

Curriculum Vitae - William A. Karp
NOAA, Northeast Fisheries Science Center
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CITIZENSHIP

United States of America

EDUCATION

Ph.D. in Fisheries, 1982, University of Washington

M.S. in Fisheries, 1975, University of Washington

B.Sc. (Hons) in Applied Biology, 1972, Liverpool Polytechnic (now John Moores University), England

EMPLOYMENT

US National Marine Fisheries Service, Woods Hole, Massachusetts. Science and Research Director, NMFS Northeast Region (2012 to present).

US National Marine Fisheries Service, Seattle, Washington. 2008 to 2012 , Deputy Director for Science and Research, Alaska Fisheries Science Center and Director, AFSC Sand Point Laboratory. Responsible for oversight of administrative and personnel functions and provision of scientific guidance and leadership (in association with Science Center Director) for an institution with approximately 400 staff with major facilities in Seattle, Washington and Juneau, Alaska and additional facilities at several other locations; lead role in Center-Wide Strategic Planning. Oversight of \$60M annual budget. Responsibilities include participation in multiple regional, national and international committees with key leadership responsibilities in several instances.

US National Marine Fisheries Service, Seattle, Washington. 2003 to 2007. Fisheries Monitoring and Analysis Division Director. Director of one of five divisions at Alaska Fisheries Science Center (AFSC). Responsible for direction of all aspects of the Fisheries Monitoring and Analysis Division. Division has oversight of North Pacific Groundfish Observer Program and is responsible for developing and implementing monitoring programs in the Alaska groundfish fisheries.

US National Marine Fisheries Service, Seattle, Washington. 1999 to 2003. Direction of Midwater Assessment (Fisheries Acoustics) Program at AFSC. Responsible for acoustic/trawl assessment surveys of gadoid fish and related research. Direction of activities of conservation engineering group involved in fish behavior, fishing gear, and bycatch reduction research.

US National Marine Fisheries Service, Seattle, Washington. 1993 to 1999. Program Leader, North Pacific Groundfish Observer Program. Overall responsibilities for Alaska Groundfish Observer Program (similar to Fisheries Monitoring and Analysis Division position above).

US National Marine Fisheries Service, Seattle, Washington. 1986 to 1993. Fisheries Research Biologist - Responsible for echo integration/midwater trawl assessments of pelagic fish stocks in the Gulf of Alaska and off the U.S. West Coast and associated methodological research.

BioSonics, Inc., Seattle, Washington. 1982 to 1986. Senior Scientist -Project manager responsible for acoustic studies in marine and freshwater environments, teaching short courses in fisheries acoustics, developing software and assisting in hardware development.

Tetra Tech, Inc., Bellevue, Washington. 1980 to 1982. Staff Biologist -Responsible for review of fish and fishery aspects of applications for marine sewage discharge permits, and fishery aspects of other aquatic studies.

SELECTED PUBLICATIONS

Brooke, S.G., L.L. Desfosse and W.A. Karp. 2012. Estimating bycatch in U.S. Commercial Fisheries. *Marine Fisheries Review* 74(3): 1-5

Desfosse, L.L, W.A. Karp and S.G. Brooke. 2012. Evaluating the quality of bycatch data and bycatch estimates among disparate fisheries. *Marine Fisheries Review* 74(3): 6-13.

National Marine Fisheries Service. 2011. U.S. National Bycatch Report [W. A. Karp, L. L. Desfosse, S. G. Brooke, Editors]. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-F/SPO-117C, 508 p.

Graham, N., R. Grainger, W.A. Karp, D.N. MacLennan, P. MacMullen and K. Nedreaas. 2010. An introduction to the proceedings and a synthesis of the 2010 ICES Symposium on Fishery-Dependent Information. *ICES J. Mar. Sci.* (2011) 68(8): 1593-1597

Cahalan, J. A., B. M. Leaman, G. H. Williams, B. H. Mason, and W. A. Karp. 2010. Bycatch characterization in the Pacific halibut fishery: A field test of electronic monitoring technology. NOAA Technical Memorandum NMFS-AFSC-213 66 p.

Conners, M. E., J. Cahalan, S. Gaichas, W. A. Karp, T. Loomis and J. Watson. 2009. Sampling for estimation of catch composition in Bering Sea trawl fisheries. NOAA Technical Memorandum NMFS-AFSC-19.3 77 p.

Karp, W.A. 2009. Minimum requirements for effective monitoring and reporting of bycatch and discards. FAO Briefing document EC:IGBMRD/2009/Inf.5: 13p.

Karp, W.A. (Editor). 2007. Collection of acoustic data from fishing vessels. ICES Cooperative Research Report 287. 92p.

Karp, W.A. 2007. Biological sampling. In Collection of acoustic data from fishing vessels. ICES Cooperative Research Report 287. 92p.

Graham, N., R.S.T. Ferro, W.A. Karp, and P. MacMullen. 2007. Fishing practice, gear design, and the ecosystem approach—three case studies demonstrating the effect of management strategy on gear selectivity and discards. *ICES J. mar. Sci.* 64:744-750.

Karp, W.A., J. A. Barkas, S. Brooke, and L. L. Desfosse. 2006. Estimating Bycatch in United States Commercial Fisheries. CM 2006/K:15. ICES Annual Science Conference, Maastricht, Netherlands.

Loomis, T.M., W. Karp, J. Gauvin, C. Colway, J. Watson, T. Meintz, and G. Williams. 2006., An Innovative Approach to Sampling Catch in the North Pacific Groundfish Fisheries. CM 2006/N:09. ICES Annual Science Conference, Maastricht, Netherlands

Karp, W.A., K. Haflinger and J.G. Karp. 2005. Intended and unintended consequences: Fisher responses to bycatch reduction requirements in the Alaska Groundfish Fisheries. CM 2005/V:03. ICES Annual Science Conference, Aberdeen, Scotland.

Karp, W.A., C. S. Rose, J. R. Gauvin, S. K. Gaichas, M. W. Dorn and G. D. Stauffer. 2001. Government-industry cooperative fisheries research in the North Pacific under the MSFCMA. *Marine Fisheries Review* 63: 40-46.

Karp, W.A. and H. McElderry. 1999. Catch monitoring by fisheries observers in the United States and Canada. Proceedings of the international conference on integrated fisheries monitoring, FAO Rome: pp 261-284.

McElderry, H., W.A. Karp, J. Twomey, M. Merklein, V. Cornish, and M. Saunders, 1999. Proceedings of the first biennial Canada/U.S. observer program workshop. NOAA Technical Memorandum NMFS-AFSC-101.

Godø, O.R., W.A. Karp and A. Totland. 1998. Effects of trawl sampling variability on precision of acoustic abundance estimates of gadoids from the Barents Sea and the Gulf of Alaska. *ICES Journal of Marine Science* 55: 86-94.

Credle, V.R., D.P. DeMaster, M.M. Merklein, M.B. Hansen, W.A. Karp, and S.M. Fitzgerald. 1994. NMFS Observer Programs: Minutes and recommendations from a workshop held in Galveston, Texas, November 10-11, 1993. NOAA Technical Memorandum NMFS-OPR-94-1. 96p.

Karp, W.A., and G.E. Walters. 1994. Assessment of walleye pollock, *Theragra chalcogramma*, in the eastern Bering Sea - the application of swept area bottom trawling and echo integration/mid water trawling to the assessment of a semi-pelagic stock. *Marine Fish Review* 56(1);8-22.

Karp, W.A. and E. Ona. 1992. Review of "Fisheries Acoustics" by D.D. MacLennan and E.J. Simmonds. *Reviews in Fisheries Biology*.

Traynor, J.J., N.J. Williamson, and W.A. Karp. 1990. A consideration of the accuracy and precision of fish abundance estimates derived from echo integration surveys. In W.A. Karp (Editor) Proceedings of the 1987 International Symposium on Fisheries Acoustics. *Rapp et P-V Reun, Cons. Int. Explor. Mer.* 189:101-111.

Karp, W.A. 1990. Introduction. In W.A. Karp (Editor) Proceedings of the 1987 International Symposium on Fisheries Acoustics. *Rapp et P-V Reun, Cons. Int. Explor. Mer.* 189:7-8.

Traynor, J.J., N.J. Williamson, and W.A. Karp. 1990. A consideration of the accuracy and precision of fish abundance estimates derived from echo integration surveys. In W.A. Karp (Editor) Proceedings of the 1987 International Symposium on Fisheries Acoustics. *Rapp et P-V Reun, Cons. Int. Explor. Mer.* 189:101-111.

Dawson, J.J. and W.A. Karp. 1990. In situ measures of target strength variability of individual fish. In W.A. Karp (Editor) Proceedings of the 1987 International Symposium on Fisheries Acoustics. *Rapp et P-V Reun, Cons. Int. Explor. Mer.* 189:264-273.

Karp, W.A. and J.J. Traynor. 1989. Assessments of the abundance of eastern Bering Sea walleye pollock stocks. 1989.10 Proceedings of the 1988 International Symposium on the biology and management of walleye pollock pp 433-456.

SELECTED PRESENTATIONS

Opening and summing up and closing comments. Second ICES International Conference on the Collection and Interpretation of Fishery Dependent Data. Rome, Italy. 2014.

The relative importance of fishing and the environment in the regulation of fish population abundance. Introductory presentation at a symposium of The American Institute of Fishery Research Biologists. New Bedford, Massachusetts. June 2012.

Summing up and closing comments. First ICES International Conference on the Collection and Interpretation of Fishery Dependent Data. Galway, Ireland. 2010.

Estimating species composition of trawl catch with observer data: cautions for rare species. M.E. Conners, S. Gaichas, J. Cahalan and W.A. Karp. First International Conference on the Collection and Interpretation of Fishery Dependent Data. Galway, Ireland. 2010.

Evaluating the quality of bycatch data and bycatch estimates across disparate fisheries. S. Brooke, L. Desfosse and W.A. Karp. First International Conference on the Collection and Interpretation of Fishery Dependent Data. Galway, Ireland. 2010.

Integrated Fisheries Monitoring. Electronic fisheries monitoring workshop. Seattle, Washington. 2008.

Surveying with a sound and sight sensing submarine. D. A. Demer, R. Cutter, S. Sessions, J. Renfree, D. Needham, M. Paterson, D. Detlor, M. Jech, W. Karp, W. Michaels, F. Parrish, M. Seki, P. Sheridan, A. Shimada, D. Somerton, C. Thompson, and C. Wilson. Poster Presentation. ICES Symposium on Ecosystem Approach with Fisheries Acoustics and Complementary Technologies. Bergen, Norway. 2008.

Bycatch Management and North Pacific Groundfish Observers: what have we learned? International fisheries observer conference. Victoria, B.C. 2007.

Overview of catch sampling and estimation in the Alaska groundfish fisheries. US/Norway Catch Estimation Workshop. Bergen, Norway. 2007.

Observer sampling bias: causes, consequences and solutions. W. Karp and J. Ferdinand (presented by J. Ferdinand). International fisheries observer conference. Sydney, Australia. November 2005.

K. McCauley, G. Campbell, J. Ferdinand M. Loefflad and W.A. Karp. The North Pacific Groundfish Observer Program's data quality control system (Poster). International fisheries observer conference. Sydney, Australia. 2005.

D. Van Holliday: a role model for leadership in fisheries acoustics. Invited presentation, Acoustical Society of American Annual Meeting, New York, NY. 2004.

Observation techniques and experimental designs for the study of fish behaviour. Summary of poster session at ICES Symposium on Fish Behaviour in Exploited Ecosystems. Bergen, Norway 2003.

Acoustic assessment of gadoids in the northeast Pacific and the Bering Sea (Invited). Workshop on developing acoustic methods for surveying groundfish held in conjunction with the Maine Fishermen's Forum. Rockport, Maine. February 2003.

An overview of research at the Alaska Fisheries Science Center. Institute of Marine Research, Bergen,

Norway. October 2002.

Assessment of gadids by echo integration. Development of methodology and relevance to management of important stocks in the Barents Sea and the Eastern Bering Sea (by W. A. Karp and O. Nakken; presented by O. Nakken). ICES Symposium on Acoustics in Fisheries and Aquatic Ecology Montpellier, France, 2002.

Government-Industry Cooperative Research in the Northeast Pacific. Provisions under the Magnuson-Stevens Fishery Conservation and Management Act and examples from the Gulf of Alaska and the eastern Bering Sea. ICES 2000 Annual Science Conference. (W. A. Karp, C.R. Rose, J.R. Gauvin, S.K. Gaichas, M.W. Dorn, and G.D. Stauffer)

Presentation on observer programs and fishery-dependent data collection during National Research Council Committee study on Improving the Collection and Use of Fisheries Data, Seattle, June 1999.

Catch monitoring by fisheries observers in the United States and Canada. Invited paper (with H. McElderry), international Conference on Integrated Fisheries Management, Sydney, Australia, February 1999.

Monitoring and management of fisheries for walleye pollock (*Theragra chalcogramma*) in the US Exclusive Economic Zone off Alaska. CSIRO Division of Fisheries, Hobart, Australia, February 1999.

Observer Programs in the United States - Legislative Framework. First biennial Canada/U.S. Observer Program Workshop, Seattle, 1998.

Fish behavior in relation to trawling: implications for survey assessment and bycatch management. Graduate Seminar Series, University of Washington School of Fisheries, 1995.

Current status of acoustic techniques for marine stock assessment with particular reference to the Alaska Fisheries Science Center pelagic resource assessment program. Oceans 89, 1989.

ADDITIONAL ACCOMPLISHMENTS

US Delegate to ICES. January 2015 (ongoing).

Co-convener and Theme Session Chair, ICES Second Symposium on the Collection and Interpretation of Fishery Dependent Data. Rome, Italy. March 2014.

US Delegation Lead and Chair, International Workshop on Arctic Fisheries (with participants from the 5 Arctic Coastal States). June 2011.

US Delegation Lead, US/Russia Negotiations for Developing a Joint Research Program in the Bering Sea, January 2011.

Co-convener and Theme Session Chair, ICES Symposium on the Collection and Interpretation of Fishery Dependent Data. Galway, Ireland. August 2010.

Ongoing (multi-year) AFSC lead for cooperative agreement with the Institute of Marine Research (IMR), Bergen, Norway. During the last decade, this has resulted in productive research collaboration in several areas of fisheries and marine science. Originally implemented as an agreement between

AFSC and IMR, NEFSC and NWFSC are now actively involved.

Participation in faculty promotion review panel, University of Washington College of the Environment, 2010.

Affiliate Professor, University of Washington College of the Environment, 2010 to present.

Scientific Advisor, Intergovernmental Meeting of Arctic Coastal States, Oslo, Norway, June 2010

Opponent, Ph.D. Defense for Hector Peña, University of Bergen, Norway, 2009

Invited Expert, FAO Expert Consultation on Bycatch Mitigation, 2009

Co-convener, theme session on incorporation of data from cooperative research in stock assessment and management advice. ICES Annual Science Conference. Berlin, Germany. September 2009.

Chair, ICES Scientific Steering Group on Ecosystem Surveys, Science and Technology and member, ICES Science Committee, 2009 to present.

Chair, ICES Fisheries Technology Committee and member ICES Consultative Committee. 2008 to 2009.

Promotion evaluation panelist for three scientists from the Norwegian Institute of Marine Research. 2007 and one in 2009.

National Bycatch Report – Steering Committee Chair and Workshop Convener 2006 – 2011.

Co-convener, theme session on technologies for monitoring fishing activities and observing catch. ICES Annual Science Conference. Maastricht, Netherlands. September 2006.

Steering committee, NMFS Vessel selection bias workshop. April, 2006

Reviewer, Australian Fisheries Management Agency - Industry cooperative acoustic data collection program. 2005.

Chair, ICES Study Group on Collection of Acoustic Data from Fishing Vessels. 2004 -2007.

US Department of Commerce Bronze Medal for "scientific and technical achievement in advancing fisheries management in Alaska by implementing an electronic observer data reporting system." 2002.

Senior Fellow, Council for Excellence in Government (following completion of year-long Excellence in Government Fellowship Program 2001- 2002).

Proposal review panelist, NOAA Office of Ocean Exploration, February 2002.

NOAA representative on SCOR working group on Advanced Technologies for Observing Marine Life 2000 - 2003.

Steering Committee Member, International Symposium on Fisheries and Plankton Acoustics, Montpellier, France. 2002.

Invited panelist, Acoustical Society of America Annual Meeting, 2001.

Chair, National Marine Fisheries Service Advanced Technology Working Group. 2000 – 2003.

Session Chair, International Conference on Shallow Water Acoustics. Seattle, Washington, 1999.

Chair, First Canada/US Observer Program Workshop. Seattle, Washington. 1998.

United States representative on ICES working group on Fisheries Acoustics Science and Technology (WGFAST). Ongoing

United States representative on North Pacific Marine Science Organization (PICES) Technical Committee on Data Exchange (TCODE). 1994 -1998.

Session Chair, Special Session on Near-Bottom Assessment, Annual meeting of ICES Fisheries Acoustics and Fishing Technology working groups, Gothenburg, Sweden, 1993.

Assigned to spend 12 months working at the Institute of Marine Research, Bergen, Norway on acoustic system development and problems associated with stock assessment surveys. 1991-1992,

Independent reviewer of trawl and acoustic assessment work by the New Zealand fisheries agency. 1989.

Invited to visit CSIRO Division of Fisheries, Hobart, Australia, to provide advice on assessment of deepwater stocks. 1989.

Session Chair, Session on Survey Statistics. 1989 Conference on Progress in Fisheries Acoustics, Lowestoft, UK.

Advisor, International North Pacific Fisheries Commission Annual Meeting, Tokyo, Japan, 1988, and Seattle, 1989.

Convener and Editor of Proceedings. 1987 International Symposium on Fisheries Acoustics, Seattle, Washington.