

Michelle M. McClure

EDUCATION

- 1998 **Ph. D.** Ecology and Evolutionary Biology, Cornell University.
1988 **B.S., B.A.** Interdisciplinary Studies (Ecology), The Evergreen State College, Olympia, Washington.

HONORS AND AWARDS

- 2010 **Gold Medal Award** (Group Award to NWFSC, NWRO and NW General Counsel), Department of Commerce, (for advancing wide regional agreement on the Federal Columbia River Power System Biological Opinion and its scientific basis).
- 1999-2010 **Multiple Performance Awards**, Northwest Fisheries Science Center.
- 2007 **Bronze Medal Award**, National Oceanographic and Atmospheric Administration (for leading 30 authors and 100 reviewers from federal, state, tribal, local government, and non-profit entities in synthesis on the Puget Sound, Sound Science, a report which provides policy makers with the first consensus on threats to the ecosystem and research required for recovery).
- 2006 NOAA Fisheries **Employee of the Year** (Scientific and Technical Staff)
- 2006 **Bronze Medal Award**, National Oceanographic and Atmospheric Administration (for developing the scientific foundation for an adaptive approach to recovery planning for Endangered Species Act-listed salmon in the Columbia River and along the Oregon coast).
- 2005 **Bronze Medal Award**, National Oceanographic and Atmospheric Administration (for innovative analysis of the potential for restored habitats to improve the status of ESA-listed Pacific salmon and steelhead in the Columbia River Basin).
- 2005 Federal Employee **Public Service Award**, Seattle Federal Executive Board
- 2004 **Employee of the Year, honorable mention**, Northwest Fisheries Science Center.
- 1998 **Mass Media Science and Engineering Fellow**, American Association for the Advancement of Science
- 1997 **Stoye Award**, Best Student Paper in Genetics, Development and Morphology, Meetings of the American Society of Ichthyologists and Herpetologists.
- 1997 **Alternate, American Association of University Women American Fellowship**
- 1997 **Clark Teaching Award**, College of Arts and Sciences, Cornell University
- 1997 **Whittaker Award**, Section of Ecology and Systematics, Cornell University, Best Student Presentation, Graduate Student Symposium
- 1996 American Institute of Indian Studies, **Junior Research Fellowship** (declined)
- 1995 **Margaret Werly Graduate Fellowship**, Cornell University
- 1995 **Sage Graduate Fellowship**, Cornell University
- 1993 Honorable Mention, NSF Predoctoral Fellowship
- 1991 **Antarctic Service Award**, National Science Foundation
- 1989 Outstanding Performance Award, Mesa Verde National Park
- 1984-1988 Dolphin Society Scholarship and Paul L. Fowler Academic Achievement Award

GRANTS

2000-2010	Multiple contracts from Bureau of Reclamation, Bonneville Power Administration, Army Corps of Engineers and NOAA
1997	Cornell Graduate School Travel Grant (\$325)
1996	President's Council of Cornell Women Grant (\$1000)
1996	Cornell Graduate School Travel Grant (\$300)
1995	National Science Foundation Dissertation Enhancement Grant (\$18,000)
1995	National Sigma Xi Grant-in-Aid (\$500)
1995	Mellon Student Research Fund Grant (\$1500)
1994	Cornell Chapter, Sigma Xi Grant-in-Aid (\$300)
1994	Mellon Student Research Fund Grant (\$1000)
1994	Raney Fund Grant, American Society of Ichthyologists and Herpetologists (\$500)
1994	Cornell Graduate School Travel Grant (\$300)

PROFESSIONAL EXPERIENCE

Acting Deputy Science Director – Northwest Fisheries Science Center. Currently serving as Deputy Science Director for the Northwest Fisheries Science Center. Responsible for general oversight and management of Center functions and support of NOAA objectives and programs, in co-ordination with NWFSC Science Director. Accomplishments to date include:

- Initiated process to improve internal and external coordination of Center science supporting salmonid recovery planning.
- Coordinated and managed personnel actions such as award submissions, promotion requests and responses to employee concerns.
- Ensure coordination with other NMFS and NOAA offices by serving as a member of the NOAA West (Water Subcommittee) team, and maintaining regular communication with other NMFS offices.
- Review all publications produced by NWFSC staff for scientific rigor and content.
- Developed and coordinated responses to requests for budgetary, programmatic and other information about the NWFSC.
- Position details
 - December 1, 2010-present
 - Full-time (and them some!)
 - Grade: ZP-0482-05
 - Supervisor: John E. Stein, 206-860-3201

Supervisory Research Fishery Biologist -- Team leader, Integrated Watershed and Nearshore Ecology. I lead a team that conducts scientific research supporting ecosystem approaches to the management and conservation of marine and anadromous species in nearshore and watershed environments. Significant accomplishments to date include:

- Leadership of national effort to develop appropriate practices for incorporating climate change in Endangered Species Act processes. Completion of this project will lead to more effective recovery and conservation planning within the agency.
- Serve as NOAA representative to the UN-sponsored Bay of Bengal Large Marine Ecosystem Project, providing technical guidance for the implementation of ecosystem approaches to fishery management to the eight member countries.
- Served as the NOAA-Fisheries representative on the NOAA Next Generation Strategic Plan

Michelle M. McClure

Working Group, providing agency-level input to the 25-year strategic planning process for NOAA.

- Supervise a staff of 18 scientists and interns, including 9 NOAA FTEs.
- Manage a budget of >\$4M.
- Position details
 - October 2009-present
 - Full-time
 - Grade: ZP-0482- 04
 - Supervisor: Phil Levin, 206-860-3467

Supervisory Fish Biologist -- Acting Division Chief, Marine Ecosystems Division, Office of Science and Technology, NMFS Headquarters. Filled the Division Chief vacancy for the Marine Ecosystems Division (NOAA Fisheries Headquarters) as a detail appointment. Significant accomplishments include:

- Initiated national effort to develop appropriate practices for incorporating climate change in Endangered Species Act activities
- Authored and reviewed responses to Congressional inquiries, including contributing to development of senior NOAA leaders' testimony to Congress;
- Served as the NOAA-Fisheries representative on the NOAA Next Generation Strategic Plan Working Group, providing agency-level input to the 25-year strategic planning process for NOAA.
- Managed a \$15 M budget, covering salaries, contracts, internally transferred funds and grant programs as well as general expenditures.
- Supervised 8 Ph.D. level scientists.
- Managed general operations of the Marine Ecosystems Division, including development of hiring packages, sitting on interview panels, and coordinating NOAA Fisheries' review of and response to relevant grant proposals and
- Served on NWFSC Research Council.
- Position details
 - June-October 2009
 - Full-time
 - Grade: ZP-0482- 05
 - Supervisor: David Detlor, 301-713- 2367

Research Fishery Biologist – Co-Chair, Interior Columbia Technical Recovery Team. Conducted and managed research aimed at conservation of salmonids and freshwater and marine habitats. This work supported the successful development of recovery plans for salmon and steelhead in the Interior Columbia Basin. This was a half-time position held concurrently with the Research Planning Lead position (below). Significant accomplishments include:

- Led multi-agency, interdisciplinary scientific team that provided scientific support for recovery planning for salmon and steelhead in the Interior Columbia River basin.
- Communicated key scientific studies and results to scientific, public, policy and constituent audiences in formal and informal settings.
- Author of over 30 reports and peer-reviewed articles for use in the recovery planning process relating to population structure, viability criteria, role of extirpated areas in conservation, projected impacts of artificial propagation programs on listed species, potential for habitat improvements, and projected impacts of alternative management and climatic scenarios on listed species.
- Managed budget >\$1 million

Michelle M. McClure

- Supervised 4-8 post-doctoral fellows and technicians.
- Served as a member of three regional science teams supporting recovery and conservation of salmonids.
- Co-coordinated award-winning collaborative document describing the Puget Sound ecosystem as a preliminary step toward ecosystem-based management for the Puget Sound.
- Contribute to decision and regulatory documents such as Biological Opinions.
- Position details
 - Sep. 2001-2009
 - Full-time (in combination with position below)
 - Grade: ZP-0482- 04
 - Northwest Fisheries Science Center, NMFS, NOAA; 2725 Montlake Blvd. E., Seattle, WA 98115
 - Supervisor: Mary Ruckelshaus, 206-860-3266.

Research Fishery Biologist – Research Planning Team Lead. The Northwest Fisheries Science Center initiated a research planning program in 2005. Leading this team led to the completion of the first center-wide research plan and an ongoing planning and tracking effort. Significant accomplishments include:

- Authored research plan for the NWFSC, aligning NWFSC research priorities with local, regional and national science needs.
- Conducted internal assessments of research capabilities and needs. Identified agency and stakeholder research needs.
- Contribute to national programming, planning and budgeting processes.
- Developing Center-wide project and budget tracking system.
- Position details:
 - Jan. 2005-2010
 - Full-time (in combination with position above)
 - Grade: ZP—0482-04
 - Northwest Fisheries Science Center, NMFS, NOAA; 2725 Montlake Blvd. E., Seattle, WA 98115
 - Supervisor: Bob Iwamoto and John Stein, 206-860-3200

Research Fishery Biologist – Columbia River Salmon Science Coordinator. Conducted research supporting conservation of salmonids in the Columbia River Basin. Significant accomplishments include:

- Collaborated in a quantitative analysis of extinction risk and trajectories for salmonid populations.
- Participated in the writing of decision documents, including the Federal Hydropower system Biological Opinion and the proposed Basinwide recovery strategy.
- Presented scientific results and analyses to stakeholders and decision-makers.
- Served as a scientific liaison to tribes, states, non-governmental organizations and other agencies.
- Position details:
 - Jul. 1999- Sep. 2001
 - Full time
 - Grade: GS-12
 - Northwest Fisheries Science Center, NMFS, NOAA; 2725 Montlake Blvd. E., Seattle, WA 98115
 - Supervisor: Michael Schiewe, 206-287-9130

Michelle M. McClure

AAAS Mass Media Science and Engineering Fellow. Reported on science and health news for National Public Radio affiliate. Developed, researched, wrote and produced science news stories.

- Position details:
 - Aug. 1998- Nov. 1998
 - Full-time
 - Monthly stipend
 - WOSU Radio, Columbus, Ohio
 - Supervisor: Christina Morgan 614-292-7625

Teaching Assistant, Biology of Fishes, Evolutionary Biology, Macroevolution, Vertebrate Biology Introductory Biology, Human Biology and Evolution, Human Paleontology.

- Position details:
 - Aug. 1991-Dec.1997
 - Half-time
 - Section of Ecology and Systematics, Cornell University, Ithaca, New York
 - Supervisor: Dr. Amy McCune, 607-254-4267

Ichthyological Field Research. Organized and conducted collecting expedition to India and Thailand. Collected live specimens and habitat data.

- Position details:
 - Sep.-Dec. 1995
 - Full-time
 - Section of Ecology and Systematics, Cornell University, Ithaca, New York
 - Supervisor: Dr. Amy McCune, 607-254-4267.

Biological Intern. Collected samples for assays of hormonal control of reproductive cycles in endangered ungulates. Maintained animals and breeding facilities.

- Position details
 - Mar.-Jun. 1991
 - Full-time
 - Volunteer position
 - Conservation and Research Center, Nat'l Zoological Park, Front Royal, Virginia.
 - Supervisor: Linwood Williamson, 540-635-6500

Biological Research Assistant. Contributed to study of the breeding biology and feeding ecology of three species of penguins.

- Position details
 - Aug. 1990-Mar.1991
 - Full-time
 - Volunteer position (stipend \$1000)
 - Supervisor and employer: Dr. Wayne Trivelpiece, 858-546-5607 (SWFSC, NMFS).

Biological Technician. Contributed to study of the ecology and biology of endangered Hawaiian honeycreepers. Supervised 3-6 volunteers in banding and surveying efforts.

- Position details
 - Sep.-Dec. 1988 and Sep.1989- Aug.1990
 - Full-time
 - Salary: Volunteer (Sep-Dec. 1988), then GS-5.
 - Hawaii Research Group, USFWS (now USGS), Volcano, Hawaii
 - Supervisor: Dr. James Jacobi, 808-967-7396

Naturalist/Interpreter. Mesa Verde National Park. Led informational tours through Anasazi ruins. Conducted surveys for prehistoric ruins during fire-fighting effort.

- Position details
 - June-Sept. 1989
 - Full-time
 - Salary: GS-4
 - Mesa Verde National Park, Colorado
 - Supervisor: John Kenoyer, 970-529-4465

Archeological Intern. San Juan National Forest. Conducted surveys for prehistoric and historic cultural remains and reported findings.

- Position details
 - June-September, 1988, Jan.-April 1989
 - 40 hrs/week, volunteer position
 - San Juan National Forest, Durango, Colorado
 - Supervisor: Gary Matlock, 970-259-0945

PEER-REVIEWED PUBLICATIONS

- M. J. Ford, T. Cooney, P. McElhany, N. J. Sands, L. A. Weitkamp, J. J. Hard, **M. M. McClure**, R. G. Kope, J. M. Myers, A. Albaugh, K. Barnas, D. J. Teel, P. Moran, J. Cowen (*in press*). Status review update for Pacific salmon and steelhead listed under the Endangered Species Act Pacific Northwest. NOAA Technical Memorandum
- D. Shallin Busch, Paul McElhany, Mary H. Ruckelshaus, David A. Boughton, Thomas Cooney, Peter Lawson, Steven T. Lindley, **Michelle McClure**, Norma Jean Sands, Brian C. Spence, Thomas C. Wainwright, Thomas H. Williams. (*in review*) Variable performance of population viability models used for management of endangered and threatened anadromous Pacific salmonids. Ecological Applications.
- Tomlinson, M.J., S.E. Gergel, T.J. Beechie, and **M.M. McClure**. (*in press*) Long-term changes in river-floodplain dynamics: Implications for salmonid habitat in the Interior Columbia Basin, USA. Ecological Applications.
- Moore, Jonathan, **Michelle McClure**, Lauren A. Rogers, and Daniel E. Schindler. 2010. Synchronization and portfolio performance in a threatened salmon stock. Conservation Letters. 3(5): 340-348.
- Waples, Robin S., David Jensen, **Michelle McClure**. 2010. Empirical evidence for eco-evolutionary interactions and tradeoffs: Annual variation in population growth rate reduces effective population size in Chinook salmon. Ecology 91(3): 902-914.
- Jorgensen, Jeff, J. Honea, **Michelle McClure**, T. Cooney, K. Engie, D. Holzer. 2009. Linking landscape-level change to habitat quality: an evaluation of restoration actions on freshwater habitat of endangered spring Chinook salmon. Journal of Freshwater Biology 54:1560-1575.

- Honea, Jon, J. Jorgensen, **Michelle McClure**, T. Cooney, K. Engie, D. Holzer and R. Hilborn. 2009. Evaluating habitat effects on population status: influence of habitat restoration on endangered spring-run Chinook salmon. *Journal of Freshwater Biology* 54: 1576-1592.
- McClure, Michelle**, S. Carlson, G. Pess, T. Beechie, J. Jorgensen, S. Sogard, B. Sanderson, D. Holzer, R. Carmichael, M. Power, J. Travis, S. Sultan. 2008. Evolutionary consequences of habitat loss for Pacific anadromous salmonids. *Evolutionary Applications* 1(2): 300-318.
- McClure, Michelle**, F.M. Utter, C. Baldwin, R. Carmichael, P. Hassemer, P. Howell, P. Spruell, T. Cooney, C. Petrosky, H. Schaller. 2008. Evolutionary effects of alternative artificial propagation programs: Implications for the viability of endangered anadromous salmonids. *Evolutionary Applications* 1(2): 356-175.
- McClure, Michelle** and Mary Ruckelshaus. 2007. Collaborative Science: Moving Ecosystem-based Management Forward in Puget Sound. *Fisheries* 32(9): 458-461
- Good, Thomas P., Timothy Beechie, J. Paul McElhany, **Michelle McClure** and Mary H. Ruckelshaus. 2007. Recovery planning for Endangered Species Act-listed Pacific salmon: using science to inform goals and strategies. *Fisheries* 32(9): 426-440.
- Good, Thomas P., **Michelle M. McClure**, Benjamin P. Sandford, Katherine A. Barnas, Douglas M. Marsh, Brad A. Ryan, and Edmundo Casillas. 2007. Quantifying the effect of Caspian Tern predation on threatened and endangered Pacific salmon in the Columbia River. *Endangered Species Research* 3:11-21.
- Sound Science: Synthesizing ecological and socioeconomic information about the Puget Sound ecosystem. 2007. Mary H. Ruckelshaus and **Michelle M. McClure**, coordinators; prepared in cooperation with the Sound Science collaborative team. U.S. Dept. of Commerce, National Oceanographic and Atmospheric Administration (NMFS), Northwest Fisheries Science Center, Seattle, Washington. 93 p.
- McClure, Michelle**, Peter McIntyre and Amy R. McCune. 2006. Notes on the natural diet and habitat of eight danionin fishes, including the zebrafish *Danio rerio*. *Journal of Fish Biology* 69:553-570.
- Zabel, Richard, Mark Scheuerell, **Michelle McClure** and John G. Williams. 2006. The interplay between climate variability and density dependence in the population viability of Chinook salmon. *Conservation Biology* 20(1):190-200.
- McClure, Michelle** and Amy R. McCune. 2003. Evidence for developmental linkage of pigment patterns with body size and shape in Danios (Teleostei: Cyprinidae). *Evolution* 57: 1863-1875.
- McClure, Michelle**, Beth Sanderson, Eli Holmes and Chris Jordan. 2003. A large-scale, multi-species status assessment: salmonids in the Columbia River Basin. *Ecological Applications*. 13: 964-989.
- McClure, Michelle** and George Pess. 2002. revision of 'Water Conservation'. McGraw-Hill Encyclopedia of Science and Technology, 9th ed., vol. 19.
- McClure, Michelle**, Thomas Cooney and Michelle Marvier. 2001. Assessing the role of dams in salmon recovery. *Hydroreview* 20:36-45

- Kareiva, Peter, Michelle Marvier and **Michelle McClure**. 2001. Dam breaching and chinook salmon recovery: Response. *Science* 291:939a.
- Kareiva, Peter, Michelle Marvier and **Michelle McClure**. 2000. Recovery and management options for spring/summer chinook salmon in the Columbia River Basin. *Science* 290:977-979.
- Kareiva, Peter, Philip Levin and **Michelle McClure**. 2000. Many Plans, One Bottom Line: Save Endangered Salmon. Letter to *Science* 289: 2281.
- McClure, Michelle**. 1999. Development and evolution of melanophore patterns in fishes of the genus *Danio*. *Journal of Morphology* 241:83-105.
- McClure, Michelle**. 1998. Development and evolution of pigmentation patterns in fishes of the genus *Danio* (Teleostei: Cyprinidae). Ph.D. dissertation, Cornell University.
- McClure, Michelle**. 1997. Review of *The Rise of Fishes, 500 million years of evolution*, by John A. Long, and *Discovering Fossil Fishes*, by John G. Maisey. *American Paleontologist* 5(1): 8-9.
- McClure, Michelle** and Andrew J. Bohonak. 1995. Non-selectivity in extinction of bivalves in the Late Cretaceous of the Atlantic and Gulf Coastal Plain of North America. *Journal of Evolutionary Biology* 8:779-794.

BOOK CHAPTERS

- Waples, R.S., **M. McClure**, T. C. Wainwright, J.P. McElhany, P. Lawson. 2010. Integrating evolutionary and ecological considerations in recovery planning for Pacific salmon. Pp 239-266 in J. A. DeWoody, J.W. Bickham, C. Michler, K. Nichols, G. Rhodes and K. Woeste (eds.), *Molecular Approaches in Natural Resource Conservation*. Cambridge University Press.
- Ruckelshaus, M., P. McElhany, **M. McClure** and S. Heppell. 2004. Chinook salmon in Puget Sound: Effects of spatially correlated catastrophes on persistence. Pp. 208-218, In R. Ackakaya, M. Burgman, O. Kindvall, C.C. Wood, P. Sjogren-Gulve, J. S. Hatfield and M. A. McCarthy (eds.) *Species Conservation and Management: Case Studies*. Oxford Univ. Press.

PUBLICATIONS IN PREPARATION

- McClure, Michelle, R. Carmichael, T. Cooney, P. Hassemer, P. Howell, D. McCullough, C. Petrosky, H. Schaller, P. Spruell and F. Utter. Population Identification for listed chinook salmon, sockeye salmon and steelhead Evolutionarily Significant Units in the Interior Columbia Basin. NOAA Technical Memorandum.
- McClure, Michelle, T. Beechie, T. Cooney, D. Holzer, and R. Zabel. Evaluating the potential for habitat conditions to improve salmon and steelhead population status in the Columbia River Basin. For submission to *Conservation Biology*.
- McClure, Michelle, R. Zabel, T. Cooney, H. Schaller and C. Petrosky. Climate conditions affect the impact of hydropower improvements for Columbia salmonids. For submission to *Ecological Applications*.

REPORTS

- RIST, (Recovery Implementation Science Team). 2009. Hatchery Reform Science: A review of some applications of science to hatchery reform issues. Contributing author.
http://www.nwfsc.noaa.gov/trt/puget_docs/hatchery_report_april92009.pdf
- McClure, Michelle and the NWFSC Research Planning Team. 2007. Planning Today for Tomorrow's Science: The Northwest Fisheries Science Center's Research Planning Priorities.
http://www.nwfsc.noaa.gov/directors_corner/research_plan.cfm
- McClure, Michelle, Richard W. Zabel, T. Cooney, H. Schaller, C. Petrosky, P. Howell, P. Hassemer, C. Baldwin. 2007. Assessing the Impact of Climate and Hydropower on Population Productivity for Interior Columbia River Stream-type Chinook and Steelhead Populations. 92pp with figures. Released for co-manager review.
- McClure, Michelle, Fred Utter, Casey Baldwin, R. Carmichael, P. Spruell, T. Cooney, P. Hassemer, P. Howell, H. Schaller and C. Petrosky. 2007. Considering Alternative Artificial Propagation Programs: implications for the viability of Listed Anadromous Salmonids in the Interior Columbia River. TRT report released for co-manager use. 72 pp with figures
- T. Cooney, M. McClure, R. Carmichael, P. Hassemer, P. Howell, C. Petrosky, H. Schaller, P. Spruell and F. Utter. Viability criteria for application to Interior Columbia Basin ESUs. 2007. Draft Technical Recovery Team document released for co-manager review.
- McClure, Michelle and the Interior Columbia Technical Recovery Team. 2007. Role of large extirpated areas in recovery. 22 page memo released for co-manager use in recovery and conservation efforts.
- McClure, Michelle and the Interior Columbia Technical Recovery Team. 2007. Scenarios for Evolutionarily Significant Unit viability consistent with TRT viability criteria. 23 page memo released for co-manager use in recovery and conservation efforts.
- McClure, Michelle, T. Beechie, T. Cooney, R. Zabel, M. Ruckelshaus and K. Fresh. 2004. Evaluating the potential for improvements to habitat condition to improve population status for eight salmon and steelhead ESUs in the Columbia Basin. NWFSC Processed Report. 261 pp and figures.
www.salmonrecovery.gov
- McClure, Michelle, R. Carmichael, T. Cooney, P. Hassemer, P. Howell, D. McCullough, C. Petrosky, H. Schaller, P. Spruell and F. Utter. 2003. Independent populations of listed chinook salmon, sockeye salmon and steelhead Evolutionarily Significant Units in the Interior Columbia Basin. Draft Technical Recovery Team document released for co-manager review.
- McClure, Michelle and Gary Matlock. 1989. A cultural resources survey of the Upper East Creek Timber Sale. San Juan National Forest, Durango, Colorado.
- McClure, Michelle. 1988. A cultural resources survey of the Little Taylor Timber Sale. San Juan National Forest, Durango, Colorado.

REVIEWER FOR

Fisheries
Journal of Applied Ecology
Canadian Journal of Fisheries and Aquatic Sciences
Ecological Applications
Conservation Biology
North American Journal of Fisheries Management
Biological Conservation
Edited volumes (Princeton University press, University of Washington press)
Ecological Economics
Monterey Bay Aquarium Seafood Watch program
Transactions of the American Fisheries Society

PRESENTATIONS

- Changing Climate, Changing Approaches: Managing Aquatic Natural Resources in a Changing World. 2011. Convener, and Moderate of AAAS Symposium.
- Monitoring programs coupling environmental and biological information. 2010. Yellow Sea Large Marine Ecosystem Monitoring Workshop, Dalian, China. Invited speaker.
- Science supporting water management Biological Opinions. 2010. Western States Governor's Alliance and Western States Water Council workshop. Invited speaker.
- Why are we government scientists? 2009. Keynote presentation, NWFSC Science Symposium.
- Climate conditions and salmonid viability. 2007-2009. Invited talks, Wild Salmon Center, Portland, Oregon, University of Washington, multiple federal agency venues.
- Sound Science: synthesizing biological and socioeconomic information. 2007. With Mary Ruckelshaus. Presentation to Washington State Legislature Committee on Natural Resources.
- Overview of Interior Columbia TRT technical products: population identification, viability criteria and limiting factors. Alone and with T. Cooney. 2005-2007. Multiple venues, including co-manager and stakeholder meetings, Council on Environmental Quality, NMFS workshops, Independent Science Advisory Board, Rocky Mountain Research Station (USFS), Northwest Fisheries Science Center weekly seminar series and federal governmental meetings.
- Ecosystem-based Management in Puget Sound. 2006. with Mary Ruckelshaus. NMFS Tier III Stock Assessment Improvement Protocol Workshop.
- Evaluating the potential for changes in tributary and estuarine habitats to improve population status of interior Columbia basin ESA-listed salmon and steelhead. 2004-2006. Multiple venues, including invited speaker, University of Washington, state government workshops, co-manager and stakeholder meetings, and NMFS workshops.

Michelle M. McClure

Independent populations of salmon and steelhead in the Interior Columbia Basin. 2003-2006. Multiple venues, including stakeholder meetings, federal governmental meetings, and NMFS workshops.

Estimating true population growth rates: what you don't know can hurt you. 2001. Society for Conservation Biology, annual meeting.

A large-scale, multi-species risk assessment: salmonids in the Columbia River Basin. 2000. Ecological Society of America, annual meeting.

Population viability, management options and quantitative assessment of risk for salmonid ESUs in the Columbia River Basin. 1999-2002. Multiple venues, including tribal and federal governmental meetings, U.S. Army Corps of Engineers Research symposium and NMFS workshops.

Constraint and lability in the evolution of pigmentation patterns in fishes of the genus *Danio*. 1998. Invited seminar speaker, Skidmore College.

Development and evolution of pigmentation patterns of fishes of the genus *Danio*. 1997. Society for the Study of Evolution, annual meeting, and American Society of Ichthyologists and Herpetologists, annual meeting.

Phylogenetic relationships in rockfishes (*Sebastes* spp.): evidence for sympatric speciation? 1994. American Society of Ichthyologists and Herpetologists, annual meeting.

TRAINING

Government Affairs

Congressional Issues for Federal Fisheries Agencies (Government Affairs Institute)

Management and Supervision

Project Management

Pre-Supervisory Training

NOAA Mid-level Management Retreat

Supervision Foundations for Federal Managers I

Dealing with Performance and Conduct Issues

Statistics

Experimental Design

Model Averaging

R – Statistics and Modeling

OTHER SKILLS AND ACTIVITIES

Board of directors, Salish Sea Expeditions

Board of directors, Poulsbo Marine Science Center

Member, Instructional Material Committee, Bainbridge Island School District

SCUBA certified (YMCA)

Fluent in Brazilian Portuguese