

Justus M. Hargett

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SUMMARY

I'm a very motivated biologist with a special interest in water quality, sustainability, and conservation. I have a multitude of research experience in aquatic and terrestrial environments working with universities and government organizations. I work well independently and in team settings and enjoy communicating science to broader audiences.

EDUCATION

Appalachian State University (Aug 2017- Dec 2020)

- BS in Biology w/ conc. in Environmental, Ecology, and Evolutionary Biology from Appalachian State University (Aug 2017- Dec 2020)
- Final GPA: 3.28; Last two semester: 3.75

Jones Senior High School (2017)

- High School Diploma

Lenoir Community College (2016)

- Certificate of Science

RESEARCH EXPERIENCE

Postbaccalaureate Research - Virginia Polytechnic Institute and University - *November 2021 - November 9th 2022* - NSF funded independent research. Project aims to identify crayfish assemblages and biomass estimates across Hellbender salamander habitat, varying in quality, and search for correlations with Hellbender ecology.

- Project/research design
- Independent and critical thinking
- Data analysis (R Programming Language)
- Multivariate analysis
- Large data sets
- Water chemistry
- Academic writing

Undergraduate Research Assistantship (paid) – *Oct 5th 2020 – Dec 15th 2020* - Assisted graduate student with terrestrial plethodontid salamander research looking into emergence and competitive interaction between species

- Sampled for terrestrial salamanders along transects, and other locations, collecting data such as weight, SVL, sex, life stage, etc.
- Gained experience taking tissue samples for stable isotopes as well as hypodermic elastomer tagging.
- Handled and collected valuable information with endangered and protected caudate species in NC (*Plethodon yonahlossee*, *P. wehrlei*, *P. welleri*).

Undergraduate Independent Research at Appalachian State University – Jan 2019 - Mar 2020

- Initiated and oversaw several mesocosms of spotted salamander (*Ambystoma maculatum*) larva from several States, focusing on the effects of pond drying rates. (Ended due to COVID-19 pandemic)
- Conducted mesocosm experiments of wood frog (*Rana (Lithobates) sylvaticus*) tadpoles focused on behavior and morphological changes due to predator cues.
- Assisted Lab research project evaluating spatial-temporal kick-seine sampling for aquatic stream salamanders
- Additionally assisted lab mates with any fieldwork and current research

WORK EXPERIENCE

Lab Technician – Virginia Polytechnic Institute and University – November 10th – current (Dec 24th) – Facilitate research in the Hopkins Lab through field work, data entry, and organization. Provide support for other laboratory members wherever it is needed.

Conservation and Land Management Intern (paid) - USFWS Klamath Falls/Chicago Botanic Garden - May 10th 2021 – Sept. 24th 2021 - Assist and conduct research with several endangered fish species and other taxa in the Klamath Basin of Southern Oregon

- Electrofishing and PIT tagging Brook, Brown, Redband, and endangered Bull trout
- Collection and husbandry of endangered Shortnose and Lost River sucker larvae
- Habitat monitoring for Modoc suckers
- Range surveying for vulnerable mussels
- Fish trapping and tissue sampling
- Stream Surveys and restoration
- GIS Mapping
- Benthic invertebrate sampling

Meat and Seafood Team Member at EarthFare – Aug 4th 2020 – April 2021 - Worked as the seafood specialist for the Meat Department.

- Provided excellent customer service and public relations while continuing to be diligent and safe during the COVID-19 pandemic.
- Prepared meat for sale and educate curious customers on the agricultural practices and sustainability of their food sources.

Adecco Associate at Moen Incorporated Jun 14th 2018 – Aug 17th 2018 -

- Worked as a production operator for the number one faucet company in the world.
- Operated on an assembly line and gained the ability to work fast and diligently to complete projects and achieve a daily quota.

Office Intern at Jones County Cooperative Extension (unpaid) Aug 2015 – Jan 2016 -

- Interned for the agents at the cooperative extension office and aided on farm runs for the Agricultural Extension Agent.
- Became proficient in Microsoft Word, PowerPoint, and Excel as well the operation of office equipment.

QUALIFICATIONS AND HARD SKILLS

- Knowledge of Ecological Concepts
- Data Analysis
- Familiarity with R, ArcGIS, ArcGISPro, and Adobe Illustrator
- Proficient in Microsoft Suite
- Experienced navigating and researching in various and tough field conditions
- Knowledge of water and soil resources
- *Field and lab techniques:*
 - Detailed data collection
 - Seining
 - Electrofishing
 - Obtaining otoliths
 - Abundance surveys
 - Population surveys
 - Research with endangered and protected amphibians, fish, and mussels
 - Tagging techniques – ex. Visible Implant Elastomer, Passive Integrated Transponder
 - Water quality measurement (YSI – Multiparameter meter)
 - Tissue sampling
 - Microscopy- zooplankton count and identification
 - Handling and rearing of amphibian and fish egg masses and larvae
 - Handling and husbandry of larval fish and amphibians
 - Preparing and managing experimental mesocosms
 - Animal behavioral assays
 - Radio telemetry
- Operation of handheld GPS equipment
- Plant, reptile, amphibian and mammal identification
- Experience with 4WD vehicles and manual transmission
- Power tool and auto-mechanic skills
- Experience and comfortability with motorized and other watercraft

SOFT SKILLS

- Problem solving
- Communication and presentation
- Quality work ethic
- Cooperation
- Responsible
- Eager to learn
- Teamwork
- Dependable

PRESENTATIONS

Hargett Justus M.; Jay S. Holladay; Susan L. Cragg; Kenzi Stemp; Zack T. Vegso; Katie M. Sutcliffe; Deanna Riente; Joshua R. Ennen; Kristen K. Cecala; Jon M. Davenport, Appalachian State University, *Seining for Stream Salamanders: Season and Site Matters but not Time of Day* [Poster] Association of Southeastern Biologist, 2021, Virtual

ACHIEVEMENTS AND ACTIVITIES

- Member - **Beta Beta Beta National Biological Honors Society – Appalachian State 2020**
- Senior Vice President - **Jones Senior FFA 2016-2017**
- President - **Jones County 4-H 2016-2017**
- **National Honors Society -2016**
- Senior Chaplain- **Jones Senior FFA 2015-2016**
- **National Arts Honors Society - 2015**
- **CTE Honors Society - 2015**
- House Page - **NC General Assembly House of Representatives March 2015**
- Junior Vice President - **Jones Senior FFA 2014-2015**

RELEVANT COURSEWORK

- Ecology
- Environmental Studies
- Introduction to GIS
- Organic Chemistry
- Wildlife Biology
- Zoology
- Herpetology
- Evolutionary Biology

REFERENCES

Professional

Dr. William Hopkins
Professor and Head of Global Change Committee at Virginia Tech
Blacksburg, VA
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Christie Nichols
Science Coordinator at Klamath Falls USFWS
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Dr. Jon Davenport
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