

Jennifer R. Gardner | Curriculum Vitae

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EDUCATION

Masters of Science - Aquatic and Fishery Sciences, September 2017-Present

University of Washington, Seattle, WA

- GRE Verbal Reasoning 163/170, Quantitative Reasoning 163/170, Analytical Writing 5.0/6.0
- GPA 3.97/4.0

Bachelor of Science - Aquatic and Fishery Sciences, Graduated June 2014

University of Washington, Seattle, WA

- Minor- Quantitative Sciences
- Summa Cum Laude with College Honors (GPA 3.95/4.00)
- Dean's List, 12 consecutive quarters, Autumn 2010-Spring 2014

TEACHING EXPERIENCE

Teaching Assistant, January 2018-March 2018, January 2020- Present

Peer Teaching Assistant, January 2013-March 2013, January 2014-March 2014

Biology of Fishes, School of Aquatic and Fishery Sciences, University of Washington, Seattle

- Taught lab section of the class, lecture section taught by Luke Tornabene (2018) or Ted Piestch (2013,2014)
- Taught general anatomy of fishes, taxonomy, and general identification and relation of all major fish orders
- Wrote quizzes and tests for laboratory section of the class
- Wrote lab handouts and planned lab activities to accommodate new class structure with 10 labs during the quarter instead of 20 (2020)
- Assisted in grading of lecture exams (2018, 2020)
- Coordinated and assisted other TAs with overall organization, set up, and teaching of the labs (2018, 2020)

Instructor, October 2017-December 2017; March 2019 – May 2019

Girls in Science, Burke Museum, University of Washington, Seattle

- Helped to teach a course to high school girls interested in STEM.
- Taught process of species descriptions and simulated describing a new species culminating in a poster presentation

WORK EXPERIENCE

Research Scientist, March 2015-August 2017

Research Scientist Assistant, September 2014- March 2015

Student Research Assistant, June 2014- September 2014

Washington Cooperative Fish and Wildlife Research Unit under Dave Beauchamp, University of Washington, Seattle, WA

- Managed, scheduled, directed and hired lab and field personnel including technicians, interns, and volunteers
- Co-authored and edited scientific papers
- Analyzed data and ran bioenergetics models using R
- Designed and executed hydroacoustic surveys paired with midwater trawling to assess biomass and determine lakewide population abundances of planktivore species
- Developed age-length keys and growth curves for predatory fish
- Conducted field collections using purse seines, gill nets, midwater trawls, electroshocking, and zooplankton nets
- Identified fish species common to Puget Sound and Lake Washington in the field
- Processed whole fish to collect tissue, stomach/diet, scales, otoliths, gonads, and coded wire tags if present.
- Collected and analyzed samples to determine lakewide species composition, abundance, and biomass of zooplankton
- Collected, processed, and analyzed scales, bones, and otoliths for aging of fishes
- Identified diet contents including invertebrates (terrestrial and aquatic, freshwater and marine) and fishes

Scientist, July 2012-August 2012, July 2013-August 2013, July 2018-August 2018

Resource Assessment and Conservation Engineering Division (RACE) Groundfish Survey, NOAA, Sandpoint, WA

- Worked on fishing vessels contracted for research for multiple (3-4) weeks at a time with little to no access to land
- Identified, sorted, and measured fish and invertebrate species caught in bottom trawls
- Identified sex of fish and collected samples including otoliths, tissues, and whole specimens for museum collection
- Performed real time data entry using Microsoft Access
- Worked on Leg 3 of Gulf of Alaska Survey on the Alaska Provider in 2013
- Volunteered on Leg 3 of Aleutian Survey on the Sea Storm in 2012 and 2018

Undergraduate Assistant, October 2010-September 2014

University of Washington Fish Collection, University of Washington, Seattle, WA

- Performed general curatorial work necessary for maintaining a working museum collection
- Led tours of the collection for elementary, high school, and college groups
- Used dichotomous keys to identify fish species from around the world, most commonly from the Eastern North Pacific Ocean and freshwaters of the Northwestern USA.

OUTREACH & VOLUNTEER EXPERIENCE

Graduate Student Symposium (GSS) Coordinator, May 2018- November 2019

GSS Food Volunteer Coordinator, November 2017

Fisheries Interdisciplinary Network of Students (FINS), University of Washington, Seattle

- Coordinated the annual symposium to offer a forum for all SAFS graduate students to present their work to peers
- Coordinated volunteers and filled in when needed to provide and set up snacks and food throughout the day long event

Secretary, September 2012-March 2013

Outreach Coordinator, September 2013-June 2014

Society for Undergraduate Research in Fisheries, School of Aquatic and Fishery Sciences,
University of Washington, Seattle, WA

- Developed, coordinated, advertised and ran club events targeted at connecting undergraduates interested in fisheries

Communications Officer, September 2013-September 2014

American Fisheries Society, University of Washington Student Chapter, Seattle, WA

- Set up, ran, and advertised for club events targeted at both graduate and undergraduate fishery students

RESEARCH EXPERIENCE

Summer Intern, June 2012-September 2012

Alaska Fishery Science Center, NOAA, Sandpoint, WA

- Identified species of snailfish eggs laid inside king crabs using genetic barcoding techniques
- Advised by James Orr, Ingrid Spies, and Duane Stevenson

Student Researcher, April 2013-June 2013

Marine Genomics Research Experience, Friday Harbor Labs, Friday Harbor, WA

- Analyzed developmental protein expression in ctenophore embryos.
- Advised by Billie J. Swalla

Summer Intern, June 2011-August 2011

Center for Investigational Therapeutics Lab, Huntsman Cancer Institute, Salt Lake City, UT

- Optimized assays involving COT kinase to be used in further tests to identify drugs that will suppress kinase activity to be used in cancer treatment

PUBLICATIONS

- Gardner, J. R., J.W. Orr, D.E. Stevenson, I. Spies, and D.A. Somerton. 2016. Reproductive Parasitism Between Distant Phyla: Molecular Identification of Snailfish (Liparidae) Egg Masses in the Gill Cavities of King Crabs (Lithodidae) *Copeia*, 104 (3).
- Hansen, A.G., J.R. Gardner, D.A. Beauchamp, R. Paradis, and T.P. Quinn. 2016. Recovery of Sockeye Salmon in the Elwha River, Washington after Dam Removal: Dependence of Smolt Production on the Resumption of Anadromy by Landlocked Kokanee. *Transactions of the American Fisheries Society* 145:6.
- Hansen, A. G., M. Polacek, K. A. Connelly, J. R. Gardner, and D. A. Beauchamp. 2017. Food web interactions in Kachess and Keechelus Reservoirs, Washington: implications for threatened adfluvial bull trout and management of water storage. Final Report to Washington State Department of Ecology. 68 pages.
- Connelly, K.A., J. Gardner, M. Gamble, J. Chamberlin, A. Winans, J. Keister, and D.A. Beauchamp. 2017. Size-Selective Mortality and Environmental Factors Affecting Growth during Early Marine Life Stages of Sub-Yearling Chinook Salmon in Puget Sound, Washington. Final Report to Long Live the Kings. 102 pages.
- Chamberlin, J., M. Gamble, K. Connelly, J. Gardner, R. Barsh, J. Keister, D. Beauchamp, M. Schmidt, B. Beckman, and K. Warheit. 2017. Assessing early marine growth in juvenile Chinook salmon: factors affecting variability in individual growth in Northern Puget Sound. Final Report to the Salmon Recovery Funding Board. 155 pages.
- Gamble, M.M., K.A. Connelly, J.R. Gardner, J.W. Chamberlin, K.I. Warheit, and D.A. Beauchamp. 2018. Size, Growth, and Size-Selective Mortality of Subyearling Chinook Salmon during Early Marine Residence in Puget Sound. *Transactions of the American Fisheries Society* 147:2.
- Hansen, A.G., J.R. Gardner, K.A. Connelly, M. Polacek, and D.A. Beauchamp. 2018. Trophic compression of lake food webs under hydrologic disturbance. *Ecosphere* 9(6).
- Davis, M. J., J. W. Chamberlin, J. R. Gardner, K. A. Connelly, M. M. Gamble, B. R. Beckman, D. A. Beauchamp. In Review. Variable prey consumption leads to distinct, regional differences in Chinook salmon growth during the early marine critical period.

PRESENTATIONS

- Gardner, J.R. (March 2014) DNA-based identification of snailfish (*Careproctus* sp.) egg masses found in the gill cavities of king crabs (genus *Lithodes*). Presented at the American Fisheries Society, Washington-British Columbia Chapter Annual Grand Meeting (Winner of Best Student Talk)
- Gardner, J.R. (March 2017) Interannual Comparison of habitat use, growth, and diet composition of hatchery and wild Chinook Salmon (*Oncorhynchus tshawytscha*) in Puget Sound. Presented at the Salmon Ocean Ecology Meeting.
- Gardner, J.R. (September 2017) Growth, habitat use, and diet composition of sub-yearling Chinook Salmon (*Oncorhynchus tshawytscha*) in Puget Sound, Washington. Presented at the Gilbert Ichthyological Society Meeting.
- Gardner, J.R. (July 2018) Iodine-based contrast-enhancing staining methods for visualization of soft tissues of snailfishes (Family:Liparidae) through CT-Scanning. Poster. Joint Meeting of Ichthyologists and Herpetologists.
- Gardner, J.R. (October 2018) Rolling the Dice: Diffusible Iodine-based Contrast-enhanced Computed Tomography (diceCT) methods for visualization of soft tissues. Presented at the Gilbert Ichthyological Society Meeting.
- Gardner, J.R. (November 2018) Rolling the Dice: diceCT methods for visualization of soft tissues Iodine-based contrast-enhancing staining methods for visualization of soft tissues. Presented at the School of Aquatic and Fishery Sciences Graduate Student Symposium.
- Gardner, J. R., J. W. Orr, L. Tornabene (July 2019) Two new species of snailfish (Liparidae) from the Aleutian Islands, Alaska, in the subgenus *Temnocora*. Poster. Joint Meeting of Ichthyologists and Herpetologists.
- Gardner, J. R., J. W. Orr, L. Tornabene (October 2019) New Species of Snailfishes from the Aleutian Islands, Alaska. Presented at the Gilbert Ichthyological Society Meeting.

HONORS & AWARDS

Best Student Paper, American Society of Ichthyologists and Herpetologists, *Copeia* 2016
School of Aquatic and Fishery Sciences Fellowship, 8 quarters of funding
Clarence H. Campbell Endowed Lauren Donaldson Scholarship in Ocean & Fishery Sciences, Autumn 2017-Spring 2018
Dean's List, University of Washington, 12 consecutive quarters, Autumn 2010-Spring 2014
Richard T. Whiteleather Endowed Scholarship, 2010-2011 School Year
Honors Non-Resident Merit Scholarship, 2010-2011 School Year
Maxfield Fishery Scholarship, Autumn Quarter 2012
Peterson Stanley Scholarship, Winter Quarter-Spring Quarter 2013, 2013-2014 School Year
Campbell Donaldson Scholarship, 2012-2013 School Year
Mary Gates Endowment Scholarship, Spring Quarter 2013
Best Student Oral Presentation (Co-winner) American Fisheries Society, Washington-British Columbia Chapter Annual Grand Meeting, March 2014
President's Medal Finalist, University of Washington, May 2014
Faculty Merit Award, School of Aquatic and Fishery Sciences, University of Washington 2014

SKILLS

- Proficient in data analysis and making figures in R
- Proficient in species identification of fish from the Pacific Northwest, both marine and freshwater
- Highly experience in aquatic ecology field work including bottom and midwater trawling, gillnetting, purse seining, zooplankton sampling, electroshocking, and hook and line sampling, in all types of weather
- Experience with use of Bruker Skyscan MicroCT Scanner
- Proficient in sex identification of and removal of otoliths from adult and juvenile fish
- Proficient in identification of terrestrial and aquatic invertebrates from freshwater and marine environments commonly found in diets of salmonids
- Proficient in identification from bones of fish commonly found in salmonid diets
- Proficient in analysis for age and growth of scales, especially juvenile salmonids
- Proficient in use of dichotomous keys to identify fish to species
- Proficient in DNA extraction, PCR amplification, and gel electrophoresis.
- Very proficient at Microsoft Excel and general database management
- Experience making map figures using ESRI's ArcGIS
- Experience writing, editing, and publishing scientific papers
- Experience submitting DNA sequences to GENBANK for online database publication
- Valid Washington state driver's license and boater's card
- Open water dive certified