

Raccoon Creek News

Spring 2022

RCP Life in Full Bloom

Hooray for Raccoon Creek!

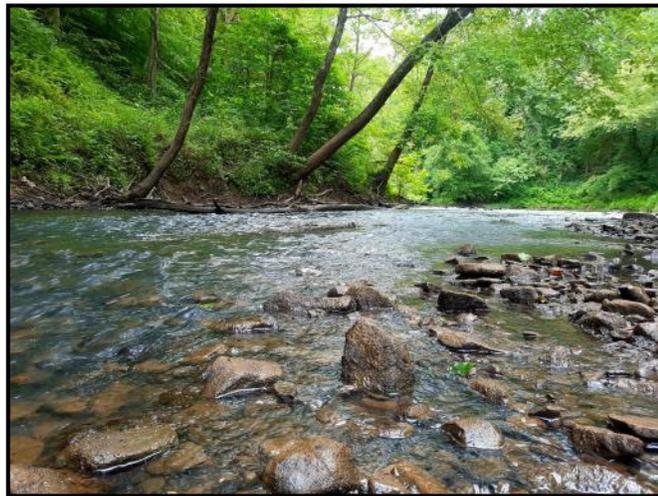
Amy Mackey– RCP Watershed Coordinator, Ohio University Voinovich School

Raccoon Creek Partnership would like to bring to light the amazing work that has been done in Raccoon Creek over the years. Two decades of watershed restoration projects have resulted in tremendous biological recovery in the Raccoon Creek watershed.

In the 1980s many sections of the stream were nearly devoid of life due to upstream acid mine drainage, sedimentation from un-reclaimed surface mines, and other water quality impairments. Early fish surveys documented only 21 fish species in the entire Raccoon Creek watershed, and one species (the beautiful but pollution tolerant longear sunfish) at the mouth of Little Raccoon Creek (the longest tributary in Raccoon Creek).

The Raccoon Creek Improvement Committee and concerned citizens throughout the watershed partnered with agency personnel leading to the first official restoration project being completed in the Raccoon Creek watershed in 1998 at Buckeye Furnace in Jackson County. Since that time, over 20 reclamation, treatment, and restoration projects have been completed in the watershed; successfully reducing acid, metal, and sediment loads, and improving habitat and water quality. By 2016, 78 species of fish have been recorded in the Raccoon Creek Watershed and 34 species at the mouth of Little Raccoon Creek! The most downstream 40 miles of Raccoon Creek, from the dam at Vinton downstream to the confluence with the Ohio River now meet Exceptional Warm Water Habitat, the highest Aquatic Life Use designated to streams in Ohio, reserved for bodies of water with exceptional biodiversity, rare, and threatened species. The eastern sand darter, a species of concern in Ohio, is found in this reach of Raccoon Creek, as well as the state threatened paddlefish.

Thank you to all of our partners who have made this amazing recovery possible!



Photographs show an acid mine drainage impaired stream, the Carbondale Doser channel treatment site, and an improved section of Raccoon Creek

ATHENS

GALLIA

HOCKING

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MEIGS

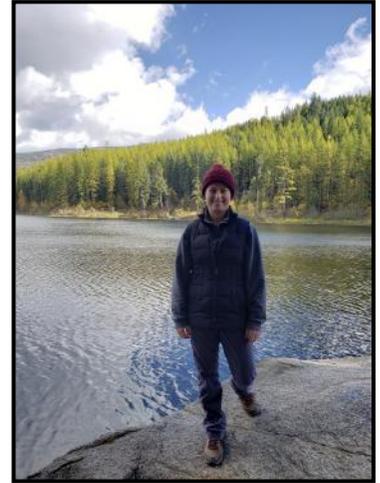
VINTON

Welcome New Board Members

Kate Blyth and Kelly Love—General Board Members

Kate Blyth:

Kate Blyth grew up riding horses and playing in the dirt on a farm in Northern Athens County. After being involved with environmental activism related to coal mining in high school, she went on to study Environmental Geography, Spanish, and GIS at Ohio University, earning a Bachelor's of Science while also gaining four years of experience working on grant-funded, environmentally-related projects. After college, she returned to the world of reclamation with the Ohio Department of Natural Resources in the Acid Mine Drainage program. Although her career path is now focused in the wellness world, she has a deep passion for sustainability, reclamation, and environmental education. She continues to ride horses, play in the dirt, and spend many hours outside enjoying our special corner of the world.



Kelly Love

You might recognize my name from past newsletters. I was an AmeriCorps member for Raccoon Creek Partnership from 2019-2021. I loved Raccoon Creek Partnership so much that I decided to become a board member! AmeriCorps gave me amazing opportunities and knowledge that gave me the ability to go to graduate school. I am now studying environmental studies at the Voinovich School of Leadership and Public Services. I am studying stream quality by looking at leaf litter decomposition and artificial substrate decomposition. My main study will be over the summer of 2022 but over the winter I did a pilot study to test my methods in Athens. My pilot study mainly involved placing over 100 leaf litter bags in streams and wetlands nearby and gathering them over time. In the lab I looked at the type of macroinvertebrates in the leaves and the mass of the leaves. This involved hundreds of data points and long hours of work. I needed help. I thought the best people up for the task would be the new AmeriCorps, Kelsey Daniels and Ashley Grace! Field work was not easy! The streams froze over, bags needed to be located, and macroinvertebrates can be hard to identify but Kelsey and Ashley were amazing!



Thanks Raccoon Creek Partnership for an amazing 2 years of service and the opportunity to go to graduate school. I have grown so much as a person thanks to the program. I am happy to still be involved in such a great program. You haven't seen the last of me!

Save the Date! It's Celebration Time!

Friday, June 10th. 4-7pm at OO McIntyre Park (Raccoon Creek County Park)

Rockin' with Raccoon Creek: A Celebration of Recovery

Join us for an evening of music, friends, and fun, as we celebrate the fantastic news of Raccoon Creek's improved water quality.

Activities for all ages! Food trucks! Fish! And the good news we all need!



Upcoming Events and Opportunities

Spring Day Camp _____ **April 30th, 1pm-4pm**

Dairy Lane Shelter House (Next to mini golf course at the Ridges in Athens, Ohio)

Register by April 20th by emailing raccooncreekpartnership@gmail.com

Family Outdoor Day _____ **June 4th, 12pm-4pm**

Lake Hope Shelter House—27331 St Rt 278. McArthur

Rockin' with Raccoon Creek Celebration _____ **June 10th, 4pm-7pm**

Raccoon Creek County Park, Gallia County , OH

Ohio River Sweep _____ **June 25th, 9am-1pm**

Location: TBA

RCP Summer Camp _____ **July 11th-15th, 9am-4pm**

Raccoon Creek Outfitters—74815 Us Rt 50, Albany (Camp is full- Can't wait to see you there!)

**All events subject to change. **

For info or directions visit our Facebook page:

<https://www.facebook.com/raccooncreekpartnership/>

Or e-mail raccooncreekpartnership@gmail.com or mackey@ohio.edu



Effortless Ways to Help RCP

Set us as your Charitable Organization of choice.

AmazonSmile is the same Amazon you know. Same products, same prices, same service. Just shop on Amazon Smile and 0.5% of your eligible purchase price goes to RCP.



Just go to: <https://smile.amazon.com> and enter Raccoon Creek Partnership as your charitable organization. Then remember to go to smile.amazon.com next time you shop on Amazon! It doesn't cost you anything, and it helps to support the Raccoon Creek Partnership!

Want to help Raccoon Creek? Register your Kroger Plus Card!

Sign up Today by Following These 6 Easy Steps:

1. Go to: <https://www.kroger.com/topic/kroger-community-rewards-3> :Click "Sign in" or "Create an account" at the top of the screen.
2. To Create an account: simply fill in the requested information and a confirmation email will be sent to you.
3. Click on the link provided in the email from Kroger, and "Sign in".
4. Once signed in click on the "Edit Community Rewards Information" near the bottom of the screen. Then, in the "Find Your Organization" field, type in "Raccoon Creek Partnership". Select us and Save your Selection.
5. Swipe your Kroger Rewards Card every time you shop and help RCP grow!
6. Remember to renew every April

Paddlefish

Amy Mackey– RCP Watershed Coordinator, Ohio University Voinovich School

Paddlefish were documented in Raccoon Creek during 2016 and 2019 bighead carp removal / surveys and were removed from the nets and returned to the river.

Paddlefish, a unique, primitive species of fish dating back 65 million years, can reach 7 feet in length and 200 pounds and were once common in the Ohio River and Lake Erie drainages of Ohio. As a filter feeder, the paddlefish is rarely caught by anglers, but when seen is easily recognizable by its paddle-shaped rostrum (snout) that is covered in highly sensitive receptors used to detect plankton in the water. Paddlefish are long-lived fish that do not reach maturity until 7-10 years of age. Now a state threatened species, this large filter feeding fish is currently limited to the Ohio River and several larger tributaries. Populations have declined due to excessive commercial harvesting for roe (paddlefish caviar), dam construction (limiting access to spawning sites), water quality impairments, and general destruction of habitat.



Amy Mackey holding a paddlefish captured and released in Raccoon Creek in 2019

Wildlife Watching

Ashley Grace– RCP AmeriCorps Member

As winter turns to spring, many of us are ready to get out on the water and enjoy the nice weather! When you do, why not see what kind of wildlife you can spot? In this article, I've collected some tips, tricks, and favorite critters to watch for while you float along!

All animals need water to live, so waterways are a great place to nature watch. There's more to see out there than just fish. From deer to raccoons, snakes, turtles and birds, there are all kinds of critters to keep an eye out for! Look for Belted Kingfishers perched in branches along streams, or watch for snow white Great Egrets near the river bank. If you find yourself in more open water, keep an eye out for a hovering Osprey. If you're lucky, you might even get to see one dive! Snakes can be pretty secretive, but you still might be able to spot a queen snake or ribbon snake on or near the water, as both enjoy snacking on frogs and crayfish. Check rocks, logs and other sunny debris for basking turtles. One of my favorite river turtles is the spiny softshell turtle. They have pointed faces and a leathery back rather than hard plates, so they definitely stand out!

Of course, the animals you see will depend a lot on where you go, but it also depends on when you go. Most animals are more active at dawn and dusk, so planning to be out on the water in the early morning or late afternoon may increase your odds of spotting something. How you go is also important. For nature viewing, it's best to forgo loud motors in favor of canoes, kayaks and paddle boards. Instead of listening to music, save your favorite playlist for the trip home and cruise quietly to listen for sounds in the water or nearby foliage. One trick that may help you notice more wildlife is to try observing your surroundings as a whole instead of focusing on a particular area. Scan your surroundings for movement and out of place shapes or colors that might indicate an animal trying to lay low.

Finally, be sure to enjoy nature safely and responsibly! Observe wildlife from a safe distance and don't interfere with or bother animals. Have fun out there!



Belted Kingfisher photographed by Charlie Bruggemann (2019)

The Impact of Stream Channelization

Kelsey Daniels—RCP AmeriCorps Member

Stream channelization is the process of redirecting natural streams into artificially modified or constructed stream beds. We have channelized many streams for numerous reasons. It is typical to straighten out so-called crooked streams in order to fit our needs. Channelization has been done to drain wetlands, direct waterflow for agricultural use, and make it easier for boats to navigate waterways.

However, does stream channelization do more harm than good? Habitat alterations can negatively impact biological communities by limiting the complexity of living space available to aquatic organisms. Also, the general erosion rate can increase due to lack of riparian buffer zones to slow runoff, trap sediment and stabilize banks. Additionally, the acceleration of water increases sediments downstream and can exacerbate flooding of downstream properties. Also, the natural meandering of a stream creates more volume-holding capacity than straight channelized streams, thus natural waterways tend to flood less often.

There are ways to reduce the negative impacts of channelization for those that have already been channelized, however it is still not ideal. By planting more trees along the channelized stream, there will be more roots available to hold the soil and help reduce soil erosion at the river bank. This in-turn will decrease siltation rate and sand content in the water, thus lowering the danger of floods downstream. Also, adding boulders or woody debris into rivers can provide aquatic organisms with shelter and breeding grounds. Another helpful way to reduce channelization impacts is to create an artificial bank to improve silting problems, as well as constructing a dam to form a pool to allow water time to return as ground water storage, so that the water table can rise and make soil less compact. However, dams have their own negative impacts.

Above is an old 1935 ad for Du Pont about how dynamite streamlines streams. They talk about the positive impacts of channelization, however they do not consider the cons and their statements are inaccurate. More research has now gone into the impacts of stream channelization since the ad was published.

August, 1935 - AMERICAN FORESTS 385

How DYNAMITE

streamlines streams



CROOKED STREAMS are a menace to life and crops in the areas bordering on their banks. The twisting and turning of the channel retards the flow and reduces the capacity of the stream to handle large volumes of water. Floods result. Crops are ruined. Lives are lost. Banks are undermined, causing cave-ins that seal valuable acreage.

In many instances straightening out a stream has doubled its capacity for disposing of run-off water.

DYNAMITE may be used most efficiently and economically in taking the kinks out of a crooked stream. The dynamite is loaded along the length of "cut-off" channel. When fired, the dirt and other debris is heaved high in the air and is scattered over the adjoining territory—leaving practically no spoil-banks. In addition to the material actually thrown out, much dirt is loosened and is later scoured out by the water which rushes swiftly through the straightened channel.

Du Pont Dynamite has straightened many thousands of miles of crooked streams. Du Pont engineers have worked for years to develop the best blasting methods for the cleaning out and straightening of streams. All their data is in a 48-page book, "Ditching with Dynamite." It is for your use. Write for it.

Dynamite can help you do other jobs, too. It can help you build highways, dams; fight soil erosion; work quarries. Du Pont has an explosive for every purpose.



Explosion of dynamite charge by propagation excavates new channel.

Immediately after explosion, water is entering new channel, whose banks will be smoothed and "stream-lined" by the speedier flow of water.



Straightening of Pequest River in New Jersey by CCC workers stopped its yearly floods. Location of new channel is seen at right. Note temporary dam at left to provide volume of water for scouring blasted channel.

DU PONT
REG. U.S. PAT. OFF.

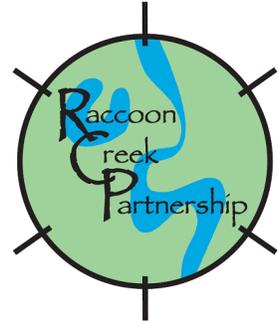
E. I. du Pont de Nemours & Co. Inc.
Explosives Department
6107 du Pont Building
Washington, D.C.

Raccoon Creek Partnership

c/o Amy Mackey
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 The Ridges, Bldg 22

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Yes, I (we) would like to help protect Raccoon Creek

	Creek Chub	\$15	
	Johnny Darter	\$30	
	Channel Catfish	\$50	
	Grass Pickerel	\$100	
	Spotted Bass	\$500	
	Paddlefish	\$1000	

Membership

*A local partnership working towards conservation,
 stewardship, and restoration of the watershed,
 for a healthier stream and community*