Associate Professor

Fisheries and Aquatic Sciences

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#### **EDUCATION**

Ph.D. Zoology, Southern Illinois University at Carbondale, 2002.

Dissertation Title: Molecular systematics of the thorny catfishes (Siluriformes,

Doradidae). Advisors: Drs. Carey Krajewsksi and Brooks M. Burr.

M.S. Zoology, Southern Illinois University at Carbondale, 1998.

Thesis Title: A survey of genetic variation of the genus Perca (Teleostei: Percidae).

Advisors: Drs. Neil Billington and Brooks M. Burr.

B.S. Fisheries Biology, Mansfield University, 1995. Advisor: Dr. Richard Soderberg.

### PROFESSIONAL EXPERIENCE

2020-Present	Associate Professor, Fisheries and Aquatic Sciences, Department of Biology, Mansfield
	University, Mansfield PA, 16933
2015-2020	Assistant Professor, Fisheries and Aquatic Sciences, Department of Biology, Mansfield

University, Mansfield PA, 16933

2006-2015 **Director**, Conservation Genetics Laboratory, United States Fish and Wildlife Service, Warm Springs, GA 31830. Supervisor: Dr. William Wayman

2004-2006 **Postdoctoral Research Associate**, Oregon State University/Hatfield Marine Science Center, Newport, OR 97365. Dr. Michael Banks

2003-2004 **Postdoctoral Associate**, University of New Mexico, Biology Department and Museum of Southwestern Biology, Albuquerque, NM 87131. Dr. Thomas Turner

2002-2003 **Teaching Assistant**, Ichthyology, Southern Illinois University, Department of Zoology, Carbondale, IL 62901.

**Teaching Assistant,** Molecular Techniques, Southern Illinois University, Department of Zoology, Carbondale, IL 62901

1998-2001 **Research Assistant,** Southern Illinois University, Department of Zoology, Carbondale, IL 62901.

- 1996-1997 **Teaching Assistant,** Introductory Biology, Southern Illinois University, Department of Zoology, Carbondale, IL 62901.
- 1995 **Hatchery Technician,** Haskins Shellfish Research Laboratory, 6959 Miller Avenue, Port Norris, NJ 08349-3167. Mr. Gregory Debrosse
- 1994 U.S. Biological Survey Volunteer Hatchery Technician, USGS LSC Research and Development Laboratory Research and Development Laboratory, Wellsboro, PA 16901. Supervisors: Drs. Harold Kincaid and Bill Krise.
- 1992 **Hatchery technician (intern),** Sunburst Trout Company, 128 Raceway Place, Canton, NC 28716. Supervisor: Mr. Dick Jennings

#### TEACHING EXPERIENCE

2015-Present Mansfield University

## COURSES CAPABLE OF TEACHING

- Advanced Geographical Information Systems
- Anatomy and Physiology Labs
- Biosystems I and II
- General Chemistry and General Chemistry Labs
- Conservation Biology
- Ecology including Labs
- Environmental Issues
- Evolution
- Genetics
- Genomics
- Groundwater and Surface Hydrology
- Introduction to Geographical Information Systems
- Principles in Biology I and II including Labs
- Statistics
- Watershed Management

### **COURSES TAUGHT**

- Applied Aquaculture
- Aquaculture
- Aquatic Techniques
- Biostatistics and Experimental Design
- Conservation Genetics
- Fisheries Management/Human Dimensions
- Ichthyology

- Limnology
- Management of Large Impoundments
- Management of Small Impoundments and Streams
- Research Methods
- Human Biology Lab
- Microbiology Lab

#### 2006-2015 United States Fish and Wildlife Service

- Development of online Conservation genetic course
- Conservation Genetics and Threatened/Endangered Species.
- Conservation Genetics and Hatchery Augmentation/Reintroduction.
- Guest Lecturer in Conservation of Aquatic Organisms at Auburn University. Topic: Conservation Genetics.
- Guest Lecturer Crustacean and Molluskan Aquaculture at Auburn University. Topic: Genetics and hatchery propagation

# 2004-2006 Oregon State University / Coastal Marine Experiment Station

- Guest Lecturer in Coastal Marine Population Genetics. Topic: Maximum likelihood & Bayesian Phylogenetic Inference.
- Guest Lecturer in Coastal Marine Population Genetics. Topic: Coalescence.

#### 2003-2004 University of New Mexico

• Guest Lecturer in Molecular Ecology. Topic: Effective Population Size.

## 1996-2003 Southern Illinois University

- Teaching Assistant. Ichthyology.
- Teaching Assistant. Molecular Techniques.
- Guest Lecturer in Curatorial Techniques. Topic: Collection and Preservation of Tissue Samples
- Guest Lecturer in Systematic Biology. Topic: Molecular Systematics.
- Teaching Assistant. General Biology 115.

#### GRANTS AWARDED

Examining the Nexus Between AMD Remediation and Nutrient Availability for Potential Harmful Algal Blooms in the Tioga River Watershed. G. Moyer and L. Steffy. **\$11,000** – awarded by Susquehanna River Basin Commission.

Unassessed Waters Initiative. G. Moyer. **\$5500** – awarded by Foundation for PA Watersheds.

The Fate of Legacy Pollutants in the Tioga River and Reservoir. **G. Moyer** and G. Zechman. **\$5000** – *awarded by Center for Rural Pennsylvania*.

Faculty Research Scholarship and Creativity Grant. G. Moyer and G. Carson. \$3000 – awarded by Commonwealth University Faculty Professional Development Committee.

2022	Unassessed Waters Initiative. G. Moyer. \$5000 – awarded by Foundation for PA Watersheds
2019	Faculty Professional Development Grant. G. Moyer. <b>\$890</b> – awarded by Mansfield University Faculty Professional Development Committee.
	Chesapeake Watershed Conservation Ecosystem Studies Unit –Mansfield University of Pennsylvania – award to Demchak J., Swank P. Moyer. G.
2018	Genetic identification of redhorse species in the Susquehanna River. Moyer, G.R. <b>\$2,956.80</b> - awarded by Pennsylvania Department of Environmental Protection.
	Taxonomic Status of a New Genus of Freshwater Fish in Georgia. Albanese B., Swift C, William J., and Moyer G.R. <b>\$4,996</b> awarded by The Environmental Resources Network, Inc.
	Genetic identification of a new fish species. Moyer, G.R. <b>\$2,000</b> – awarded by Mansfield University Faculty Professional Development Committee.
	2018 PA Chapter of the American Fisheries Society Annual Meeting. Moyer, G.R. <b>\$607.20</b> - awarded by Mansfield University Faculty Professional Development Committee.
2017	Assessment of Brook trout fish passage pre and post culvert removal. Moyer, G.R. \$1,000 – awarded by Tioga County Conservation District.
	American eel sampling. Moyer, G. R. \$3,058 – awarded by Tiadaghton Audubon Society.
	Emerging contaminants and species persistence – an environmental DNA approach. Moyer, G.R. \$17,500 – awarded by USFWS through Cornell University Subcontract
	Faculty Professional Development Grant. G. Moyer. \$675 – awarded by Mansfield University Faculty Professional Development Committee.
2016	Asian swamp eel environmental DNA detection. Moyer, G.R. <b>\$5,000</b> – awarded by Oklahoma State University
	Invasive quagga mussel detection using environmental DNA. Moyer, G.R. \$492—awarded by Susquehanna River Basin Coalition
	Faculty Professional Development Grant. G. Moyer. \$675 – awarded by Mansfield University Faculty Professional Development Committee.
2015	Faculty Professional Development Grant. G. Moyer. \$675 – awarded by Mansfield University Faculty Professional Development Committee.
	Pennsylvania State Gaining Early Awareness and Readiness for Undergraduate Programs Summer Camp Grant. A. Lavancher, E. Farkas, M. Conrad, G Moyer. \$14,816 – awarded by Pennsylvania State System of Higher Education
	Monitoring for <i>Didymosphenia geminate</i> : an environmental DNA approach. G.R. Moyer and J. Murdock. \$16,194 – awarded by Gulf States Marine Fisheries Commission.
2014	Development of eDNA sampling strategies for lotic systems. G.R. Moyer (PI). \$70,000 – awarded by USFWS Aquatic Invasive Species program.
	Assessing the genetic diversity in and among populations of sicklefin redhorse. G.R. Moyer (PI). \$20,000 – awarded by USFWS Asheville Ecological Services Office.

Fisheries genetics contract for Tennessee Wildlife Resource Agency. G.R. Moyer (PI).

\$17,500 – awarded by the State of Tennessee.

2013 Developing detection probabilities in flowing water environments to improve environmental DNA (eDNA) surveys. M.E. Hunter (PI), G.R. Moyer (CO-PI). \$174,240 - awarded by USFWS/USGS Science Support Partnership program.

> Genetic evaluation of broodfish for the establishment of native walleye in Fort Patrick Henry Reservoir, Tennessee. G.R. Moyer (PI). \$7,497.60 – awarded by Tennessee Wildlife Resource Agency.

> Aquatic species identification via genetic barcoding. G.R. Moyer (PI). \$10,000 - awarded by USFWS Aquatic Invasive Species program.

> Develop eDNA sampling standard operating procedures. E. Diaz-Ferguson (PI), G.R. Moyer (Co-PI). \$60,000 – awarded by USFWS Aquatic Invasive Species program.

2012 Expanding USFWS eDNA monitoring capabilities for aquatic invasive species in Region 4. G.R. Moyer (PI), E. Diaz-Ferguson (Co-PI). \$80,000 – awarded by USFWS Aquatic Invasive Species program.

> Implementation of environmental DNA surveys and integration of standardized protocols for baseline fishery population assessment on Savannah National Wildlife Refuge. Jeff Herod (PI), G.R. Moyer (Co-PI). \$105,000 – awarded by USFWS National Wildlife Refuge Inventorying and Monitoring Program.

> Assessment of genetic diversity of yellowfin madtom (*Noturus flavapinnis*) populations to determine their distinctiveness for reintroduction efforts. G.R. Moyer (PI). \$10,008 awarded by Cooperative Endangered Species Conservation Fund in conjunction with Virginia Department of Game and Fish.

> Determine the genetic diversity and resiliency for flatwood salamander populations in northwest Florida. G.R. Moyer (PI). \$27,975.74 - awarded by USFWS Panama City Fish and Wildlife Conservation Office.

> Aquatic invasive species identification using DNA barcoding. G.R. Moyer (PI). \$20,000 -- awarded by USFWS Aquatic Invasive Species program.

> Identifying priority areas for land protection in the south Atlantic: a landscape genetics pilot study. G.R. Moyer (PI), Jason Duke (Co-PI), Greg Rhinehart (Co-PI). \$71,750 – awarded by South Atlantic Landscape Conservation Cooperative.

> Development of biometric and environmental DNA standardized protocols for early detection and population assessment of aquatic invasive species for Loxahatchee National Wildlife Refuge. J. Herod, S. Pelizza, G. Moyer (Co-PI), J. Galvez. \$174,956 – awarded by National Wildlife Refuge Inventorying and Monitoring Program.

- Assessment of hybridization between northern and southern subspecies of largemouth bass in Chickamauga Reservoir, Tennessee. G.R. Moyer (PI). \$10,798 - awarded by Tennessee Wildlife Resource Agency.
- 2009 Delineating and prioritizing conservation units for the federally endangered bluemask darter (Etheostoma akatulo). G.R. Moyer (PI). \$35,138 - awarded by Tennessee Valley Authority.

Assessment and monitoring of genetic diversity in natural and augmented American shad (Alosa sapidissima) of the Santee-Cooper Basin of South Carolina. G.R. Moyer (PI). \$41,964 – awarded by Santee Basin Cooperative Accord.

Alabama shad (*Alosa alabamae*) restoration for the Apalachicola-Chattahoochee-Flint

2011

2010

2008

River basin. Rob Weller (PI), J.J. Isely (Co-PI), G.R. Moyer (Co-PI). \$457,679 – awarded by NOAA Proactive Species Conservation Grant.

Delineating and prioritizing conservation units for freshwater mussel conservation hatchery implementation programs in the ACF. G.R. Moyer (PI). \$80,000 – awarded by USFWS deferred allocation funds.

Molecular marker development for estimating genetic diversity within and among populations of eastern Gulf Slope threatened and endangered freshwater mussels. G.R. Moyer (PI) and B.L Sloss (Co-PI). \$24,420 – awarded by USGS Quick Response Program.

Estimating genetic diversity of sicklefin redhorse of the Little Tennessee River. G.R. Moyer (PI). \$2000 – awarded by FWS Ecological Services Office, Asheville, NC

Genetic monitoring of four federally threatened fish species for the Chilhowee Fishway Passage Strategy. G.R. Moyer (PI). \$40,780 – awarded by Tennessee Wildlife Resource Agency.

2006 Conservation Hatchery Implementation Program: OSU Component for Nonpareil Dam Adult Trap and Genetic Pedigree. G. Moyer (PI), M. Banks (Co-PI). \$142,948 – awarded by Oregon Watershed Ecosystem Board.

2000 Organization of Tropical Studies Principles of Conservation Biology Fellowship. G. Moyer (PI). **\$2,000** – awarded by Organization of Tropical Studies.

American Society of Ichthyology and Herpetology Raney Award. G. Moyer (PI). \$648 - awarded.

#### **HONORS**

2016	Nominated for United States Fish and Wildlife Rachel Carson Award
2011	United States Department of the Interior Star Award.
2010	United States Department of the Interior Star Award.
2008	United States Department of the Interior Star Award.
2004	Richard Kudo Award (SIUC outstanding dissertation award).
2003	Richard E. Blackwelder Award (presented for conspicuous development as a scholar, dedication to research, outstanding teaching, meritorious publication or presentation, or leadership).
1999	Richard Kudo Award (SIUC outstanding thesis award).
1995	Certificate of Excellence in Biology –presented by the Commonwealth of Pennsylvania University Biologists.

#### **PUBLICATIONS**

#### Refereed Journal Articles

 Moyer, GR, Bartron, ML, Galbraith HS, Grassi J, Rees CB. 2022. Development and validation of two environmental DNA assays for American Eel (*Anguilla rostrata*). Environmental DNA https://doi.org/10.1002/edn3.369

Mansfield University's Outstanding Senior Biology Student.

- Moyer GR, Shaw R, Wertz T. 2020. Mitochondrial DNA barcoding reveals first documented evidence of Golden Redhorse (*Moxostoma erythrurum*) in the Susquehanna River, Pennsylvania. Northeastern Naturalist 28:149-155.
- 3. Swift, CC, Moyer GR, Fallon CE, Albanese B. 2020. Diagnosis and distribution of Florida Sand Darter, *Ammocrypta bifascia* (Teleostei; Percidae), in the Flint River, Georgia. Southeastern Fishes Council Proceedings No. 60:
- 4. Jordan G, Heist E, Kuhajda B, **Moyer GR**, Hartfield P, Piteo M (2019) Morphological identification over-estimates the number of Pallid Sturgeon (*Scaphirhynchus albus*) in the lower Mississippi River due to extensive introgressive hybridization. **Transactions of the American Fisheries Society**. 148:1004-1023.
- 5. **Moyer GR**, Bohn S, Cantrell M, Williams A. (2019) Use of genetic data in a species status assessment of the Sicklefin Redhorse (*Moxostoma* sp.). **Conservation Genetics**. 20:1175-1185.
- 6. Cushman, E. L., Evans, H. K., **Moyer, G. R.**, Raley, M. E., Williams, A. S., Darden, T. L. (2019). Development of a Standardized Molecular Tool and Estimation of Genetic Measures for Responsible Aquaculture-Based Fisheries Enhancement of American Shad in North and South Carolina. **Transactions of the American Fisheries Society**, 148:148-162.
- 7. **Moyer, G.R**, George, A, Rakes, P, Shute, JR, Williams, A.S. 2015. Assessment of Genetic Diversity and Hybridization for the Endangered Conasauga Logperch (*Percina jenkinsi*). **Southeastern Fishes Council Proceedings**. 55: 73-89
- 8. Diaz-Ferguson, E. **Moyer, G.R.** 2014. History, applications, methodological issues and perspectives for the use environmental DNA (eDNA) in marine and freshwater environments. **International Journal of Tropical Biology and Conservation** 62:1273-1284
- 9. **Moyer G.R.**, Diaz-Ferguson E., Hill J.E., Shea C. 2014. Assessing environmental DNA detection in controlled lentic systems. **PLOSONE** 9:e103767
- 10. **Moyer, G.R.,** Williams, A.W, Jolley, M.L, Ragland, B.J., and Churchill, T.N. 2014. Genetic confirmation and assessment of an unauthorized fish introduction in Parksville Reservoir, Tennessee. **The Proceedings of the Southeastern Association of Fish and Wildlife Agencies** 1:64-69.
- 11. Diaz-Ferguson E., Herod J., Galvez J., **Moyer, G.** 2014. Development of Molecular Markers for eDNA Detection of the Invasive African jewelfish (*Hemichromis letourneuxi*): A New Tool for Monitoring Aquatic Invasive Species in National Wildlife Refuges. **Management of Biological Invasions** 5:121-131.
- 12. Robinson, J and **Moyer**, **G.R**. 2013. Linkage disequilibrium and effective population size when generations overlap. **Evolutionary Applications** 6:290-302.
- 13. Robinson JD, Simmons JW, Williams AS, **Moyer G.R**. 2013. Population structure and genetic diversity in the endangered bluemask darter (*Etheostoma akatulo*). **Conservation Genetics** 14:79-92.
- 14. **Moyer G.R**. and Williams A.S. 2012. Assessment of genetic diversity for American shad in the Santee-Cooper river basin of South Carolina prior to hatchery augmentation. **Marine Coastal Fisheries** 4:312-26.
- 15. Wang, R., C. Li, J.A. Stoeckel, **G. Moyer**, Z. Liu, and E. Peatman. 2012. Rapid development of molecular resources for a freshwater mussel, *Villosa lienosa* (Bivalvia: Unionidae) using a RNA-seq-based approach. **Freshwater Science** 31:695-708.

- 16. **Moyer, G.R.** and Diaz-Ferguson, E. 2012. Identification of endangered Alabama lampmussel (*Lampsilis virescens*) specimens collected in the Emory River, Tennessee, USA via DNA barcoding. **Conservation Genetics** 13:885-889.
- 17. **Moyer, G.R.**, Sweka, J, and D Peterson. 2012. Past and present processes influencing genetic diversity and effective population size in a natural population of Atlantic sturgeon, *Acipenser oxyrinchus oxyrinchus*. **Transactions of the American Fisheries Society** 141:56-67.
- 18. Williams, A.S. and **Moyer, G.R.** 2012. Isolation and characterization of 21 microsatellite loci for the federally threatened yellowfin madtom (*Noturus flavipinnis*) with cross species amplification in *N. baileyi* Conservation Genetic Resources 4:221-223.
- 19. Véronique T, **Moyer, G.R**, Blouin, M.S, and Banks, M.A. 2011. Reduced reproductive success of hatchery coho salmon in the wild: insights into most likely mechanisms. **Molecular Ecology** 20:1860-1869.
- 20. **Moyer, G.R.** and A.S. Williams. 2011. Isolation and characterization of microsatellite loci for the oval pigtoe mussel, *Pleurobema pyriforme* (Lea 1857). **Conservation Genetic Resources** 3:255-257.
- 21. Diaz-Ferguson E., Williams, A.S, and **Moyer, G.R.** 2011. Isolation and characterization of microsatellite loci for the federally endangered fat threeridge mussel (*Amblema neislerii*). **Conservation Genetic Resources** 3: 757-759.
- 22. Inoue, K, Moyer, G.R, Williams, A.S, Monroe, E., and Berg, D. 2011. Isolation and characterization of 17 polymorphic microsatellite loci in the spectaclecase, *Cumberlandia monodonta* (Bivalvia: Margaritiferidae). Conservation Genetics Resources 3:57-60.
- 23. Díaz-Ferguson, E, Williams, A.S, and **Moyer, G.R.** 2011. Isolation and characterization of microsatellite loci for the fat pocketbook mussel (*Potamilus capax*). **Molecular Ecology Resources** 11:219–222.
- 24. Véronique T, Moyer, G.R, and Banks, M.A. 2010. Survival and life-history characteristics among wild and hatchery coho salmon returns: how do unfed fry differ from smolt releases? Canadian Journal of Fisheries and Aquatic Sciences 67:486-497.
- 25. **Moyer**, **G.R.**, J.D. Rousey and M. Cantrell. 2009. Evaluation of genetic diversity and relatedness of hatchery and wild sicklefin redhorse (*Moxostoma* sp.) of the Little Tennessee River. **North American Journal of Fisheries Management 29:1438-1443**.
- 26. **Moyer, G.R.**, R. Remington, and T. Turner. 2009. Incongruent gene trees, complex evolutionary processes, and the phylogeny of a group of North American minnows (*Hybognathus* Agassiz 1855). **Molecular Phylogenetics and Evolution** 50:514-525.
- 27. **Moyer, G.R.**, B.L. Sloss, B.R. Kreiser, and K.A. Feldheim. 2009. Isolation and characterization of microsatellite loci for alligator gar (*Atractosteus spatula*) and their variability in two other species (*Lepisosteus oculatus* and *L. osseus*) of Lepisosteidae. **Molecular Ecology Resources** 9: 1-4.
- 28. Moyer, G.R., M. Blouin, and M. Banks. 2007. Differential family success and survival of supplemented coho salmon (*Oncorhynchus kisutch*). Canadian Journal of Fisheries and Aquatic Sciences. 64:1258-1265.
- 29. Turner T.F., M.J. Osborne, G.R. Moyer, M.A. Benavides, D. Alò. 2006. Life-history dependent genetic consequences of habitat fragmentation as measured by the effective size to census size ratio. Philosophical Transactions of the Royal. Society of London, Series B, Biological Sciences 273:3065-3073.
- 30. **Moyer G.R.**, K.O. Winemiller, M.V. McPhee, and T.F. Turner. 2005. Historical demography, selection and coalescence of mitochondrial and nuclear genes in *Prochilodus* species of northern South America.

- **Evolution** 59:599-610.
- 31. **Moyer G.R.**, M. Osborne, and T.F. Turner. 2005. Genetic and ecological dynamics of species replacement in an arid-land river system. **Molecular Ecology**. 14:1263-1273.
- 32. **Moyer, G.,** B. Burr, and C. Krajewski. 2004. Phylogenetic relationships of thorny catfishes (Siluriformes: Doradidae) inferred from molecular and morphological data. **Zoological Journal of the Linnean Society**. 140:551-575.
- 33. Krajewski, C., **G.R. Moyer**, J.T. Sipiorski, M.G. Fain, and M. Westerman. 2004. Molecular systematics of the enigmatic "phascolosoricine" marsupials of New Guinea. **Australian Journal of Zoology**. 52:389-415.
- 34. **Moyer, G. R.**, and N. Billington. 2004. Stock structure among yellow perch populations throughout North America determined from allozyme and mitochondrial DNA analysis. In Proceedings of Percis III: **The Third International Percid Fish Symposium** (Barry, T.P., and J.A. Malison, Eds.), pp. 96-97. University of Wisconsin Sea Grant Institute, Madison, WI.
- 35. Heist, E. J., J. L. Jenkot, D. B. Keeney, R. A. Lane, **G. R. Moyer**, B. J. Reading, and N. L. Smith. 2002. Isolation and characterization of polymorphic microsatellite loci in nurse shark (*Ginglymostoma cirratum*). **Molecular Ecology Notes** 3:59-61.

#### Books and Book Chapters

1. Burtle, G, C. Jennings, B. Lasse, **G.R. Moyer**, and B.L. Sloss. 2013. Care, handling, and examination of sampled and confined organisms. *In* (A. Zale, D. Parrish, and T. Sutton, eds.). Fisheries Techniques, III edition.

## **Abstracts and Proceedings**

1. **Moyer, G. R.**, and N. Billington. 2004. Stock structure among yellow perch populations throughout North America determined from allozyme and mitochondrial DNA analysis. In Proceedings of Percis III: **The Third International Percid Fish Symposium** (Barry, T.P., and J.A. Malison, Eds.), pp. 96-97. University of Wisconsin Sea Grant Institute, Madison, WI.

### Non-refereed Journal Articles or Technical Reports

- 1. **Moyer**, G.R. 2017. Use of environmental DNA to detect aquatic species from the Susquehanna and St. Lawrence basins. Report submitted to United State Fish and Wildlife Service. 20 pp.
- 2. **Moyer, G.R.** 2017. Monitoring for Asian swamp eels: an environmental DNA approach. Report submitted to USGS OK Cooperative Fish and Wildlife Research Unit. 8 pp.
- 3. **Moyer, G.R** 2016. Detection of quagga mussels using an environmental DNA approach. Report submitted to Susquehanna River Basin Coalition. 3 pp
- 4. Bowman, A, Murdock, J and **Moyer, GR.** 2016. Monitoring for *Didymosphenia geminata*: An environmental DNA approach. Report submitted to Gulf States Marine Fisheries Commission
- 5. **Moyer, G.R.** 2010. Feasibility of using molecular tags for use in the Roanoke River American shad hatchery program. Tech Report to North Carolina Department of Natural Resources. 29 June. 15pp.
- 6. **Moyer, G.R.** and J.D. Rousey. 2008. Evaluation of genetic diversity and relatedness of hatchery and wild sicklefin redhorse (*Moxostoma* sp.) of the Little Tennessee River. Tech Rep to U.S. Fish & Wildlife Service, 160 Zillicoa Street, Asheville, NC 28801. 07 May. 22pp.
- 7. **Moyer, G. R.** and M. Banks. 2006. Nonpareil dam adult trap and coho genetic pedigree project. Tech Rep. to Oregon Watershed Enhancement Board. 29 October. 2pp.
- 8. Moyer, G. R. and M. Banks. 2005. Nonpareil dam adult trap and coho genetic pedigree project. Tech

- Rep. to Oregon Watershed Enhancement Board. 29 August. 4pp.
- 9. **Moyer, G. R.**, B. L. Sloss, I. Mitrofanov, C. Krajewski, and N. Billington. 2005. Phylogenetic relationships among *Perca* species inferred from mitochondrial DNA sequence data. Southeastern Biology 52: 127
- 10. **Moyer, G.,** and N. Billington. 2002. The use of isozyme markers to identify stock structure in yellow perch populations. Isozyme Bulletin 35:38.
- 11. Billington, N., G. Moyer, and B. Sloss. 1998. Mitochondrial DNA analysis of walleye (*Stizostedion vitreum*) populations from Michigan. Tech. Rep. to Michigan DNR. 20 January. 32pp.
- 12. Sloss B. L., **G. Moyer**, and N. Billington. 1997. Genetic analysis of striped bass, white bass and hybrid striped bass fingerlings. Tech. Rep. to Kentucky Department of Fish and Wildlife Resources. 27 January. 8pp.
- 13. Billington, N., **G. Moyer**, and B. Sloss. 1997. Allozyme and mitochondrial DNA analysis of sauger from the Missouri River, Montana. Tech. Rep. to Montana Department of Fish, Wildlife and Parks. 16 April. 19pp.
- 14. Billington, N., M. Banerjee, R. Brooks, **G. Moyer** and B. Sloss. 1997. Further evidence of hybridization and introgression between walleye and sauger from isozyme markers. Gene Families and Isozymes Bulletin. Vol. 30, 35pp.
- 15. Billington, N., G. Moyer, M. Schmidt, and D. Lightfoot. 1997. Genetic markers for the characterization of soybean cyst nematode (SCN) populations. Final Report, SIUC ORDA University Priorities and Interdisciplinary Initiative Program. 25 June. 7pp.
- 16. Billington, N., **G. Moyer**, and B. Sloss. 1997. Genetic analysis of pallid and shovelnose sturgeons. Final report to Max McGraw Wildlife Foundation. 23 October. 20pp.
- 17. Billington, N., **G. Moyer**, and B. Sloss. 1997. Molecular phylogeny of percid genera. SIUC ORDA Special Research Program Final Report. 4 December. 6pp.
- 18. Billington, N., R. Brooks, **G. Moyer**, and G. Thompson. 1996. Detection of hybridization and introgression between the two North American *Stizostedion* species using isozyme markers. Isozyme Bulletin. Vol. 29, 24p.
- 19. Billington, N., and **G. Moyer**. 1996. Genetic analysis of putative striped bass samples. Tech. Rep. to Kentucky Department of Fish and Wildlife Resources. 14 February. 6pp.
- 20. Billington, N., R. M. Strange, and **G. Moyer**. 1996. Population and genetic characteristics of walleye in Alabama. Tech. Rep. to Auburn University, Department of Fisheries and Allied Aquaculture. 16 March. 42 pp.

# ORAL PRESENTATIONS (\*STUDENT PRESENTATION)

- G. R. Moyer and M. K. Shank. 2024. Assessing the influence of underlying bedrock geology on pH of Pennsylvania headwater streams. Pennsylvania Chapter AFS 2024 Spring Technical Meeting. 8-9 February, Allegheny College, Meadville. PA.
- 2. Frantz, K, and **G.R. Moyer**. 2023. Stream pH and alkalinity differ among bedrock formations in Northcentral Pennsylvania. 54<sup>th</sup> Annual of the Commonwealth of Pennsylvania University Biologists, 01 April, East Stroudsburg, PA
- 3. **Moyer, G.R.** <u>Invited speaker</u>. 2022. A conversation about conservation. University of California Davis Genomic Variation Laboratory. 07 November, virtual meeting.
- 4. **Moyer, G.R.** <u>Invited plenary speaker</u>. 2020. Coldwater resource conservation and education: resiliency in a changing environment. Keystone Coldwater Conference, 29 February, State College,

PA.

- 5. **Moyer**, G.R., R. Shaw, T. Wertz. 2020. Identification of *Moxostoma* in the Susquehanna River, via DNA barcoding. Technical Meeting of the Pennsylvania Chapter of the American Fisheries Society. 6-7 February, Huntingdon, PA.
- 6. **Moyer, G.R.** 2018. <u>Invited speaker</u>. Monitoring for *Didymosphenia geminata*: An Environmental DNA Approach. Gulf and South Atlantic Regional Panel on Aquatic Invasive Species. 10-11 April, Jackson MS.
- 7. **Moyer, G.R.**, M. Bartron, D. Gefell, C. Rees, J. Casey, R. Getchell 2018. Use of environmental DNA to detect aquatic species from Susquehanna and St. Lawrence basins. Technical Meeting of the Pennsylvania Chapter of the American Fisheries Society. 8-9 February, Williamsport, PA
- 8. Moyer, G.R. 2018. Animal detection sight unseen. Tiadaghton Audubon Society. 16 May, Wellsboro, PA
- 9. Grassi, J, **G.R. Moyer**, H. Galbraith, and C. Rees. 2018. Environmental DNA detection of American eels. Technical Meeting of the Pennsylvania Chapter of the American Fisheries Society. 8-9 February, Williamsport, PA
- Grassi, J., G.R. Moyer. 2017. Environmental DNA Detection of American Eels in a Controlled Setting. Northeast Regional URSCA Conference of the Council of Public Liberal Arts Colleges. 14 October, Mansfield, PA
- 11. **Moyer, G.R.** 2017. Oh the places you'll go. **Invited** seminar speaker. Oregon State University, 14 December, Corvallis, OR.
- 12. **Moyer, G. R.** 2017. Overview of Mansfield University fisheries program. Tiadaghton Chapter of Trout Unlimited, 5 March, Wellsboro, PA
- 13. **Moyer, G.R.** 2017. Applications of eDNA methods for inventory and monitoring of aquatic species. Joint Technical Meeting of the Pennsylvania & West Virginia Chapters of the American Fisheries Society, 9-10 February, California, PA
- 14. Moyer, G.R. 2016. Demographic Processes Influence Genetic Patterns of an Undescribed Redhorse. Pennsylvania Chapter of the American Fisheries Society Annual Meeting, 11-12 February, Selinsgrove, PA
- 15. **Moyer,G.R**. 2016. Monitoring for *Didymosphenia geminata*; an Environmental DNA Approach. Keystone Coldwater Conference, 27 February, State College, PA
- 16. Scholten, G., Bettoli, P, **Moyer, G.R**. 2014. Assessing stocking efficacy of sauger using genetic markers and evaluating their movement and mortality in the Cumberland River in Tennessee. American Fisheries Society, Southern Division meeting, 25 February, Charleston, SC
- 17. **Moyer, G.R.,** Robinson, J., Snider, M., Duke, J. 2013. Identification of Evolutionary Hotspots Based On Genetic Data and Gap Analysis of Hotspots in Protected Lands Encompassed By the South Atlantic Landscape Conservation Cooperative. 143<sup>rd</sup> Annual Meeting of the American Fisheries Society. 9 September, Little Rock, AR (Invited).
- 18. Diaz-Ferguson, E., **Moyer, G.R.** 2013. Development of Molecular Markers for Environmental DNA Detection of the Invasive African Jewel Fish (*Hemichromis letourneuxi*): A New Monitoring Tool for Loxahatchee National Wildlife Refuge. 143<sup>rd</sup> Annual Meeting of the American Fisheries Society. 12 September, Little Rock, AR (Invited).
- 19. Bohn, S., Kreiser, B., **Moyer, G.R.** 2013. Range-Wide Population Structure of Alligator Gar. 143<sup>rd</sup> Annual Meeting of the American Fisheries Society. 9 September, Little Rock, AR.

- 20. Moyer, G. R., 2013. eDNA: a tool for inventory and monitoring of aquatic invasive species. Gulf and South Atlantic Regional Panel on Aquatic Invasive Species Meeting, 11 April, Atlanta, GA (Invited)
- Williams, A., Moyer, G.R. 2012. Genetic assessment of Lake Sturgeon for reintroduction into the upper Tennessee River. Southeastern Fishes Council Annual Meeting. 9 November 2012. New Orleans, LA
- 22. **Moyer, G.R.**, 2010. Genetic risks and recommendations for managing or conserving small, isolated populations. American Fisheries Society, Southern Division meeting, 25 February, Ashville, NC (Invited)
- 23. **Moyer, G.R.,** 2010. The Use of Conservation Genetics in Hatchery Management Addressing Questions with Answers. Genetics Workshop, American Fisheries Society, Southern Division meeting, 25 February, Ashville, NC (Invited).
- 24. **Moyer, GR.,** 2009. Use of effective population size in conservation biology. Auburn University Seminar Series. 23 October, Auburn, AL (Invited).
- 25. **Moyer, G.R.**, 2009. Using conservation genetics to address conservation objectives. Southeast Region Biologists' Conference: Confronting 21<sup>st</sup> Century Challenges Strategic Habitat Conservation. 24 February, Pine Mountain, GA (Invited).
- 26. **Moyer, G.R.** 2008. Minimizing genetic risks associated with hatchery propagation and augmentation of freshwater mussel species. Society of Conservation Biology annual meeting. 15, July, Chattanooga, TN. (Invited).
- 27. **Moyer, G.R.** 2007. Are good intentions enough? 68<sup>th</sup> annual meeting of the Midwest American Fisheries Society. 11 December, Madison, WI. (Invited).
- 28. **Moyer**, **G.R.** 2007. Genetic Considerations for hatchery-based enhancement of aquatic species: are good intentions enough? Annual meeting of the Southeastern Fishes Council, 09 November, Chattanooga, Tennessee. (Invited).

## STUDENT POSTER PRESENTATIONS

- 1. Pennington, C. and **G.R. Moyer.** 2024. Managing for Northern Pike in a small impoundment with an overabundant Bluegill Sunfish population. Pennsylvania Chapter AFS 2024 Spring Technical Meeting. 8-9 February, Allegheny College, Meadville. PA.
- 2. Zechman, G., Steffy, L., and Moyer, G.R. 2024. Understanding the fate of phosphorus in the acid mine drainage impacted Tioga River watershed. Pennsylvania Chapter AFS 2024 Spring Technical Meeting. 8-9 February, Allegheny College, Meadville. PA.
- 3. Frantz, K, and **G.R. Moyer**. 2023. Significant differences in average pH and alkalinity found among streams with differing bedrock geologies. Technical Meeting of the Pennsylvania Chapter of the American Fisheries Society. 23-27 February, Lock Haven, PA.
- 4. King, A, J. Kagle, **G.R. Moyer**. 2020. Comparison of macroinvertebrate and microbial populations in decomposing nonnative Fallopia japonica and native riparian trees of the Delaware River. Technical Meeting of the Pennsylvania Chapter of the American Fisheries Society. 6-7 February, Huntingdon, PA.
- 5. Horowitz, L. E. Farkas, and **G.R. Moyer**. 2020. Micro-friction and adhesive properties of fish scales a test between predator and prey. Technical Meeting of the Pennsylvania Chapter of the American Fisheries Society. 6-7 February, Huntingdon, PA.
- 6. Barshinger, C. and **G.R. Moyer**. 2017. Effects of stocked trout on Cutlip minnow (*Exoglossum maxillingua*) predator prey relationship within the Tioga River watershed. Joint Technical Meeting of the Pennsylvania & West Virginia Chapters of the American Fisheries Society, 9-10 February,

#### UNDERGRADUATE STUDENT RESEARCH PROJECTS SUPERVISED

2019-2020 King, Amy. Comparison of macroinvertebrate and microbial populations in decomposing nonnative *Fallopia japonica* and native riparian plants of the Delaware River. (Winner of AFS's 2020 best poster presentation)

Collins, Dan. Correlation between brook trout (Salvelinus fontinalis) density and macroinvertebrate densities in reproducing trout streams.

Shaw, Ryan. Genetic Species Determination of Unknown Redhorse (Moxostoma sp.) Found in Susquehanna River

Horowitz, Laura. Micro-friction of fish scales

Foil Charles, Jacob. Study of the effects of Eurasian Watermilfoil (*Myriophyllum spicatum*) on Dissolved Oxygen and Temperature in 3 Large Impoundments in Tioga County, PA

Keay, Chris. Comparing Electrofishing Catch Rates (CPUE) of Day and Nighttime Sampling

2018-2019 Breyer, Daulton. Determining the Environmental Habitat of Muskie (*Esox masquinongy*) and Tiger Muskie (*Esox masquinongy x Esox lucius*) in Cowanesque Lake.

Moon, Ty. Fish Passability of Brook Trout (Salvelinus fontinalis) Through a Man-Made Barrier in Straight Run

Olrogg, Tyler. The Effect of Electrofishing on Growth Rates of Brook Trout

Torrez, Anthony. Comparing Local First and Second Order Streams Using Several Stream Characteristics

Hain, Dylan. Population data for Muskellunge and Tiger Muskellunge on Cowanesque Lake

Wilson, Andrew. The influence of nitrogen loading on brown trout (Salmo trutta) abundance

Zechman, Graham. Assessing the presence of American eels (*Anguilla rostrata*) above a manmade barrier

2017-2018 Collins, Curtis. Identification of redhorse species in the Susquehanna River

Grassi, Josh. Environmental DNA detection of American eel (Anguilla rostrata). (Winner of AFS's outstanding research award – the Cooper Award)

Horner Zachary. The use of biofilters in small scale aquaponics

Howard Ryan. Quantification of crayfish claws as an anti-predatory adaptation against smallmouth bass

2016-2017 Greenplate, Megan. Macro-invertebrate communities of Fall Brook Creek and Babb Creek

Fluharty, Ryan. Livewell Structure and Confinement Effects on Bass

Grabowski, Tyler. Mortality of bass from various culling tag methods

Jones, Seth. Heavy metal concentrations in fishes

Sauve, Cory. Influence of watershed factors on Brook Trout abundance

Stockert, Edward. A correlation analysis of Brook Trout abundance and stream parameters

2015-2016 Barry, Connor. Effects of stocking wild Brook Trout (*Salvelinus fontinalis*) in North Central Pennsylvania

Anderson, Clayton. Mortality of black flies exposed to BTI in differing sections of the Susquehanna River

Barshinger, Cooper. Life History Characteristics of *Exoglossum maxillingua* in Crooked Creek and Mill Run (Winner of AFS's outstanding research award – the Cooper Award)

### **GRADUATED STUDENT COMMITEES**

Deanna Johnson, MS, Commonwealth University of Pennsylvania, Tree Swallow Nest Design Analysis

Graham Zechman, MS, Commonwealth University of Pennsylvania, The Fate of Phosphorus in Acid Mine Affected Tioga Watershed.

- 2015-2016 Glenn Ballard, M.S. University of Georgia, Biodiversity monitoring using environmental DNA and next generation sequencing.
- 2014-2015 Sandra Bohn, M.S., University of Southern Mississippi, Genetic diversity among Alligator Gar populations inferred from microsatellite markers
- 2010-2011 Sheena Holley. M.S. Columbus State University, Hybridization among Black bass species in the Chattahoochee River
- Joshua D. Rousey, M.S. Valdosta State, Genetic diversity of Suwanee bass inferred from mitochondrial sequence data.

#### POSTDOC AND INTERNS ADVISED

- Sharon Clemmenson, Student Conservation Association intern (enrolled in MS program at University of Florida Dept. of Biology).
- Sandra Deitz, Student Conservation Association intern.
- Allison Fritts-Penniman, Student Conservation Association intern (enrolled in PhD program at University of California Los Angeles Dept. of Biology).
- John Robinson. Post doctoral researcher (Postdoctoral Fellow, Biology, City College of New York).
- Edgardo Diaz-Ferguson. Post doctoral researcher

#### PROFESSIONAL SERVICE

2024 Lecturer: Conservation Genetics. United States Fish and Wildlife Service National Conservation Training Center

Pennsylvania Biological Survey – Fish Technical Committee

Ad-hoc reviewer: United States Geological Survey

2023 Pennsylvania Biological Survey – Fish Technical Committee

National Pallid Sturgeon Recovery Team. Recommendations for pallid/shovelnose hybridization issues

Ad-hoc reviewer: Conservation Genetics, The Chesapeake Research Consortium, Inc

2022	Ad-hoc reviewer: Conservation Genetics, United States Geological Survey, Cambridge University Press book review
	Inland Fisheries Management Book Focus Group participant
2021	Ad-hoc reviewer: <i>Marine and Coastal Fisheries</i> , Water quality consultant, Lecturer: Conservation Genetics. PA Chapter of the American Fisheries Society – <b>Past President</b>
	Lecturer: Conservation Genetics. United States Fish and Wildlife Service National Conservation Training Center
2020	Ad-hoc reviewer: Fisheries Science, United States Fish and Wildlife Service
	PA Chapter of the American Fisheries Society - President
2019	Lecturer: Conservation Genetics. United States Fish and Wildlife Service National Conservation Training Center
	Ad-hoc reviewer: North American Journal of Fisheries Management, Environmental Biology of Fishes, and United States Fish and Wildlife Service
	National Pallid Sturgeon Recovery Team. Review of Pallid Sturgeon ( <i>Scaphirhynchus albus</i> ) revised Range-Wide Stocking Plan.
	PA Chapter of the American Fisheries Society - President
2018	Ad-hoc reviewer: National Recovery Implementation Strategy for the Cumberland Darter, National Pallid Sturgeon Stocking Plan, Great Lakes Fishery Commission Project Full Proposal (Grant reviewer)
	National Pallid Sturgeon Recovery Team. Recommendations and prioritizations for the use of hatchery pallid sturgeon fry for research initiatives.
	Lecturer: Conservation Genetics. United States Fish and Wildlife Service National Conservation Training Center
	PA Chapter of the American Fisheries Society - President Elect
2017	Ad-hoc reviewer: Fisheries Management and Ecology, Molecular Ecology Resources, North American Journal of Fisheries Management, Great Lakes Fishery Commission (Grant reviewer)
	National Pallid Sturgeon Recovery Team. Recommendations and prioritizations for the use of hatchery pallid sturgeon fry for research initiatives.
	Development of online conservation genetics course for National Conservation Training Center
2016	Ad-hoc reviewer: CRC Press, Taylor and Francis Group, and Journal of Wildlife and Fisheries Management
2015	Development of online conservation genetics course for National Conservation Training Center

Ad-hoc reviewer: Conservation Genetics, North American Journal of Fisheries

management

2014 Subject editor: Journal of Fish and Wildlife Management

Ad-hoc reviewer: Journal of Fish and Wildlife Management, Aquatic Conservation, Conservation Genetics, NOAA Saltonstall Kennedy Grant Program

Member: South Atlantic Conservation Cooperative indicator revision team, Department of the Interior Gulf Coast Science Team, Gulf coast striped bass executive committee, Robust redhorse genetics working group, Sicklefin Redhorse Species Status Assessment working group, Pallid sturgeon recovery team, Bluemask darter recovery team, Yellowfin madtom recovery team, Lake sturgeon management plan working group

2013 Subject editor: Journal of Fish and Wildlife Management

Ad-hoc reviewer: Conservation Genetics, Evolutionary Applications, North American Journal of Fisheries Management, Journal of Fish and Wildlife Management, NOAA Species Recovery Grants to States, Great Lakes Fishery Trust

Member: South Atlantic Conservation Cooperative indicator revision team, Department of the Interior Gulf Coast Science Team

2012 Subject editor: Journal of Fish and Wildlife Management

Ad-hoc reviewer: Freshwater Science, Conservation Genetics, Transactions of the American Fisheries Society, Aquatic Biology, Aquatic Conservation: Marine and Freshwater Ecosystems, Journal of Fish and Wildlife Management

Ad-hoc reviewer: *Transactions of the American Fisheries Society, Aquatic Biology*, National Marine Fisheries Service's Marine Fisheries Initiative, DOC/NOAA Aquaculture policy.

2010 Member - South Atlantic Landscape Conservation Cooperative advisory team

Participant – Strategic Habitat Conservation Workshop for the Appalachian and South Atlantic Landscape Conservation Cooperative

Ad-hoc reviewer: Transactions of the American Fisheries Society, Journal of Marine Biology, Aquatic Conservation, NOAA Protected Species Cooperative Conservation Grant

2009 Organizer and lecturer:

Conservation Genetics and Threatened/Endangered Species. FWS Region 4
 Ecological Services, National Parks Service and Tennessee Wildlife Resource
 Agency personnel. Location: Ecological Services Office, Cookeville, TN

Committee chair for Robust Redhorse Genetics Technical Working Group

Ad-hoc reviewer: Bioinvasions, Canadian Journal of Fisheries and Aquatic Sciences.

2008 Organizer and lecturer:

- Conservation Genetics and Hatchery Augmentation/Reintroduction. USFWS Region 4 project leaders. Location: USFWS Regional Office, Atlanta, GA.
- Conservation Genetics and Threatened/Endangered Species. USFWS Region 4 Regional Office personnel. Location: USFWS Regional Office, Atlanta, GA.
- Conservation Genetics and Threatened/Endangered Species. FWS Region 4 Ecological Services personnel. Location: Ecological Services Office, Panama City, FL

 Organizer: Freshwater mussel noninvasive tissue sampling workshop. FWS Region 4 biologists. Location: Warm Springs National Fisheries Research Center, Warm Springs, GA

Committee chair for Robust Redhorse Genetics Technical Working Group

Ad-hoc reviewer: National Marine Fisheries Service's Marine Fisheries Initiative, State and FWS management plans (3), Southeastern Naturalist (1), North American Journal of Fisheries Management (1).

2007

Ad-hoc reviewer: Great Lakes Fish and Wildlife Restoration Act proposal (1), Canadian Journal of Fisheries and Aquatic Sciences (1), Genetica (2), Journal of the World Aquaculture Society (1), Transactions of the American Fisheries Society (1), North American Journal of Fisheries Management (1).

2006

Ad-hoc reviewer: National Marine Fisheries Service's Marine Fisheries Initiative, Biological Letters (1), Conservation Genetics (2), Canadian Journal of Fisheries and Aquatic Sciences (2), Genetica (1), Journal of Fish Biology (2), Southeastern Naturalist (1), Transactions of the American Fisheries Society (1),

2005

Organizer and lecturer: Fisheries Genetics Workshop, Continuing Education for Wisconsin Fisheries Society chapter. Location: University of Wisconsin - Stevens Point.

Organizer and lecturer: Fisheries Genetics Workshop, Oregon Department of Fish and Wildlife Umpqua Watershed District personnel. Location: Oregon State University, Hatfield Marine Science Center.

Ad-hoc reviewer: CALFED Ecosystem Restoration and Science Initiatives.

Ad-hoc reviewer: Journal of Marine Biology.

2004 Ad-hoc reviewer: *Systematic Biology*.

2000 Ad-hoc reviewer: *Journal of the Linnean Society*.

1997 Ad-hoc reviewer: Proceedings of the Congress of European Ichthyologists (CEI9). *Italian Journal of Zoology*.

#### UNIVERSITY SERVICES

2024 Research Misconduct Inquiry Committee

**Ecology and Environmental Conservation Committee** 

Faculty Evaluation committee

**Graduate Committee** 

Recruitment and PR Committee

Equipment, Space and Facilities

2023 Department Search Committee

**Ecology and Environmental Conservation Committee** 

Faculty Evaluation committee

Graduate Committee

Recruitment and PR Committee

Equipment, Space and Facilities

2022 **Department Promotion Committee** Department Evaluation Committee Student Advisor: Fisheries and Aquaculture Club Student Advisor: Hydroponics Club 2021 Information Technology Committee (Chair) **Integration STEM Sub-Group Committee** Department Evaluation Committee Student Advisor: Fisheries and Aquaculture Club Student Advisor: Hydroponics Club 2020 Middle States Working Group III Information Technology Committee **Department Promotion Committee** Student Advisor: Fisheries and Aquaculture Club 2019 Academic Affairs Committee Information Technology Committee Faculty Award Review Committee Student Advisor: Fisheries and Aquaculture Club 2018 **SPSS Review Committee** Academic Affairs Committee Faculty Award Review Committee Student Advisor: Fisheries and Aquaculture Club Student Advisor: Hydroponics Club 2017 Member of Faculty Senate Academic Affairs Committee Faculty Award Review Committee Student Advisor: Fisheries and Aquaculture Club Student Advisor: Hydroponics Club 2016 Member of Faculty Senate Arts and Sciences Department Chairs meetings Student Advisor: Fisheries and Aquaculture Club 2015 Arts and Sciences Department Chairs meetings

#### **COMMUNITY SERVICE**

Farm Pond Consultant (n=3)

Wildlife Leadership Academy, What do trout eat? 9 July (high schoolers)

Student Advisor: Fisheries and Aquaculture Club

	Wellsboro 5th Grade CCC Field Experience. Creek Critter. 3 <sup>rd</sup> May
	Green Career Day, Bradford County September 30 (middle schoolers)
	Canton Highschool FFA. What is Fisheries Biology? 25th April
	Bradford County eels in a classroom eel release day. Electrofishing and Fish ID 10 and 17 of May
2023	Wildlife Leadership Academy, What do trout eat? 18 July (high schoolers)
	Farm Pond Consultant (n=3)
	Wellsboro 5th Grade CCC Field Experience. Creek Critter. 5th May
	Green Career Day, Bradford County September 30 (middle schoolers), 21Sept
	DCNR 2023 Outdoor Programming Services Meeting, American Eel and Freshwater Mussel Exhibit 25April
	Earth Day 22April
2022	Farm Pond Consultant (n=3)
	Green Career Day, Bradford County September 30 (middle schoolers)
	Wellsboro 5th Grade CCC Field Experience. Creek Critter. 13th May
2021	Farm Pond Consultant (n=3)
	Green Career Day, Bradford County September 30 (middle schoolers)
	Wildlife Leadership Academy, June 25 (high schoolers)
2020	Farm Pond Consultant (n=2)
2019	Wellsboro Home Town Science Festival. September 21 (all ages)
	Farm Pond Consultant
2018	Green Career Day, Mt Pisgah State Park. September 28 (middle schoolers)
	IDEAS day, Mansfield University. April 1 (1-3 graders)
	Mill Creek Earth Day, April 22 (all ages)
	Environmental Education Day at Mill Cove, April 27(all ages)
	Wellsboro Home Town Science Festival. 12 August (all ages)
	Farm Pond Consultant
2017	Environmental Education Day at Mill Cove, April 27
	Farm pond consultant for local community and region
	Mill Creek Earth Day, April 23
	IDEAS Day, April 1
	Wellsboro Home Town Science Festival. 12 August
2016	Mill Creek Environmental Education Day. October 15.
	Green Career Day, Mt Pisgah State Park. September 28
	Mill Creek Earth Day, April 23

IDEAS Day, April 9

2015 Mill Creek Environmental Education Day. October 15.

Green Career Day, Mt Pisgah State Park. September 30.

Farm pond consultant for local community

# PROFESSIONAL ORGANIZATIONS

PA Chapter of the American Fisheries Society –

2018 President Elect

2019 President

2020 President

2021 Past President

2022 Webpage coordinator