

Mr. Taylor Bookout

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Illinois River Biological Station
704 N. Schrader St.
Havana, IL 62644

Home
903 Ninth Ave
Cleveland MS 38732

Summary

A dedicated ecologist with extensive field experience and an emphasis on fisheries and wetland ecology. Accustomed to working in all conditions to get the job done.

Education

Principia College: **Bachelor of Science in Biology**
Graduated: **December 2016**
GPA: **3.7**

University of Illinois Urbana-Champaign: **Masters of Natural Resources**
Projected Graduation: **August 2022**

“Effects of commercial vessel traffic on the water quality of the Illinois River”

- Assess turbidity and chlorophyll response to reduced vessel traffic during Summer of 2020
- Collect, process, and analyze turbidity and chlorophyll data from the Illinois River
- Compare pre and post lock closure event (2019 and 2021) data with 2020 data to assess changes in water quality during reduced vessel traffic
- Collaborate with USGS and IDNR personnel to acquire data
- Utilize long-term datasets to assess trends in water quality
- Compile large datasets and analyze using R software
- Present information at professional conferences as podium presentations

Professional Experience

Large River Research Advanced Technician
Illinois Natural History Survey, Illinois River Biological Station
August 2019-Present

- Lead field teams of 3-4 people to conduct electrofishing and netting surveys
- Prepared sampling maps and coordinating sampling
- Assessed health of river fishes through netting and electrofishing surveys
- Utilized fyke nets, hoop nets, trammel nets, and trawls to collect fish
- Identified 100+ large river fish species including preserved specimens
- Assisted in submerged aquatic vegetation surveys
- Operated boats to set and retrieve nets and conduct electrofishing surveys
- Towed and backed boat trailers up to 30' in length
- Maintained and repaired nets, boats, and field equipment
- Removed otoliths from game fish and non-game fish
- Mounted, sectioned, and prepared otoliths for aging
- Aged fish using otoliths and measured incremental growth using Lecia imaging software
- Calculated CPUE and other population characteristics using long-term data

Supervisor: Levi Solomon

Stream Fisheries Technician

Oklahoma Cooperative Fish and Wildlife Unit, Oklahoma State University

January 2019-August 2019

- Seined and tagged Arkansas River shiners in the Canadian River
 - Seined prairie chub in Oklahoma and Texas rivers
- Assessed fish habitat use in the Canadian River utilizing seining
- Tracked tagged rainbow trout in Ozark stream using pit-tag antennas
- Trained and led crew tracking trout
- Conducted snorkel surveys of community and habitat use
- Remove, mount, section, and age crayfish gastric ossicles
- Camped several nights in adverse weather
- Worked extended hours in cold weather and difficult conditions
- Measured and calculated discharge
- Completed USGS MOCC boat safety training
- Operated four-wheel drive pickups off road in adverse conditions

Supervisor: Dr. Shannon Brewer

Large River Research Technician

Illinois Natural History Survey, Illinois River Biological Station

May 2017-December 2018

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- Assisted preparation of fish tissue samples for stable isotope analysis
- Identified frozen aquatic vegetation samples to species
- Installed drift fences to monitor herpetofauna in wetland sites
- Conducted frog call surveys and identified 8+ species
- Presented at outreach events to the public
- Calculated CPUE and other population characteristics using long-term data
- Collected water quality data, water samples and processed samples in the laboratory
- Trapped, identified and marked turtles
- Conducted dipnet surveys and identified larval amphibians
- Assisted in duck and goose banding
- Collected zooplankton samples over 12-hour period
- Completed Illinois boat safety training

Supervisor: Levi Solomon

Post Graduate Teaching Intern

Principia College

January 2017- May 2017

- Managed field ecology laboratory sessions with class of 12 students with no supervision
- Assisted professors to prepare curricula for class periods and laboratory sections
- Taught class sections and led discussion
- Created how-to guides for Excel, Zotero, and ImageJ software

Supervisor: Dr. Chrissy McAllister

Field Research Intern with NGRREC

Principia College

May 2016-September 2016

- Led and motivated team as senior member
- Designed data sheets and maintained data daily; performed data quality control
- Plotted locations in ArcGIS and created plots for weekly meetings
- Worked outdoors in adverse weather and steep terrain
- Tracked timber rattlesnakes daily using VHF telemetry for five months
- Presented data at two ecological conferences

Supervisor: Dr. Scott Eckert

Biology and Natural Resource Garage Manager

Principia College

Fall 2015-Fall 2016

- Operated and maintained fleet of three ATVs (Polaris Ranger)
- Managed and stored Biology department tools and equipment
- Interfaced with multiple parties to optimize the use of the garage and vehicles
- Maintain trucks and vans for field work
- Supervisor: Dr. Scott Eckert

Field Hand

Oklahoma City

Summer, Winter 2015

- Worked with little supervision in adverse and hot conditions ($> 90^{\circ}$)
- Operated and maintained chain saws and power equipment
- Cleared trees and brush using chain saw and brush saw
- Transported equipment in trailer
- Operated tractor with mower and box-blade attachments

Supervisor: Mark Atchley

Natural Resource Management Crew

Principia College

Fall 2014

- Trained in chainsaw operation and earned safety certification
- Removed invasive honeysuckle with machete and loppers
- Maintained and built foot trails on Principia College campus to access study areas
- Assisted on controlled burns of prairies on campus (30+ acres)
- Supervisor: Shelby Tisinai

Garden Pond Technician

Crosstimmer Koi

Summer 2013, 2014

- Worked outdoors in hot summer conditions
- Provided customer service
- Worked as a team and independently
- Followed specific orders and protocols
- Improved job workflow to optimize time spent on each job while maintaining high quality standards
- Helped rear koi, clean rearing tanks, and maintain pumps and filters
- Supervisor: Donel Connelly

Publications

Bookout T, Bruland GL. 2019. Assessment of a Restored Wetland in West-Central Illinois. *Northeastern Naturalist*. 26(2):392. doi:10.1656/045.026.0215.

Scientific Presentations

Schaick, S. J., B. S. Harris, M. J. Spear, **T. A. Bookout**, J. A. Williams, L. E. Solomon, K. A. Maxson, and J.T. Lamer. 2022. Catfish and Buffalo Populations in Upriver Versus Downriver Pools of the Illinois River. 152nd Annual Meeting of the American Fisheries Society. Spokane, Washington.

Bookout, T., K.J. Jankowski, and J.T. Lamer. 2022. Illinois River Turbidity Response to Reduced Vessel Traffic. Platform Presentation. Joint meeting of the Illinois Lake Management Association and the Illinois Chapter of the American Fisheries Society. Champaign, Illinois.

Capon, C, A Blackert, **T Bookout**, M Deja, E Myers, B Novak, D Sutton, K Maxson, L Solomon, J Lamer. 2022. Investigating the differences in fish assemblages associated with a unique main channel border habitat. Poster. Joint meeting of the Illinois Lake Management Association and the Illinois Chapter of the American Fisheries Society. Champaign, Illinois.

Schaick, S. J., B. S. Harris, M. J. Spear, **T. A. Bookout**, J. A. Williams, L. E. Solomon, K. A. Maxson, D. D. Turney, and J. T. Lamer. 2022. Catfish and Smallmouth Buffalo Populations in Commercially Versus Non-Commercially Harvested Pools of the Illinois

River. Platform Presentation. Joint meeting of the Illinois Lake Management Association and the Illinois Chapter of the American Fisheries Society. Champaign, Illinois.

Bookout, T., K.J. Jankowski, and J.T. Lamer. 2022. Illinois River Turbidity Response to Reduced Vessel Traffic. Platform Presentation. Midwest Fish and Wildlife Conference, De Moines, Iowa.

Schaick, S. J., B. S. Harris, M. J. Spear, **T. A. Bookout**, J. A. Williams, L. E. Solomon, K. A. Maxson, D. D. Turney, and J. T. Lamer. 2022. Catfish and Smallmouth Buffalo Populations in Commercially Versus Non-Commercially Harvested Pools of the Illinois River. Platform Presentation. Midwest Fish and Wildlife Conference, De Moines, Iowa.

Maxson, K., L. Solomon, **T. Bookout**, S. DeLain, A. Bartels, M. Bowler, E. Gittinger, E. Ratcliff, J. West, J. DeBoer, A. Whitten, S. Love, A. Casper, J.T. Lamer. 2021. Recruitment of Smallmouth Buffalo in the Upper Mississippi River System. Platform Presentation. 151st Annual American Fisheries Society Meeting, Baltimore, Maryland.

Bookout, T., K.J. Jankowski, and J.T. Lamer. 2021. Illinois River Water Quality Response to Reduced Vessel Traffic. Platform Presentation (online). Annual meeting of the Illinois Chapter of the American Fisheries Society.

Maxson, K., L. Solomon, **T. Bookout**, S. DeLain, A. Bartels, M. Bowler, E. Gittinger, E. Ratcliff, J. West, J. DeBoer, A. Whitten, S. Love, R. Maher, M. Marron, A. Casper. 2019. Status and trends of Smallmouth Buffalo in the Upper Mississippi River System. Platform presentation, Annual meeting of the Upper Mississippi River Conservation Committee, La Crosse, WI.

Maxson, K., L. Solomon, **T. Bookout**, S. DeLain, A. Bartels, M. Bowler, E. Gittinger, E. Ratcliff, J. West, J. DeBoer, A. Whitten, S. Love, R. Maher, M. Marron, A. Casper. 2019. Status and trends of Smallmouth Buffalo in the Upper Mississippi River System. Platform presentation, Upper Mississippi River Restoration Long Term Resource Monitoring (UMRR-LTRM) Component Meeting, Muscatine, IA.

Maxson, K., L. Solomon, **T. Bookout**, S. DeLain, A. Bartels, M. Bowler, E. Gittinger, E. Ratcliff, J. West, J. DeBoer, A. Whitten, S. Love, R. Maher, M. Marron, A. Casper. 2019. Status and trends of Smallmouth Buffalo in the Upper Mississippi River System. Platform. Annual meeting of the Illinois Chapter of the American Fisheries Society, Champaign, Illinois.

Maxson, K., L. Solomon, **T. Bookout**, S. Love, R. Maher, M. Marron, A. Casper. 2018. Status and trends of Smallmouth Buffalo in the Upper Mississippi River System. Platform. Annual meeting of the Upper Mississippi River Conservation Committee Fish Technical Session, Collinsville, Illinois.

Bookout, T.A. and G.L. Bruland. 2017. Assessment of the Hydrology, Soils, Vegetation and Amphibians of a Restored Wetland in West-Central Illinois. Platform Presentation. Society of Wetland Scientist's Annual Meeting. San Juan, PR.

Bookout, T.A., Armesy, I., Myers, S., and Eckert, S.A. 2016. Home Range Analysis of Timber Rattlesnakes (*Crotalus horridus*). Poster, Platform. National Great Rivers Research and Education Center Summer Intern Symposium. Godfrey, IL.

Bookout, T.A., Armesy, I., Myers, S., and Eckert, S.A. 2016. Home Range Analysis of Timber Rattlesnakes (*Crotalus horridus*). Poster. St. Lewis Ecology, Evolution and Conservation Retreat. Elsah, IL.

Public Outreach

Osher Lifelong Learning Institute, Bradley University June 7, 2022

- Operated boat tour of Illinois River and followed electrofishing demonstration boat
- Answered questions related to river ecology, invasive species, and general job functions

University of Illinois Fisheries Management Class, Cory Suski Oct 5, 2021

- Took undergraduate class on the river to demonstrate fish collection techniques and local species
- Drove netting boat and demonstrated proper netting techniques
- Demonstrated and explained different gear types and their purpose

University of Illinois Fisheries Management Class, Cory Suski Oct 5, 2019

- Took undergraduate class on the river to demonstrate fish collection techniques and local species
- Drove netting boat and demonstrated proper netting techniques
- Demonstrated and explained different gear types and their purpose

Havana Safe Trick-Or-Treat Night Oct 25, 2019

- Handed out candy and stickers to local children
- Decorated table and space in fish related theme

Illinois Environmental Protection Agency Dive In Oct 24, 2018

- Explaining fisheries tools and fish species to 5th and 6th graders

Sun Foundation Clean Water Celebration April 29, 2018

- Explaining fisheries tools and fish species to middle school classes

Fulton-Mason County Eagle Day Feb 1, 2018

- Answering questions from the public about research and explaining ongoing research

Illinois Bowfishing Festival and Conservation Shoot

Sep 16, 2017

- Collect and show fish species to the public and answer questions

Academic Experience

River Dynamics

University of Illinois Urbana-Champaign

Spring 2021

- Learned about Midwest river geomorphology and human impacts
- Improved understanding of analysis of water quality variables

Statistical Methods in Ecology

University of Illinois Urbana-Champaign

Fall 2020

- Used R statistical software to analyze ecological data
- Familiarized with use and application of different statistical models

Advanced GIS for Natural Resource Planning

University of Illinois Urbana-Champaign

Spring 2020

- Used ArcGIS Pro to create and analyze spatial data

Senior Capstone Research Project

Principia College

Spring-Fall 2016

- Conducted plant survey in restored wetland; Identified species and relative cover class
- Designed survey points using ArcGIS; stratified random design
- Collected and analyzed soil samples
 - Identified amphibians in the field visually and by call

Freshwater Ecology Course

Principia College

Fall 2016

- Lead team of students in sampling stream fish communities using seining
- Identified 14 species of local stream fish in the field
- Presented findings to class in professional presentation
- Collected and identified aquatic macroinvertebrates using kick-nets and Surber samplers
- Calculated discharge and other stream characteristics

Wildlife Management Course

Principia College

Fall 2015

- Designed data tables and entered data daily
- Worked with others to schedule data collection times for team project
- Created and delivered presentations on wildlife management plans
- Strengthened presentation and public speaking skills
- Used Quantum GIS and BIOTAS to visualize and analyze data

Environmental Mapping and GIS

Principia College

Spring 2015

- Learned intermediate GIS mapping skills using Arc GIS
- Mapped trails using Trimble GPS

Grassland Ecology Course

Principia College

Fall 2014

- Identified prairie plant species
- Studied ecology of tallgrass and hill prairies
- Conducted plant surveys with estimated percent cover
- Conducted follow-up plant surveys in Fall 2015 on own time

Strengths

- Excellent work ethic and desire for accuracy
- Accustomed to long and strenuous workdays
- Excellent time management
- Strong analytical and data gathering skills
- Compiled wetland plant identification guide
- Familiar with trammel nets, hoop net, and fyke net sampling and pulsed-DC boat electrofishing

References

Dr. James Lamer, Field Station Director, Advisor, Illinois River Biological Station
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Levi Solomon, Field Research Coordinator, Illinois River Biological Station
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