overfishing “The Way Forward for the Philippines.” Path Foundation, Bayview Park Hotel.
- Miami, April 25, 2006. *Why there are deep fisheries. International Workshop on the Sustainability of Deep-Sea Fisheries*. Marine Conservation Biology Institute/University of Miami.
- Cambridge, March 28 - 30, 2006. *Global Trends in World Fisheries: Impact on Marine Ecosystems and Food Security*. Student Conference on Conservation Science. University of Cambridge, UK.
- Trieste, March 23-25, 2006. *Trends in World Fisheries: Impacts on Marine Ecosystems and Food Security*. Conference/Workshop on Climate Change, Upwelling, Fisheries, and Coastal Communities. International Centre for Applied Physics and International Institute for Applied System Analysis.
- Princeton, February 27, 2006. *Trends in World Fisheries: Impacts on Marine Ecosystems and Food Security*. STEP/Bradford Lunchtime Seminars. Princeton University.
- Philadelphia, February 22, 2006. *The Global Crisis of Fisheries: The Role of Science and Outreach*. A Presentation to the Board of the Lenfest Foundation.
- Palo Alto, CA, February 16, 2006. *Fisheries in Crisis. Vision and Substance* - UBC Alumni Event and Fundraiser.
- Hamburg, November 17, 2005. *In a Perfect Ocean: Auswirkung der Fischerei auf marine Ökosysteme*. Ökozertifizierung in der Fischerei-Ein Beitrag zum Schutz mariner Arten und Lebensräume. Ministry of the Environment.
- Kiel, November 16, 2005. *Global Trends in Marine Fisheries and their Effects on Marine Ecosystems*. Meereskundliches Kolloquium. IFM-GEOMAR.
- Moscow, Idaho, November 7, 2005. *Global Trends in Marine Fisheries*. Invited lecture, Department of Fish & Wildlife Resources, University of Idaho.
- Thessaloniki, November 22, 2005. *Global Trends in Marine Fisheries*. Honorary Doctorate Ceremony Lecture, Aristotle University, Thessaloniki, Greece.
- Vancouver, November 4, 2005. *Bad Graphs: an essential part of bad presentations*. Fish 500 Seminar. AERL Building, UBC.
- Kyoto, October 15, 2005. *Major Trends in Marine Fisheries*. Doshisha University.

- Tokyo, September 20, 2005. *Trends in World Fisheries: Implication for Food Security*. The Foreign Correspondents' Club of Japan.
- Thessaloniki, August 31, 2005. *The Sea Around Us Project as a FishBase Partner*. FishBase Symposium: Fish and more... Aristotle University, Thessaloniki, Greece.
- Montreal, August 12, 2005. *Effects of Spatial and Temporal Scales on Evaluating World Fisheries Trends*. Special Session Annual Meeting of the Ecological Society of America.
- Providence, July 24, 2005. *Major Trends in Global Fisheries*. Grand Keynote, Annual Meeting. American Agriculture Economics Association.
- Brasilia, July 17, 2005. *Marine Biodiversity: Evaluation of Major Threats*. Edward T. LaRoe III Memorial Award Lecture, XIX Annual Meeting, Society of Conservation Biology. Universidade de Brasilia.
- Amsterdam, July 7, 2005. *Major Trends in Global Fisheries and Some Implications of the Social Sciences*. Keynote, People and the Seas III: New Directions in Coastal and Maritime Studies. Centre for Maritime Research Biannual Conference. University of Amsterdam.
- Vancouver, May 26, 2005. *Major Trends in Global Fisheries*. 2005 Forum, North American Association of Fisheries Economists, UBC.
- Seattle, May 9, 2005. *The Marine Trophic Index as Ecosystem Indicator: Implication for Research and Management*. National Academy Ocean Studies Board. Committee on Ecosystem Effects of Fishing.
- Vancouver, January 26, 2005. *Major Trends in Marine Fisheries and the Implications for Food Security*. UBC Science Week.
- Sopot, January 20-24, 2005. *Exclusive Economic Zones and the Structure of Global Fisheries*. The Baltic Sea: A Changing Ecosystem 5th Baltic Science Congress, Poland.
- Dalhousie, January 14, 2005. *Major Trends in Global Fisheries: what's going down & what's going up*. Creating a Positive Future for Fisheries and Coastal Communities Worldwide. Public Forum. International Ocean Institute, Dalhousie University and AQUALINK.
- Stockholm, December 6, 2004. *Using FishBase to Map Global Fisheries Trends*. 'Främmande Fiskar': A FishBase Symposium. Naturhistoriska Riksmuseet.
- Stralsund, December 2, 2004. *Impact of Fisheries on Marine Ecosystems*. Meeresnaturschutz 2004, Deutsches Meeresmuseum, Germany.
- Bremerhaven, December 1, 2004. *Können wir die Meere nachhaltig nutzen?* Vortrag des Alfred-Wegeners Instituts im Deutschen Schiffahrtsmuseum. [Also in Stralsund, December 2.]
- Hamburg, November 29, 2004. *Fisheries impacts on global marine biodiversity and ecosystems: Inferences from large heterogeneous data sets*. Ocean Biodiversity Informatics: An International Conference on Marine Biodiversity Data Management.
- Seattle, November 15, 2004. *Interactions of fisheries in ecosystems over time*. Improving Fisheries Management Conference. University of Washington.
- Ottawa, October 7, 2004. *Reverting to the Ocean's Primordial Ooze: A fresh look at global fisheries*. 4th World Conference of Science Journalists.
- Merida, October 5, 2004. *Global fisheries trends and their implications for Latin America and the Caribbean*. COASTFISH: Coastal Fisheries in Latin America and the Caribbean.

- Vancouver, August 25, 2004. *Trends in Fisheries and Fisheries Research*. Mensa Discussion Group, Vancouver.
- Auckland, August 17, 2004. *Major Trends in Global Fisheries*. Auckland Girls' Grammar School (and similar lectures in Wellington, Christchurch and Kaikoura, to August 21), New Zealand.
- London, July 21, 2004. *Trends in Global Fisheries: Implications for food security*. Public lecture sponsored by the Royal Society. Carlton House Terrace.
- Sorrento, July 19, 2004. *Competition between marine mammals and fisheries: food for thought*. International Whaling Commission meeting. [Presentation and Press Conference.]
- Monterey, July 16, 2004. *Endangered Ocean Life: Should International Baccalaureate Students care?* Annual Regional Conference, International Baccalaureate North America.
- Paris, June 23, 2004. *The Upper Trophic Levels in Ocean Basin Ecosystems*. Roger Revelle Award Lecture, Intergovernmental Oceanographic Commission. UNESCO.
- Washington, D.C., June 8, 2004. *The Crisis in the Fisheries Sector*. Global Fisheries Workshop on International Cooperation in Fisheries. The World Bank.
- Vancouver, May 2, 2004. *Reconciling fisheries with conservation: The challenge of managing aquatic ecosystems*. Grand Keynote, The Fourth World Fisheries Congress.
- Ann Arbor, January 26, 2004. *Fisheries impact on marine ecosystems: a global assessment, and the implications for food security*. Science, Society and Technology Program, University of Michigan.
- Vancouver, November 18. *Turning Fisheries Statistics into Insights: global impact of fisheries on marine ecosystems*. Special Interdisciplinary Lecture, Pacific Institute for the Mathematical Sciences, UBC.
- Boston, December 9, 2003. *Fisheries and the State of the Oceans*. Environmental Entrepreneurs' 'Ocean EcoSalon'. World Trade Center.
- San Diego, November 15, 2003. *The March of Folly as a metaphor for the recent history and the future of fisheries*. Marine Biodiversity: Using the Past to Inform the Future. Scripps Institution of Oceanography, La Jolla.
- Ottawa, November 7, 2003. *Fisheries impact on marine ecosystems, and their implications for global food security*. Gerhard Herzberg Lecture, Carleton University.
- Vancouver, November 4, 2003. *Not Just Fish: Global Overfishing and its Implications for Food Security and Distributive Justice*. Regent College/International Graduate School of Christian Studies. UBC.
- Narragansett, October 27, 2003. *Marine Fisheries: Global Trends and Ecosystem impacts*. Michael P. Metcalf Institute for Marine & Environmental Reporting. University of Rhode Island Graduate School of Oceanography.
- San Francisco, October 21, 2003. *Fisheries and the State of the Oceans*. Environmental Entrepreneurs' 'Ocean EcoSalon'. St. Francis Yacht Club.
- Blaine, October 18, 2003. *Oceans in the Balance: how the Sea Around Us Project Seized the Time*. Annual Meeting, Pew Fellows in Marine Conservation. Semiahmoo Resort, Blaine, WA.
- Québec City, August 11, 2003. *Worldwide declines of fish populations*. Grand Keynote, American Fisheries Society, 133rd Annual Meeting.

- Ottawa, June 23, 2003. *Fisheries as Commons*. Presentation at Panel on 'Beyond Borders: the Commons'. Environmental Grantmakers Association Fall Retreat, Fairmont Chateau Laurier Hotel.
- Banff, June 21, 2003. *Major Trends in Global Marine Fisheries*. Third Congress, International Geosphere-Biosphere Programme.
- Vancouver, June 13, 2003. *The State of North Atlantic Fisheries*. Lecture to the Committee on Transatlantic Economic Relations of the NATO Parliamentary Assembly, Liu Institute for Global Issues, University of British Columbia.
- Honolulu, June 11, 2003. *Ensuring fisheries sustainability through marine reserves and ocean zoning*. Western Pacific Fisheries Council, Honolulu, Hawai'i.
- New York, June 13, 2003. *Marine Fisheries and their Ecosystem Impact*. Session on Protection of Vulnerable Marine Ecosystems of the 'United Nations Open-ended Consultative Process on Oceans and the Law of the Sea.' 4th Meeting, United Nations.
- Victoria, May 13, 2003. *Making Ecosystem-based management work: connecting managers and researchers*. Fifth international Conference on Science and the Management of Protected Areas. University of Victoria, B.C.
- Vancouver, April 25, 2003. *Global Fisheries: from Anarchy and Crisis to Panarchy and Sustainability?* Workshop on Mutual Dependence and Mutual Vulnerability. Peter Wall Institute for Advanced Studies, UBC.
- Kiel, March 25, 2003. *Global trend in Fisheries*. Sonderkolloquium anlässlich der Verleihung einer Honorarprofessur. Institut für Meereskunde an der Universität Kiel.
- Zürich, March 23, 2003. *Trends in Global Marine Fisheries*. Keynote, Fifth International Conference on Environmental Future. Foundation for Environmental Conservation. Eidgenössische Technische Hochschule.
- Denver, February, 17, 2003. *Technological restraint and the transition toward sustainable fisheries*. Contribution to the Symposium on 'Shifting Gears: Bycatch and Habitat Impacts of Fishing.' Annual Meeting, AAAS.
- Seattle, January 30, 2003. *Assessing the global impact of fisheries on marine ecosystems: the first three years of the Sea Around Us project*. Bewan Lectures, School of Aquatic and Fisheries Science, University of Washington
- Woods Hole, November 22, 2002. *Global trend in fisheries and ecosystem health and their implications for ocean governance*. Distinguished Scientists Seminar. Woods Hole Oceanographic Institution.
- Rimouski, November 15, 2002. *Tendances globales des pêcheries marines: impacts sur les écosystèmes et la sécurité alimentaire*. L'importance des océans dans l'équilibre écologique et économique de la planète. 27ième Congrès annuel, Association des biologistes du Québec.
- Montréal, September 30, 2002. *Global Trends in Marine Fisheries: Impacts on Ecosystems and Food Security*. Public lecture sponsored by the Canadian Parks and Wilderness Society, Meakins Amphitheatre, McGill University.
- Brussels, July 4, 2002. *The State of North Atlantic and West African Fisheries Ecosystem: Implications for European Policy*. The European Policy Centre. [Lecture also given on same days at the EC's Directorate General for 'Fish']
- New York, June 5, 2002. *The global state of fisheries: implications for conservation*. Presentation to the Board and Headquarter Staff of the Natural Resources Defence Council. New York, N.Y.

- Bangkok, May 13, 2002. *Ecosystem-Based Approach for Coastal Zone Management*. Coastal Zone Asia-Pacific Conference on 'Improving the State of Coastal Areas.' [Plenary Keynote]
- Washington, D.C., April 12, 2002. *The State of Marine Ecosystems Worldwide: Lessons for the US?* Briefing to the House of Representatives' Oceans Caucus.
- Pacific Grove, CA, April 9, 2002. *The Unfolding Collapse of Global Fisheries: Implications for Food Security*. Invited lecture to The Friends of Hopkins Marine Station.
- Corvallis, April 8, 2002. *Mapping Fisheries onto Marine Ecosystems: a new tool for inference on basin-scale ecology and global food security*. Invited lecture, Oregon State University.
- New York, March 7, 2002. *The Crisis in Fisheries and Marine Biodiversity*. Invited presentation at the Conference on 'Sustaining Seascapes: the Science and Policy of Marine Resources Management.' American Museum of Natural History.
- San Diego, March 4, 2002. *Troubled Seas: the Fisheries Crisis*. Distinguished Speaker Series: Nature and Society – Putting Knowledge to Work. University of California at San Diego. [Also on same day: "Global Mapping of Fisheries: Methods and Lesson Learnt." Scripps Institution of Oceanography]
- College Station, Texas, February 19, 2002. *Global marine fisheries and their ecosystem impacts*. Texas A & M 125th Anniversary Celebration Symposium on 'A sustainable Gulf of Mexico: Research, Technology and Observations, 1950 to 2050s.'
- Boston, February 15, 2002. *Setting a Baseline: Fisheries and Ecosystems in 1900*. Symposium on 'Restoring the Richness of the Sea – Unrealized Potentials.' Annual Meeting, AAAS.
- Vancouver, February 7, 2002. *The Global Crisis of Fisheries: Implications for Food Security*. A Science First! Lecture. University of British Columbia.
- Paris, December 4, 2001. *Marine Fisheries and Mariculture at Rio+10*. Global Conference on Oceans and Coasts at Rio+10: Toward the 2002 World Summit on Sustainable Development.
- Miami, November 26, 2001. *The Global Status of Marine Fisheries: Limping into the 21st Century*. World Conference on Scientific and Technical Bases for the Sustainability of Fisheries. Rosenstiel School of Marine and Atmospheric Science, University of Miami.
- Reykjavík, October 4, 2001. *Mean trophic levels and related indices of ecosystem status*. SCOR/IOC Working Group 119 on 'Quantitative Ecosystem Indicators for Fisheries Management.'
- Gloucester Point, September 28, 2001. *The State of the North Atlantic Fisheries and their Supporting Ecosystems: a Map-based Approach*. Seminar Series, Virginia Institute of Marine Science.
- Reykjavík, September 24, 2001. *Ecological geography as a framework for a transition towards responsible fishing*. Session Keynote, Iceland-FAO Conference on Responsible Fisheries in the Marine Ecosystem.
- Hamburg. July 27, 2001. *Fischerei und Naturschutz: Wege zum Ausgleich der Interessen*. Festveranstaltung, 100 Jahre Deutsche Wissenschaftliche Kommission für Meeresforschung. Altonaer Museum, Hamburg-Altona.
- Kiel, June 29, 2001. *The Importance of Thinking Big: Recent Developments in Ecosystem Modeling*. Meereskunde Kolloquium, Marine Science Institute, Kiel University.
- Rockport, June 12, 2001. *Fisheries impacts on marine ecosystems: they are worse than you thought*. Pew Ocean Commission, Maine, USA.

Washington, D.C. June 5, 2001. *Mapping fisheries as a tool to evaluate their ecosystem impacts.* Marine Fish Conservation Network, Second Annual Meeting.

Sidney, B.C., April 12, 2001. *Fisheries Impacts on Marine Ecosystems, or how physical oceanography became more important than it should be.* Institute of Ocean Sciences, Fisheries and Oceans Canada, 21st Century Lecture Series.

San Francisco, February 18, 2001. *Down with Fisheries, Up with Aquaculture: implications of global trends in the mean trophic level of fishes.* Symposium on 'The Aquaculture Paradox: does fish farming supplement or deplete world fisheries?' Annual Meeting, AAAS.

Woods Hole, February 2, 2001. *The Importance of Thinking Big: Addressing large-scale and global change issues through marine and fisheries biological research.* A Lecture to Honor Black History Month. Woods Hole Oceanographic Institution, Woods Hole, MA.

Newport, January 8, 2001. Second Annual Distinguished Marine Scientist Colloquia, Hatfield Marine Science Center, Newport, Oregon.

North Vancouver, October 26, 2000. *Fishing down marine food webs.* Capilano College Special Lectures in Science Series. North Vancouver, B.C.

Seattle, October 10-12, 2000. Wooster Lectures in Ocean and Fishery Sciences. A series of three lectures sponsored by the College of Ocean and Fishery Sciences, University of Washington.

Brugge, September 27, 2000. *Fisheries and Conservation: a Program for their Reconciliation.* 'Open Lecture' (Symposium Keynote), International Council for the Exploration of the Seas, Annual Science Meeting.

Corfu, July 26, 2000. *Approaches for dealing with sources of bias when studying the fishing down marine food web phenomenon.* CIESM Workshop on 'Trophic levels and state of fisheries resources in the Mediterranean Sea.' Kerkyra, Greece.

Washington, D.C., July 17, 2000. *Fishing down the food web: some policy implications.* International Ocean Science Day, AAAS/House of Representatives' Ocean Caucus.

Akureyri, April 6, 2000. *Fisheries impacts on North Atlantic food webs.* Conference on 'Competitiveness within the Global Fisheries.' University of Akureyri, Iceland.

Victoria, March 14, 2000. *Fisheries, Conservation and Marine Protected Areas.* A lecture sponsored by Department of Fisheries and Ocean. University of Victoria, B.C.

Vancouver, March 8, 2000. *Fishing down marine food webs.* Lectures on Current Issues Facing B.C.'s Aquatic Environment. Marine Science Centre, Vancouver Aquarium.

Washington, D.C., February 21, 2000. *Simulating fisheries impacts on aquatic ecosystems: the state of the art, what it can and cannot do.* Symposium on 'Back to the Future: Restoring Ecosystems impacted by Fisheries.' Annual Meeting, AAAS.

Pacific Grove, February 14, 2000. *Extracting patterns on shark biology from electronic databases, or: one down and one more to go.* International Pelagic Shark Workshop, Asilomar Conference Center, Pacific Grove, California, USA.

Vancouver, November 6, 1999. *Global fisheries and marine conservation: is coexistence possible?* Vancouver Institute Lecture, Woodward Instructional Resource Centre, UBC.

Potsdam, October 3, 1999. *Fisheries science and its elusive search for sustainability.* IOC/SCOR/SCOPE Assessment Workshop 'Oceans 2020: Science for Future Needs,' Potsdam, Germany.

Moncton, août 10, 1999. *Une vision mondiale des pêches et de leurs impacts sur les écosystèmes*. Colloque Nouveaux outils, nouvelles démarches pour la gestion durable du milieu marin. VIII Sommet de la Francophonie, Moncton, New Brunswick, Canada.

Athens. February 10, 1999. *Not Just Fish: the impact of Marine Fisheries on the Public Good*. Environment Ethics Certificate Program Seminar Series, School of Marine Programs, University of Georgia, USA.

Vancouver, November 19, 1998. *Fishing down marine food webs: an update*. 'Oceans Limited Conference,' Simon Fraser University. [Also: Nov. 12: similar presentation at the session on 'The Use and Misuse of Science in Fisheries Management,' Sigma Xi Forum, Vancouver]

Woods Hole, August 25, 1998. *Overview of the current state of the world's fisheries*. 'Fisheries Oceanography and Society Symposium' presented by the Biology Department and sponsored by Mr. and Mrs. Eugene H. Kummel. Woods Hole Oceanographic Institution, Woods Hole, MA.

Baltimore, September 4, 1997. *Localism vs. Universalism in Science: Vignettes from Fisheries Research*. Pre-ICES Conference to Encourage Minorities in the Marine Sciences. National Marine Fisheries Service/National Science Foundation/ Maryland Fisheries Commission/Morgan State University/Columbus Center. Baltimore, Maryland.

Galiano Island, March 8, 1997. *Marine Protected Areas around the World: how do we get one here?* South Galiano Community Hall, Galiano Island, B.C.

Anchorage. January 24, 1997. *Building and Applying Ecological Models*. Joint lecture [with Dr. Stuart Pimm] to the Annual Conference, Exxon Valdez Oil Spill Restoration Council.

Sechelt, October 4, 1996. *Competition between Humans and Marine Mammals in the Pacific*. Sunshine Coast Natural History Society. Sechelt, B.C.

Dearborn, August 28, 1996. *Quantitative vs. qualitative approaches for evaluating fisheries research, with emphasis on groupers and snappers in the south-eastern USA*. The 1996 American Institute of Fishery Research Biologists: 'Forty Years of Controversy and Achievement in North American Fisheries.' Dearborn, Michigan.

Vancouver, May 2, 1995. *Fisheries, marine mammals and the carrying capacity of the Pacific ocean*. Invited lecture, Fifth Asian and Pacific University President's Conference on 'Realizing the New Pacific Community'. UBC.

Vancouver, March 28, 1994. *For a New Ichthyology: thought on what access to structured data on all fishes of the word may mean for teaching and research*. Fisheries Centre and Zoology Department, UBC. [Job application lecture].

Athens, May, 5, 1992. *Assessment methodologies and fisheries management: how to keep making sense*. Session keynote, First World Fisheries Congress, Athens, Greece.

CONSULTANCIES (1998-1978; excluding training courses)

Advising the Exxon Valdez Oil Spill Restoration Council, Ecosystem Modeling on Prince William Sound, January 1997, Anchorage, Alaska [with follow-up ecosystem modeling project, 1997-1998].

Reviewing, with two other external evaluators, proposals submitted to the SANCOR Program, Cape Town, South Africa, September 1994.

Leading a World Bank Mission to Kenya, Malawi, Mozambique and Zimbabwe, as a part of the 'Study of International Fisheries Research' 7-26 January 1990.

Introducing staff of the Programa Peruano-Aleman de Investigacion Pesquera and of the Instituto del Mar del Peru to advanced stock assessment methods and assisting with the preparation of various publications (including two books), in Callao, Peru: November/December 1981, 30 April-7 May 1983; 19 February-14 March 1985; 7-26 October 1986; 17 August-2 September 1987; September 1988; and 22 July-5 August 1989 [All visits on behalf of the Deutsche Gesellschaft für Technische Zusammenarbeit].

Reviewing (with three other team members), on behalf of the U.S. Agency for International Development, the achievements of the ASEAN/US Coastal Area Management Project, January 1988.

Advising the Secretary and staff of the Intergovernmental Oceanographic Commission (IOC, Paris) on the status of shrimp recruitment research in the Western Pacific area, 4-5 June 1987.

Reviewing and contributing to the research of the Fish and Shrimp Management Program of the Mariculture and Fisheries Department, Kuwait Institute of Scientific Research, Kuwait, April and December 1985, and January 1986.

Developing (with P. Fox, I.R. Smith and E. Cruz), on behalf of the U.S. Agency for International Development, Philippine Mission, a project plan for a fish stock assessment/pilot fishery management component of its 'Rainfed Resource Development Project', September-November 1985.

Providing Advice on Microcomputer Use and Shrimp Stock Assessment to the FAO/SIDA Bay of Bengal Programme, Madras, India, 3-5 December 1983.

Advising on analysis of fishery survey data and research planning, 15-27 August and 8-17 December 1983, Sea Fisheries Research Unit, Rangoon, Burma (on behalf of the Food and Agriculture Organization of the United Nations).

Planning of FAO/DANIDA Training Courses In Tropical Fish Stock Assessment: October 1982, Charlottenlund, Denmark, and September 1982 and February 1989 at FAO Headquarters, Rome, Italy.

Advising the Ecuadorian-British Fisheries Development Project in Guayaquil, Ecuador, on the interpretation of project data (visit sponsored by the Overseas Development Agency), November/December 1981.

Reviewing the Theory of Tropical Multispecies Fisheries, ICLARM Headquarters, Manila, Philippines, July-August 1978.

TEACHING AND TRAINING

Courses and lectures at various institutions in the Philippines (1987-1982)

FAO/DANIDA Follow-up Training Course in Stock Assessment in the Tropics, 12 January - 6 February 1987.

CRSP/GTZ/ICLARM Course on Fish Stock Assessment, College of Fisheries, University of the Philippines, October 1986.

FAO/DANIDA National Training Course in Tropical Fish Stock Assessment, Manila, Philippines, 13 January - 5 February 1986.

Regular lectures at the University of the Philippines, Dilliman Campus, Quezon City: 1980/1981 term: Management of aquatic resources; 1981/1982: Management of aquatic resources; 1985/1986: Tropical fish population dynamics.

MSL/ICLARM Course in Fish Population Dynamics, Marine Science Laboratory, Silliman University, Dumaguete June 1982.

BFAR/PCARRD/SCSP/ICLARM Course on Fisheries Resources Assessment, Ateneo de Manila University, 3-15 May 1982.

Courses and lectures at the University of Kiel, Germany (1990-1984)

Aufbaukurse zur Populationsdynamik der Fische: neue Konzepte und Methoden (2-Stündig. Blockkurs, 20-26 Juni 1989, 10-15 July 1989 and 25-29 June 1990, Institut für Meereskunde).

Aufbaukurse zur Populationsdynamik Tropischer Fische: neue Konzepte und Methoden (2-Stündiger Blockkurs, 20- 26 Juni 1988, Institut für Meereskunde).

Theorie und Praxis der Datenanalyse in der Fischereibiologie (Vorlesung mit Übung, 2 Stündig, SS 1985, Institut für Meereskunde).

Einführung in die Fischereibiologie der Tropen (Einstündige Vorlesung, WS 1984/1985, Institut für Meereskunde).

Courses in miscellaneous institutions and countries (2002-1980; excluding UBC)

Lectures to the 2003 class of the United Nations University Fisheries Training Program, Institute of Marine Research, Reykjavik, December 15-19, 2002.

Composante Ecopath du Cours SIAP en Gestion Ecosystémique, juillet 3-5, 2001. Ecole Nationale Supérieure Agronomique de Rennes, France.

APEC/OMISAR Workshop on Marine Ecosystem Analysis and Modeling for the APEC Region. Taipei, Taiwan, August 7-10, 2000.

ACP-EU FishBase Training Courses in Fisheries and Fish Biodiversity Management (Noumea, New Caledonia Oct. 1997; Port-au-Prince, May 1998; Swakopmund, Namibia, Dec. 1998; Dakar, Senegal, April 1999 and Nairobi, Kenya, August 1999; details at www.fishbase.org).

Placing Fisheries in their Ecosystem Context. 'Ecopath course' for Participants from South America, held in Sao Paulo, Brazil, November 30-December 5, 1998, under the Auspices of the European Union.

Placing Fisheries in their Ecosystem Context. 'Ecopath course' for Participants from West Africa and Europe, held in Hirsthals, Denmark, August 4-8, 1998, under the Auspices of the European Union.

Placing Fisheries in their Ecosystem Context. 'Ecopath course' for Participants from Central America and the Caribbean, held in Puntarena, Costa Rica, April 21-27, 1998, under the Auspices of the European Union.

Training course in the Construction and Interpretation of Ecopath Mass-Balance Models of Ecosystems, CICIMAR/ICLARM/UBC Fisheries Centre, La Paz, Mexico, October 21-27, 1996.

Population dynamics and trophic interactions of fish and aquatic invertebrates. EPOMEX, Universidad Autonoma de Campeche. Annual course: October/November 1992-1995, Campeche, Mexico.

Population dynamics and trophic interactions of fish and aquatic invertebrates. Alfred-Wegener Institut für Polar und Meeresforschung/Bremen University, 4-8 November 1991, Bremerhaven, Germany; Zentrum für Marine Tropenkölogie, Bremen University, 11 May 1992, Bremen, Germany; and University of Bergen, 20-22 May 1992, Bergen, Norway.

IMARPE/FAO/DANIDA Training Course in Fish Stock Assessment, Callao, Peru, 3-28 September 1990.

Ad hoc Training course on length-based assessment and the Compleat ELEFAN software. Executed for the Caribbean Fisheries Council and the Puerto Rico Dept. of Fisheries at Mayagüez, Puerto Rico, July 30 to August 1, 1990.

FAO/DANIDA Regional Training Course in Fish Stock Assessment, 15 October - 9 November, 1990 Cumana, Venezuela.

HEST/TAFIRI/FAO/DANIDA Regional Training Course in Tropical Fish Stock Assessment, Mwanza, Tanzania, 4- 26 February 1989.

Ad hoc Training Course on Quantitative Methods in Marine Biology, given to staff of the Laboratory for Ichthyology and Coastal Systems , Universidad Nacional Autonoma de Mexico, Mexico, D.F., Mexico, 7- 11 September 1987.

Training Course on the use of Microcomputers and of Length-Frequency Data for Fishery Stock Assessment, Instituto del Mar del Peru, Callao, Peru, 29 August - 2 September 1987.

FAO/DANIDA Follow-up Training Course in Tropical Fish -Stock Assessment, Hirtshals, Denmark, 5-24 May 1986.

CIFAD Training Course on Fishery Data Management Using Microcomputers, Corvallis, Oregon, U.S.A., 4-8 August 1986.

Training Course in Fish Stock Assessment sponsored by NORAD and held at the Instituto de Investigação Pesqueira, Maputo, Mozambique, 22 February - 14 March 1986.

Workshop of the General Council for the Fisheries of the Mediterranean on Simple Analytical Methods for Stock Assessment, Sidi Fredj, Algeria, 16-18 November 1985.

Taller sobre Metodos Simples en la Dinamica de Poblaciones de Peces e Invertebrados, Universidad de Trujillo, Peru, 17-19 October 1985.

FAO/DANIDA National Training Course in Tropical Fish Stock Assessment, Penang, Malaysia, 5 November -1 December 1984.

FAO/DANIDA Training Course in Tropical Fish Stock Assessment, Cochin, India, 25 November - 2 December 1983.

FAO/DANIDA Training Course in Tropical Fish Stock Assessment, Mombasa, Kenya, 28 May - 20 June 1983.

Regional Training Course on Fishery Stock Assessment and Fishery Statistics, sponsored by the Asian Development

Bank, FAO/SCSP, FAO/SIDA and the Government of Thailand, Samutprakarn, Thailand, 1-9 October 1981.

FAO/DANIDA Regional Training Course on the Methodology of Fishery Sciences (Biology), Mombasa, Kenya, 19 May - 4 June 1980.

Theses supervised while the University of British Columbia (2008-1997)

- Mondoux, Suzanne. 2008. Ranking maritime countries in terms of the sustainability of their fisheries. Master of Science in Environmental Management, Royal Roads University, Victoria, B.C.
- Wood, Louisa. 2007. The global network of marine protected areas: developing baselines and identifying priorities. Department of Geography, University of British Columbia. 171 p.
- Morissette, Lyne. 2007. Complexity, cost and quality of ecosystem models and their impact on resilience: a comparative analysis, with emphasis on marine mammals and the Gulf of St. Lawrence. PhD thesis, University of British Columbia. xviii + 260 p.
- Trujillo, Pablo. 2007. A global analysis of the sustainability of marine aquaculture. MS thesis, Department of Resource Management and Environmental Studies, University of British Columbia. 127 p.
- Preikshot, David. 2007. The influence on geographic scale, climate and trophic dynamics upon North Pacific oceanic ecosystem models. PhD thesis, University of British Columbia.
- Gelchu, Ahmed. 2006. Growth and distribution of port-based global fishing effort within countries EEZs. PhD thesis, University of British Columbia, 160 p.
- Hunter, Andrea. 2005. A multiple regression model for predicting the energy requirements of marine mammals. MSc thesis, University of British Columbia ____p.
- Freire, Katia. 2005. Fishing impacts on marine ecosystems off Brazil, with emphasis on the north-eastern region. PhD thesis, University of British Columbia, 254 p.
- Karpouzi, V. 2005. Modelling and mapping trophic overlap between fisheries and the world's seabirds. MSc thesis, University of British Columbia, 159 p.
- Bhathal, Brajgeet. 2004. Historical reconstruction of Indian marine fisheries catches, 1950-2000, as basis for testing the 'Marine Trophic Index', MSc thesis, Department of Zoology, University of British Columbia, 130 p.
- Coombs, Andrea. 2004. Marine mammals and human health in the Eastern Bering Sea: Using an ecosystem –based food web mode to track PCBs. MSc thesis, Department of Resource Management and Environmental Studies, University of British Columbia. 91 p
- Kaschner, Kristin. 2004. Modelling and mapping resource overlap between marine mammals and fisheries on a global scale. PhD thesis, Department of Zoology, University of British Columbia, 225 p.
- Poon, Amy Min-Yee. 2005. Haunted Waters: A preliminary estimate of ghost fishing of crabs and lobsters by traps. MSc thesis, Department of Resource Management and Environmental Sciences, University of British Columbia. 135 p
- Chaikina, Natalia. 2004. A trophic mass model of the Sea of Okhotsk for the 1980s period. BSc. thesis, Faculty of Science, University of British Columbia, 49 p
- Okey, Thomas Anthony. 2004. Shifted community states in four marine ecosystems [microform]: some potential mechanisms. PhD thesis, Department of Zoology, University of British Columbia. 173 p.

- Swartz, Wilfram Ken. 2004. Global maps of the growth of Japanese marine fisheries and fish consumption. MSc thesis, Resource Management and Environmental Studies, University of British Columbia, 67 p
- Beattie, Alasdair. 2002. Optimal size and placement of marine protected areas. MSc thesis, Resource Management and Environmental Studies, University of British Columbia, @p
- Kay, Aran. 2002. Ecosystem model of Okanagan Lake - The Harvesting of the Opposum Shrimp, *Mysis relicta*, and its effect on the abundance of Kokanee Salmon (*Oncorhynchus nerka*). MSc thesis, Department of Zoology, University of British Columbia, @p
- Watkinson. Stephen. 2001. Life after death: the importance of salmon carcasses in watershed function. MSc thesis, Resource Management and Environmental Studies, University of British Columbia, 111 p.
- Vidal-Hernandez, Laura. 2000. Exploring the Gulf of Mexico as a large marine ecosystem through a stratified spatial model. MSc thesis, Resource Management and Environmental Studies, University of British Columbia, 158 p.
- Preikshot, David. 2000. An Interdisciplinary assessment of tropical small-scale fisheries using multivariate statistics. MS thesis, Department of Zoology, University of British Columbia, @p
- Wallace, Scott 1999. Fisheries Impacts on Marine Ecosystems and Biological Diversity: The Role for Marine Protected Areas in British Columbia. PhD thesis, Resource Management and Environmental Studies, University of British Columbia, ___p
- Buchary, E. 1999. Evaluating the effects of the 1980 trawl ban in the Java Sea, Indonesia: an ecosystem-based approach. MSc Thesis, Resource Management and Environmental Studies, University of British Columbia, 134 p.
- Nsiku, E. 1999. Changes in the fisheries of Lake Malawi, 1976-1996: ecosystem-based analyses. MSc thesis, Resource Management and Environmental Studies, University of British Columbia, 217 p.
- Dalsgaard, Johanna. 1999. Modeling the trophic transfer of beta radioactivity in the marine food web of Enewatak Atoll, Micronesia. MSc thesis, Resource Management and Environmental Studies, University of British Columbia, 125 p.
- Chuenpagdee, Ratana. 1998. Damage schedules for Thai coastal areas: a non-monetary approach. PhD thesis, Resource Management and Environmental Studies, University of British Columbia, 255 p.
- Bozynski, Chantelle. 1998. Interactions between growth, sex, reproduction, and activity levels in control and fast-growing strains of Nile tilapia (*Oreochromis niloticus*). MSc thesis, Department of Zoology, University of British Columbia, 109 p.
- Vernier, M. J. 1997. Seasonal Ecosystem Models of the Looe Key National Marine Sanctuary, Florida. MSc thesis, Department of Zoology, University of British Columbia, 109 p.
- Bundy, Alida. 1997. Assessment and Management of Multispecies, multigear fisheries: a case study from San Miguel Bay, The Philippines. PhD thesis, Resource Management and Environmental Studies, University of British Columbia, 396 p.

Theses supervised for/at European Institutions (1993-1979)

- Federizon, R. 1993. Using vital statistics and survey catch composition data for tropical multispecies fish stock assessment: application to the demersal resources of the Philippines. Fachbereich 2 (Biologie), Universität Bremen, 201 p. (Supervision of doctoral thesis).
- Bianchi, G. 1992. Demersal assemblages of tropical continental shelves. Department of Fisheries and Marine Biology, University of Bergen, Norway, 217 p. (Thesis evaluation and acting as opponent at doctoral thesis defence)
- Jarre-Teichmann, A. 1992. Steady-state modelling of the Peruvian upwelling system. Fachbereich 2 (Biologie), Universität Bremen, 84 p. + Appendices. (Supervision of doctoral thesis).
- Jamet, J.L. 1991. Importance de la faune ichthyologique dans le lac d'Aydat, milieu eutrophe dans la zone tempérée nord, ses relations trophiques avec les autres composants de l'écosystème. Université Blaise Pascal, Clairmont-Ferrand, 263 p. (Co-supervision of doctoral thesis, jointly with Prof. N. Lair).
- Mendo, J. 1991. Stock identification of Peruvian anchoveta (*Engraulis ringens*): morphometrics, tagging/recapture, electrophoretic and ecological studies. Fachbereich 2 (Biologie), Universität Bremen, 161 p. (Supervision of doctoral thesis).
- Opitz, S. 1991. Quantitative models of trophic interactions in Caribbean coral reefs. Math. Nat. wiss. Fakultät, Universität Kiel, 470 p. (Supervision of doctoral thesis)
- Palomares, M.L. 1991. La consommation de nourriture chez les poissons: études comparatives, mise au point d'un modèle prédictif et application à l'étude des réseaux trophiques. Institut National Polytechnique de Toulouse, 211 p. (Co-supervision of doctoral thesis, jointly with Prof. J. Moreau).
- Vakily, J.M. 1990. Determination and comparison of growth in bivalves, with emphasis on the tropics and Thailand. Math-Nat wiss. Fakultät, Universität Kiel, 125 p. (Supervision of doctoral thesis).
- Prein, M. 1990. Multivariate analysis of tilapia growth experiments in ponds: case studies from the Philippines, Israel, Zambia and Peru. Math-Nat. wiss. Fakultät, Universität Kiel, 125 p. (Supervision of doctoral thesis)
- Isaac, V. 1989. The accuracy of length-based methods for fish population studies, Doktorarbeit, Math-Nat. wiss. Fakultät (Supervision of doctoral thesis)
- Dalzell, P. 1989. The biology of surgeon fishes (Family: Acanthuridae), with particular emphasis on *Acanthurus nigricauda* and *A. xanthopterus* from Northern Papua New Guinea. Master thesis, University of Newcastle, 285 p. (Topic formulation and methodological guidance on behalf of Prof. N. Polunin, Univ. of Newcastle, U.K.).
- Prein, M. 1985. The influence of environmental factors on fish production in tropical fish ponds investigated with multiple regression and path analysis. Diplomarbeit, Math-Nat. wiss. Fakultät, Universität Kiel, 104 p. (Topic definition, and acting as 'Korreferent' on behalf of Prof. Dr. W. Nellen, Abteilung Fischereibiologie, IfM).
- Vakily, J.M. 1980. The exploitation of a fishing ground in the Philippines. Diplomarbeit, Math-Nat. wiss. Fakultät, Universität Kiel, 104 p. (Topic defined and Philippine field work supervised on behalf of Prof. Dr. G. Hempel).
- Ziegler, B. 1979. Growth and mortality of some fishes from Manila Bay Philippines, as estimated from their length frequencies. Diplomarbeit, Math.-Nat.wiss. Fakultät, Universität Kiel,

116 p. (Topic defined, field work and data analysis supervised on behalf of Prof. G. Hempel, Director, Abteilung Fischereibiologie, IfM).

Master of Science theses supervised in the Philippines (1991-1981)

My supervision of Filipino students was performed in various formal (and sometimes informal) roles, including 'advisor,' 'co-advisor,' 'field advisor,' 'critic,' 'reader,' etc., but implied in all cases that the student in questions worked on themes and/or with methods I suggested and that I reviewed and edited various drafts.

- Espinosa, J.S. 1991. Aspects of the feeding biology of *Siganus fuscescens* Houuttuyn (Pisces: Siganidae). Marine Science Institute, College of Science, University of the Philippines.
- Sambilay, V.C. Jr. 1991. Depth-distribution patterns of demersal fishes of the Samar Sea, Philippines, and their use for estimation of mortality. Institute of Marine Fisheries and Oceanology, University of the Philippines in the Visayas, Iloilo, 66 p.
- Balgos, Miriam C. 1990. Age and growth of the squid *Sepiotheuthis lessoniana* Lesson (1830) in Bolinao, Pangasinan, by statolith observation and length-frequency analysis. MSI/Coll. Sci. Univ. Philippines, 78 p.
- Soliman, Victor. 1989. Population dynamics of Sinarapan (*Mistichthys luzonensis* Smith) in Lake Manapao, Buhi, Camarines Sur, Philippines. Central Luzon State University, Muñoz, Nueva. Ecija, 73 p.
- Manrique, Amalia S. 1988. Simple productivity indices for lake ecosystems: the case of Sampaloc Lake. University of the Philippines at Los Baños, 121 p.
- Peñaflor, Grace. 1987. Growth of *Leiognathus splendens* (Cuvier 1829) based on daily otolith rings validated through length-frequency analysis. College of fisheries, University of the Philippines in the Visayas, Diliman, Quezon City, 51 p.
- Sarmiento, Loida. 1987. Spatial relationships of macro-epifauna on pier pilings. College of Science, University of the Philippines, Diliman, Quezon City, 49 p.
- Palomares, Ma. Lourdes. 1987. Comparative studies on the food consumption of marine fishes with emphasis on species occurring in the Philippines. College of Science, University of the Philippines, Diliman, Quezon City, 107 p.
- del Norte, Annabelle Glenda 1986. Some aspects of the growth, recruitment, mortality and reproduction of the Asian moon scallop, *Amusium pleuronectes* (Linné) in the Lingayen Gulf, Philippines. College of Science, University of the Philippines, Diliman, Quezon City, 117 p.
- Tandog, Dulce D. 1984. State of exploitation and population dynamics of skipjack tuna (*Katsuwonus pelamis*) in waters off Misamis Oriental. College of Fisheries, University of the Philippines in the Visayas, Diliman, Quezon City, 93 p.
- Cabanban, Annadel S. 1984. Some aspects of the biology of *Pterocaesio pisang* (Bleeker 1853) (Pisces: Caesionidae) in Central Visayas. College of Science, University of the Philippines, Diliman, Quezon City, 69 p.
- Cortes-Zaragoza, Ester. 1983. Morphometric and relative abundance of tunas (Perciformes: Scombridae) caught off Darigayos Cove, La Union. College of Arts and Sciences, University of the Philippines, Diliman, Quezon City, 85 p.

- Mangaoang, Inocencio Jr., D. 1982. Age and growth of three species of *Siganus* in the wild and in captivity: comparative study based on their otoliths' daily rings. College of Arts and Sciences, University of the Philippines, Diliman, Quezon City, 88 p.
- Pagdilao, R. Cesario. 1982. Taxonomy, growth and mortality of slipmouths (Order Perciformes, Family Leiognathidae) in Manila Bay. College of Arts and Sciences, University of the Philippines, Diliman, Quezon City, 114 p.
- Navaluna, Noli A.N. 1982. Population dynamics of the tiger-toothed croaker *Otolithus ruber* in San Miguel Bay. College of Arts and Sciences, University of the Philippines, Diliman, Quezon City, 73 p.
- Aniceto, M. Hernando, Jr. 1981. Contributions to the taxonomy and biology of *Formio niger* (Bloch) in Lingayen Gulf. College of Arts and Sciences, University of the Philippines, Diliman, Quezon City, 103 p.

PRESENCE IN NATURE AND SCIENCE MAGAZINES (1988 – 2007)

- Sumaila, U.R. and D. Pauly. 2007. All fishing nations must unite to cut subsidies. *Nature* 450: 945.
- Pauly, D. 2007. Tales of a Small, but crucial fish: review of 'The Most Important Fish' by H. Bruce Franklin. *Science*, 318: 750-751.
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