



Virtual Endangered Species Event

Wednesday December 8th, 2021

9:00 – 9:15 am	Opening remarks <i>Freshwater Land Trust</i>
9:15 – 10:00 am	Alabama At-risk Species, Listing Process <i>Jenna King, U.S. Fish and Wildlife Service</i>
10:00 – 10:45 am	Alabama Snails and Mussels, Alabama Pearl Shell <i>Morgan Brizendine, U.S. Fish and Wildlife Service</i>
10:45 – 11:30 am	Threatened and Endangered Crayfish <i>Dr. Rebecca Bearden, Geological Survey of Alabama</i>
11:30 – 12:30 pm	Climate change effects on the Southeast and its rivers <i>Dr. Scot Duncan, Birmingham Southern College</i>
12:30 – 1:30 pm	Break for lunch
1:30 – 1:45 pm	Saved: The Story of the Watercress Darter <i>Short film by Ingrid Pfau, UAB Media Studies (2008)</i>
1:45 – 2:45 pm	Watercress, Rush, Vemilion Darters <i>Dr. Bernie Kuhajda, Tennessee Aquarium Conservation Institute</i>
2:45 – 3:15 pm	Rush Darters, Bankhead National Forest <i>Dylan Shaw, Alabama Power Company; Rollins Jolly, U. S. Forest Service</i>
3:15 – 3:45 pm	Urban Conservation, Turkey Creek Nature Preserve Threatened and Endangered Species <i>Charles Yeager, Turkey Creek Nature Preserve</i>
3:45 – 4:30 pm	SHUs, Alabama Rivers and Streams Network (ARSN), AL Waterways <i>Dr. Pat O'Neil, Geological Survey of Alabama</i>
4:30 – 4:45 pm	Final questions, closing remarks

Speaker Bios

Jenna King, U.S. Fish and Wildlife Service



Jenna King works for U.S. Fish and Wildlife Service in the Alabama Field Office. Her role as a Listing Biologist has her working with a variety of petitioned taxa throughout the state, including plants, turtles, fish, freshwater mussels, and aquatic snails. In her previous position with USFWS, she worked as a field biologist surveying for the endangered reticulated flatwoods salamander in the longleaf pine ecosystem of various Air Force Installations in the Florida panhandle. Being a relatively new resident to the state of Alabama, you can find her hiking, paddling, fishing, and generally exploring everything Alabama has to offer in her free time.

Morgan Brizendine, U.S. Fish and Wildlife Service



Morgan began her career with USFWS in 2011 as a STEP student with the Virginia Field Office and has worked in Arizona, New Mexico, Texas, and Missouri. She is now a biologist in the Alabama Field Office and specializes in working with aquatic species, including endangered fishes, freshwater mussels, and snails.

Dr. Rebecca Bearden, Geological Survey of Alabama



Rebecca Ann Bearden began working as a biologist with the Geological Survey of Alabama in January of 2015. Her research projects have included a threats analysis for the federally endangered Slenderclaw Crayfish in the Tennessee River drainage and watershed assessments focused on aquatic species recovery for various systems in the Black Warrior, Coosa, and Alabama River drainages. Her current projects include field surveys for water quality and aquatic species of concern statewide as well as earth science policy outreach through the American Geophysical Union.

A native of Maplesville, Alabama, Rebecca grew up working on her family's beef cattle ranch that she and her sister Rachel currently own and operate. She graduated from Auburn University in 2007 with dual Bachelor of Science degrees in Agricultural Communications and Wildlife Sciences with an English minor. In 2020, she graduated with a Ph.D. in Biology from the University of Alabama. Her dissertation focused on burrowing crayfish habitat preferences and behavior in the Black Prairie of Alabama with research published recently in *Freshwater Biology*. She manages communications and outreach for the Alabama Rivers and Streams Network and is an outdoors columnist for *Southeast Farm Press*.

Dr. Scot Duncan, Birmingham Southern College



Dr. R. Scot Duncan was raised on the shores of Pensacola Bay, FL by the celebrated birders and conservationists, Lucy and Bob Duncan. Both Scot and his brother, Will, have dedicated their lives to science, conservation, and education. Scot holds a BS in Biology from Eckerd College, and a MS and PhD in Zoology from the University of Florida. His research and explorations have taken him to Antarctica, New Zealand, East Africa, Central and South America, the Pacific Northwest, and ecosystems across the southeastern US. For ten years he studied tropical forest restoration in Uganda and Latin America, but now focuses his efforts on endangered species and ecosystems of the Southeast. Scot is an expert on bird identification and ecology, and has observed over 610 species in the United States, and over 1200 species worldwide. He is the author or coauthor of 16 peer-reviewed science journal articles and 7 technical reports.

Scot is also the author of award-winning *Southern Wonder: Alabama's Surprising Biodiversity*, with foreword written by Dr. Edward O. Wilson. Written for the layperson, the book interweaves the disciplines of ecology, evolution, and geology into an explanation of why Alabama is home to more species than any other state east of the Mississippi River. The book won three awards, including the Phil Reed Environmental Writing Award for non-fiction from the Southern Environmental Law Center. Over 3100 copies have been sold.

Scot is frequently interviewed by the press on issues of species and ecosystem conservation and climate change. He's delivered 98 talks to the public since 2013. His blog, entitled *Confluence: The Head and Heart of Southeastern Ecology*, is found at his website: <http://scotduncan.me>. Scot's latest book is *Creeks to Coast: Restoring the Rivers at the Heart of America's Freshwater Biodiversity* (provisional title; Univ. of Alabama Press, spring 2023).

Scot served on the board of the Cahaba River Society (2006-2012), and now serves on the board of the Alabama Chapter of The Nature Conservancy.

Scot is a Professor of Biology at Birmingham-Southern College (BSC) where he's taught for twenty years. He has served as the chair of the Biology Department (2014-2017), and was the chief architect of two successful new majors at BSC: Urban Environmental Studies and Health Sciences. Scot also helped establish BSC's Diversity, Equity, and Inclusion Committee, and has served on the committee for three years, including one year as co-chair.

Ingrid Pfau, Filmmaker



Ingrid Pfau is a Filmmaker from Birmingham, Alabama. She has a BS in Environmental Science Filmmaking from UAB, and an MFA in Science and Natural Filmmaking from MSU. The first documentary she worked on in 2008 was about the Watercress Darter. The 10 minute film, "Saved, The Story of the Watercress Darter" was created for a class, and was seen at 3 film festivals and multiple discussions. She has had experience working with multiple companies on freelance projects, and currently works full time at the National Center on Health Physical Activity at the Lakeshore Foundation. She is currently working with the Freshwater Land Trust to create 4 films about the Litter Gitters and the Litter Quitters in Jefferson County. She has a passion for environmental issues as well as health issues. Afterall, they are connected. <https://ingridpfau.wixsite.com/ingridpfaufilms>

Dr. Bernie Kuhajda, Tennessee Aquarium Conservation Institute



Bernie joined the TNACI staff in May 2012 after 25 years at the University of Alabama, where he managed a museum collection of 1 million specimens of preserved fishes from all around the world. Though his studies of fishes and other aquatic organisms have taken him around the United States, Mexico, and Central Asia, his particular expertise is surveying and monitoring threatened and endangered species from aquatic systems in the Southeast, in part to help evaluate the effectiveness of conservation programs. He currently teaches weekend courses at the University of Alabama Gadsden Campus and on the main campus in Tuscaloosa every summer. He serves on multiple USFWS Recovery Teams/Groups for endangered and threatened species. Bernie's favorite part of his job is field work.

Dylan Shaw, Alabama Power Company



Dylan Shaw grew up in Florence, Alabama, along the banks of the Tennessee River. It was here that he developed a deep appreciation for Alabama's wildlife and the places they live. Dylan earned a B.S. in Biology from the University of North Alabama where he helped survey for rare eastern hellbenders. This led Dylan to direct his focus toward rare and understudied species in Alabama. After graduating, Dylan took a position as an Environmental Specialist with Weston Solutions, Inc in Auburn, Alabama. While at Weston, he served as a HAZMAT specialist in the Virgin Islands in the wake of Hurricane Maria and conducted emissions testing around the Southeast. Dylan now lives in Birmingham and serves as a Biologist for Alabama Power Company (APC) where he and his team manage several

threatened and endangered species on APC property, including the trispot darter (*Etheostoma trisella*) and red-cockaded woodpecker (*Picoides borealis*). He also works closely with biologists on the Bankhead National Forest through an in-kind service agreement to help conduct surveys for flattened musk turtle (*Sternotherus depressus*), black warrior waterdog (*Necturus alabamensis*), and rush darter (*Etheostoma phytophilum*), all of which are listed under the Endangered Species Act. In addition, Dylan participates in conservation initiatives around the state with the Alabama Rivers and Streams Network (ARSN), centered around gaining a better understanding of the biological quality of Alabama's waterways. He can be reached at dcshaw@southernco.com.

Rollins Jolly, U.S. Forest Service



Rollins Jolly is originally from Dalton, GA and graduated from Clemson University. After college, he spent several years in the Army before joining the Bankhead National Forest in 2019 as a biologist. The diverse and breath-taking Bankhead has allowed him to dabble in a little bit of everything from working with federally listed species such as the rush darter and Black Warrior waterdog, enhancing and enlarging our longleaf/upland ecosystems, and managing the invasive, wild pig population on the Forest. He and his wife, Katie Beth, have two young boys that keep them young and active!

Charles Yeager, Turkey Creek Nature Preserve



Charles Yeager is a native of Irondale, Alabama. He developed a passion for the outdoors at an early age through fishing, paddling, and hiking public lands throughout the southeast. Charles' passion for the outdoors led him to pursue a career in conservation which utilized his degree in Urban Environmental Studies from Birmingham-Southern College. After completing his studies, Charles took a position as a Field Biologist for National Oceanic and Atmospheric Administration/Natural Resource Damage Assessment, where he assessed oyster populations along the Gulf of Mexico coast following the Deep-water Horizon oil spill incident. Since 2012, Charles has managed Turkey Creek Nature Preserve in Pinson, Alabama. This 466-acre Preserve is home to five Endangered fish species, as well as threatened species of bats, turtles, and plants. It is also home to rare Warrior Bass. In addition to the day-to-day maintenance of the Preserve, Charles directs the preserve's environmental education programs, which reach over 6,000 participants annually. While at Turkey Creek Nature Preserve, Charles has worked to champion environmental awareness through restoration projects, strong partnerships, and community outreach. Charles can be reached at cyeager@bsc.edu.

Dr. Pat O'Neil, Geological Survey of Alabama



Pat O'Neil retired from the Geological Survey of Alabama in 2019 after a 40-year career working on numerous water-related research projects. He attended the University of Alabama where he received degrees in Biology, Environmental Engineering, and Civil Engineering emphasizing ichthyology, water quality, water supply and hydrology, and wastewater treatment. During his career at the Survey Pat conducted water resource investigations, watershed studies, and biological surveys throughout the State and collected

thousands of water and biological samples from just about every river and stream in Alabama. He has authored or coauthored many reports and publications dealing with Alabama's water resources and unique aquatic fauna. From 2011 through 2017 he worked with a broad coalition of stakeholders on the Alabama Water Agencies Working Group to evaluate and offer recommendations for updating Alabama's water policies. His part-time retired work still involves applying the principals of aquatic biomonitoring to assess stream water quality and integrating the methods of hydrology, biology, geology, and engineering into the field he calls interdisciplinary watershed science, developing strategic initiatives to restore and recover Alabama's aquatic biodiversity, and working with Alabama's new generation of water professionals to download institutional knowledge. His current life revolves around enjoying a less-complicated schedule, being with grandchildren, and getting outside as much as possible.