

*Curriculum vitae of*  
**Walter H. Smith**

Department of Natural Sciences  
 The University of Virginia's College at Wise  
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## **EDUCATION**

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- 2011      Ph.D., Biological Sciences. Department of Biological Sciences, University of Alabama, Tuscaloosa, Alabama 35487. Major Professor: Dr. G. Milton Ward
- 2007      B.S., Biology. Department of Biology. Piedmont College, Demorest, Georgia 30535. *Summa cum laude*. Major Professor: Dr. Carlos D. Camp

## **PROFESSIONAL EXPERIENCE**

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- 2019-present    **Associate Professor of Biology**, The University of Virginia's College at Wise, Wise VA.
- 2020-2022      **Independent Contractor**, USDA Forest Service, Jefferson National Forest.  
 Performed sensitive species surveys within portions of the Jefferson National Forest as part of the environmental assessment phase of proposed habitat management projects. Provided recommendations for best management practices mitigating sensitive species impacts.
- 2012-2019      **Assistant Professor of Biology**, The University of Virginia's College at Wise, Wise VA.
- 2012            **Instructor of Biology**, The University of Virginia's College at Wise, Wise, VA.
- 2011            **Graduate Research Assistant**, University of Alabama, Tuscaloosa, AL.  
 Acquired, synthesized, and analyzed spatially-explicit data regarding floodplain dynamics and stream networks of Southeastern river systems. Worked extensively with ArcGIS v.10.1, HEC-RAS hydrologic modeling software, and associated extensions.
- 2010-2011      **Graduate Teaching Assistant**, University of Alabama, Tuscaloosa, AL.
- 2007-2010      **Graduate Research Fellow**, University of Alabama, Tuscaloosa, AL. Designed, implemented, and analyzed a number of ecological and evolutionary studies. Served as lead graduate student on a USDA-USDI Joint Fire Science Program-funded project, collecting and analyzing data regarding herpetofaunal responses to fire management strategies in the Talladega National Forest (Oakmulgee District). Additionally performed ecological niche modeling and other GIS-based analyses regarding continental-scale biodiversity patterns in amphibian taxa.

- 2006-2007     **Undergraduate Research Assistant**, Piedmont College/Soque River Watershed Partnership, Demorest, GA. Designed, implemented, and analyzed a landscape- scale study of land use impacts on water quality in the Soque River Watershed for thesis research. Duties involved field sampling, microbial processing of water samples, data analysis, and GIS-based analyses.
- 2004-2007     **Environmental Education Instructor**, Elachee Nature Science Center, Gainesville, GA.

### **PUBLICATIONS (Books)**

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- Smith, W.H.** 2022. *Growing Smart on High Knob: A Sustainable Recreation Blueprint for Virginia's High Knob Region*. High Knob Regional Initiative, Norton, Virginia. 74 pp. (Peer-reviewed environmental planning document.)
- Smith, W.H.** 2021. *High Lonesome Trails: Hiking Virginia's High Knob Region*. Independently published. (Outdoor interpretive guide for general public.)
- Doss, C. and C. Anama-Green. 2016. *Teach the Clinch*. **W.H. Smith** and T. Vencil, Eds. Clinch River Valley Initiative and Friends of Southwest Virginia, Abingdon, VA. (Curriculum and pedagogy guide for rural Appalachian educators.)

### **PUBLICATIONS (Journal articles, technical reports/assessments) \*= undergraduate coauthor**

- Hill, S.\*, I. Johnson\*, C. Kennedy\*, I. Kennedy\*, C. Mullins\*, M. Roark\*, O. Salazar\*, K. Still\*, and **W.H. Smith**. 2021. Cover object availability and preferences by Woodland Salamanders (Genus *Plethodon*) on surface-mined and unmined habitats in the Virginia coalfields. *Catesbeiana*. 41(2):43-56.
- Smith, W.H.** 2021. Remote Detection of Disturbance from Motorized Vehicle Use in Appalachian Wetlands. *Virginia Journal of Science*. 72(3):1-20.
- Smith, W.H.** and C.Z. Mullins\*. 2021. Light Detection and Ranging (LiDAR) Assisted Detection of Rock Outcrops in Appalachian Hardwood Forests. *Journal of Fish and Wildlife Management*. (Online ahead of print publication.)
- Hill, K.\* and **W.H. Smith**. 2020. A baseline inventory of waterfowl from surface mine wetlands in the Virginia coalfields. *Banisteria*. 54:44-56.
- Smith, W.H.** and C.Z. Mullins\*. 2020. Devil's Hens Nest Project Area Green Salamander (*Aneides aeneus*) Surveys: Final Report. Technical Report to the USDA Forest Service. 14 pp.
- Smith, W.H.** and M.K. Hamed. 2020. Trade-offs in moving citizen-based anuran call surveys online during the SARS-CoV-2 pandemic: Lessons from rural Appalachia, USA. *Ecology and Evolution*. 10:12465-12471.

- Hamed, M.K. and **W.H. Smith**. 2020. Cooperative Conservation of the Green Salamander in the Southeast United States: Virginia. Technical Report to the U.S. Fish and Wildlife Service State Wildlife Grant Program. 51 pp.
- Baker, L.S.\*, M.M. Tomann, **W.H. Smith**, and T. Gulley. 2019. Community Perceptions of Comprehensive Harm Reduction Programs and Stigma Towards People Who Inject Drugs in Rural Virginia. *Journal of Community Health*. 2019:1-6.
- Hinkle, M.P.\*, L.A. Gardner\*, E. White\*, **W.H. Smith**, and R.D. VanGundy. 2018. Remnant habitat patches support Green Salamanders (*Aneides aeneus*) on active and former Appalachian surface mines. *Herpetological Conservation and Biology*. 13(3):634-641.
- Vance, J.A., **W.H. Smith**, and G.L. Smith\*. 2018. Species composition and temporal patterns of wildlife-vehicle collisions along routes with varying vehicle densities in southwest Virginia, USA. *Human-Wildlife Interactions*. 12(3):417-426.
- Smith, W.H.**, J.A. Wooten, C.D. Camp, D.J. Stevenson, J.B. Jensen, M. Turner, and N.R. Alexander. 2018. Genetic divergence correlates with the contemporary landscape in populations of Slimy Salamander (*Plethodon glutinosus* species complex) across the lower Piedmont and Coastal Plain of the southeastern United States. *Canadian Journal of Zoology*. 96(11):1244-1254.
- Smith, W.H.** 2017. Conservation Needs Assessments for Seven Plethodontid Salamander Taxa. Technical report to Amphibian Ark Conservation Needs Assessment Initiative. (Online.)
- Vance, J.A., **W.H. Smith**, and G. Smith\*. 2017. Public geospatial datasets as an approach to maximizing efficiency in the collection of site covariates in wildlife-vehicle collision studies. *Human-Wildlife Interactions*. 11(1):78-85.
- Smith, W.H.**, S.L. Slemp\*, C.D. Stanley\*, M.N. Blackburn\*, and J. Wayland\*. 2017. Rock crevice morphology and forest contexts drive microhabitat preferences in the Green Salamander (*Aneides aeneus*). *Canadian Journal of Zoology*. 95(5):353-358.
- Smith, W.H.**, S.L. Slemp\*, C.D. Stanley\*, M.N. Blackburn\*, and J. Wayland\*. 2015. Combining citizen science with traditional biotic surveys to enhance the natural history knowledge of secretive species: notes on the biogeography and status of the Green Salamander (*Aneides aeneus*) from the Cumberland Mountains of Virginia, USA. *IRCF Reptiles and Amphibians: Conservation and Natural History*. 22(4):135-144.
- Blackburn, M.N.\*, J. Wayland\*, **W.H. Smith**, J.H. McKenna, M. Harry, M.K. Hamed, M.J. Gray, and D.L. Miller. 2015. First Report of Ranavirus and *Batrachochytrium dendrobatidis* in Green Salamanders (*Aneides aeneus*) from Virginia, USA. *Herpetological Review*. 46(3):357-361.
- Smith, W.H.** and J.N. Fulton. 2014. Herpetofaunal inventory of the Guest River Gorge, Jefferson National Forest, Clinch Ranger District, Virginia. Technical report to the USDA Forest Service. 18 pp.

- Fulton, J.N., M. Couch\*, and **W.H. Smith**. 2014. New geographic distribution records for herpetofauna from southwest Virginia, USA. *Herpetological Review*. 45(1):105-106.
- Smith, W.H.** 2013. Amphibians and large, infrequent forest disturbances: an extreme wind event facilitates habitat creation and anuran breeding. *Herpetological Conservation and Biology*. 8(3):732-740.
- Fulton, J.N.\* and **W.H. Smith**. 2013. Herpetofauna as indicator species in the health of riparian buffer zones. *Metamorphosis*. 2013:A5 (online, open-access)
- Mullins, M.M.\* and **W.H. Smith**. 2012. An Examination of Pulmonary Function in Individuals Living in a Hotspot for Coal Workers' Pneumoconiosis. Technical report to the Healthy Appalachia Institute. 30 pp.
- Smith, W.H.** 2011. Southeastern Slimy Salamander (*Plethodon grobmani*). In: Outdoor Alabama – Alabama Wildlife and their Conservation Status. Alabama Department of Conservation and Natural Resources. Montgomery, AL.
- Rissler, L.J. and **W.H. Smith**. 2010. Mapping amphibian contact zones and phylogeographic break hotspots across the U.S. *Molecular Ecology*. 19:5404-5416.
- Smith, W.H.** and L.J. Rissler. 2010. Quantifying disturbance in terrestrial communities: abundance-biomass comparisons of herpetofauna closely track forest succession. *Restoration Ecology*. 18:195-204.
- Smith, W.H.** 2009. Spotted Dusky Salamander (*Desmognathus conanti*). In: Outdoor Alabama – Alabama Wildlife and their Conservation Status. Alabama Department of Conservation and Natural Resources. Montgomery, AL.
- Smith, W.H.** 2009. Ocoee Salamander (*Desmognathus ocoee*). In: Outdoor Alabama – Alabama Wildlife and their Conservation Status. Alabama Department of Conservation and Natural Resources. Montgomery, AL.
- Smith, W.H.** 2009. Cave Salamander (*Eurycea lucifuga*). In: Outdoor Alabama – Alabama Wildlife and their Conservation Status. Alabama Department of Conservation and Natural Resources. Montgomery, AL.

#### **PUBLICATIONS (Shorter, Peer-Reviewed Natural History Contributions)**

- Collins, G.\*, G. Hall\*, M. Roark\*, S. Wright\*, I. Romans\*, and **W.H. Smith**. *In press*. *Desmognathus ochrophaeus*. Habitat. *Herpetological Review*.
- Herron, J.M., B.H. Vicars, M.K. Hamed, and **W.H. Smith**. 2022. *Pseudacris brachyphona*. Geographic Distribution. *Herpetological Review*. 53(1):73.

- Blair, M.\*, J. Caldwell\*, S. Dotson\*, D. Gwynn\*, G. Hall\*, J. Harris\*, S. Hill\*, D. Ibrahim\*, S. Mathieson\*, M. Roark\*, K. Still\*, and **W.H. Smith**. 2022. *Gyrinophilus porphyriticus* (Spring Salamander). Habitat. *Herpetological Review*. 53(1):98.
- Bickert, A.\*, R. Clark\*, B. Dishner\*, C. Hayes\*, S. Hill\*, Z. James\*, H. Moyo\*, A. Nalls\*, G. Proulex\*, M. Ray\*, M. Roark\*, R. Turner\*, K. Wise\*, I. Wynn\*, and **W.H. Smith**. 2020. *Notophthalmus viridescens* (Eastern Newt). Mass Mortality. *Herpetological Review*. 51(3):557.
- Hayes, C.\*, E. Livingston\*, C. Mullins\*, and **W.H. Smith**. 2020. *Pseudotriton montanus* (Mud Salamander). Habitat. *Herpetological Review*. 51(2):294-295.
- Smith, W.H.**, M.K. Hamed, D.A. Burkart, S.L. Hopp, T.P. Wilson, and B.S. Stegenga. 2018. *Aneides aeneus*. Habitat. *Herpetological Review*. 49(4):723-724.
- Elswick, K., D. Berry, and **W.H. Smith**. 2016. *Hemidactylium scutatum*. County Record/Range Extension. *Catesbeiana*. 36(1):48-49.
- Smith, W.H.** 2016. *Gyrinophilus porphyriticus*. Defensive Behavior. *Herpetological Review*. 47(2):276.
- Blackburn, M.\* and **W.H. Smith**. 2014. *Aneides aeneus*. Maximum Size. *Herpetological Review*. 45(1).
- Smith, W.H.**, H. Cunningham, and A. Hall. 2011. *Plethodon glutinosus*: arboreal behavior. *Herpetological Review*. 42(4):582.
- Graham, S.P. and **W.H. Smith**. 2010. *Desmognathus aeneus*. Habitat. *Herpetological Review*. 41(3):329.
- Cunningham, H. and **W.H. Smith**. 2010. *Plethodon glutinosus*. Reproduction and behavior. *Herpetological Review*. 41(2):190-191.
- Cunningham, H., **W.H. Smith**, and J. Apodaca. 2009. *Pseudotriton montanus*. Range extension. *Herpetological Review*. 40(3):360.
- Smith, W.H.** 2009. *Desmognathus conanti*. Habitat. *Herpetological Review*. 40(1):66.

**PUBLICATIONS (Creative Writing, Popular Press) \*denotes peer-reviewed publication**

*100 Days in Appalachia*. March 2022. “The ‘Divisive’ School Lessons States Are Outlawing Have Been Improving Appalachian Education for Generations.” (Op-ed on science education policy in rural Appalachia.)

*Virginia Mercury*. October 2021. “What’s missing in Virginia’s efforts to develop former surface mines.” (Op-ed on wildlife policy on former surface mines in the Appalachian coalfields.)

*100 Days in Appalachia*. February 2021. “New Uses For Former Mine Lands Stop at Economic Potential, But Appalachian Species Are Thriving on Rehabilitated Sites.” (Op-ed on wildlife policy on former surface mines in the Appalachian coalfields.)

*The Tennessee Conservationist*. September/October 2020. “Where You Can Find Green Salamanders and How You Can Help Them.” (Feature article on Green Salamander conservation in the Southeast, co-authored with Kevin Hamed and Matthew Niemiller.)

*100 Days in Appalachia*. June 2020. “The Hidden Costs of Appalachia’s Trail Economy.” (Op-ed essay on environmental policy and outdoor recreation development in central Appalachia.)

*Voices for Biodiversity*. November 2019. “Searching Forgotten Wetlands for the Mountain Chorus Frog.” (Essay on citizen science approaches implemented on private lands to address data deficiency in understudied amphibian taxa.)

*Blue Ridge Outdoors*. September 2019. “Paying it Forward” (Feature article on outdoor entrepreneurship in rural Appalachia.)

*Blue Ridge Outdoors*. June 2019. “Rise of the Local Park” (Feature article on locally-driven habitat conservation in rural Appalachian communities.)

*Blue Ridge Outdoors*. February 2019. “The Science of Awe” (Feature article on the link between outdoor activity and wellbeing.)

*Blue Ridge Outdoors*. January 2019. “Growing Pains: Are Outdoor Enthusiasts Losing Their Conservation Ethic?” (Feature article on the field of recreation ecology and sustainable outdoor development.)

*Blue Ridge Outdoors*. October 2018. “Common Ground: An Unlikely Revival Takes Root on Appalachian Coal Mines.” (Essay on advances in abandoned mineland reclamation in rural Appalachia.)

*Blue Ridge Outdoors*. August 2018. “The Death and Life of a Trail.” (Feature article on management challenges in the Jefferson National Forest.)

*Blue Ridge Outdoors*. July 2018. “Finding Pine Mountain” (Feature article on biodiversity conservation and economic development projects in rural Appalachia.)

*Blue Ridge Outdoors*. June 2018. “Chasing the Light” (Feature article on conservation strategies for endemic Appalachian firefly taxa.)

*Blue Ridge Outdoors*. May 2018. “The Hellbender Paradox” (Op-ed on the role of citizen science in biodiversity conservation in rural Appalachia.)

*Blue Ridge Outdoors*. January 2018. “Natural Assets: How the Outdoor Economy is Transforming Appalachia” (Feature article on the role of public conservation lands in fueling rural entrepreneurship and economic diversification opportunities.)

*Blue Ridge Outdoors*. January 2018. “The Path More Traveled.” (Editorial essay on outdoor recreation overuse and associated impacts on biodiversity and the environment.)

*Blue Ridge Outdoors*. November 2017. “Worlds Apart: Looking Beyond Conflict in Coal Country” (Editorial essay on public perceptions of rural Appalachia.)

*Blue Ridge Outdoors*. October 2017. “Appalachia’s Newest State Park” (Magazine article on blending outdoor recreation development with biodiversity conservation in the central Appalachian coalfields.)

*Blue Ridge Outdoors*. August 2017. “Blazing New Trails” (Magazine article on ecological restoration of Appalachian surface mines.)

*Blue Ridge Outdoors*. July 2017. “Finding Coal Secrets” (Editorial essay on environmental education in the Appalachian coalfields.)

*Sierra Magazine*. May/June 2017. “The Unlikely Treehuggers of Coal Country” (Editorial essay on environmental education in the Appalachian coalfields.)

*National Geographic* (online). December 2016. “An Unlikely Renaissance for Appalachian Elk” (Outreach article on wildlife restoration in the Appalachian coalfields.)

*Voices for Biodiversity*. September 2016. “Can You Find Green Salamanders? A Community Searches in the Appalachians” (Outreach and editorial piece on using citizen science to study rare and/or understudied wildlife.)

*Southeastern Partners in Amphibian and Reptile Conservation\**. June 2015. “Wood Pile Backyard Habitat for Herpetofauna.” (Peer-reviewed outreach publication for regional conservation organization.)

*Appalachian History*. August 2014. “Beyond Citizen Science: Natural History as a Cultural Bridge in Appalachia” (Invited editorial on science outreach in rural Appalachia.)

*Clinch River Valley Initiative*. 2012-2014. Outdoor Recreation and Biodiversity Guides to Southwest Virginia. Online at <http://visitclinchriv.com>. (12 digital outreach pieces on biodiversity conservation and outdoor recreation, coauthored with multiple undergraduates. Content adapted for marketing by Virginia Tourism Corporation and Heart of Appalachia Regional Tourism Authority.)

*New Southerner\**. 2013. “Haints” (Semifinalist, James Baker Hall Memorial Prize for Poetry)

*USDA Forest Service and Partners in Amphibian and Reptile Conservation*. 2011. Amphibians and Reptiles of the Talladega National Forest (Oakmulgee District) (Outreach publication on herpetofaunal biodiversity, coauthored with Sean Graham and David Steen.)

*AL.com* (Online outlet for *The Birmingham News* and *The Huntsville Times*). March 2011. “There’s a Different Kind of Wildness Here” (Outreach piece on biodiversity for awareness campaign by The Nature Conservancy and The Conservation Alabama Foundation.)

*Terrain\**. 2011. “A visitor’s guide to old-town Apalachicola”

*Forest Magazine*. Winter 2010. “Ghosts of Panthertown” (Feature article on biodiversity conservation and outdoor recreation in Western North Carolina.)

*Town Creek Poetry\**. 2010. “December Ecology.”

*Sierra Magazine*. September-October 2009. “Fires Creek Basin, North Carolina” (Public lands feature.)

*A.T. Journeys*. May-June 2009. “Trail Natives: Pygmy Salamander” (Outreach piece on amphibian biodiversity for Appalachian Trail Conservancy’s stakeholder publication.)

*Terrain\**. 2009. “After the Sipsey Fire,” “Morning at Tiller’s Beach,” “Waking under hemlocks.”

*Appalachian Heritage\**. 2008. “Fiddleheads.”

*Appalachian Journal\**. 2007. “From Bray Field.”

*Appalachian Heritage\**. 2007. “Nantahala.”

### **TEACHING EXPERIENCE (Courses taught)**

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#### The University of Virginia (Charlottesville)

BIOL 5559 – *Biology Concepts in the Classroom (Graduate-Level Pedagogy Course for Educators)*

#### The University of Virginia’s College at Wise

BIO 1010/1011 – *Principles of Biology (lecture and lab)*

BIO 1020/1021 – *Introduction to Biodiversity (lecture and lab)*

BIO 1030/1031 – *Basic Life Functions (lecture and lab)*

BIO 2020 – *Ecology and Evolutionary Processes*

BIO 2025 – *Biostatistics*

BIO 2040 – *Ecology*

BIO 3120 – *Animal Physiology*

BIO 3260 – *Vertebrate Zoology*

BIO 3320 – *Advanced Ecology*

BIO 3330 – *Conservation Biology*

BIO 3370 – *Herpetology*



BIO 3510 – *Appalachian Natural History*

BIO 4910 – *Biology Research*

NAS 1010 – *Science and Society in Appalachia (Non-Majors Course)*

The University of Alabama

BSC 116 – *Principles of Biology II Laboratory (Majors)*, 2011 (Guest instructor for four units)

BSC 117 – *Principles of Biology II Laboratory (Majors)*, 2010-2011

The University of Alabama (Guest lectures)

BSC 320 – *Freshwater Studies*, 2009 (Field unit; Amphibian Wetland Ecology)

BSC 386 – *General Ecology*, 2011 (Laboratory exercise; Endangered/Threatened Species Conservation)

BSC 483 – *Evolution*, 2010 (Lecture; Phylogenetics and Common Ancestry)

BSC 412/512 – *Limnology* (Lecture; Ecological Disturbance in Aquatic Systems )

Other experience (invited courses, continuing education)

- 2020            The University of Virginia. (Guest instructor for Impact Investing in Appalachia J-term course.)
- 2017-2020     The University of Virginia's College at Wise Summer Biodiversity Institute. (Vertebrate instructor for continuing education course for K-12 educators, designed to provide advanced training in field biology and integrate biodiversity science into the K-12 classroom.)
- 2015-2016     Virginia Master Naturalist Program, Holston Rivers and High Knob Chapters. (Adult education course coordinated through the Virginia Cooperative Extension Service and Virginia Tech. Served as an invited guest instructor for a unit on Citizen Science.)
- 2011            Georgia Master Naturalist Program, Northeast Georgia Component. (Adult education course coordinated through the University of Georgia Warnell School of Forestry and Natural Resources and University of Georgia Cooperative Extension Service. Served as an invited guest instructor for the Spring 2011 unit on Amphibian Ecology and Biology.)

**TEACHING EXPERIENCE (Research/teaching mentorships)**

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The University of Virginia's College at Wise

- 2022            Garrett Stiltner – Independent research: Biogeography of Green Salamanders (*Aneides aeneus*) in the Jefferson National Forest, Clinch Ranger District
- 2021            Gabrielle Collins, Grace Hall, Megan Roark, and Samantha Wright – Independent research: Mountain Dusky Salamander (*Desmognathus ochrophaeus*) habitat associations at high-elevation isolated wetlands
- 2021            Isabelle Romans and Megan Roark – Independent research: Eastern Hellbender habitat assessment in Virginia's Ridge and Valley

- 2021 Isabelle Romans\* – Independent research: High-elevation wetland amphibian diversity in Virginia’s Cumberland Mountains
- 2020 Samantha Hill and Caleb Mullins – Independent research: Eastern Hellbender habitat assessment in Virginia’s Ridge and Valley.
- 2020 Caleb Mullins\* – Independent research: Green Salamander Surveys and Best Management Practice Development in the Devil’s Hens Nest Project Area, Jefferson National Forest
- 2020 Chloe Hayes, Emily Livingston, Caleb Mullins – Independent research: Eastern Hellbender habitat assessment in Virginia’s Ridge and Valley and Appalachian Plateau ecoregions
- 2019 Burley Ball, McKayla Grasham, Faith Jackson, Richard Turner – Independent research: Arboreal habitat use in *Aneides aeneus*
- 2019 Troy Colley, Dylan Giovine, David Goodman, McKayla Grasham, Chloe Hayes, Landon Mance, Donovan Montague, Haylee Roop, and Joshua Walker – Independent research: Communal ovipositioning promotes thermal buffering in *Lithobates sylvaticus*
- 2018 Bailey Anderson\* – Independent research: Synchronous fireflies and lampyrid diversity on High Knob, Virginia (co-advised with Dr. Josephine Rodriguez)
- 2018 Kobe Lawson, Tanner McMurray, Dakota Taylor, Drew Williams – Independent research: beliefs and behaviors associated with snake diversity in rural Appalachia
- 2017 Peter Nauss\* – Independent research: Seasonal activity and site fidelity of *Aneides aeneus*
- 2016 Kyle Hill and Nathan Minor – Independent research: waterfowl abundance and diversity on former mineland wetlands
- 2016 Layton Gardner, Michael Hinkle, Eric White – Independent research: suitability of former minelands as habitat for cliff-dwelling salamander assemblages
- 2016 Michael Hinkle\* – Independent research: Biogeography and conservation of *Aneides aeneus* in Virginia
- 2015 Ashlee Taylor\* - Independent research: Using citizen science to clarify the distribution of the Eastern Hellbender in Southwest Virginia
- 2014 Maddison Couch\* - Independent research: Native phenols and goiter in rural Appalachia
- 2014 Skyla Slemph\* and Conner Stanley\* - Independent research: Biogeography of *Aneides aeneus* in the Valley and Ridge

- 2014 Ran Tao† - Independent research: Drinking water and the importance of water treatment in central Appalachia
- 2013 Melissa Blackburn\* – Independent research: Biogeography of *Aneides aeneus* in the Valley and Ridge
- 2013 Andrew Chapman† – Independent research: Outdoor recreation accessibility and human health in central Appalachia
- 2013 Maddison Couch† – Independent research: Native phenols and goiter in rural Appalachia
- 2013 Jack Wayland\* - Independent research: Microhabitat associations of *Aneides aeneus* in inselbergs of the Appalachian Plateau
- 2012 Jesse Miles – Independent research: Amphibian diversity and mineland reclamation
- 2012 Jennifer Fulton\* – Independent research: Riparian forest restoration and herpetofauna
- 2012 Meghan Mullins† – Independent research: Coal Worker’s Pneumoconiosis and tobacco

#### The University of Alabama

- 2011 Sarah Wofford and John Elder  
(Undergraduate Teaching Mentor - Principles of Biology II Laboratory)
- 2010 Amy St. John  
(Undergraduate Teaching Mentor – Principles of Biology II Laboratory)
- 2009-2010 Marisa Younanian  
(Independent Research – Molecular phylogenetics of the Seal Salamander in Alabama)
- 2008-2009 Matthew Buchanan, Brandi Eberly, Brendan Eby, Matthew Loop, and Marisa Younanian  
(Independent Research – *Anolis carolinensis* habitat use and responses to prescribed fire)

\* denotes competitive Fellowship in the Natural Sciences (FINS) recipient

† denotes competitive Healthy Appalachia Institute Fellowship recipient

#### **INVITED PRESENTATIONS, OUTREACH WORKSHOPS, AND SYMPOSIA (N=57)**

- Smith, W.H. 2022. **Clinch River Youth Summit, St. Paul, Virginia**. Searching for the Mountain Chorus Frog. (Invited citizen science workshop for place-based education summit.)
- Smith, W.H. 2021. **The Clinch Coalition**. Hiking Virginia’s High Knob Region. (Invited keynote presentation for annual meeting on the natural history of Virginia’s High Knob Region and ongoing outdoor development efforts; online due to COVID-19)

- Smith, W.H. 2021. **Virginia Forest Landowner Education Program**. Green Salamander Conservation in Virginia. (Invited digital outreach seminar on Green Salamander conservation on private lands in Virginia)
- Smith, W.H. 2020. **Mountain Empire Trout Unlimited**. Helping Hellbenders in Southwest Virginia. (Invited outreach seminar on Eastern Hellbender conservation efforts; online due to COVID-19)
- Smith, W.H. 2020. **Appalachian Voices**. Amphibians in Appalachia. (Invited outreach seminar and citizen science workshop; online due to COVID-19)
- Smith, W.H. 2019. **Appalshop and Kentucky Headwaters, Whitesburg, Kentucky**. The UVa-Wise Wetlands: Turning an Environmental Liability into a Community Asset. (Invited presentation and outreach workshop.)
- Smith, W.H. 2019. **High Knob Naturalist Rally, Jefferson National Forest, Virginia**. Salamander diversity in central Appalachia. (Outreach presentation and hike.)
- Smith, W.H., C. Mullins, and T. Vencil. 2019. **LEAD Virginia**. (Invited presentation and panel discussion on biodiversity conservation and economic development in rural Appalachia.)
- Smith W.H., J. Williams, and I. Walker. 2019. **High Knob Outdoor Festival**. (Invited panel discussion on research as part of a public screening of the biodiversity documentary film *Hidden Rivers*.)
- Smith, W.H., S. Lindeman, L. Wallace, and T. Vencil. 2019. **Virginia Natural Resources Leadership Institute, The University of Virginia**. (Invited presentation and panel on the Clinch River Valley Initiative.)
- Smith, W.H. 2019. **National Geographic Society, Charlottesville, Virginia**. Sharing Your Story with Citizen Science. (Invited workshop.)
- Smith, W.H. 2019. **National Geographic Society, Charlottesville, Virginia**. A Freshwater Revival in Coal Country. (Invited seminar.)
- Smith, W.H. 2019. **Multiple Schools, Southwest Virginia**. Joining the Hunt for Mountain Chorus Frogs. (Invited citizen science workshops at five regional K-12 schools; 300 students total.)
- Smith, W.H. 2019. **High Knob Chapter, Virginia Master Naturalist Program**. Joining the Hunt for Mountain Chorus Frogs. (Invited citizen science workshop.)
- Smith, W.H. 2019. **High Knob Chapter, Virginia Master Naturalist Program**. Introduction to Herpetology. (Invited lessons for chapter training class.)

- Smith, W.H. 2019. **City of Norton, Virginia**. Snakes of Southwest Virginia. (Invited outreach workshop.)
- Smith, W.H. 2018. **Piedmont College, Demorest, Georgia**. Biodiversity and Society in Rural Appalachia: Lessons from the Clinch River Valley of Virginia. (Invited seminar.)
- Smith, W.H. 2018. **High Knob Naturalist Rally, Jefferson National Forest, Virginia**. Salamander diversity in central Appalachia. (Outreach presentation and hike.)
- Smith, W.H. 2018. **Friends of the Cedars, Jonesville, Virginia**. Snakes of Southwest Virginia: The Good, the Bad, and the Ugly. (Invited outreach and citizen science presentation by Virginia Department of Conservation and Recreation.)
- Smith, W.H. 2018. **Sustainable Climbing Workshop, Breaks Interstate Park, Kentucky/Virginia**. Climbing with Green Salamanders (Invited presentation and workshop on best conservation practices for rock climbers. Co-presented with Laura Boggess, Mars Hill College.)
- Smith, W.H. 2017. **High Knob Chapter, Virginia Master Naturalist Program**. Introduction to Herpetology; Clinch River Valley Initiative. (Invited lessons for chapter training class.)
- Smith, W.H. 2017. **High Knob Naturalist Rally, Jefferson National Forest, Virginia**. Salamander diversity in central Appalachia. (Outreach presentation and hike.)
- Smith, W.H. 2017. **Mount Rogers Naturalist Rally, Konnarock, Virginia**. Salamander diversity in central Appalachia. (Outreach presentation and hike.)
- Smith, W.H. 2017. **Upper Tennessee River Roundtable, Spring Banquet**. The Role of Community-Driven Conservation in Virginia's Upper Tennessee Valley. (Invited keynote address to annual nonprofit meeting.)
- Smith, W.H. 2017. **Wise County Extension Winter School, Wise, Virginia**. Teach the Clinch: Bringing Virginia's most biodiverse river to life in your classroom. (Workshop for K-12 educators.)
- Smith, W.H. 2016. **Clinch River Youth Summit, Dungannon, Virginia**. Biodiversity and Citizen Science in Southwest Virginia. (Keynote address.)
- Smith, W.H. 2016. **Woodbooger Festival, Norton, Virginia**. Salamander Diversity in Central Appalachia. (Invited public presentation for annual outdoor festival.)
- Smith, W.H. 2016. **Robert B. Platt III Lectureship on Contemporary Ecological Perspectives, Emory and Henry College**. Biodiversity and Society in Rural Appalachia: Lessons from the Clinch River Valley of Virginia. (Invited seminar.)

- Smith, W.H. 2015. **Department of Forestry and Natural Resources, Purdue University**. Biodiversity Conservation and Outdoor Recreation in Southwest Virginia. (Invited research seminar.)
- Smith, W.H. and J. McClanahan. 2015. **Appalachian Service Project, Appalachia, Virginia**. “Culture and Science in Rural Appalachia.” (Invited cultural presentation to visiting public service volunteers; five separate presentations across summer 2015.)
- Smith, W.H. 2015. **Clinch River Environmental Education Symposium, St. Paul, Virginia**. “Biodiversity Conservation and Outdoor Recreation in Southwest Virginia.” (Invited keynote speaker.)
- Smith, W.H. 2015. **Radford University Department of Biology, Radford, Virginia**. “Biodiversity Conservation and Outdoor Recreation in Southwest Virginia.” (Invited research seminar.)
- Smith, W.H. 2015. **Virginia Master Naturalist Program, Abingdon, Virginia**. “Biodiversity Conservation and Outdoor Recreation in Southwest Virginia.” (Invited guest instructor for biodiversity unit.)
- Smith, W.H. 2014. **The Clinch Coalition, Wise, Virginia**. “Biodiversity Conservation and Outdoor Recreation in Rural Appalachia.” (Keynote speaker for annual stakeholder banquet.)
- Smith, W.H. 2014. **National Society for Leadership and Success, UVa-Wise Chapter**. Keynote speaker for 2014 induction ceremony.
- Smith, W.H. 2014. **Norton City Council, Norton, Virginia**. Green Salamander biodiversity on public lands owned by the City of Norton. (Invited project update for local stakeholders.)
- Smith, W.H. 2014. **LEAD Virginia, Southwest Virginia Regional Program Session**. Biodiversity conservation and economic development in central Appalachia. (Invited panel discussion for regional CEO’s, business leaders, higher education leaders, and government officials.)
- Smith, W.H. 2014. **Eastern Kentucky University, Lilly Cornett Woods, Kentucky**. Harnessing socioeconomic contexts to advance biodiversity conservation in Appalachia. (Invited seminar presentation).
- Smith, W.H. 2014. **Clinch River June Jam Festival, Natural Tunnel State Park, Virginia**. Salamander biodiversity in the southern and central Appalachians. (Invited public outreach presentation).
- Smith, W.H. 2013. **High Knob Naturalist Rally, Jefferson National Forest, Virginia**. Salamander biodiversity in the southern and central Appalachians. (Invited public outreach presentation).

- Smith, W.H. 2013. **Upper Tennessee River Roundtable, Cove Ridge Center, Natural Tunnel SP, Virginia**. Science education, outdoor recreation, and human health in Appalachia: is technology a blessing or a curse? (Invited, featured speaker for spring stakeholder banquet.)
- Smith, W.H., J.N. Fulton, and M. Arnett. 2013. **Trout Unlimited, Little Stony Creek Chapter**. Riparian Buffer Restoration and the Guest River: Herpetofauna as Indicators of Ecosystem Health. (Invited outreach workshop on forest management and water quality.)
- Smith, W.H., B. Kiser, and S. Kruta. 2013. **Clinch River Valley Initiative, The University of Virginia's Institute for Environmental Negotiation**. Southwest Virginia CSI: a social media-based platform for biodiversity engagement and research. (Invited presentation of outreach technology to conservation practitioners, local/state/federal politicians, and numerous other stakeholders.)
- Smith, W.H. 2012. **Virginia Master Gardeners Course, Wise, Virginia**. Alien invaders from planet earth: invasive species in the southern Appalachians. (Invited workshop on invasive species ecology.)
- Smith, W.H. 2012. **High Knob Naturalist Rally, Norton, Virginia**. Wildlife, outdoor recreation, and technology in southern Appalachia. (Invited public outreach presentation.)
- Smith, W.H. 2012. **Town and Country Garden Club, Wise, Virginia**. Alien invaders from planet earth: invasive species in the southern Appalachians. (Invited workshop on invasive species ecology.)
- Smith, W.H. 2011. **The University of Virginia's College at Wise, Wise, Virginia**. Out of the frying pan: amphibian biodiversity and fire management in one of North America's most critically threatened ecosystems. (Invited guest seminar.)
- Smith, W.H. 2011. **Natural Science Seminar Series, Piedmont College, Demorest, Georgia**. Out of the frying pan: amphibian biodiversity and fire management in one of North America's most critically threatened ecosystems. (Invited guest seminar.)
- Smith, W.H. 2011. **Alabama Wildlife Federation, Alabama Nature Center, Millbrook, Alabama**. Ecology of Alabama Herpetofauna. (Invited field-based presentation for public outreach.)
- Perkins, S.L. and W.H. Smith. 2011. **Our Lady of the Valley Catholic School, Birmingham, Alabama**. Ecology of Alabama. (Invited instruction in basic ecological topics for students grades 6-12.)
- Smith, W.H. 2010. **McDowell Environmental Center, Nauvoo, Alabama**. Amphibian diversity of the Appalachian Plateau ecoregion. (In-service training for environmental education staff.)
- Smith, W.H. 2010. **Elachee Nature Science Center, Gainesville, Georgia**. Amphibian and reptile diversity in Georgia. (Invited presentation and guided field trips for public outreach event)

Cunningham, H. and W.H. Smith. 2010. **Alabama Hiking Society Annual Conference, Nauvoo, Alabama.** The plight of the salamander: biodiversity conservation and the role of outdoor recreation in citizen science. (Invited symposium presentation.)

Smith, W.H. 2009. **Alabama Partners in Amphibian and Reptile Conservation Inaugural Conference, Andalusia, Alabama.** Amphibian and Reptile Conservation in Alabama: the Good, the Bad, and the Ugly. (Invited symposium presentation.)

Smith, W.H. 2009. **Elachee Nature Science Center, Gainesville, Georgia.** Amphibian and reptile diversity in Georgia. (Invited presentation for public outreach event)

Cunningham, H. and W.H. Smith. 2009. **Camp McDowell Living Streams Environmental Educator Workshop, Nauvoo, Alabama.** Salamanders of Alabama/Amphibians as an educational tool for the introduction of biological topics. (Invited workshop session for K-12 education professionals; classroom and field component.)

Smith, W.H. and C.E. Newman. 2008. **Coosa River Science School, Columbiana, Alabama.** Amphibian diversity and conservation in Alabama. (Invited outreach presentation.)

#### **CONFERENCE PRESENTATIONS (Presented independently or by student co-authors; N=53)**

Davids, K., M. Tucker, W.H. Smith, and A.B. Cahoon. 2022. **Association of Southeastern Biologists Annual Meeting, Little Rock, Arkansas.** The Complete Mitochondrial Genome of *Aneides aeneus* (Green Salamander)

Romans, I. and W.H. Smith. 2022. **Association of Southeastern Biologists Annual Meeting, Little Rock, Arkansas.** A comparison of amphibian diversity among high-elevation wetlands in the Cumberland Mountains Physiographic Province.

Smith, W.H. and C.Z. Mullins. 2022. **Association of Southeastern Biologists Annual Meeting, Little Rock, Arkansas.** A Novel Light Detection and Ranging (LiDAR)-Based Methodology Improves Detection and Monitoring of Green Salamanders (*Aneides aeneus*)

Smith, W.H. and C.Z. Mullins. 2022. **Southeast Partners in Amphibian and Reptile Conservation (online due to COVID-19).** A Novel Light Detection and Ranging (LiDAR)-Based Methodology Improves Detection and Monitoring of Green Salamanders (*Aneides aeneus*)

Smith, W.H. and M.K. Hamed. 2021. **Association of Southeastern Biologists Annual Meeting (online due to COVID-19).** Harnessing Citizen Science to Address Data Deficiency in Understudied Herpetofauna: Lessons from the Mountain Chorus Frog (*Pseudacris brachyphona*).



- Mullins, C.Z. and W.H. Smith. 2021. **Association of Southeastern Biologists Annual Meeting (online due to COVID-19)**. A preliminary comparison of Eastern Hellbender (*Cryptobranchus alleganiensis*) habitat across the Ridge and Valley province of southwest Virginia.
- Hamed, M.K. and W.H. Smith. 2020. **The Wildlife Society's 28<sup>th</sup> Annual Conference (online due to COVID-19)**. Utilization of Cameras to Monitor Arboreal Habitat Use by Green Salamanders.
- Jackson, F., B. Ball, M. Grasham, F. Jackson, and R. Turner, and W.H. Smith. 2019. **Eastern Kentucky University Field Camp Symposium, Lilley Cornett Woods, Kentucky**. An Examination of Arboreal Habitat Selection by the Green Salamander (*Aneides aeneus*).
- Smith, W.H., K. Hill, D. Taylor, K. Mullins, and L. Harper. 2019. **Association of Southeastern Biologists Annual Meeting, Memphis, Tennessee**. Relationships between artificial wetland creation on former surface mines and pond-breeding amphibians in the Cumberland Mountains, USA.
- Smith, W.H. 2019. **Association of Southeastern Biologists Annual Meeting, Memphis, Tennessee**. Off-road vehicle use as a growing source of wetland disturbance in central Appalachia, USA.
- Hill, K. and W.H. Smith. 2019. **Association of Southeastern Biologists Annual Meeting, Memphis, Tennessee**. Use of elkwallow habitats by waterfowl in southwest Virginia, USA.
- Ball, B., M. Grasham, F. Jackson, and R. Turner, and W.H. Smith. 2019. **Association of Southeastern Biologists Annual Meeting, Memphis, Tennessee**. An Examination of Arboreal Habitat Selection by the Green Salamander (*Aneides aeneus*).
- Smith, W.H., B. Ball, M. Grasham, F. Jackson, and R. Turner. 2019. **Southeast Partners in Amphibian and Reptile Conservation Annual Meeting, Black Mountain, North Carolina**. Disentangling Arboreal Habitat Use in Green Salamanders.
- R. McGlone, A.B. Cahoon, and W.H. Smith. 2018. **Association of Southeastern Biologists Annual Meeting, Myrtle Beach, South Carolina**. Development of a DNA Barcode Assay to Detect Green Salamanders from eDNA.
- K. Hill and W.H. Smith. 2018. **Association of Southeastern Biologists Annual Meeting, Myrtle Beach, South Carolina**. Habitat Use by Waterfowl on Former Surface Mines and Natural Wetlands in the Virginia Coalfields.
- Nauss, P.A. and W.H. Smith. 2018. **Association of Southeastern Biologists Annual Meeting, Myrtle Beach, South Carolina**. Seasonal Activity and Site Fidelity of Green Salamanders (*Aneides aeneus*) in Virginia's Appalachian Plateau.

- Smith, W.H., P.A. Nauss, and M.K. Hamed. 2018. **Association of Southeastern Biologists Annual Meeting, Myrtle Beach, South Carolina.** The Right Place at the Wrong Time: Maximizing Detection in Surveys of Green Salamanders (*Aneides aeneus*).
- Smith, W.H., P.A. Nauss, and M.K. Hamed. 2018. **Southeast Partners in Amphibian and Reptile Conservation, Helen, Georgia.** The Right Place at the Wrong Time: Maximizing Detection in Surveys of Green Salamanders (*Aneides aeneus*).
- Smith, W.H. and M.K. Hamed. 2017. **Northeast Partners in Amphibian and Reptile Conservation, Mountain Lake Biological Station, Virginia.** Status of Green Salamanders in the Appalachian Plateau and Ridge and Valley Provinces of Virginia.
- Smith, W.H. and A.N. Taylor. 2017. **Association of Southeastern Biologists Annual Meeting, Montgomery, Alabama.** What's in a Name? Geographic Variability in Folk Knowledge Shapes Human Interactions with Eastern Hellbenders.
- Hill, K. and W.H. Smith. 2017. **Association of Southeastern Biologists Annual Meeting, Montgomery, Alabama.** Waterfowl Diversity on Former Surface Mines in the Virginia Coalfields.
- Smith, W.H., C.D. Stanley, S.L. Slemper, and M.K. Hamed. 2016. **Special Highlands Conference on Plethodontid Salamander Biology, Highlands, North Carolina.** How rare are green salamanders (*Aneides aeneus*)? New insight from the Cumberland Mountains of southwest Virginia.
- Smith, W.H. 2016. **Inaugural Southern Appalachian Biodiversity Consortium Meeting, Wise, Virginia.** Data deficiency in amphibian collections across southwest Virginia: challenges and promises for biodiversity conservation.
- Hinkle, M., L. Gardner, E. White, B. VanGundy, and W.H. Smith. 2016. **Eastern Kentucky University Field Camp Symposium, Lilley Cornett Woods, Kentucky.** Central Appalachian Surface Mines: Paradise Lost or an Overlooked Hotspot for Green Salamanders?
- Taylor, A.S. and W.H. Smith. 2016. **National Conference on Undergraduate Research, Asheville, North Carolina.** Hellbender Citizen Science: a distributional survey of the Eastern Hellbender in Southwest Virginia.
- Taylor, A.S. and W.H. Smith. 2016. **Association of Southeastern Biologists Annual Meeting, Charlotte, North Carolina.** Hellbender Citizen Science: a distributional survey of the Eastern Hellbender in Southwest Virginia.

- Smith, W.H., S.L. Slemp, C.D. Stanley, M.N. Blackburn, and J. Wayland. 2016. **Association of Southeastern Biologists Annual Meeting, Charlotte, North Carolina.** Are Green Salamanders as Rare As We Assume? Adapting Citizen Science to Address Data Deficiency in *Aneides aeneus* in the Cumberland Mountains of Virginia
- Smith, W.H. 2015. **Science Education for New Civic Engagements and Responsibilities (SENCER) Regional Meeting, University of North Carolina – Asheville, Asheville, North Carolina.** Southwest Virginia CSI: A Collaborative Platform for Student Development and Civic Engagement in Rural Appalachian Communities.
- Camp, C., Smith, W.H., Wooten, J.A., Stevenson, D.J., and J.B. Jensen. 2015. **Association of Southeastern Biologists Annual Meeting, Chattanooga, Tennessee.** Genetic divergence in populations of Slimy Salamanders (*Plethodon glutinosus* species complex) across the lower Piedmont and Coastal Plain of Georgia.
- Couch, M.S. and W.H. Smith 2015. **Association of Southeastern Biologists Annual Meeting, Chattanooga, Tennessee.** Potential environmental causes for central Appalachia's thyroid disorder hotspot.
- Slemp, S.L., Stanley, C.D., Blackburn, J.N., Wayland, J., and W.H. Smith 2015. **Association of Southeastern Biologists Annual Meeting, Chattanooga, Tennessee.** Occupancy modeling as a strategy for clarifying the distribution of the Green Salamander (*Aneides aeneus*) in the Ridge and Valley of Virginia.
- Chapman, A. and W.H. Smith. 2014. **Council of Public Liberal Arts Colleges Southeastern Regional Symposium, Montevallo, Alabama.** Outdoor recreation and health indicators in central Appalachia.
- Chapman, A. and W.H. Smith. 2014. **National Conference on Undergraduate Research, Lexington, Kentucky.** Outdoor recreation and health indicators in central Appalachia.
- Couch, M., and W.H. Smith. 2014. **National Conference on Undergraduate Research, Lexington, Kentucky.** Potential Environmental Causes for Central Appalachia's Thyroid Disorder Hotspot.
- Blackburn, M., J. Wayland, and W.H. Smith. 2014. **National Conference on Undergraduate Research, Lexington, Kentucky.** Biogeography and Microhabitat of the Green Salamander (*Aneides aeneus*) in the Valley and Ridge Physiographic Province.
- Smith, W.H. 2014. **Southeastern Partners in Amphibian and Reptile Conservation Annual Meeting, Jamestown, Kentucky.** Harnessing socioeconomic contexts to advance herpetofaunal conservation and outreach in Appalachia.

- Blackburn, M., J. Wayland, and W.H. Smith. 2013. **Tennessee Herpetological Society Annual Meeting, Harrogate, Tennessee.** Biogeography and Microhabitat of the Green Salamander (*Aneides aeneus*) in the Valley and Ridge Physiographic Province.
- Fulton, J.N. and W.H. Smith. 2013. **Council of Public Liberal Arts Colleges Southeastern Regional Symposium, Wise, Virginia.** Herpetofauna as indicator species in the health of riparian buffer zones.
- Miles, J. and W.H. Smith. 2013. **Council of Public Liberal Arts Colleges Southeastern Regional Symposium, Wise, Virginia.** Effects of Riparian Habitat Disturbance on Salamander Occupancy and Assemblage Composition.
- Mullins, M.M. and W.H. Smith. 2013. **Council of Public Liberal Arts Colleges Southeastern Regional Symposium, Wise, Virginia.** An examination of pulmonary function in individuals living in a hotspot for Coal Workers' Pneumoconiosis.
- Fulton, J.N. and W.H. Smith. 2013. **Appalachian Student Research Forum, Johnson City, Tennessee.** Herpetofauna as indicator species in the health of riparian buffer zones.
- Miles, J. and W.H. Smith. 2013. **Appalachian Student Research Forum, Johnson City, Tennessee.** Effects of Riparian Habitat Disturbance on Salamander Occupancy and Assemblage Composition.
- Mullins, M.M. and W.H. Smith. 2013. **Appalachian Student Research Forum, Johnson City, Tennessee.** An examination of pulmonary function in individuals living in a hotspot for Coal Workers' Pneumoconiosis.
- Smith, W.H. 2010. **2nd Annual Alabama Partners in Amphibian and Reptile Conservation Conference, Andalusia, Alabama.** Upland longleaf pine herpetofaunal communities in Alabama: new directions and unexpected discoveries.
- Smith, W.H. 2010. **2nd Annual Alabama Partners in Amphibian and Reptile Conservation Conference, Andalusia, Alabama.** ALAPARC Education/Outreach Statewide Initiatives.
- Younanian, M., W.H. Smith, and L.J. Rissler. 2010. **University of Alabama Undergraduate Research Symposium, Tuscaloosa, Alabama.** Using genetics to identify a previously undescribed salamander species at Cheaha Mountain.
- Smith, W.H. 2010. **University of Alabama Graduate Research Symposium Tuscaloosa, Alabama.** Improving restoration monitoring with ecological theory: dual community variability in a managed longleaf ecosystem.

- Rissler, L.J. and W.H. Smith. 2009. **European Society for Evolutionary Biology, Turin, Italy.** Amphibian contact zones and phylogeographic break hotspots across the continental United States.
- Smith, W.H., J. Stiles, S. Stiles, and L.J. Rissler. 2009. **Southeastern Partners in Amphibian and Reptile Conservation, Asheville, North Carolina.** Herpetofaunal communities, complex landscapes, and fire: Lessons from an upland longleaf ecosystem.
- Smith, W.H. 2009. **Southeastern Partners in Amphibian and Reptile Conservation, Asheville, North Carolina.** Modeling elevational complexity and amphibian communities in the southern Appalachians.
- Smith, W.H. 2009. **Frontiers in Biology Research Colloquium, Tuscaloosa, Alabama.** Evolutionary patterns inform fire response in a diverse herpetofaunal assemblage.
- Buchanan, M.\*, B. Eberly\*, B. Eby\*, M. Loop\*, M. Younanian\*, W.H. Smith, and L.J. Rissler. 2009. **University of Alabama Undergraduate Research Symposium, Tuscaloosa, Alabama.** Population-level responses to fire management in *Anolis carolinensis*.
- Smith, W.H., J. Stiles, S. Stiles, and L.J. Rissler. 2008. **Society for Conservation Biology International Congress, Chattanooga, Tennessee.** Responses of upland longleaf herpetofaunal communities to prescribed burning.

**EXTERNAL GRANTS AND OTHER FUNDING (\$2,391,874 as both sole-PI and co-PI)**

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| 2022 | <i>Tennessee Valley Authority</i> \$1,650<br>Clinch River Youth Summit and Educators' Symposium<br>(coordinating funding through Clinch River Valley Initiative)                                   |
| 2021 | <i>Virginia Environmental Endowment</i> \$10,000<br>High Knob Sustainable Recreation Partnership   |
| 2021 | <i>Virginia Department of Forestry</i> \$10,000<br>Funding for Clinch River Environmental Education Symposium and Youth Summit<br>(coordinating funding through Clinch River Valley Initiative)    |
| 2020 | <i>Virginia Department of Forestry</i> \$6,947<br>Teach The Clinch: Enhancing Place-Based Learning in Virginia's Clinch River Valley (coordinating funding through Clinch River Valley Initiative) |
| 2020 | <i>USDA Working Lands for Wildlife Program</i> \$22,977<br>Eastern Hellbender eDNA sampling and habitat assessment in the Southwest Virginia portion of the species' range                         |

- 2016-2019 *Tennessee Valley Authority* \$7,500  
Funding for the Clinch River Environmental Education Symposium (via Upper Tennessee River Roundtable); three awards
- 2018 *Virginia Department of Game and Inland Fisheries* \$3,000  
Development of a Citizen Science Initiative to Address Data Deficiency in the Mountain Chorus Frog (*Pseudacris brachyphona*)
- 2016 *Virginia Department of Forestry* \$10,000  
Funding for Clinch River Environmental Education Symposium and Youth Summit (coordinating funding through Clinch River Valley Initiative)
- 2016 *U.S. Fish and Wildlife Service State Wildlife Grant Program* \$86,200  
Status review of the Green Salamander in southwest Virginia (collaborative project with multiple PIs)
- 2016 *Appalachian Research Initiative for Environmental Science, Virginia Tech* \$48,000  
Suitability of abandoned minelands as habitat for cliff-dwelling salamander assemblages
- 2015 *Virginia Environmental Endowment, Dominion, and POWER Initiative* \$99,500  
Clinch Lab Development: Preparing for Place-Based Teaching on the Clinch River (Coordinating environmental education component of grant funding managed by Friends of Southwest Virginia and Clinch River Valley Initiative)
- 2014 *Virginia Tobacco Indemnification and Community Revitalization Commission* \$2M  
UVa-Wise / Micronic Technologies Water Field Pilot Program to Support Commercialization (Multiple public and private PIs)
- 2014 *Dominion Higher Educational Partnership* \$25,000  
Funding for development of outdoor classroom facilities at UVa-Wise
- 2014 *Appalachian Regional Commission* \$10,000  
Co-coordinating funding granted to Clinch River Valley Initiative for development and planning of ecological center within the Clinch watershed
- 2014 *Appalachian Prosperity Project* \$2,000  
Funding for continuation and expansion of outreach and educational network in Clinch River Valley, Virginia
- 2013 *Appalachian Prosperity Project* \$5,000  
Clinch River Youth Corps (Outreach/education grant; serving as faculty co-sponsor for student PIs at UVa-Wise and UVa)
- 2012 *Dominion Higher Educational Partnership* \$20,000  
Southwest Virginia CSI (outreach/educational network)

2012	<i>Jeffress Memorial Trust</i> \$20,000 Legacies of habitat change and Appalachian amphibians
2009	<i>Legacy – Partners in Environmental Education</i> \$2,000 A statewide, collaborative amphibian outreach network for hands-on education
2009	<i>Walter F. Coxe Research Fund, Birmingham Audubon Society</i> \$600 Establishing a framework for amphibian biodiversity monitoring in the Talladega NF
2007	<i>Alabama Power Graduate Scholarship Fund</i> \$1,500

## **AWARDS AND HONORS**

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- Trailblazer Award, Southwest Virginia Economic Forum – Awarded for work with educators in the Clinch River Valley seeking to spur innovation in blending economic development and biodiversity conservation (2018)
- Tennessee River Basin Network Aquatic Biodiversity Award – Awarded collaboratively to Clinch River Valley Initiative partners for science communications work in aquatic conservation (2017)
- Harrison Award for Outstanding Research and Publication, UVa-Wise (2017)
- State Council of Higher Education for Virginia Rising Star Award – Named top early-career faculty member across all disciplines at all Virginia colleges and universities (2017)
- Selected for Robert B. Platt III Lectureship in Contemporary Ecological Perspectives, Emory & Henry College (2016)
- Finalist, State Council of Higher Education in Virginia Rising Star (2015)
- Southwest Virginia Technology Council High Tech Green Innovation Award (2015)
- State Council of Higher Education in Virginia Rising Star Nominee (2014)
- The Harrison Rising Star Award, UVa-Wise (2014)
- Outstanding Watershed Educator Award, Upper Tennessee River Roundtable (2014)
- Excellence in Teaching Award and Lifetime Membership Recipient, National Society for Leadership and Success (Awarded by student body at UVa-Wise) (2013 and 2014)
- Semifinalist, James Baker Hall Memorial Prize in Poetry (2013)
- The Harrison Award for Mentoring Undergraduate Research, UVa-Wise. (2013)
- Featured guest on *With Good Reason* (NPR) and *Mountain Talk* (WMMT-FM) as expert on biodiversity conservation and public outreach. (2013, 2016)
- J. Nicholene Bishop Biology Fellowship Award (for outstanding undergraduate instruction). University of Alabama (2011)
- Research featured in special “perspectives” article in *Molecular Ecology* (December 2010)
- Research featured in press coverage by USDA-USDI Joint Fire Science Program (April 2010)
- University of Alabama Graduate Council Fellow (2009-2010)
- University of Alabama Department of Biological Sciences Enhancement Fellow (2007-2009)
- H.M. Stewart, Sr. Award for Excellence. Piedmont College. (2007)
- Camp-Younts Foundation Fellow. Piedmont College. (2003-2007)

## **PEER REVIEWER FOR THE FOLLOWING JOURNALS**

*Herpetological Review*  
*Journal of Herpetology*  
*Canadian Journal of Zoology*  
*Biological Journal of the Linnean Society*  
*Herpetological Conservation and Biology*  
*Global Change Biology*  
*Tennessee Journal of Herpetology*  
*Lux* (Undergraduate Research Journal at UVa-Wise)

## **PROFESSIONAL MEMBERSHIPS (Past and present)**

Association of Southeastern Biologists  
 International Association of Wildland Fire  
 Partners in Amphibian and Reptile Conservation  
 Society for Conservation Biology  
 Society for the Study of Amphibians and Reptiles  
 Association for the Study of Literature and the Environment

## **SERVICE, COMMUNICATIONS, AND OUTREACH EXPERIENCE**

- 2018-present **Natural/Biological Assets Chair, High Knob Master Plan, Friends of Southwest Virginia.** Chairing committee charged with collecting and synthesizing data from state, federal, and nonprofit partners on the location of biodiversity-based assets on High Knob, Virginia for use in developing a master plan linking community development with natural resource protection.
- 2015-present **Board Member/Vice President, The Clinch Coalition.** Work with local citizens and other regional stakeholders to develop and enhance conservation projects in the Clinch Ranger District of the Jefferson National Forest, Virginia.
- 2015-present **Member, High Knob Enhancement Corporation Board of Trustees.** Work with nonprofit, local, state, and federal partners to develop and enhance education, tourism, and conservation initiatives within the High Knob Summit region of the Jefferson National Forest of Virginia.
- 2015-present **Member, Virginia Master Naturalist Chapter Local Coordinating Committee.** Work with local community members and representatives of Virginia Cooperative Extension Service to coordinate local chapter of the Virginia Master Naturalist Program.



- 2014-present **Community Advisory Board Member, WMMT-FM**, Work with other community partners to provide guidance and feedback on regional Appalachian programming in areas including science, culture, and the environment.
- 2012-present **Environmental Education Co-chair and Steering Committee Member**, Clinch River Valley Initiative. Interdisciplinary entrepreneurship and environmental educational partnership in southwest Virginia, coordinated through the University of Virginia's Institute for Environmental Negotiation. Assist in planning and implementation of ecological information delivery to the public and stakeholders.
- 2012-present **Chair, Wetlands and Animal Care Committees**, The University of Virginia's College at Wise.
- 2010 –2012 **Education/Outreach Chair**, Alabama Partners in Amphibian and Reptile Conservation. Networked with academic institutions, government organizations, nonprofit conservation groups, and professional educators to prepare and deliver science-based educational materials and deliverables to stakeholders. Maintained social networking sites (Facebook, Flickr, blog) for the chapter and promoted outreach initiatives to the public.
- 2009-2011 **Coordinator**, Alabama Amphibian Network. Duties included design, supervision and coordination of a competitively-funded, statewide citizen science collaboration consisting of the University of Alabama, Alabama Partners in Amphibian and Reptile Conservation, Legacy Partners in Environmental Education, and eight environmental education centers across Alabama. Program involved >4,500 Alabama students and citizens in citizen science and educational initiatives.
- 2007-2010 **Co-coordinator**, CAARE (Conservation of Alabama's Amphibians and Reptiles through Education). Duties included scheduling and implementing place-based classroom programs on biodiversity and conservation in west Alabama schools. CAARE reached over 2,000 K-12 students through 2010.
- 2008-2010 **Scientific liaison/volunteer**, WaysSouth. Networked with individuals from multiple conservation organizations in the southern Appalachians to develop and release sustainable transportation outreach deliverables, including online content, maps, and text for publicly-distributed publications.