

John Hallagan

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<http://www.ecophys.fishwild.vt.edu/john-hallagan/>

Professional Summary

Wildlife researcher with nine years of experience conducting field and lab experiments, and experience with experimental design, data collection, data processing, and being a field project team leader.

Education

- B.S. in Biology – Pennsylvania State University – Erie, PA. 2005-2009 - Graduated 2010
- Syracuse University – Syracuse, NY. 2009-2010 – (Transferred Credits)

Employment History

- **Head Field and Lab Technician / Lab Manager** 2011-Present

Wildlife Ecotoxicology and Physiological Ecology Lab – Dr. William Hopkins

Department of Fish and Wildlife Conservation – Virginia Tech

General Duties

- Assist graduate students and postdoctoral research associates with the design and execution of their projects
- Improve and develop new research techniques
- Entry and management of large, multi-year data sets in Excel and Access
- Maintain a safe and orderly lab
- Order supplies

Eastern Hellbender Project – Effects of land use on survival and reproduction

- Design, construct, install, maintain, and monitor over 400 hellbender nest boxes year-round
- Hellbender capturing and processing
- Process and monitor hellbender nests
- Perform egg and larvae counts
- Perform mark-recapture and presence-absence surveys
- Collect water quality data such as temperature, conductivity, pH, and dissolved oxygen
- Leech collections

Wood Duck Project – Effects of incubation temperature on reproduction and duckling behavior

- Assist graduate students with the design of their experiments
- Maintain and monitor over 90 wood duck boxes on the Savannah River Site in South Carolina
- Design and construct duckling trial arenas
- Design, construct, and deploy over 200 artificial egg loggers

- Collect and measure duck eggs
- Trap, band, measure, and draw blood from adult and juvenile ducklings
- Process duck blood
- Perform daily duckling husbandry duties
- Monitor field and lab incubation temperatures using iButtons and Onset HOBO data loggers

Snapping Turtle Project – Effects of contaminants and agriculture on reproduction

- Locate and collect snapping turtle nests
- Trap, measure, and bleed four different species of turtles
- Measure turtle hatchlings
- Perform hatchling performance trials on a small animal velocity race track
- Daily turtle hatchling husbandry duties
- Perform surveys to identify reptiles and amphibians in the area
- Use of lypholizer to dry egg and tissue samples, and prepare dried samples for shipment

Tree Swallow Project – Effects of low level element contamination on reproduction

- Trap, band, and process tree swallow adults and nestlings
- Collect and measure tree swallow eggs
- Collect and process adult and nestling blood samples
- Collect insect bolus samples
- Perform wing web PHA injections
- Assist with running a field crew
- Train crew members on field and lab procedures using established SOP's
- Use of lypholizer to dry eggs, and prepare dried samples for shipment
- Use of JAZ spectrophotometer to measure feather iridescence
- Construct and repair bird boxes

• **Waterfowl Research Technician** 2010

Ducks Unlimited and U.S. Fish and Wildlife Service

Project Description: The Effects of a Large-scale Wind Farm on Breeding Season Survival of Female Mallards and Blue-winged Teal in the Prairie Pothole Region

<http://www.jstor.org/stable/23470680>

General Duties

- Scout wetlands for breeding pairs
- Trap ducks using decoy traps, funnel traps, and nest netting
- Measure and band ducks
- Attach radio transmitters using prong and suture method
- Track hens using radio telemetry using handheld and vehicle secured antennas
- Conduct field drags using ATV's to locate nests
- Enter data

- **Indiana Bat Technician** 2009

The University of Missouri

Project Description: Summer Home Range Size of Female Indiana Bats (*Myotis Sodalis*) in Missouri, USA

General Duties

- Trap bats using harp traps and mist nets
- Track bat movements using radio telemetry using handheld, vehicle secured, and stationary antennas
- Track bats to their roosting tree
- Recover transmitters
- Deploy acoustic monitoring devices
- Enter data

- **Tree Swallow Biology Field Research Intern** 2008

Cornell University and Canadian Services/Environment Canada

Golondrinas de las Americas Program

General Duties

- Trap, band, measure, and bleed tree swallow adults
- Record incubation temperature using iButtons
- Repair bird boxes

- **Camp Counselor- Assistant Aquatics Director and Lakefront Director** 2004, 2005, 2006

Boy Scouts of America

Camp Conestoga – Somerset, PA

General Duties

- Help train and manage aquatics crew members
- Teach canoeing merit badge
- Lifeguarding
- Conduct swimming tests for boy scouts and cub scouts

Job Skills

Field Skills

- Trapping - Turtle, Salamander, Bat, Waterfowl, and Song Bird
- Timed Blood Draws for Hormone Analysis – Hellbender, Snapping Turtle, Waterfowl, and Song Bird
- Measuring (Adult and Juvenile) – Hellbender, Variety of Turtle Species, Waterfowl, and Song Bird
- Radio Telemetry – Handheld, Vehicle Mounted, and Stationary
- Radio Transmitter Attachment – Snapping Turtles and Waterfowl
- PIT Tagging (Hellbenders), Turtle Shell Notching, and Bird Banding
- Field Surveys – Mark-Recapture, Presence-Absence, and Habitat
- Hellbender Nest Box Design, Construction, Installation, and Monitoring

- Nest Location – Snapping Turtle, Hellbender, Waterfowl, and Song Bird
- Nest Processing – Hellbender, Snapping Turtle, Waterfowl, and Song Bird
- Egg Collection and Measurement – Snapping Turtle, Waterfowl, and Song Bird
- Monitor Egg Incubation and Hatching – Hellbender, Variety of Turtle Species, Waterfowl, and Song Bird
- Release Turtle Hatchlings
- Euthanasia- Variety of Turtle Hatchlings and Adult and Juvenile Waterfowl
- Perform Wing Web PHA Injections – Song Birds
- Deploy Temperature and Conductivity Loggers
- Collect Water Chemistry Data
- Use of Portable Spectrometer to Measure Feather Iridescence
- Boating Experience – Canoe, Kayak, and Motor Boat
- ATV and UTV Driving

Laboratory Skills

- Blood Processing – Centrifuging, Plasma Extraction, and Hematocrit Reading
- Microscope Slide Preparation – Red Blood Cell and Buffy Coat
- Sample Preparation (Egg, Turtle Hatchling, and Insect) – Freeze Drying, Homogenizing, and Weighing
- Egg Incubation and Hatching – Variety of Turtle Species and Waterfowl
- Perform Daily Husbandry Duties on Hatchlings – Variety of Turtle Species and Waterfowl
- Perform Hatchling Behavioral and Performance Trials – Variety of Turtle Species and Waterfowl
- Following Very Strict SOPs

Computing Skills

- Managing Large, Long Term Datasets in Excel and Access
- Experienced with HOBOWare and iButton Software
- Experienced with RAVEN Software
- Experienced with Sigma Plot Software
- Perform Egg and Larvae Counts using ArcGIS

Peer Reviewed Journal Articles

Michelle L. Beck, William A. Hopkins, **John J. Hallagan**, Brian P. Jackson, Dana M. Hawley - 2014
Exposure to residual concentrations of elements from a remediated coal fly ash spill does not adversely influence stress and immune responses of nestling tree swallows. *Conservation Physiology*

Sydney F. Hope, Sarah E. Durant, **John J. Hallagan**, Michelle L. Beck, Robert A. Kennamer, William A. Hopkins. Within-clutch variation in incubation temperature: A constraint on the evolution of clutch size and a cost of intraspecific brood parasitism in birds. *In Preparation*

Presentation Contributions

2017 SICB Annual Meeting – New Orleans

Sydney F. Hope, Sarah E. Durant, **John J. Hallagan**, Michelle L. Beck, Robert A. Kennamer, William A. Hopkins

The effect of clutch size on incubation behavior and within-nest egg temperature variation

Poster Contributions

Hopkins, W.A., M.L. Beck, B.P. Jackson, **J.J. Hallagan**, D.M. Hawley. 2013, 2014.

Effects of dietary exposure to trace elements on the stress and immune responses of tree swallows near the site of a remediated coal fly ash spill. American Ornithological Union, Annual Meeting. Estes Park, Colorado.

Personal Accomplishments

Completion of ASI ATV riding and safety certification course- 2010

President of the Outdoor Club at Penn State Erie - 2008

Attainment of rank of Eagle in the Boy Scouts of America - 2005

Soccer Team Captain – 2005

Camp Counselor Uncle Been Award Recipient – 2004

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References

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Relationship: Supervisor - Hellbender Project

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Relationship: Supervisor - Tree Swallow Project

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Relationship: Supervisor – Wood Duck Project