

GORDON WILLIAM HOLTGRIEVE

Curriculum Vitae

Ph.D. candidate

University of Washington

School of Aquatic and Fishery Sciences & Department of Biology

Box 355020, Seattle, WA 98195-5020

206.227.9930 • gholt@u.washington.edu

<http://students.washington.edu/gholt/>

EDUCATION

M.S. Stanford University, Earth Systems Program, 2001.

Thesis: Distribution and Abundance of Native and Non-Native Fishes in San Francisquito Creek, California.

Major advisor: Dr. Carol Boggs.

B.S. Stanford University, Earth Systems Program, 1999.

Track: Biosphere.

Las Positas College, Biology major, transferred 1997.

HONORS AND AWARDS

Fellowships/Scholarships

- University of Washington School of Aquatic & Fishery Sciences, H. Mason Keeler Fellowship, 2008 – 2009 (\$11,000)
- Environmental Protection Agency (EPA) Science to Achieve Results (STAR) Fellowship, 2004 – 2007 (\$107,000)
- Achievement Rewards for College Scientists Award, 2003 – 2006 (\$15,000)
- University of Washington Graduate School Top Scholar Award, 2003 (\$4,600)
- Las Positas College Earth Sciences Scholarship, 1996 (\$300)
- Nissen Family Scholarship, 1996 (\$300)
- Las Positas College Classified Senate Scholarship, 1996 (\$300)

Awards

- Best Student Presentation (2nd place), American Fisheries Society, WA-BC chapter general meeting, 2009
- NSF Graduate Research Fellowship Program Honorable Mention, 2004

- Stanford University Centennial Teaching Assistant Award, 2000
- Stanford University Dept. of Biological Sciences Excellence in Teaching Award, 1999
- Earth Systems Program Academic Excellence Award, 1999
- Las Positas College Dean's List, 1995 – 1997

Small Grants

- Alexander Goetz instrument support program award, Analytical Spectral Devices Inc., Boulder CO., 2008 (\$500)
- Equipment grant, Bogen Imaging, Inc., 2008 (\$300)
- Travel grant, School of Aquatic and Fishery Sciences, University of Washington, 2007 (\$300)
- Travel grant, Department of Biology, University of Washington, 2006 (\$600)
- Undergraduate research opportunities, Stanford University, 1998 (\$400)

POSITIONS HELD

Ph.D. candidate, University of Washington, School of Aquatic and Fishery Sciences & Department of Biology, 2005 – present

Graduate assistant, 2003 – 2005

Dissertation topic: Ecosystem effects of salmon as vectors of nutrients, energy, and organic matter. Advisor: Daniel E. Schindler.

Research Technician

- Hawaii Ecosystems Projects, Stanford University, 2000 – 2003. Supervisors: Pamela A. Matson & Peter M. Vitousek
- Center for Conservation Biology, Stanford University, 1998 – 2000. Supervisor: Alan E. Launer.
- Winter-Run Chinook Salmon Captive Broodstock Program, California Academy of Sciences, 1996 – 1998. Supervisor: David White.

Adjunct Teaching Faculty

- Introduction to the Science of Biology, Las Positas College, Livermore, CA, Spring 2002.

Teaching/Course Assistant

- Introductory Biology for Majors, Department of Biology, University of Washington, Winter 2004.
- Jasper Ridge Biological Preserve Docent Class, Stanford University, Win. & Spr. 2000.
- Field Studies in Earth Systems, Stanford University, Spring 2000.
- Introduction to Earth Systems, Stanford University, Winter 1999.
- Geosphere, Stanford University, Autumn 1999.
- Core Biology Lab, Stanford University, Spring 1999.

PUBLICATIONS

Published articles

- Holtgrieve, G. W.**, P. K. Jewett, and P. A. Matson. (2006) Variations in soil N cycling and trace gas emissions in wet tropical forests. *Oecologia* 146: 584-594.
- Holtgrieve, G. W.** (2006) Species account: Sudden oak death. In Boersma, PD, SH Reichard, and A van Buren (eds), *Invasive Species in the Pacific Northwest*. University of Washington Press, Seattle, WA.
- Moore, J. W., D. E. Schindler, J. L. Carter, J. Fox, J. Griffiths, and **G. W. Holtgrieve**. (2007) Biotic control of stream fluxes: spawning salmon drive nutrient and matter export. *Ecology* 88 (5): 1278-1291.
- Holtgrieve, G. W.**, D. E. Schindler, and P.K. Jewett. (2009) Large predators and biogeochemical hotspots: Brown bear (*Ursus arctos*) predation on salmon alters nitrogen cycling in riparian soils. *Ecological Research* 24 (5): 1125-1135.

Manuscripts in press

- M.R. Baker, D.E. Schindler, **G.W. Holtgrieve**, and V.L. St. Louis. Bioaccumulation and transport of contaminants: migrating sockeye salmon as vectors of mercury. *Environmental Science & Technology*.

Manuscripts in review

- Holtgrieve, G. W.** and D. E. Schindler. Marine-derived nutrients, bioturbation, and ecosystem metabolism: reconsidering the role of salmon in streams. *Ecology*.
- Holtgrieve, G.W.**, D.E. Schindler, T.A. Branch, and Z.T. A'Mar. Simultaneous quantification of aquatic ecosystem metabolism and re-aeration using a Bayesian statistical model of oxygen dynamics. *Limnology and Oceanography*.
- M.R. Baker, D.E. Schindler, **G.W. Holtgrieve**, and V.L. St. Louis. Bioaccumulation and transport of contaminants: migrating sockeye salmon as vectors of mercury. *Environmental Science & Technology*.
- S. R. Alin, C. I. Salimon, J. E. Richey, A. Krusche, M. F. Rasera, **G. W. Holtgrieve**, and A. Snidvongs. Carbon dioxide flux and transfer velocity concentration measurements in the Amazon and Mekong river basins (Brazil, Southeast Asia). *J. of Geophysical Research–Biogeochemistry*.

Dissertation papers in preparation

- Holtgrieve, G. W.**, D. E. Schindler, D. T. Selbie, P. R. Leavitt, B. P. Finney, and I. Gregory-Eaves. Latitudinal variation in nitrogen loading to coastal North Pacific lakes as inferred from nitrogen stable isotopes. Target journal: *Biogeochemistry*.
- Holtgrieve, G. W.**, D. E. Schindler, C. Gowell, and C. P. Ruff. Fertilization versus

excavation: Effect of salmon subsidies depends on geomorphology. Target journal: *Ecology*.

Reports

- Holtgrieve, G. W.** and A. E. Launer. (2000) Fishes and Amphibians of the San Francisquito Creek and Matadero Creek Watersheds, Stanford University: Report on 1998 & 1999 Field Activities. Center for Conservation Biology, Stanford, CA, 2000.
- Holtgrieve, G. W.** (2000) *Fishes of San Francisquito Creek*. Jasper Ridge Biological Preserve Docent Manual, Stanford, CA.
- Holtgrieve, D. G. and **G. W. Holtgrieve**. (1995) *Physical Stream Survey of Butte Creek, Butte County, CA*. Technical report prepared for the Nature Conservancy and California State University, Chico, CA.

PRESENTATIONS

- Holtgrieve, G. W.**, D. E. Schindler, and P. D. Quay. (2009). Marine-derived nutrients and ecosystem metabolism: reconsidering the role of salmon in streams. *American Fisheries Society*, WA-BC chapter annual meeting. Award for best student presentation (2nd place).
- Holtgrieve, G. W.** (2009) Quantifying aquatic ecosystem metabolism using a Bayesian statistical model of diel O₂ and $\delta^{18}\text{O}$ -O₂ curves. University of Washington Chemical Oceanography seminar.
- Holtgrieve, G. W.**, D. E. Schindler, D. T. Selbie, P. R. Leavitt, B. P. Finney, and I. Gregory-Eaves. (2008) Latitudinal variation in nitrogen loading to coastal North Pacific lakes as inferred from nitrogen stable isotopes. *Ecological Society of America* annual meeting.
- Holtgrieve, G. W.**, D. E. Schindler, and P. K. Jewett. (2007) When bears sit in the woods: Brown bear (*Ursus arctos*) feeding on salmon alters N cycling in riparian soils. *Ecological Society of America* annual meeting.
- Holtgrieve, G. W.**, D. E. Schindler, and S. R. Alin. (2007) Keystone species and ecosystem metabolism: reconsidering the role of salmon in streams. *American Society for Limnology and Oceanography* aquatic sciences meeting.
- Holtgrieve, G. W.** and D. E. Schindler. (2006) Marine-derived nutrients and ecosystem metabolism: reconsidering the role of salmon in streams (poster). *EPA STAR Fellows Conference*.
- Holtgrieve, G. W.**, D. E. Schindler, and S. R. Alin. (2006) Marine-derived nutrients and ecosystem metabolism: reconsidering what salmon do to streams. *North American Benthological Society* annual meeting.
- Alin, S.R., C. Salimon, J. Richey, A. Krusche, **G. Holtgrieve**, and V. Neu. (2006) Carbon

dioxide flux and transfer velocity measurements in the Amazon (Brazil) and Mekong (Southeast Asia) river basins. *American Geophysical Union* fall meeting.

Holtgrieve, G. W. and D. E. Schindler. (2006) Marine-derived nutrients and ecosystem metabolism: reconsidering the role of salmon in streams. *University of Washington Biology Department Graduate Student Symposium*.

Holtgrieve, G. W. and D. E. Schindler. (2006) Marine-derived nutrients and ecosystem metabolism: reconsidering the role of salmon in streams. *University of Washington School of Aquatic and Fishery Sciences Graduate Student Symposium*.

Holtgrieve, G. W., S. R. Loarie, and A. E. Launer. (2003) Influence of invasive species and cumulative watershed effects on threatened California red-legged frog (*Rana aurora draytonii*) distribution in a suburban stream. *Society for Conservation Biology* annual meeting.

Holtgrieve, G. W., S. R. Loarie, and A. E. Launer. (2003) Influence of invasive species and cumulative watershed effects on threatened California red-legged frog (*Rana aurora draytonii*) distribution in a suburban stream. *Bay Area Conservation Biology Society Symposium*.

S. R. Loarie, **G. W. Holtgrieve**, and A. E. Launer. (2003) Chinese Mitten Crabs in San Francisquito Creek: Tracking the invasion. *Bay Area Conservation Biology Society Symposium*.

Holtgrieve, G. W., A. E. Launer, and S. R. Loarie. (2002) Conservation Planning in a Suburban Landscape: Lessons from the Silicon Valley (poster). *Ecological Society of America* annual meeting.

INVITED LECTURES

Would We Recognized a Sustainable Fishery if We Saw One? University of Oregon. October 25, 2006. Based on Bevans Series lecture by D. Schindler.

Introduction to Aquatic Chemistry, University of Washington. October. 4, 2006.

Fish out of water: how bears and salmon affect stream ecosystems. Achievement Rewards for College Scientists spring luncheon. April 14, 2006.

The Carbonate System in Freshwaters, University of Washington. October 25, 2005.

Oxidation-Reduction Reactions in Lakes, University of Washington. October 27, 2004.

Fishes of San Francisquito Creek, Stanford University. May 24, 1999; May 19, 2000.

Global Environmental Change, Las Positas College. September 8, 1999.

Biodiversity, Las Positas College. December 8, 1998.

Behind the Scenes at the Steinhart Aquarium, California Academy of Sciences. October 17, 1996; March 12, 1997; September 20, 1997; September 16, 1998.

Aquarium Systems, Las Positas College. September 10, 1997; February 4, 1998;

September 9, 1998.

PROFESSIONAL SERVICE

- Reviewer for *Ecology* (2007 & 2008), *J. of Atmospheric Environment* (2007), *Ecosystems* (2004).
- Treasurer, Fisheries Interdisciplinary Network of Students (FINS), 2007 – 2009.
- Reviewer, *Society for Conservation Biology* contributed oral and poster presentations for the 2003 annual meeting.
- Jasper Ridge Biological Preserve Docent, Stanford University, CA, 1998–2003.

MEMBERSHIPS

- American Society for Limnology and Oceanography
- Ecological Society of America

COMPUTER LANGUAGES

- MS Visual Basic for Applications
- R (statistical computing and graphics)

rev. Oct. 1, 2009