

# KARA J. CROMWELL

University of Wisconsin-Madison  
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## EDUCATION

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### University of Wisconsin-Madison

Dept. of Zoology, Madison, WI, 2011-present  
PhD, expected graduation 2016

### University of Idaho

Dept. of Fish and Wildlife Resources, Moscow, ID  
Master of Science in Fishery Resources, 2009

### Walla Walla College

Dept. of English, College Place, WA. B.A. English, 2005  
Dept. of Biology, College Place, WA. B.S. Biology, 2003

## RESEARCH AND RELATED PROFESSIONAL EXPERIENCE

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### *Research Experience*

**Lab Assistant** (2009-2011) *Department of Biology, University of California, Riverside, CA.* Assisting in pilot studies on 1) the effects of killifish presence on recruitment and growth rates of Trinidadian guppies in an experimental mesocosm and 2) the effects of variable habitat permanence on life history evolution in African killifish. Work includes experimental mesocosm construction, fish husbandry and fish mark-and-recapture. Principle Investigator: Dr. David Reznick

**Graduate Research Assistant** (2006-2009) *Department of Fish and Wildlife Resources, University of Idaho, Moscow, ID.* Completed an M.S. study of spatial variation in trophic and demographic patterns in wild Chinook salmon, evaluating habitat, food availability and competitive interactions as determinants of growth and survival. Conducted stream and riparian habitat assessment, snorkel and electrofishing surveys, fish behavior observations, macroinvertebrate sampling and identification, fish stomach content analysis and stable isotope analysis. Advisor: Dr. Brian Kennedy

**Research Assistant** (2008) *Salmon Rivers Observatory Network, Flathead Lake Biological Research Station, Polson, MT.* Conducted salmonid population surveys and stream habitat assessment, measured hydro-geomorphology, water chemistry and nutrient availability, and collected plant and animal samples for stable isotope analysis in Big Creek, ID. Program Leader: Dr. Jack Stanford

**Field Assistant** (2004) *Biology Department, Walla Walla College, College Place, WA.* Measured habitat use, in situ oxygen consumption, movement rates and ammonia consumption in holothurians to determine diel cycles of activity, metabolism and nutrient recycling in the Agan An Marine Reserve, Philippines and Rosario Beach, Anacortes, WA. Work included day and night SCUBA diving to measure habitat, movements, foraging behavior, nutrient excretion and oxygen intake of sea cucumbers. Principle Investigator: Dr. James Nestler

**History of Science Research Intern** (2003-2004) *National Museum of Medical History, Washington, DC.* Conducted research to generate museum publications and exhibitions for the anatomical collection and historical archives. Developed explanatory notes and exhibition brochures for collections, and catalogued and captioned photographic images for museum exhibition. Supervisor: Dr. Adrienne Noe

**Undergraduate Independent Research** (2003) *Rosario Beach Marine Station, Anacortes, WA.* Evaluated food preferences for three species of nudibranchs from the Puget Sound, WA through a laboratory experiment designed to monitor foraging preferences through videography and direct observation. Supervisors: Drs. Larry McCloskey and James Nestler

### *Teaching and Work Experience*

**Teaching Assistant** (2011-2013) *Zoology Department, University of Wisconsin-Madison.* Courses: Introductory Biology, Ecology of Fishes Lab Instructor

**Biologist and Assistant Director** (2009-2011) *Mary Vagle Nature Center, Fontana, CA.* Developed environmental science curriculum for grades K-12, emphasizing urban ecology and water resources; created science internship program for high school and undergraduate students, mentoring them in independent research; acquired grant funding for microscopy equipment for new classroom science programs; curated live animal exhibit; collaborated in design and construction of interpretive exhibits.

**Teaching Assistant** (2006) *Department of Fish & Wildlife Resources, University of Idaho.* Courses: Fish Ecology.

**Teaching Assistant** (2003-2005) *Humanities Department, Walla Walla College.* Courses: Honors Research Writing, Literature of the Pacific Northwest, Humanities Seminar, Stylistics.

**Public Events Coordinator** (2004-2005) *Humanities Department, Walla Walla College, College Place, WA.* Designed and organized campus-based events to promote environmental humanities, emphasizing literature and place in the Pacific northwest.

**Substitute Elementary & Secondary School Teacher** (2002-2003) *Spencerville Junior Academy, Silver Spring, MD.* Instructed classes as needed for all subjects and all grades K-10.

**Undergraduate Teaching Assistant** (2002) *Biology Department, Walla Walla College, College Place, WA.* Courses: Biology for General Studies.

### *Professional Publications*

Mikulyuk, A. P.G. Hahn, B. Althouse, **K. Cromwell**, K. Rienzo-Stack. *In prep.* "Snail survival strategies: Evidence for multiple predator avoidance traits."

**Cromwell, K.J.** and B.P. Kennedy. (2011) "Diel distribution, behavior and consumption of juvenile Chinook salmon (*Oncorhynchus tshawytscha*) in a Wilderness stream." *Ecology of Freshwater Fish* 20: 421-430.

Holecek, D.E., **K.J. Cromwell** and B.P. Kennedy (2009) "Age-0 Chinook Salmon Habitat Use, Availability, and Selection in a Central Idaho Wilderness Stream." *Transactions of the American Fisheries Society* 138: 633-644.

### *Professional Presentations*

**Cromwell, K.J.** (2013) "Telling science stories: when it gets ugly." *Oral presentation.* Graduate Student Symposium, Center for Culture, History and Environment, Madison, WI.

**Cromwell, K.J.**, C.B. Robbins and B.L. Peckarsky (2012) "Effects of environmental change on parasitism in mayflies." *Oral presentation.* Society for Freshwater Science, Louisville, KY.

**Cromwell, K.J.** and B.P. Kennedy (2009) “Relationships between benthic and drift production and the trophic transfer of energy to juvenile Chinook salmon (*Oncorhynchus tshawytscha*).” *Poster presentation*. American Fisheries Society Idaho Chapter Meeting, Boise, ID. *Winner: Best Student Poster Award*

**Cromwell, K.J.** and B.P. Kennedy (2008) “The relative roles of biotic and abiotic factors in determining growth of juvenile Chinook in an Idaho wilderness stream.” *Poster presentation*. American Fisheries Society Idaho Chapter Meeting, Post Falls, ID.

Holecek, D.E. **K.J. Cromwell** and B.P. Kennedy (2008) “Juvenile Chinook Salmon Microhabitat Use, Availability, and Selection in a Central Idaho Wilderness Stream.” *Poster presentation*. American Fisheries Society Idaho Chapter Meeting, Post Falls, ID.

**Cromwell, K.J.**, D.E. Holecek and B.P. Kennedy. (2007) “Relating density of juvenile Chinook salmon to habitat availability in a wilderness stream.” *Poster presentation*. Wild Trout Symposium IX, West Yellowstone, MT.

**Cromwell, K.** Dennison, R. Wheeling, A. Wolffing, J. Nestler. (2005). “Diel Cycles of Activity, Metabolism, and Nutrient Production in Tropical Sea Cucumbers.” *Poster presentation*. American Society of Limnology and Oceanography Meeting, Salt Lake City, UT.

## GRANTS AND SCHOLARSHIPS RECEIVED

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Anna Grant Birge Memorial Award, UW-Madison Center for Limnology, 2013	\$900
Scholarship for high achievement PhD Year 1, UW-Madison Dept. of Zoology, 2012	\$500
Graduate Research Award, UW-Madison Dept. of Zoology, 2012	\$6000
John Jefferson Davis Travel Award, UW-Madison Dept. of Zoology, 2012	\$400
Anna Grant Birge Memorial Award, UW-Madison Center for Limnology, 2012	\$1700
Rocky Mt. Biological Laboratory Stanley Dodson Memorial Fellowship, 2012	\$3700
Society for Freshwater Science Endowment Award, 2012	\$600
UW-Madison Graduate School Biological Sciences Scholar Award, 2011	\$1500
3M Company K-12 Science <i>Plus</i> Education Grant, 2010	\$3500
University of Idaho GPSA Travel Award, 2008	\$400
University of Idaho Student Grant Program Research Award, 2007	\$1500
DeVlieg Foundation Wilderness Research Award, 2007	\$4000
Jeff Braatne, PhD Memorial Scholarship, 2007	\$1000

## ADDITIONAL HONORS AND AWARDS

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The Ecological Society of America, Eco-Arts Festival, 1<sup>st</sup> and 2<sup>nd</sup> Places in Poetry, 2009  
Idaho Chapter of the American Fisheries Society Best Student Poster, 2009  
University of Idaho Dept. of Fish & Wildlife Outstanding Graduate Student Award, 2008-2009  
University of Idaho Alumni Award for Excellence, 2007  
Donald Rigby Award in Biology, 2003  
Norma Gardner Memorial English Scholarship, 2003  
Solomon Award for achievement in interdisciplinary scholarship, 2002

## OUTREACH AND VOLUNTEER ACTIVITIES

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**Founder and Executive Director** (2011-present) *Confluence, Inc.*, a non-profit founded to provide

*creative support to K12 science teachers through collaborations with science researchers and professionals*

**Wednesday Nite @the Lab** Public Science Talk (2013) *UW-Madison*

**Exploration Station Leader for UW-Madison Zoology Dept.**, (2012-2013) *Wisconsin Institutes of Discovery Science Expedition, Madison, WI*

**College for Kids Instructor** (2012-2013) *Winter Limnology Program, UW-Madison*

**Citizen Scientist Symposium Volunteer for Stream Ecology & Climate Change Session** (2012)  
*Rocky Mt. Biological Laboratory, Gothic, CO*

**Kids Nature Camp Volunteer for 'Mystery Insect Week!'** (2012) *Rocky Mt. Biological Laboratory, Gothic, CO*

**Mentor** (2012) *Middle School Science Symposium, Madison, WI*

**Committee Member** (2011-2012) *Center for Limnology Outreach Committee, UW-Madison*

**Invited Judge** (2010) *Speak-off Competition, Topic: Natural Resources Education in High School, Highland, CA*

**Literacy Tutor** (2008-2009) *San Bernardino County Literacy Program, Loma Linda, CA*

**Co-secretary** (2007-2009) *University of Idaho Graduate and Professional Student Association*

**Graduate Student Representative** (2007-2008) *University of Idaho Graduate Council*

**Committee Member** (2007-2008) *Rules and Administration Committee, University of Idaho Graduate and Professional Student Association*

**Fish and Wildlife Resources Dept. Representative** (2006-2008) *University of Idaho Graduate and Professional Student Association*

**Secretary** (2006-2007) *American Fisheries Society, Palouse Unit, Moscow, ID*

**Environmental Education Assistant** (2006-2007) *Palouse-Clearwater Environmental Institute, Moscow, ID*

**Committee Member** (2006-2007) *Travel Awards Committee, University of Idaho Graduate and Professional Student Association*

**Outdoor Educator and Guide** (2003-2004) *Pathfinder Youth Organization, Silver Spring, MD*

**Contributing writer** (2002-2004) *Walla Walla College Collegian newspaper, College Place, WA*

**Reading Tutor** (2000-2001) *America Reads, Walla Walla, WA*

**President** (2000) *Alpha Chi Honor Society, Takoma Park, MD Chapter*