

Ericka Hegeman

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EDUCATION

Master of Science, Ecology **2012**
Utah State University, Watershed Sciences Department

Bachelor of Science, Environmental Science **2000**
Western Washington University, Huxley College

QUALIFICATIONS

Project management

- Successful grant application development and overall grant management including budgeting and quarterly reporting
- Hiring field technicians and managing all aspects of backcountry data collection including scheduling, equipment procurement, permitting, and data management
- Development of project annual reports and manuscripts for peer-reviewed scientific journals
- Preparation of CEQA environmental compliance and permitting documentation

Technical skills

- Statistical and spatial modeling using both linear and non-linear techniques
- Spatial analysis of raster and vector data at scales ranging from local (i.e. sub-watershed) to landscape (i.e. entire western US) scale
- Proficiency with current MS Office and ArcGIS software, database development and manipulation in postgresQL and R
- Cartography for proposals, agency reports, and publications in peer-reviewed journals
- Mobile data collection form development and server data syncing using Pendragon and Fulcrum
- Webpage development in Google Sites and WordPress

Field experience

- Backcountry data collection in remote wilderness locations for up to 20 days at a time, practicing leave no trace principles, and carrying a 50-70 pound pack
- Collection of digital field data using a hand-held map-grade GPS installed with ArcPAD and mobile devices installed with Pendragon and Fulcrum forms
- Habitat, population, and disease assessment for amphibians, fish, benthic macroinvertebrates, and native freshwater mussels
- Fish population sampling using multiple-pass depletion electrofishing, hydroacoustic sampling, snorkeling, gill nets, seines, fyke nets, and minnow traps
- Field sampling and lab processing of various water quality parameters including water clarity, pH, conductivity, dissolved oxygen, turbidity, seston, and chlorophyll a

WORK EXPERIENCE

Sierra Nevada Aquatic Research Laboratory
Staff Research Associate

2015 to present

- Management of a wide range of activities related to amphibian recovery in the Sierra Nevada including coordination and participation in backcountry data collection, database management, and spatial and statistical research support
- Database development, spatial and statistical analysis of water quality data, and report writing for Lahontan Regional Water Quality Board contract

Conservation Science Partners
Scientist

2012 to 2014

- Investigated the role of translocation on desert tortoise habitat and space use in the Mojave Desert
- Modeled the probability of fire occurrence in five Mojave Desert national parks

Utah State University
Graduate Research Assistant

2010 to 2012

- Developed a habitat niche model for freshwater mussel distribution and density in the Middle Fork John Day River, OR, to provide guidance for restoration efforts
- Managed all aspects of field data collection including hiring and training field technicians, conducting habitat assessments using standard survey protocols, and snorkel surveys of mussel populations using stratified random sampling

Washington Cooperative Fish and Wildlife Research Unit
Research Technologist

2009 to 2010

- Conducted field and lab work in support of aquatic food web research regarding juvenile salmon survival in Puget Sound, bull trout reintroduction in the Clackamas River, OR, and bull trout distribution in the Skagit River, WA

Mammoth Community Water District
Public Affairs and Environmental Specialist

2003 to 2008

- Project management of water conservation policy, water supply planning, departmental budgeting, and state environmental compliance regarding District capital projects

Sierra Nevada Aquatic Research Laboratory
Field Technician

(summers) 2000-2003

- Backcountry field survey of lakes and ponds in Yosemite, Sequoia, and Kings Canyon National Parks for amphibians, benthic macroinvertebrates, and fish

PUBLICATIONS

Farnsworth, M.L., B.G. Dickson, L.J. Zachmann, E.E. Hegeman, A.R. Cangelosi, T.G. Jackson Jr, and A.F. Scheib. 2015. Short-Term Space-Use Patterns of Translocated Mojave Desert Tortoise in Southern California. *PloS one*, 10(9), e0134250

Hegeman, E.E., B.G. Dickson, and L.J. Zachmann. 2014. Probabilistic models of fire occurrence across National Park Service units within the Mojave Desert Network, USA. *Landscape Ecology*, 29(9), 1587-1600

Hegeman, E.E., S.W. Miller, and K.E. Mock. 2014. Modeling freshwater mussel distribution in relation to biotic and abiotic habitat variables at multiple spatial scales. *Canadian Journal of Fisheries and Aquatic Sciences*, 71(10), 1483-1497

CONFERENCE PRESENTATIONS

Hegeman, E.E., S.W. Miller, and K.E. Mock. 2012. Modeling freshwater mussel distribution in relation to biotic and abiotic habitat variables in the Middle Fork John Day River, Oregon. 60th Annual meeting of Society for Freshwater Science (formerly North American Benthological Society). Louisville, KY.

Hegeman, E.E., S.W. Miller, and K.E. Mock. 2012. Modeling freshwater mussel distribution in relation to biotic and abiotic habitat variables in the Middle Fork John Day River, Oregon. 8th Annual Spring Runoff Conference. Utah State University, Logan, UT.

Hegeman, E.E., S.W. Miller, K.E. Mock, and C.E. Torgersen. 2011. Modeling freshwater mussel distribution in relation to biotic and abiotic factors in the Middle Fork John Day River, Oregon. 59th Annual meeting of North American Benthological Society Meeting. Providence, Rhode Island.

FELLOWSHIPS AND AWARDS

- Runner up winner for best oral presentation in applied research at the Society for Freshwater Science meeting in Louisville, KY (2012)
- Presidential Fellowship, Utah State University (2011)
- USU Ecology Center Research Award and Travel Grant (2011)