

# CHARLES C. KRUEGER

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## EDUCATION

**Ph.D. Fishery Science.** University of Minnesota, 1979.

Dissertation Title: *Macroinvertebrate production in three eastern Minnesota streams.*

**M. S. Fisheries Biology.** Iowa State University, 1976.

Thesis Title: *Effects of stocking on genetics of wild brook trout populations.*

**B. S. Fishery Science with Distinction.** University of Minnesota, 1974.

## UNIVERSITY EXPERIENCE

**Professor – T. F. Waters Chair – Aquatic Ecology and Conservation** – 2014 to present – Michigan State University. This position is to advance understanding of aquatic ecology in lakes and rivers, and to promote the conservation of freshwater ecosystems and their fish populations through research, teaching, and outreach. Topics of special interest include biological diversity, life history, behavioral ecology, and population genetics.

**Adjunct Professor** – 2003 to present – University of Michigan – This position is within the School of Natural Resources and the Environment. Most interactions are related to serving on graduate committees related to Great Lakes fishery policy.

**Adjunct Professor** – 2000 to present – Cornell University – This position is in the Department of Natural Resources and continues on-going research in the Adirondacks on community ecology of stocked brook trout lakes and on Lake Ontario concerning the genetics of lake trout restoration.

**Adjunct Professor** – 2000 to 2013 – Michigan State University – This position was within the Department of Fisheries and Wildlife. Research focuses on restoration of the phenotypic diversity of lake trout in the Great Lakes. Projects include the definition of thermal and depth habitat niches of the lean and siscowet forms of lake trout and its distribution in North America.

**Associate Professor** - 1989 to 2000 - Cornell University - This position was in the Department of Natural Resources, and carried a 60-percent research and 40-percent teaching commitment. Tenure was granted in 1989.

Research included a focus on applying the disciplines of population ecology and genetics to solve issues in fishery management. Issues of particular interest included species restoration, population ecology and genetics of non-native species, and salmonid management.

Teaching included courses in fisheries data collection and analysis, fishery resource management, and advising undergraduate and graduate students. Administrative responsibilities included Director of the Adirondack Fishery Research Program and Director of the Resource Ecology and Management Facility. These positions involved supervision of three permanent employees plus temporary help and oversight of expenditures from endowment and gift accounts.

**Assistant Professor** - 1984 to 1989 - Cornell University. Similar position as described above but without administrative duties.

**Research Associate** - 1980 to 1981 - University of Minnesota.  
Primary research responsibilities included the genetic identification of sea lamprey populations in the Great Lakes.

**Assistant Professor** - 1980 - University of Minnesota.  
During the fall term, I taught an extension class entitled, "Ecology and Management of Minnesota Fish."

**Research Fellow** - 1979 - University of Minnesota.  
The responsibilities of this position included the electrophoretic screening of sea lamprey muscle tissue for the presence of protein variants useful in population identification.

## **GOVERNMENT AGENCY EXPERIENCE**

**Science Director** – 2000 to 2013 - Great Lakes Fishery Commission. Responsibilities included development of research priorities and administration of the research programs focused on the Commission's ecosystem, sea lamprey, and partnership vision statements, promotion of science-based fishery and ecosystem management programs for the Great Lakes, and the conduct of research and direction of graduate studies.

**Division Chief** – 1999 to 2000 – U.S. Fish and Wildlife Service, Fisheries Information Services, Office of Subsistence Management, Region 7 Anchorage, Alaska (on leave from Cornell University). Responsibilities included organizational development and implementation of an inter-agency research unit charged with collection, analysis, and interpretation of biological and socio-cultural information important to subsistence fishery management of federal lands (~60% of Alaska). Federal agencies involved in the unit are U.S. Fish and Wildlife Service, National Park Service, Bureau of Land Management, U.S. Forest Service, and the Bureau of Indian Affairs. Stock status and trends, harvest monitoring, and traditional environmental knowledge are the primary information types processed. Contracting with Alaska Natives, Alaska Department of Fish and Game, and others to perform studies is a unique aspect of the unit's operation.

**U.S. Commissioner** - 1988 to 1998 - Great Lakes Fishery Commission. Originally appointed by President Reagan of the United States for a four year term from 1988 to 1992. Reappointed for a six year term from 1992 to 1998 by President Bush. Responsibilities included policy development and implementation,

program administration, and personnel management of a joint program between the U.S. and Canada to improve and perpetuate fishery resources of the Great Lakes. The Commission manages the delivery of the sea lamprey control program (~ \$19 million US annually) in the Great Lakes. I was elected Chair of the Commission for a two year term (1989-1991), chair of the U.S. Section (1988-1989, 1994-96), chair of the Fishery and Environment Committee (1988-1989, 1992, 1994-1995), Vice-Chair of the Commission (1995-1996). In December of 1996, I was again elected Chair of the Commission for the remainder of my term (April 1998).

**Fishery Biologist** – 1998 to 2000 and 1991 to 1992 - U.S. Fish and Wildlife Service, Region 7, Anchorage, Alaska (Two sabbatic leaves from Cornell University). Primary responsibility during the most recent term was to develop a fishery resource-monitoring program for federally managed subsistence fisheries. This position required coordinating development of the program among five federal agencies combined with high levels of interaction with the State of Alaska and rural communities. Responsibilities during the 1991-1992 term included the evaluation of the Region's program for population genetics studies of salmonids, the analysis of data and writing of reports about the population genetics of salmonids in Alaska, drafting a national policy for the conservation of the genetics of fish, and helping draft a position statement for the Department of Interior about the proposed annex to the Pacific Salmon Treaty between the U.S. and Canada that addressed the Yukon River fishery and its management.

**Great Lakes Sport Fisheries Specialist** - 1981 to 1983 - Wisconsin Department of Natural Resources. The responsibilities of this position were policy development and program administration of the sport fisheries management program for Lakes Superior and Michigan. Additional responsibilities included Great Lakes creel survey design, stocking rationale development, microcomputer software coordinator, and administration of Salmon Stamp revenues.

**Seasonal Biologist** - 1974 - Minnesota Department of Natural Resources. Field reconnaissance of fish, wildlife, and plants was performed in different river corridors to compare biological diversity. The data were used in designating rivers for public use under the Minnesota Wild and Scenic Rivers Act.

**Lake Survey Crew Member and Leader** - 1972 and 1973 - Minnesota Department of Natural Resources. These summer positions involved collecting data on fish populations, aquatic vegetation, and water chemistry from Minnesota lakes.

## **CONSULTANT EXPERIENCE**

**Bering Sea Fishermen's Association** – 2000 to present. Research administration associated with the Sustainable Salmon Initiative, symposium organization, symposium proceedings editor.

**U.S. Fish and Wildlife Service** – 2002. Review of fish genetic research proposals.

**Northwest Power Planning Council** – 1991-1992. Various activities related to genetic aspects related to Pacific salmon recovery.

## GRADUATE FACULTY ACTIVITIES

**Michigan State University** – 2001 – present

**Cornell University** – 1984 – present

**University of Michigan** – 2001 – present

**Oregon State University** – Served as an external member on a Ph.D. committee.

**University of California – Davis** –served as an external member on two graduate student committees.

## GRADUATE STUDENTS – 13 Students Who Have Completed Their Degrees

### Graduate Students Chaired:

S. Farha (M.S. 2018) – Michigan State University  
R. Bergstedt (Ph.D. 2008) – Michigan State University  
M. Nemeth (M.S. 2001) – Cornell University  
N. Smith (M.S. 2000) – Cornell University  
O. Baird (M.S. 2000) – Cornell University  
H. Baird (M.S. 2000) – Cornell University  
J. Pyatskowitz (M.S. 1997) – Cornell University  
D. L. Perkins (Ph.D. 1993) – Cornell University  
P. M. Grewe (Ph.D. 1991) – Cornell University  
D. L. Perkins (M.S. 1990) – Cornell University  
H. VanOffelen (M.S. 1990) – Cornell University  
D. Herren (M.S. 1990) – Cornell University  
J.E. Marsden (Ph.D. 1988) – Cornell University  
R.S. Cone (M.S. 1987) – Cornell University

### Graduate Students as a Committee Member:

L. Petersen (Ph.D.) – Michigan State University – in progress  
C. Harris (M.S.) – Michigan State University  
C. Brant (Ph.D.) – Michigan State University  
T.D. Meckley (Ph.D.) – Michigan State University  
C.M. Holbrook (Ph.D.) – Michigan State University  
A.N. Evans (Ph.D.) – Oregon State University  
B.W. Felt (M.S.) – Michigan State University  
J. Henquinet (Ph.D.) – Michigan State University  
A. Welsh (Ph.D.) – University of California – Davis  
E. McQuown (M.S.) – University of California – Davis  
M. Gaden (Ph.D.) – University of Michigan  
K. Johnson (M.S.) – Cornell University  
R. Klumb (Ph.D. ) – Cornell University  
H. Moore (M.S. ) – Cornell University

## PUBLICATION AWARDS

**\*Most Significant Paper in *Transactions of the American Fisheries Society* in 1994.**

Hatchery origins of naturally produced lake trout fry captured in Lake Ontario: temporal and spatial variability based on allozymes and mitochondrial DNA data. P.M. Grewe, C.C. Krueger, C.F. Aquadro, and B. May

**\*Best Paper Award. Honorable Mention. 1989 Volume 9 of the *North American Journal of Fisheries Management*.** Identification of parental origins of naturally

produced lake trout in Lake Ontario: application of mixed-stock analysis to a second generation. J.E. Marsden, C.C. Krueger, and B. May.

**\*The James W. Moffett Publication Award.** Outstanding Great Lakes scientific paper published in 1986 from the Great Lakes Fishery Laboratory, U.S. Fish and Wildlife Service. "Evaluation of hatchery-reared lake trout for reestablishment of populations in the Apostle Islands region of Lake Superior" by C.C. Krueger, B.L. Swanson, and J.L. Selgeby.

## HONORS

**\*Jack Christie/Ken Loftus Award 2016.** Great Lakes Fishery Commission. For distinguished scientific contributions toward understanding healthy Great Lakes ecosystems.

**\*Meritorious Service Award 2011.** American Fisheries Society – Alaska Chapter. For recent outstanding contributions to fisheries in Alaska. Symposium and publication of *Pacific Salmon: Ecology and Management of Western Alaska's Populations. 2009.* AFS Symposium 70.

**\*Exceptional Performance Award.** From the Wisconsin Department of Natural Resources for work with the Great Lakes Fishery Commission. 1983.

**\*Graduate School Doctoral Dissertation Fellowship.** 1978-1979. University of Minnesota.

**\*Gamma Sigma Delta.** 1979.

**\*Sigma Xi.** 1978.

**\*Phi Kappa Phi.** 1976.

**\*B. S. Degree with Distinction.** 1974

## PUBLICATIONS (list available)

Journal	202
Policy	11
Technical or Agency	21
Extension	10
Book Reviews	2
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Total (numbers)	246

## GOGGLE SCHOLAR PROFILE

<http://scholar.google.com/citations?user=00LbgfsAAAAJ&hl=en&oi=ao>

H-index = 47

**RESEARCH GATE** [https://www.researchgate.net/profile/Charles\\_Krueger2](https://www.researchgate.net/profile/Charles_Krueger2)

RG H-index score = 41

## RERFERENCES – Available upon request