

THE RIVER RUNS

News from the Cowpasture River Preservation Association



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Adirondack chairs sitting on the shore of the Cowpasture River at Camp Mont Shenandoah. Photo taken by Lynne Griffith at last year's summer picnic.

Please send us your best photos of the Cowpasture River.

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*Lynne Griffith,
Executive Assistant*

Editor: *Lynne Griffith*

From the President

The Cowpasture River provides entertainment, solace, and life support for so many beings. As a few of you may know, this is the time of the year that my dogs, Rodeo and Drover, take their daily trek to the river. Rodeo enjoys standing in the river with his front feet on a large rock to get a better view of any fish he may try to chase. On the other hand, Drover makes use of the river to quench his thirst and to cool off on a hot day.



In February, I added a new member to my “four-legged” family by purchasing a wonderfully fun and friendly horse named Spirit. Spirit recently entertained himself in the river when Margo Clegg, with her horse, Felurian, and I rode into the river at George and Frances Phillips’ Old Camp Farm. Both horses played like children, splashing themselves (and us) and plunging their noses in the water to blow bubbles and drink! They may have stayed in the water hours longer had Margo and I not wanted to move along on our ride.

Another wonder I have found entertaining this Spring has been observing the numerous families of waterfowl being raised on the river. Many gaggles of geese, at all stages of development, are living on the river at Windy Cove Farm. When the dogs and I are spotted walking anywhere near a “family” of geese, the adults quickly gather their goslings and scurry into the river where they are better protected. I have also observed for the first time Merganser ducks raising their numerous ducklings on the river. It appears only one adult duck oversees what must be more than a dozen ducklings! An amazing sight to see is the fleeing ducklings lining up side by side and creating a wake like a motorboat makes!

I could continue with more “tales from the river,” but will instead wrap up this letter by wishing you all have many great experiences on the Cowpasture River this summer. I am certain you will be entertained, find solace and probably improve your lives by spending time in the river or just along its banks.

Yours truly, Elizabeth



Executive Assistant's Corner

I'm excited to see that summer has finally arrived so that all of the fun summer activities we've been anticipating can finally begin. We were disappointed that we were unable to hold our river float on June 10th, but the water level ended up being too low to do so. When the water rises again, we are hoping to reschedule, so please stay tuned.

However, one thing you can add to your calendar now is our annual summer picnic. This year, the picnic is being held on Saturday, August 12th, and the members of Lynchburg Camp have graciously extended an invitation to us to hold the picnic there. It is a beautiful location right along the Cowpasture River, so if you would like to swim, you will be able to do so. Please see page 5 for details on how to register.



May was a busy month. Our third annual Artist Retreat was held at Fort Lewis Lodge and Farm on May 7-10, 2023. Nan Mahone Wellborn, Caryl Cowden and Erin Cowden worked diligently to put together this successful event. Be sure to check out the highlights on page 7. Shortly thereafter, on May 13th, several of our members participated in a fascinating field trip, led by Bill Jones, where they all caravanned together to explore our local karst topography. You can see more photos and details from that event on page 15. The trip ended up being such a success that we are hoping to talk Bill into leading another one for us next year. To cap off the May activities, we held our Annual Meeting and Dinner on May 20th at Camp Mont Shenandoah where we voted in our new board members. You can see all the fun on page 4.



A man and his dog fishing at the Walton Tract during the bi-annual clean-up on April 15th.

We will once again be holding our annual online auction beginning September 1st. We hope you will consider donating items that we can auction off to benefit the Bill Hardbarger Educational Scholarship Fund. Please contact me if you would like to do so. Thank you.

WALTON TRACT CLEAN-UP

Many thanks to Jim Bayliss, Rachel Johnson, Jane Lindsay, Carl Pattison, Bucky Wells, and Mike and Peggy Van Yahres for coming out to clean up trash along the Cowpasture River on April 15, 2023.



Rachel Johnson and Carl Pattison went above and beyond by removing a fallen tree that was blocking the road. We would not have been able to park otherwise. We appreciate all of you who attend these bi-annual clean-up events. Thank you.

Annual Meeting Highlights

It was a joy to get together once again on May 20th at Camp Mont Shenandoah during CRPA's 51st year as an organization. Each year, we gather together for our annual business meeting in order to elect our new board members. This year, we had a total of 85 people in attendance. A fabulous dinner, along with an outstanding assortment of desserts, was provided by Clair Sax Catering from Monterey. Our guest speaker, Brian Watson, the Aquatic Resources Biologist/State Malacologist with the Virginia Department of Wildlife Resources, spoke about mussel restoration. In addition, we welcomed our new board members, Tuck Carter and Tom Watts. Many thanks to Ann Warner for once again providing Camp Mont Shenandoah as our beautiful venue. And thanks to John and Caryl Cowden from Fort Lewis Lodge, as well as Northwest Ace Hardware in Clifton Forge, for providing our raffle prizes.



CRPA President Elizabeth Dudley, Puggy Farmer, Dick Brooks and Marc Koslen.



Members visiting and enjoying their dinner in the Camp Mont Shenandoah dining hall (the Feedbag).



Ellen Ford and CRPA Board Member, Andrew Young.



Nan Mahone Wellborn, Dick Lynn, Pam Bracey and Glovie Lynn.

CRPA Annual Summer Picnic and Family Fun Day



SATURDAY, AUGUST 12, 2023
SAVE THE DATE!

- 3:30—5:00 p.m.** Come early if you would like to swim or canoe
5:00— 6:00 p.m. Happy Hour (self serve)
6:00—7:30 p.m. Picnic dinner

WHERE:

Lynchburg Camp, 78 Lynchburg Camp Rd., Millboro, VA 24460

COST:

- \$20 per person; children 12 and under are free. Please register and prepay online on our website at <https://cowpastureriver.org/shop/2023-crpa-annual-summer-picnic-and-family-fun-day/>
- After you register, you will be assigned a covered side dish to bring with you.
- Please bring your own lawn chairs.

Registration Deadline: August 4, 2023

Questions?: Email director@cowpastureriver.org or call 540-620-7795.



Photo by Tom Watts

Thank You to Our Departing Board Members



Kim Manion



Michael Hayslett



Norwood Morrison

We say goodbye to our departing board members — Kim Manion, Norwood Morrison and Michael Hayslett. Kim has been on the board for six years and has served faithfully as the head of both the Education and Monitoring Committees, as well as serving as the Secretary of the Board during much of her tenure. Norwood Morrison has been on the board for four years, and he served as our Treasurer for the last two years. Michael Hayslett has been on the board for five years and has faithfully headed up our field trip program during that time. To each of you, we thank you so much for your years of hard work serving on the board, and we will miss you.

Japanese Knotweed

by Puggy Farmer

I don't know much about Japanese knotweed, and my botany knowledge barely covers recognizing poison ivy, but maybe I can save you some internet time about this worrisome threat to our river. After all, the bottom line is we need to get rid of it! I mentioned at the annual meeting that Terry King asked me to bring this plant to the attention of the membership. He was not able to attend due to a previous obligation. I had never heard of it, so I called Dave Peters, and he gave me a tour of the stuff growing along Rt. 42.

Reading about this plant takes you down the rabbit hole of scary plants, but here is how this monster moves — It spreads through rhizomes underground, which are like creeping horizontal rootstalks that produce shoot and root systems of a new plant. This nightmare can grow to 11 feet, has big heart-shaped leaves up to 6 inches long with one variety having leaves up to 12 inches long. It can spread horizontally underground 200 feet and vertically in depth 9 feet.

Depending on what extension you reference, it can spread by seed, berries, plant fragments on shoes, animal hooves and flooding. All the county extensions I checked list the fragments as the nastiest. Overall, it is noted for rapid, aggressive growth, displacing native plants, and there is evidence it releases a toxin to suppress adjacent plants (allelopathy). Unfortunately, this stuff is already creeping along the banks of our sister river, the Jackson.

So, if you cut this “Creature From the Black Lagoon 3-D monster,” you must either burn all pieces of it or bag every bit of it. Think about this — fragments as small as 10 millimeters can spring into a new plant. If you do not destroy every bit of this plant and clean your shoes, it will surround you. It intrudes into building foundations, can lift and surface through cement, obstructs sewer lines and basically has no soil binding capacity. So, it is worthless as a riverbank stabilizer.

I read an extension report in England where this creepy plant on your property can reduce your real estate value because of the difficulty in removing it. It presents legal problems for property owners to the point that the plant must be declared in residential property sale documents. Even worse, British banks will not issue a mortgage if the property has, or is even close to, Japanese knotweed unless a management plan is in place. It is a criminal offense to plant Japanese knotweed in Wales. According to the Pennsylvania extension, the attack strategy on this monster is to cut it in June, wait 2 weeks and then herbicide it with glyphosate. There are some recommended herbicides supposedly safe in aquatic environments. Note: It may take 3-5 years to get it under control.

I spoke to our president, Elizabeth Dudley, about this threat to our river and she has added Terry, Dave, and me to the CRPA Board meeting agenda in September. I am confident the Board will drill into this and together we, the CRPA army, will go after this monster. We have got to keep it out of the river.

My best to each of you,
Puggy



Highlights From Our Local Arts Community



Photo by Sarah Muse



Photo by Sarah Muse

Third Annual CRPA Artist Retreat

The third annual CRPA Artist Retreat was a big success! It was held on May 7-10, 2023 at Fort Lewis Lodge and Farm. There were 29 artists in attendance, representing a variety of different media. The three-day event included a nightly social hour where the participants mingled and discussed their art with one another. Nineteen of the participants became new CRPA members, and 11 of the returning participants renewed their membership.





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Sunday Hours: 10:00 am to noon

**New Location: Bath County High
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“Forever Chemicals” and What to Do About Them

by Andrew Young, CRPA Board Member

Per- and polyfluoroalkyl substances – known as “PFAS”, are a large class of widely used, long lasting toxic chemicals whose components break down very slowly over time. PFAS are a group of manufactured chemicals that have been used in industry and consumer products since the 1940s because of their beneficial properties. Within this chemical group, Perfluorooctanoic Acid (“PFOA”) and Perfluorooctane Sulfonate (“PFOS”) are two of the most widely used and studied chemicals in the PFAS group. PFOA and PFOS have been phased out of commercial products because of their toxicity and lifespan, however they can still be found in the environment and water sources from historic uses and firefighting foam. Additionally, products are now made with other PFAS as replacements for PFOA and PFOS. There are thousands of different PFAS, some of which have been more widely used and studied than others. These PFAS are heat, grease, and water resistant, and they can be found in everyday products such as: cleaning products, water repellent clothing, non-stick containers, ski wax, cosmetics and personal care products like shampoo and dental floss, grease-resistant paper, stain-resistant carpet and upholstery, and firefighting foam in fire extinguishers.

Of note is that PFAS manufacturers such as 3M, DuPont, Corteva, Chemours, Solvay have known about the toxicity of PFAS since at least the 1970s. These companies are now facing lawsuits around the country for polluting public water systems around the country and are expected to face billions in damages. In fact, in the first week of June 2023, Dupont, Corteva and Chemours entered a \$1.185 billion settlement, and 3M is in talks for a \$10 billion settlement for PFAS pollution.

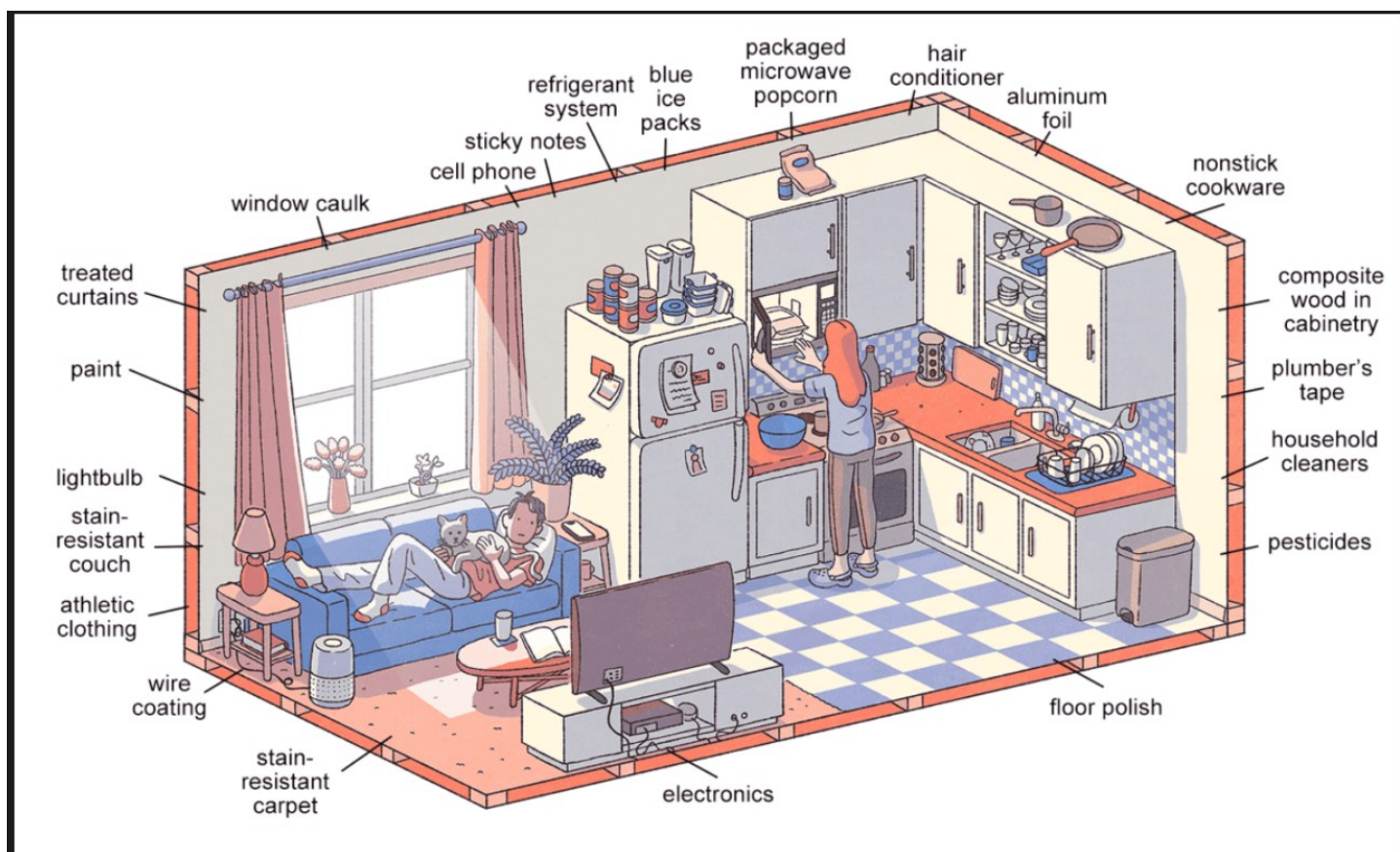
One common characteristic of concern is that many PFAS break down very slowly and build up (referred to as bio-accumulation) in people, animals, and the environment over time without diminishment. Because of this, PFAS are called “forever chemicals.” Many PFAS are found in the blood of people and animals all over the world. One study by the CDC found that 97% of Americans have detectable levels of PFAS in their blood. These substances are present at low levels in a variety of food products and in the environment because of their widespread use and their persistence. One recent study published by the National Waterkeeper Alliance found [83% of waterbodies in USA have detectable levels of PFAS](#), the scale of this pollution serving as a stark reminder of how widespread the contamination has become in the void of federal regulation. Technology for the treatment, concentration, and destruction of PFAS is still in its early stages and currently there is no universal, cost-effective way to remove PFAS from all media. Furthermore, technologies currently available to manage PFAS vary based upon the type of media and contamination levels. For example, removing PFAS in water requires different considerations and processes than removing PFAS from soil, sludges, leachate, vegetables, milk, beef, or other contaminated media. This is because each media type has unique characteristics which may pose challenges with existing technology. The U.S. EPA, States, and private parties are researching new technologies and methods for treating, concentrating, and destroying PFAS, but thus far it is largely unproven.

As for health impacts, the U.S. CDC says research suggests elevated levels of PFAS can lead to: increased risk of prostate, kidney and testicular cancer, decreases in infant birth weight, increased

risk of high blood pressure or preeclampsia in pregnant women, reproductive effects such as decreased fertility, developmental effects or delays in children (including low birth weight), accelerated puberty, bone variations, or behavioral changes, changes in liver enzymes, decreased vaccine response, and increased cholesterol levels/risk of obesity. [Link to US EPA website on current understanding of PFAS health and environmental impacts.](#)

PFAS REGULATION

There are numerous rulemaking proposals and initiatives (see [EPA's PFAS Strategic Roadmap 2021-2024](#)) that are to be finalized soon as a result of the Biden Administration's efforts to tackle the PFAS crisis, but as of Summer 2023, these substances are still largely unregulated at the Federal level, even though involved entities (like manufacturers and public water suppliers) know the regulations are coming. In 2016, EPA published a health advisory on PFOA and PFOS, establishing lifetime safe exposure levels of the chemicals in drinking water at no more than 70 parts per trillion, and following several meetings with other federal, state and local government stakeholders unveiled a formal [PFAS Action Plan in 2019](#). But in June 2022, based on the best available science and data, [EPA revised its health advisory level for PFAS](#) downward by more than a thousandfold to 0.004 parts per trillion for PFOA and 0.02 parts per trillion for PFOS in drinking water. Essentially, EPA determined, like with lead, there is no acceptable safe exposure level to PFAS in drinking water. These health advisories are, however, not legally binding requirements for drinking water suppliers until EPA implements mandatory drinking water levels for these contaminants now that the Agency has made its [final Regulatory Determination for PFAS](#). In March 2023,



PFAS permeate modern life, with water, food, dust, work settings and countless household materials all potential sources of exposure. Settings and jobs with high PFAS exposure raise concerns about long-term medical impacts. Illustration by Tim Peacock. Source: Environ. Sci.: Processes Impacts, 2020,22, 2345-2373.

under its authority within the Safe Drinking Act (“SDWA”), the EPA announced the proposed National Primary Drinking Water Regulation (NPDWR) for six PFAS (including PFOA and PFOS) to establish legally enforceable levels, referred to as Maximum Contaminant Levels (MCLs). These MCLs will require public water systems to: 1) monitor for these PFAS, 2) notify the public of the PFAS levels in their water, and 3) reduce the levels of PFAS in the water if it exceeds the MCL. Importantly, until the proposed regulation becomes final, it does not require any action on the part of any public water system. EPA expects the NPDWR to be finalized by the end of 2023. With full implementation, the agency predicts the regulation will prevent thousands of deaths and reduce tens of thousands of serious PFAS attributable illnesses.

[A summary of the EPA PFAS action plan is as follows:](#)

- Designate PFOA and PFOS as hazardous substances under CERCLA (Superfund).
- Establish a national primary drinking water standard for PFOA/PFOS and other groups of PFAS (in the NPDWR).
- Issue new Health Advisories and create \$1billion fund for states/tribes/territories to receive grant money to address PFAS and other emerging contaminants in drinking water.
- Establish national PFAS testing strategy test order under the Toxic Substances Control Act (“TSCA”) to test for PFAS in drinking water sources.
- Addition of five PFAS to contaminated site cleanup tables.
- Draft Aquatic Life Criteria for PFOA and PFOS toxicological effects on freshwater aquatic organisms.
- Address PFAS in National Pollutant Discharge Elimination System (“NPDES”) permits.
- Measure for absorbable fluorine in water samples.
- Require sample collection for PFAS in drinking water under the Unregulated Contaminant Monitoring Rule (UCMR).
- EPA Science Advisory Board review of PFAS’s negative health impacts at lower exposure levels than previously understood.
- Initiation of formal rulemaking under the Resource Conservation and Recovery Act (“RCRA”) to regulate PFAS as a hazardous waste and improve clean-up of PFAS contaminated sites around the country.
- Create a National PFAS Testing Strategy under TSCA requiring manufacturers to provide information on PFAS.

Without a currently mandatory Federal regulatory regime, many states have acted to ban PFAS in fire-fighting foams and food packaging, but most bans are not set to begin until 2023 or later.

PFAS can be found in many places, but the most acute sources of contamination are: drinking water, soil and water at or near waste sites, fire extinguishing foam, manufacturing or chemical production facilities that produce or use PFAS, food, food packaging, Household products and/or dust, personal care products, and leachate/biosolids applied to farmlands.

The best way to protect yourself from PFAS exposure is to reduce the use of products that contain PFAS, reduce levels of PFAS in the water you drink, and follow guidelines for eating fish. Practically, this means checking product labels for ingredients that include the words “fluro” or “perfluro,” being aware of packaging for foods that contain grease-repellent coatings (microwave popcorn and fast-food wrappers and boxes), avoiding “stain-resistant” treatments/coatings on furniture and carpet, and avoiding clothing, camping gear, and luggage that has been treated for water and/or stain repellency. For drinking water, remember public water suppliers are not required to test for PFAS, so if you are on municipal water, contact your municipality and ask about PFAS testing in your community. If you are on well-water, analysis of a water sample at a certified laboratory is the only way to show whether your drinking water has been contaminated with PFAS. Additionally, both granular activated carbon and reverse osmosis filters can reduce/remove PFAS in water. These filters are available in pitcher form, as well as under-sink and faucet mounted. For reference, I recently purchased and installed the Aquasansa AQ-5300+ Max Flow after reading The NY Times “Wirecutter” reviews for the under-sink filter type. I am very happy with the performance, and the installation was simple. As a last note, the Virginia DEQ has not yet sampled the Cowpasture River for PFAS levels in the surface water, sediment or in fish tissue, but the DEQ has sampled the Jackson River and found PFAS in detectable amounts. As more PFAS sampling occurs in the Jackson and Cowpasture River watersheds, it is expected that DEQ will continue to publish the data on the state PFAS dashboard. If you consume fish from the Cowpasture or Jackson, it is recommended to check this data and any applicable fish consumption advisories to make informed consumption decisions.

We are lucky the Cowpasture does not have heavy industry along its banks, and that farmers in Bath and Highland counties are being great stewards by not applying biosolids to their lands. But PFAS is so prolific that it has penetrated the water-cycle and is even being found in rain. With such a ubiquitous contaminant, we must be proactive about protecting ourselves and our river against PFAS making any inroads. You can count on CRPA to remain engaged at every level with this emerging issue.

Back by Popular Demand!



Our long sleeve shirts with UPF 50+ UV/sun protection are back in stock. This year we have our 2023 version of last year's 50th anniversary shirt. Colors come in Arctic Blue, Sage Green and Safety Yellow (fluorescent yellow). The fabric includes PURE-tech moisture-wicking technology and anti-microbial technology which keeps your shirt dry and odor free. The shirt features a beautiful drawing of the swinging bridge over the Cowpasture River. “Cowpasture River” is printed on the side of one of the sleeves (see below). You can purchase online via our website at <https://cowpastureriver.org/shop/>.



Cowpasture River

Virginia Highlands Wood Duck Club 2022 Annual Report

by Arne Peterson

DUCKS — After two down years, the number of nesting hens returned to previous levels. Nesting attempts rose from 42 to 52, and successful nests from 30 to 43. Only one previous year was higher. The Jackson River in the west and the area from the Maury River to Irish Creek produced most of the gains. The center portion (Mill Creek, Calfpasture, Little Calfpasture, Walkers Creek) has yet to recover its previous numbers. This area also experienced the greatest box competition from starlings and screech owls. The number of unhatched eggs in successful boxes rose sharply but still remains below 1 per box. Egg dumping is not an issue and hasn't been for several years. Our greatest problem remains competition from owls and starlings. This year they took 60 of our boxes. In addition, starlings caused several cases of nest failure by piercing duck eggs with their beaks. Experiments continue on ways to lower this problem.

OWLS — Owl numbers were slightly down. Last year, red and grey morph numbers were equal. This year, they returned to the norm of more red morphs than grey ones. Prey species found in boxes varies wildly from year to year. This year, the number and variety of mammals and aquatics was down. High water probably explains fewer aquatics because they were harder to hunt. Why mammals were down is a complete mystery. Bird kill numbers were up considerably. Identifying birds by feathers alone is difficult, so what we could identify is less than half of total bird kill. Blue jays and cardinals appear in the stats to be the most preyed on, but the real reason their numbers are highest is that they are the easiest to identify.

TRAIL SUMMARY

Total Boxes = 168

Used by Ducks	52/31%
Successful Nest	43/26%
- Unhatched Eggs	33/Avg .76 per box
Nest Failure	9
- Total Eggs	30/Avg 3.3 per box
No Duck Activity	116/69%
Egg Dumping	0
Used by Owls	48/29%
Owls in Box	28
- Red Phase	16
- Gray Phase	12

Mammals

Mice—5
Voles—0
Squirrels — 0

Birds

Bluejay—7
Cardinal—3
Downy Woodpecker—2
Wren—1
Titmouse—5

Aquatics

Frogs—3
Crayfish—4
Salamander—0
Fish—0

Cowpasture/Stuarts Run 40 Boxes

Successful	10	Owl Use	7
Nest Failure	3	Owls in Box	4 R-2, G-2
Not Used by Ducks	27		

Rare Fish in Upper James River Could Get Federal Protection

by Whitney Pimpkin

Whitney Pimpkin is a Bay Journal staff writer based in Virginia. You can reach her at wpimpkin@bayjournal.com.

A tiny, bumpy-headed fish found only in a rural stretch of the upper James River watershed in Virginia could soon find protection under the U.S. Endangered Species Act.

The roughhead shiner (*Notropis semperasper*) is a shiny, 3-inch olive minnow that lives in the Cowpasture River and its tributaries in western Virginia's Alleghany, Bath and Craig counties. In late March, the U.S. Fish and Wildlife Service announced that the fish was among four species being considered for federal protection. (The others were the common hippopotamus, a scarab beetle and Inyo rock daisy.) The shiner will undergo a yearlong status review to determine whether it receives the protection, which could unlock additional federal funds for habitat restoration and other measures.

The Center for Biological Diversity first petitioned the federal government to consider protecting the roughhead shiner in March 2022 after scientists said it was becoming increasingly rare to find. One of the main threats to the fish is an intruder — the telescope shiner. Native to rivers in the South, the telescope shiner looks like the roughhead shiner but has been driving the native fish out of its habitat.

Roughhead shiners, like most minnows, thrive in rocky creek bottoms filled with insects, but the fish were cut off from part of their historic habitat by a dam and excess sediment that flows into the habitat of shiners and other small fish.

"It's on the verge of extinction, as are a lot of little species that nobody is paying attention to," said Tierra Curry, a senior scientist at the Center for Biological Diversity. "It's a story that is happening everywhere and largely being ignored."

The Maryland darter, for example, the only animal known to be found solely in Maryland, was recently declared extinct by the International Union for Conservation of Nature after scientists recently tried but failed to find them in rivers they once inhabited. The tan-and-brown-blotched fish was declared federally endangered in 1967, and its population continued to rapidly decline. The last sighting was in 1988.

Globally, nearly one-third of freshwater species are facing extinction, according to the IUCN. The Appalachian region that encompasses the shiner's range is known for a high numbers of fish species only found in its waters.



The roughhead shiner is a shiny, 3-inch olive minnow that lives in Virginia's Cowpasture River and its tributaries. (Derek Wheaton)

“Around one-third of the region’s fishes are restricted to a single drainage unit ... which makes them highly vulnerable to extinction when faced with habitat degradation, invasion of non-native species or other threats from which they cannot relocate,” states the Center for Conservation Biology’s petition for the roughhead shiner, citing a federal study of the Southern Appalachian ecosystem.

The roughhead shiner was first identified as threatened a half-century ago and was put on a waiting list for Endangered Species Act protection in 1994. Scientists from Conservation Fisheries, Inc., a Tennessee-based nonprofit that snorkels to seek rare and endangered species, recently flagged the roughhead shiner as even harder to find.

Virginia also has identified the shiner as a species of critical concern. But, Curry said, the state hasn’t allotted the funding necessary for monitoring or restoration. “Endangered Species Act protection would make funding available to recover the fish,” she said.

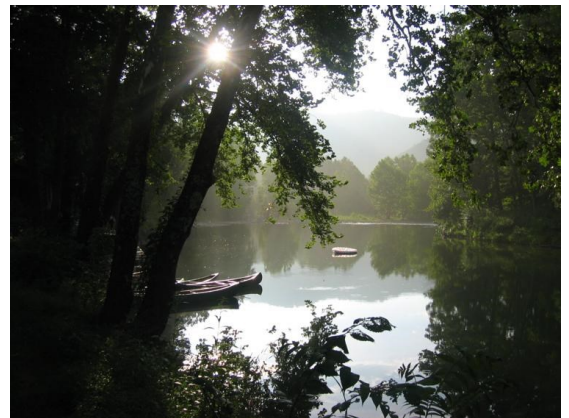
Endangered species protection has made a difference for several freshwater fish species that have since recovered, Curry said, including the snail darter in East Tennessee and the Oregon chub. Scientists have known for decades about the roughhead shiner’s predicament. But even with a status change the solutions would not be simple.

At this point, Curry said part of the effort of preventing extinction for the roughhead shiner would likely include bringing some of the species into captivity. That effort could preserve its genetic diversity while allowing the fish to be reared and potentially released to invader-free waters.

But protecting and improving the Cowpasture River and its tributaries would be a key component. As the river’s name implies, the Cowpasture is surrounded primarily by agricultural fields with no large urban area in the watershed. The river has an active preservation association and falls under the purview of the James River Association — though neither group has focused efforts specifically on the shiner.

Still, “small fishes like the roughhead shiner, are an important part of the ecosystem,” said Erin Reilly, senior staff scientist at the James River Association. “Protection of critical habitat and restoration practices that support improving water quality and decreasing sedimentation will not only help the roughhead shiner but also many other species of small fish and invertebrates.”

For Curry, who directs her center’s “saving life on earth” campaign, every species in danger of extinction matters, even the small, dully colored ones. The roughhead shiner is not particularly colorful or charismatic, though it is, like most minnows, shiny. “It’s just the ethical principle that it should have a right to exist,” Curry said.



The Cowpasture River, home to the rare roughhead shiners, is part of the upper James River watershed in Virginia. (Thombo2/CC BY 2.0)

— This article first appeared in the May 2023 issue of the Bay Journal, and it was distributed by the Bay Journal News Service.

A Request for Auction Items

The Bill Hardbarger Educational Scholarship Fund

In an effort to carry on Bill Hardbarger's passion for river education to students of all ages, we are once again holding our annual online auction in the fall. We created a scholarship fund in Bill's memory, and the proceeds from this auction will go to that fund. Last year, members donated a whole array of items, ranging from beautiful paintings, scarves, a hand-crafted bench and "Kissmas" tree, charcuterie boards, home baked pies, table runners, as well as several other items.



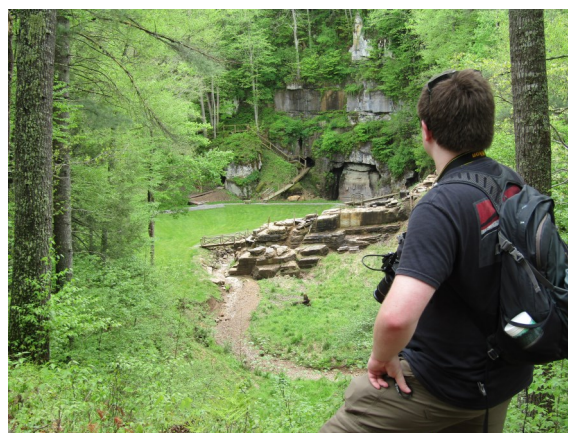
If you are interested in donating items to our auction this year, please contact Lynne at 540-620-7795 or email her at director@cowpastureriver.org.

Highlights of the Karst Topography Field Trip

Great reviews came in from the "Karst Topography" field trip led by Bill Jones. The group visited several sites, including Blowing Cave by Windy Cove Church, Dry Run above Westminster Road Bridge, Burnsville Uvala, Owl Cave and the Pancake Field, the Water Sinks, the Springs in the Bullpasture River Gorge, and Coursey Springs.



Group shot taken by the trip leader, Bill Jones.



Grant Colip overlooking the blind valley of "the water sinks" on Phil Lucas' farm near Burnsville.



Departing Owl Cave on Phil Lucas' land.



Anne Bryan and Joe Murray.



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Your donations are tax deductible!

☒ \$25 Adult Membership (*minimum annual dues per individual*)

☐ \$50 Streamside Level Donation

☐ \$100 River Guardian Donation

☐ \$250 Headwaters Circle Donation

☐ \$500 Watershed Steward Donation

☐ \$1,000 Wallawhatoola Society Donation

☐ \$1,500 + Bedrock Patron Donation

☐ \$3,000+ Endowment Contributor Donation

☐ Memorial Donation \$ _____
in memory of _____

☐ \$12 Junior Membership Dues

☐ I am a NEW member!

☐ I am RENEWING

☐ This is a gift membership for _____

NAME(S): _____

ADDRESS: _____

CITY — STATE — ZIP

PHONE

E-MAIL: _____

☐ I prefer to NOT have my name published as a contributor.

☐ Please send my newsletter by email version only.

☐ I am interested in becoming a volunteer and/or river monitoring.

(Note: A financial statement is available upon written request from the Virginia Department of Agriculture and Consumer Services — Office of Charitable and Regulatory Programs.)

