During the spring and summer of 2015, Black Warrior Riverkeeper helped out with a crayfish survey in the riverbottom hardwood forests and wetlands within the Black Warrior River’s floodplain in Tuscaloosa and Hale Counties. Led by Michael Kendrick, a PhD Candidate in the University of Alabama’s Department Biological Sciences (bsc.ua.edu), and Rebecca Bearden, a Biologist with the Geological Survey of Alabama’s Ecosystems Investigations Program (gsa.state.al.us/gsa/eco), two separate surveys were performed.

In May, while surveying vernal pools and wetlands, we found a very rare crayfish – the Vernal Crayfish (Procambarus viaeviridis), and this was the first find of this species in Hale County. This is a rare crayfish for Alabama (it has Priority I – “highest conservation concern” state status). Priority I is the highest level of protective status a species can have at the state level, the equivalent of the federal Endangered Species Act’s “Endangered” status. Prior to 2014, the Vernal Crayfish had only been found in Tuscaloosa County and Lauderdale County.

In June, while surveying cypress and tupelo gum wetlands, oxbows, and creeks, we found a number of different species, including an incredibly rare Hale County find – an undescribed species of crayfish, (Cambarellus [new_species]). Michael netted multiple gravid female Camabrellus, helping to determine that this very small species indeed does not get any larger.

In total we found 9 species of crayfish: Vernal Crayfish (Procambarus viaeviridis); Digger Crayfish (Fallicambarus fodiens); Red Swamp Crayfish (Procambarus clarkii); Devil Crayfish (Cambarus diogenes); Shrimp Crayfish (Orconectes lancifer); Paintedhand Mudbug (Cambalurus polychromatus); Sharpnose Crayfish (Procambarus acutissimus); White River Crayfish (Procambarus acutus); and (Cambarellus [new_species]).

Such impressive crayfish biodiversity in the lower Black Warrior River basin is a good sign for the river and its floodplain. Moreover, these findings are a great addition to the growing Alabama crayfish record, all of which will be captured in an upcoming Alabama crayfish book that we eagerly await.
Conservation groups are challenging the U.S. Army Corps of Engineers’ approval of a permit authorizing coal mining material to be dumped into streams that feed the Black Warrior River’s Locust Fork. The groups charge that the agency failed to account for the permit’s adverse effects on a watershed that has been degraded by previous and current mining for over a century. The Southern Environmental Law Center (southernenvironment.org) filed the challenge on behalf of Black Warrior Riverkeeper and Defenders of Wildlife (defenders.org), arguing that allowing stream filling at the Black Creek Mine site is yet another case where the agency has rubberstamped approvals without properly analyzing the site-specific and broader impacts of the permit, including compromised water quality and threats to wildlife.

“The Corps’ lax approach toward issuing these permits has resulted in many miles of important streams and acres of wetlands being filled with soil, rock and pollutants,” said Nelson Brooke of Black Warrior Riverkeeper. “This permitting system is the wrong path for Alabama’s water resources, which deserve lasting protection from such activities.”

With over 100 permitted coal mines in the Black Warrior River watershed, impacts from coal mining are some of the biggest threats to water quality in the region. The Black Creek Mine would be a new 287-acre surface coal mine operated by Canadian company Global Met Coal Corporation. Polluted water discharged from this mine will go directly into waters that are already listed as impaired by the Alabama Department of Environmental Management, and which are federally protected habitat for many of Alabama’s rarest species. The Locust Fork is a popular destination for fishing and other forms of outdoor recreation, a multi-billion dollar industry for Alabama.

EPA has commented that the discharge limitations and best management practices typically required at coal mining sites on the Locust Fork are ineffective in maintaining water quality and are allowing the continued degradation of the river. Yet, the Corps continues to issue these permits with inadequate protections and mitigation measures.

“This permitting process not only fails to comply with federal laws, it wreaks havoc on Alabama’s beautiful waterways, the quality of our drinking water, and the fish and wildlife that depend on these resources,” said Ben Prater of Defenders. “When entire segments of streams and wetlands are permanently filled in, they can no longer function to filter out pollution such as sediment and heavy metals.”

In response to this challenge, The U.S. Army Corps of Engineers has suspended the mine’s permit for stream filling. In light of the claims around the permit’s adverse impacts on water quality and rare aquatic wildlife found in this section of the Locust Fork, the Corps has decided to reconsider these issues and to consult with the U.S. Fish & Wildlife Service as required by the Endangered Species Act.

“We are pleased that the Corps is now reassessing the impacts to water quality and the fish and wildlife that depend on clean water in light of the serious issues with this permit,” said Catherine Wannamaker of the Southern Environmental Law Center. “We hope that this will be a thorough and robust re-examination of the impacts to the Locust Fork, and we will continue to push for the appropriate protections that Alabama’s waters deserve.”
Southern Exposure DVDs Available in All Birmingham Public Libraries

The Southern Environmental Law Center (southernenvironment.org) and Black Warrior Riverkeeper have partnered to donate to the Birmingham Public Library System dozens of Southern Exposure DVDs educating the public about Alabama’s natural resources.

Southern Environmental Law Center has donated 57 DVDs – 2013, 2014 and 2015 editions of each Southern Exposure film, said Charles Scribner, executive director of Black Warrior Riverkeeper. That is enough for each of the BPL’s 19 locations to have a free copy of each edition available for checkout to the public. The public can get more background on the films at southernexposurefilms.org.

Keith Johnston, managing attorney for the Southern Environmental Law Center’s Birmingham Office, said the organization was honored to donate the DVDs to the Birmingham Public Library as an avenue for educating the public.

“As a vital public resource for our city and state, we are thrilled that the Birmingham Public Library will now house the entire collection of the Southern Exposure films,” Johnston said. “These films highlight our state’s abundance of natural resources as well as the challenges and threats that they face, and the partnership with the Birmingham Public Library will help to continue raising awareness and appreciation for Alabama’s environmental wealth.”

Angela Fisher Hall, director of the Birmingham Public Library, said the 57 DVDs are now available in all 19 library locations. She was very appreciative of the donation, and honored to be a resource to help educate the public about Alabama’s natural resources.

Southern Exposure is a film fellowship program that is actively raising awareness about Alabama’s incredible natural resources and important environmental issues that impact all Alabamians, Scribner said. Now in its fourth year, the innovative summer fellowship brings emerging filmmakers from across the country to tell authentic, engaging stories through short documentary films about Alabama’s environment and the people who cherish it, from the mountains to the coast.

Sponsored by the Southern Environmental Law Center and made possible through the support and partnership with environmental and conservation groups across the state, Southern Exposure fellows have the opportunity to create inspiring, captivating films that give viewers a sense of how much Alabama has to offer and the importance of protecting its resources.

As a result of these poignant stories depicting the triumphs and challenges facing the state, numerous films from past fellowship years have been selected for screening in juried film festivals around the country. Live screenings and online distribution of the films continue to reach a variety of audiences, in Alabama and across the nation, helping Southern Exposure fulfill the mission to spread awareness, appreciation and inspire action on behalf of Alabama’s environment.

While live screenings and online editions are wonderful, Scribner said partnering with the Birmingham Public Library is an excellent way to make the Southern Exposure films available to many more people, including those who don’t have Internet connections or the ability to attend the screenings.

“Anyone can now borrow the DVDs at no cost, whether for personal viewing or to show at a screening they could set up with their friends, family, church, school, or civic organization,” Scribner said. “Because all people need clean water and clean air in order to survive, as well as a healthy and attractive environment in order to thrive economically, I think it is both functionally and symbolically important that these DVDs are available in all Birmingham libraries.”

The mission of Birmingham Public Library is to provide the highest quality library service to our citizens for life-long learning, cultural enrichment, and enjoyment. This system—with 19 locations and serving the community for 129 years—is one of the largest library systems in the southeast. For more information about the programs and services of the Birmingham Public Library, visit, bplonline.org.
Orvis Chef Collection: Chris Hastings Helps Black Warrior RIVERKEEPER®

This November, Chef Chris Hastings and Idie Hastings of OvenBird (ovenbirdrestaurant.com), Charles Scribner of Black Warrior Riverkeeper, and Orvis (orvis.com) launched the “Orvis Chef Collection” to support Black Warrior Riverkeeper. The collection features items including fishing and shooting accessories, outdoor apparel, and everyday lifestyle items chosen by Idie Hastings, Chris Hastings, and Charles Scribner. Between November 1st and 18th, 20% of all in-store sales of items featured in the “Orvis Chef Collection” at the Orvis Birmingham store (orvis.com/birmingham) directly benefitted Black Warrior Riverkeeper, resulting in a $2,500 donation. The collection is still available for purchase at Orvis Birmingham, located at The Summit, 305 Summit Boulevard, Birmingham, AL 35243.

As a company, Orvis strives to inspire a deep connection to adventure and wonder in the outdoors and has always looked for unique opportunities to raise awareness for local conservation efforts that are important to their consumers. In Birmingham, their store’s official local conservation partner is Black Warrior Riverkeeper whose mission is to protect and restore the Black Warrior River and its tributaries. In a perfect intersection of food and outdoor lifestyles, Orvis has created the “Orvis Chef Collection” to support Black Warrior Riverkeeper. As a member and ardent supporter of Black Warrior Riverkeeper since founding Hot and Hot Fish Club, Chef Chris Hastings’ passion for the outdoors actively reflects and continually demonstrates a deep commitment to local conservation efforts and the organization’s causes. Black Warrior Riverkeeper was an ideal beneficiary of support from the specially curated “Orvis Chef Collection.”

OvenBird is Chris and Idie Hastings’ live fire, casual restaurant that does not require reservations. The menu focuses on the amazing seasonal southern ingredients they know and love in a small plate format that takes inspiration from the live fire traditions of Spain, Portugal, Uruguay, Argentina and of course the American South. They are located in the Pepper Place neighborhood, specifically in the Garden of Charlie and Cindy Thigpen’s Garden Gallery. The garden is a very unique and beautiful outdoor dining environment that will change seasonally and support both their kitchen and craft cocktail program.

OvenBird’s Bar program celebrates the cocktail traditions from the same cultures in their seasonally driven craft cocktail menu. Their friends at Back Forty Beer Company helped them create their own very special OvenBird beer, which is featured along with a great selection of craft beers from around the country. Their wine list is particularly exciting as it features pairings for each menu item, a glass program, and a list that emphasizes off the beaten path varietals from remote locales handpicked for their authenticity, affordability and comparability with their cooking. They have worked closely with some of Alabama’s finest craftsmen and leaders in design to create a variety of amazing vignettes for guests to enjoy a great meal with their friends, family or colleges. They look forward to telling their stories which remind us of how fortunate we are to live in a place like Alabama that celebrates our Southern Makers.

Since 1856, Orvis has been the premier outfitter for the outdoor lifestyle with a mission to inspire a deep connection to adventure and wonder in the outdoor world. The brand’s passion originated with the field sports of fly-fishing and wing shooting. Today, Orvis has grown to include a wide range of outdoor products and activities that are backed by the company’s outdoor knowledge and credibility sourced from the many decades of personal experience on the water and in the field. From improving Orvis products and experiences, to staying connected to what’s happening in the industry and larger world, the company’s curiosity keeps the brand exploring, learning and discovering. The extensive product assortment includes the world’s finest fly-fishing and wingshooting gear, high-quality sportswear for men and women, travel accessories, gifts, home furnishings, dog beds and much more.

Orvis international headquarters are in Manchester, Vermont. Orvis operates multiple catalog titles, three websites, more than 80 retail stores in the U.S. and the U.K., and serves a network of over 400 authorized dealers worldwide. For further details and information please contact Jason Feldman at JFeldman@conecomm.com or (404) 277-4699.
Black Warrior RIVERKEEPER® 2015 Accomplishments

- Led the Shepherd Bend Mine Opposition Coalition to victory as Drummond withdrew its Shepherd Bend permits.

- Continued pushing The University of Alabama to protect 200,000 folks’ tap water permanently at Shepherd Bend.

- Mobilized quickly with diverse allies to defeat legislators’ sneak attack on Alabama’s Forever Wild Program.

- Made 32 educational presentations to advocacy, business, civic, government, religious, and scholastic groups.

- Inspected 5 “bomb train” bridge trestles over the river and tributaries to document infrastructure safety issues.

- Reviewed over 350 facilities’ Discharge Monitoring Reports thanks to John Kinney, Enforcement Coordinator.

- Wrote 37 comment letters to government agencies, requesting improvements to permits and rules for our water.

- Enforced laws to fix problems at coal mines, government agencies, landfills, road projects, and sewage facilities.

- Reached a successful settlement in our Shannon Mine water pollution lawsuit led by Eva Dillard, Staff Attorney.

- Directed $170,000 in polluters’ settlement payments to the Freshwater Land Trust for Valley Creek conservation.

- Engaged hundreds of volunteers of all ages who donated thousands of community service hours in the watershed.

- Hosted Waterkeeper Alliance’s Gulf / South Atlantic Regional Retreat on the Black Warrior River in Moundville.

- Helped scientists find the first Hale County specimen of the rare Vernal Crayfish (*Procambarus viaeviridis*). 

- Assisted with a major Hale County discovery of a rare crayfish currently undescribed by science.

- Monitored 180 facilities in the field through watershed patrols led by Nelson Brooke, Riverkeeper.

- Launched the Orvis Chef Collection with Chris Hastings of OvenBird / Hot and Hot Fish Club.

- Earned Gold (top) status again on GuideStar, the nation’s #1 source of information on nonprofits.

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Board Bio: Rev. Jayne Pool

The Rev. Dr. Jayne Collins Pool is Rector of St. Mark’s Episcopal Church, Birmingham, in the Diocese of Alabama, and teaches Religion to Middle Schoolers at Advent Episcopal School. Jayne was Associate Rector at St. Mary’s on the Highlands and Campus Minister in Montgomery. She has served the Diocese on the Commission on Ministry, Spirituality Commission, Diocesan Council, Standing Committee, and Stewardship of Creation Task Force, and serves on the Cursillo Secretariat. Jayne received a BA in Religion, Summa Cum Laude, Phi Beta Kappa, from Birmingham-Southern, a Masters of Divinity from Yale Divinity School, and a Doctor of Ministry from the University of the South, Sewanee. She completed the Special Post-Graduate Program in Bowen Family Systems Theory at Georgetown Family Center. Jayne is married to Jim, an attorney specializing in health care and tax exempt organizations work. Their daughter, Kirby, teaches first grade in Birmingham.
Black Warrior RIVERKEEPER® Patrol Log

August 20: Patrolled on the Mulberry Fork with a patrol boat full of UAB faculty and staff who are interested in the important topic of sustainability along with Dr. Julie Price, UAB’s Sustainability Coordinator. We checked out Gorgas Steam Plant’s massive coal ash wastewater discharge pipe, which releases between 20-28 million gallons of polluted water from the power plant into the river every day.

August 31: Patrolled Cottonwood Creek in Uniontown with Esther Calhoun, President of Black Belt Citizens Fighting for Health & Justice, to check on impacts from Southeastern Cheese’s wastewater treatment plants and Uniontown’s sewage lagoon.

September 3: Patrolled problematic sections of Jefferson County’s sewage collection system in southwest Birmingham, where spills have been happening, with freelance reporter Ashley Cleek, who was investigating the issue for a WBHM 90.3 piece.

September 4: Patrolled via air with SouthWings volunteer pilot Tom Kahlert to check on a wastewater pond breach at Walter Energy’s underground coal Mine No. 4, which sent a wall of sediment down Oswalt Creek, and ultimately impacted Pegues Creek, a tributary to the Black Warrior River on Holt Lake which is already impaired by sedimentation. While up in the air, we also checked on the Bessemer Quarry, Shannon Mine, Mine No. 7, and coalbed methane drilling operations along the river.

September 19: Participated in the Village Creek Human & Environmental Justice Society’s annual Village Creek Fall Cleanup in Ensley, picking up trash along roadsides that would otherwise be washed into the creek during the next rain.

October 1: Patrolled tributaries to Village Creek to check on water quality downstream of Metalplate Galvanizing’s two North Avondale facilities, which contribute zinc-laden water to the impaired creek.

October 8: Participated in my first commercial fishing trip on the river with Chris Crawford near Akron. We caught catfish and buffalo, and enjoyed buffalo ribs for lunch at Roebuck Landing afterwards. Commercial fishermen know the river well and see the value of river protection first-hand.

October 19: John Kinney and I visited Sumiton Lagoon’s discharge pipe into the Mulberry Fork just downstream of the confluence with the Sipsey Fork, and took samples to check permit compliance.

October 20: Patrolled the river’s Oliver Pool in Tuscaloosa via patrol boat with intern Samuel Yang. We noted erosion around the M&O Railroad Bridge by the amphitheater and at a new development on the riverfront, just downstream of the Riverview boat launch.

November 11: Canoe patrolled Valley Creek in Bessemer with Jefferson County International Baccalaureate School intern Marian Mwenja to check on Birmingham Hide & Tallow’s discharge pipes into the creek.

November 20: Went along with Cahaba Riverkeeper David Butler on a Coosa River patrol with Coosa Riverkeeper Frank Chitwood. We Waterkeepers like to help each other out, and appreciate the Community Foundation of Greater Birmingham’s financial support of our increased collaboration.

November 24: Took UA Professor Alex Huryn’s Freshwater Studies class out on the river’s Oliver Pool in Tuscaloosa on the patrol boat. We talked about and saw pollution issues such as industrial wastewater, municipal sewage, stormwater runoff, Black Warrior Riverkeeper’s role in holding polluters accountable to the Clean Water Act, and the state of Alabama’s unfortunately soft regulatory stance.

December 2: Patrolled Self Creek after a large rain to check on water quality (turbidity) upstream and downstream of the initial Northern Beltline construction site between Hwy. 79 (near Pinson) & Hwy. 75 (near Palmerdale). Also checked on Turkey Creek and its spring-fed tributary, Tapawingo Springs.

To report pollution anywhere in the Black Warrior River watershed, contact Nelson Brooke at (205) 458-0095 or reportpollution@blackwarriorriver.org.
Black Warrior RIVERKEEPER® Membership / Donation Form

Please complete and mail form to: Black Warrior Riverkeeper, 712 37th Street South, Birmingham, AL 35222.
Black Warrior Riverkeeper is a 501(c)(3) tax-exempt charitable organization. Contributions are tax deductible to the extent allowed by law.

Name(s)______________________________________________________________________________________________________________________

Address:_____________________________________________________ City, State, Zip:________________________________________________________
Phone(s):___________________________________________________ Email(s):__________________________________________________________
Signature:___________________________________________________ Date:_______________________________________________________________

If you enjoy the Black Warrior River, its tributaries, or its Sipsey, Mulberry, or Locust Forks, please tell us how and where:
_________________________________________________________________________________

Payment Method: □ Check enclosed / □ American Express / □ MasterCard / □ Visa / □ Non-monetary Contribution (Volunteer or In-Kind donations)

Credit Card number and expiration date (mm/yy):______________________________________________________

□ Monetary donation: $_________ (If you prefer to donate stock, please call Charles Scribner at 205-458-0095 for easy instructions).

□ In-kind donation (List donated goods or professional services):

□ Volunteer time (List hours and type of volunteering):

(Any gift above) In Memory of: ______________________________________________________________________________________________

(Any gift above) In Honor of: _______________________________________________________________________________________________

Name & address to notify of memorial or honorarium gift: ____________________________________________________________________________

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About Black Warrior RIVERKEEPER®

Black Warrior Riverkeeper’s mission is to protect and restore the Black Warrior River and its tributaries. We are a citizen-based nonprofit dedicated to improving water quality, wildlife habitat, recreation, and public health in our patrol area, the Black Warrior River watershed. This basin is contained entirely in Alabama, America’s leading state for freshwater biodiversity.

Our staff is Nelson Brooke (Riverkeeper), Eva Dillard (Staff Attorney), John Kinney (Enforcement Coordinator), and Charles Scribner (Executive Director). Learn more at BlackWarriorRiver.org. Email us at info@blackwarriorriver.org or call (205) 458-0095 to report pollution or discuss how you can help.

We are members of the Alabama Association of Nonprofits, Alabama Rivers Alliance, GuideStar Exchange, River Network, and Waterkeeper Alliance. Other Alabama Waterkeepers include Cahaba Riverkeeper, Choctawhatchee Riverkeeper, Coosa Riverkeeper, Hurricane Creekkeeper, Little River Waterkeeper, Mobile Baykeeper, and Tennessee Riverkeeper. Learn more at Waterkeeper.org.

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Black Warrior Riverkeeper intern Marian Mwenja inspects litter during patrol on Valley Creek. Floatable trash is washed into the creek from roadsides, parking lots, and other areas during rain events. Debris from Birmingham, Brighton, Midfield, Fairfield, Hueytown, and Bessemer (among other places) really adds up as it gathers downstream, so please do not litter. Photo by Nelson Brooke.
Black Warrior **RIVERKEEPER**® Upcoming Events

**January 15** (Friday, 6pm to late night): “Save the Black Warrior: Trophy Presentation” — live music and SweetWater Brewing Company specials at **Egan’s Bar** (1229 University Blvd, Tuscaloosa, AL 35401).

**March 12** (Saturday, 1pm to late night): “AirWave Festival” — live music, food vendors, and brewery tours benefitting Black Warrior Riverkeeper, Cahaba Riverkeeper and Coosa Riverkeeper at **Good People Brewing Company** (114 14th St South, Birmingham, AL 35233).

**April 23** (Saturday, 2pm to sundown): “Earthbound’s Earthfest” — live music by Earthbound, food vendors, art, and outdoor activities benefitting Black Warrior Riverkeeper in the backyard of **Avondale Brewing Company** (201 41st St South, Birmingham, AL 35222).

For more details about these and other upcoming events, contact Charles Scribner at 205-458-0095 or info@blackwarriorriver.org.

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**Black Warrior RIVERKEEPER® Interns**

**Kristen Ellis** is an undergraduate at The University of Alabama, majoring in public relations, who received a grant from the Curtis and Edith Munson Foundation to work as our communications intern for the summer semester. Kristen helped run our “Save the Black Warrior” collaboration with SweetWater Brewing Company in Tuscaloosa, wrote articles about our work, and represented us at public events.

**Robert Luke** is a student at The Altamont School who is improving the Black Warrior River watershed by volunteering over several years at Turkey Creek Nature Preserve in Pinson. Robert is removing invasive species and replacing them with native plants that attract pollinators. The work beautifies an amazing Forever Wild property along Turkey Creek, a tributary of the Black Warrior River’s Locust Fork.

**Terri Sturdivant** volunteered for us through Holy Family Cristo Rey Catholic High School’s innovative Corporate Internship Program. She helped with a variety of fundraising mailers while also tabulating violations in facilities’ Discharge Monitoring Reports, which are regularly received (and generally ignored) by the Alabama Department of Environmental Management.

**Samuel Yang** is an undergraduate at The University of Alabama majoring in environmental science. Samuel collected donations from businesses throughout Tuscaloosa, reviewed facilities’ pollution reports, patrolled the river, identified fundraising prospects, and got friends from the First Baptist Church of Tuscaloosa involved in environmental education events such as the Wild & Scenic Film Festival.

We offer a wide range of service projects for volunteers of any age group or location. Contact Charles Scribner to learn more and get started. Call 205-458-0095 or email info@blackwarriorriver.org.