Chance Ronald Broderius

Personal Information:

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Education:

Oklahoma State University - Stillwater, OK. 2013 - Present. M.S. in Natural Resource Ecology and Management, Fisheries and Aquatic Ecology Option. Expected Graduation December 2015

Overall GPA 4.0, 35 Credit Hours

Thesis:

Effects of Vegetation Density on the Shift to Piscivory in Juvenile Largemouth Bass

Relevant Course Work:

- Fisheries Techniques
- Quantitative Methods in Fisheries
- Statistics for Experimenters I
- Social Dimensions in Aquatic Ecology
- Fisheries Science
- Statistics for Experimenters II
- Ecology of Invasive Species
- Aquaculture
- Graduate Seminar: Research and Presentation

Utah State University - Logan, UT. 2011 – 2013 B.S. in Fisheries and Aquatic Sciences, Quinney College of Natural Resources

Institution GPA 3.81, 47 Institution Credit Hours
Overall GPA 3.68, 60 Institution and Transfer Credit Hours

Relevant Course Work:

- Fish Diversity and Conservation
  - Fish Diversity Lab
- Limnology
- Aquatic Ecology Practicum
- Fundamentals of Watershed Science
- Principles of Chemistry
- Calculus Techniques
- Statistics for Scientists
- Introductory GIS
- Water Quality and Pollution
- Fish/Habitat Relationships
- Freshwater Invertebrates
  - Freshwater Invertebrates Lab

- Principles of Fisheries Management
- Small Watershed Hydrology
- Advanced GIS https://sites.google.com/site/chancebroderiusgisclasswebsite/lab

Awards – 2013 Watershed Department Outstanding Senior – Given to the outstanding senior in each department based on scholastic achievements, college/university/community involvement, and professional commitment to the natural resource field.

Weber State University - Ogden, UT. 2005 -2010. B.S. in Telecommunications Administration, College of Applied Sciences and Technology, completed April 2010.
Cumulative GPA 3.43, 129 credit hours complete
Relevant Course Work:

- Application Courses - Advanced Microsoft Office Applications(Excel, Word, PowerPoint, Access), Microsoft Operating Systems, Web Page Design
- Hardware Courses - PC Fundamentals, Basic Electronics
- Operations courses - Management, Economics, Survey of Accounting, Business Communication, Business English, Telecommunications Policy, Supervising in Information Technology
- Networking Courses - Data Network Design, Fiber Optics in Telecommunications, Advanced LAN Security, Transport Media and Emerging Technologies, Intro To LAN Management, Wireless Telephony, Digital Switching Systems, Linux Systems Administration

Publications:

Research Articles Published in Non-Peer-Reviewed Journals –

Wurtsbaugh, Wayne A.; Heredia, Nick; Palacios, Patsy; Baker, Jared; **Broderius, Chance**; Fisher, Katie; Fuller, Jason; Pappas, G. Andrew; Smith, Christian; and Weston, Marc (2013) "A River Continuum Analysis of an Anthropogenically-Impacted System: The Little Bear River, Utah,"*Natural Resources and Environmental Issues*: Vol. 18, Article 1.
Available at: http://digitalcommons.usu.edu/nrei/vol18/iss1/1

Professional Oral Presentations –

Broderius, C.R.*, K.J. Stahr, D.E. Shoup (2015) The Effect of Aquatic Vegetation on Survival and Foraging Return of Juvenile Largemouth Bass. 2015 Southern Division AFS Spring Meeting. Savannah, GA. (Oral Presentation)

Broderius, C.R.*, K.J. Stahr, D.E. Shoup (2015) The Effect of Aquatic Vegetation on Survival and Foraging Return of Juvenile Largemouth Bass. 2015 Oklahoma Natural Resources Conference. Tulsa, OK. (Oral Presentation)

Broderius, C.R.*, K.J. Stahr, D.E. Shoup (2015) Increasing Juvenile Largemouth Bass Recruitment with Vegetation: Effects on Survival and Foraging Return. 2015 Oklahoma Clean Lakes and Watersheds Conference. Stillwater, OK. (Oral Presentation)

Broderius, C.R.*, K.J. Stahr, D.E. Shoup (2015) The Effect of Aquatic Vegetation on Survival and Foraging Return of Juvenile Largemouth Bass. 145th Annual Meeting of the American Fisheries Society, Portland, OR. (Oral Presentation)

***Student Presenter**

Work Experience:

Teaching Assistant – Department of Natural Resource Ecology and Management, Oklahoma State University (August 2013 – Present)

Teaching assistant in the following course Labs:

• NREM 4414: Fisheries Management Lab (two semesters) - Assisted with teaching the uses of software to perform fisheries analysis including: Catch Per Unit Effort, Length Frequency, Population Estimates, Length and Weight Analysis, Age and Growth Analysis, Mortality, and Modeling Fish Populations.

• NREM 4424: Fisheries Techniques Lab (3 semesters) - Assisted in teaching proper fisheries techniques including; net mending, electrofishing (boat and backpack), gillnet, fyke net, seine, and biotelemetry. Also teaching techniques for calculating age and growth, otolith and scale reading, marking fish, diet analysis, and calculating population estimates.

• NREM 3012: Applied Ecology Lab (2 semesters) - Assisted in teaching various natural resource field techniques in conjunction with a course that emphasized ecological principals in natural resource management. Techniques included: Seine, backpack electrofishing, Robel pole, and quadrat frame.

• NREM 1014: Natural History and Conservation Lab - Taught identification and life history traits of plants and animals from 6 taxonomic groups: Arthropods, fish, reptiles and amphibians, birds, mammals, and plants.

Aquatic Invasive Species Technician – Utah Department of Natural Resources – Division of Wildlife Resources - 515 E 5300 S, Ogden, UT 84405 (May 2013 – August 2013)

- Educated boaters on the importance of stopping the spread of aquatic invasive species, specifically Dreissenid mussels
- Contacted boaters on launch ramps to ensure compliance with Utah's laws regarding the spread of aquatic invasive species
- Determined high risk boaters by asking a series of questions pertaining to the water bodies the boat had recently been on and the decontamination efforts that had been taken after being on affected waters
- Performed boat inspections to determine effectiveness of decontamination efforts as well as to ensure the absence of adult mussels
- Performed boat decontaminations using high pressure high temperature water to kill juvenile and adult mussels

Also assisted the sport fish biologist in fish sampling procedures including:

- Boat Electrofishing

Bio Aid (Snorkel Crew) - Idaho Fish and Game – Anadromous Research - 1414 Locust Lane, Nampa, ID 83686 (June 2012 – August 2012)

- Conducted snorkel surveys to determine anadromous fish abundance in small to mid-size streams.
- Worked as part of a six member crew often splitting into two or three smaller crews on small streams
- Identified species and estimated length of fish underwater and in difficult conditions
- Utilized GPS units and topographical maps to locate survey sites
- Conducted habitat surveys including width, depth, substrate size abundance, channel type, overhanging vegetation, undercut banks, and amount of large wood.
- Performed mark re-sight surveys to calibrate snorkeler efficiency
- Spent long stretches of time in backpacking and car-camping conditions

Mail Clerk - USDA Forest Service – Rocky Mountain Research Station (Forest Inventory and Analysis) - 507 25th Street Ogden, UT 84401 (May, 2005 – January 2011)

- Day to day management of mailroom

Also, during times when our field crews were short staffed I was given the opportunity to perform field work with our supervisory forester which included hiking into plot areas, setting up plot area, taking down and recording plot data using equipment such as: Handheld GPS, Electronic Personal Data Recorders, Clinometers, Compasses, Tape Measures, and Increment Borers.

Awards from supervisor:

- Certificate of Merit awarded for extra effort between the dates of 05/01/2005 and 12/31/2005
- Spot Award: 2/1/10 – 4/16/10 "For working beyond your normal scope of duties, helping the IT group get ready for the field season when they were shorthanded while still performing your duties as FIA Mail Clerk"

Field IT Specialist (Senior Project/Internship for WSU) - USDA Forest Service – Rocky Mountain Research Station (Forest Inventory and Analysis) - 507 25th Street Ogden, UT 84401 (January 2010 – May 2010)

- Prepared laptops for use by field personnel and their field equipment
- Performed software and hardware updates on field laptops
- Managed inventory of field IT equipment through an Oracle database
- Prepared Allegro Personal Data Recorders for use in gathering field data
- Performed system backups for our data servers

Salesman - Big 5 Sporting Goods - 972 Wall Avenue Ogden, UT 84404 and 981 South Main St # 110 Logan, UT 84321(November, 2004 – October, 2007 and November, 2011 – June, 2012)

- Customer assistance and store upkeep.

Awards: Best Part Time Salesman Holiday Season 2004

Professional Membership:

American Fisheries Society –

- Parent Society (2012 - Present)
- Oklahoma Chapter (2013 – Present)
- Oklahoma State University Student Subunit
    - Secretary Treasurer (May 2015 – Present)

Volunteer/public service:

Kids Fishing Clinic (Oklahoma State University AFS Student Subunit)

- June 2014 and June 2015
    - Assisted with conducting a fishing clinic in conjunction with a local Sierra Club nature camp.
        - Talked with kids about the importance of fish and aquatic habitats
        - Demonstrated proper casting technique
        - Supervised and assisted in catching fish