

## Beaver Believers—We need more!

by Michael J. Kieffer



Earth's most prestigious engineer, the beaver (*Castor canadensis*), as no other mammal alters the shape of the landscape and is as opportunistic, excluding humans. Beavers truly define the term "keystone species," having once covered a tenth of the continental United States with beaver- built wetlands. Beaver ponds provide homes for hundreds of thousands of species.

Beaver legends have been a part of human culture from the time of pictographs. Flathead Indians believed that beavers were disgraced Indians, changed from their human form by the Great Spirit. Beavers worked laboriously cutting trees and building dams and lodges as atonement for their misdeeds.

*Castor* demonstrated the effectiveness of its life history strategy by sheer numbers. It has been estimated that 200 million beavers once inhabited the continental United States alone. Beavers cloaked the landscape from the Arctic Circle to the Gulf of Mexico, and from the southwest desert to the north woods of Maine, with water and trees the only constants.

A beaver that hears the sound of running water will immediately try to locate the source and to dam it. Beavers make dams to raise the water level of a stream and to maintain this level during dry periods. Beavers will dig canals, plunge holes, underwater aqueducts, and channels throughout their pond and wetland, creating a safe passage from their home to their food.

Beavers are natural farmers, using nature's system of replenishment to prosper. Their fall and winter food is tree branches (cambium) that is self-stored in the muddy bottom of their ponds for easy access when the ponds ice over in the winter. Their favorite trees include aspens, cottonwoods, and willows that are pioneer species that colonize flooded, burned, and riparian areas where sunlight is plentiful. As beaver dams slow the water, soil and nutrients from upstream drop out of the water column. Soon natural herbs, such as cattails, arrowhead, pondweed, smartweed, milfoil, pond lily, and a variety of sedges and grasses begin to flourish. Beavers feed on this higher energy food source in spring and summer.



M. Digout

Beaver wetlands act as enormous biological filters. When storm runoff from streams and rivers rush into the stillness of the wetland stream velocity diminishes, silt in the water adheres to aquatic vegetation, and larger particles settle to the bottom. Species in the wetland's underwater world, including bacteria, freshwater fungus, and phytoplankton, use organic and inorganic molecules, including human-developed pollutants, to survive, creating the base of a complex food web. Zooplankton, such as protozoans, rotifers, and tiny crustaceans (*Daphnia*), graze on the phytoplankton. Backswimmers, striders, water boatmen, diving beetles, water scorpions, coiled mosquito larva, mayfly larva, dragonfly larva, and many other insects eat the grazers and together act as the food source for amphibians, fish, and birds.

On a grander scale, water detained is more likely to percolate down to the groundwater, raising the water table and creating springs and freshets throughout the watershed. With recurring droughts in many areas of the country, beavers could be an easy, cost free fix to recharging ground water and keeping water on the land and out of the oceans. When trapping eliminated almost all the beaver in North America, we in effect lost 300,000 square miles of wetland and groundwater recharge.

Clean water is a leading concern for all life. In order to promote healthy waterways, it is important to have a general understanding of what once made North America's water so pristine, beavers. Knowledge of beavers and the wetlands they create can only aid us in our quest to develop in a more ecologically sound manner. Imagine if we worked with a "natural common sense" how much richer all of our lives would be.

*SHOOTING THE BREEZE*  
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Your gift on Tuesday, May 9th, 2023, will enable children to participate in meaningful outdoor experiences.

Give during the 24 hours of May 9th, [www.givelocalpiedmont.org/brmconservancy](http://www.givelocalpiedmont.org/brmconservancy)



## Speaker Series April & May 2023

### **Owls! Terror of The Night Skies**

**Saturday, April 29, 2023 2 p.m.—4p.m.**

Bird in the Hand Conservancy and Wildlife Veterinary Care will combine forces to share some of the regions nighttime birds of prey. Come meet both color phases of the Eastern Screech Owl, a Barn Owl, a Barred Owl, a Great Horned Owl and a secret special guest as we discuss hunting techniques and adaptations.



*J. Connal*

### **Coexisting with Beavers: A Dam Worthy Challenge**

**Saturday, May 20th, 2023 2 p.m.—4p.m.**

Alison Zak, founder and director of the Human-Beaver Coexistence Fund will talk a little bit about beaver behavior and ecology, and a lot about how and why we can coexist with beavers despite the problems they may cause.



# BRMC Youth Outdoor Naturalist Camps Summer 2023



Registration is open for all camps & workshops at [www.brmconservancy.org](http://www.brmconservancy.org)

## HERPETOLOGY CAMP\*

Session I: June 19th-June 20th, 10a.m.-3 p.m. [Register today!](#)

Session II: June 22nd-23rd, 10 a.m.-3 p.m.

Herpetology is the study of reptiles and amphibians. BRMC invites your child to spend two days hiking and handling, searching and observing salamanders, frogs, lizards, snakes, and turtles on Hopewell Sanctuary (Private) and Leopold's Preserve. Ages 7-14. Limited to 15 participants. **Members: \$100/non: \$150**

## BUDDING NATURALIST CAMP\*

June 26th—30th, 10:00am-12:30 pm

*To be conducted completely outside and a parent/guardian is welcome to accompany their child or children*

At this week-long camp, young children will be exposed to the outdoors and wildlife, as they explore life on and around the Bull Run Mountains through a series of discovery hikes, frog and salamander searches, snake viewing, and stream exploration. Ages 4-6. Limited to 6 participants. [Register today!](#) **Members: \$125/non: \$175**

## SUMMER NATURALIST CAMPS\*

Session I: July 17th-21st, 10:00am-3:00pm

Session II: July 24th-28th, 10:00am-3:00pm

BRMC invites your child to spend an adventurous week interacting with the natural world. Each day we will focus on different groups of plants and animals on and around the Bull Run Mountains. Campers will add to their understanding of natural systems through hikes, stream walks, frog and salamander catching, bird watching, butterfly and insect collecting, and games. Ages 7-14. Limited this to 15 participants.

[Register today!](#) **Members: \$250/non: \$300**

## Chesapeake Watershed Workshop\*

July 31st—August 3rd, 10:00am-3:00 pm

Join us for a workshop focused on the conservation of streams that flow into the Chesapeake Bay. We will explore headwater seeps on the Bull Run Mountains and go downstream on Catharpin Creek, Little Bull Run, and North Fork. At each location participants will perform stream monitoring, vegetation analysis, and stream habitat and riparian buffer evaluations. Ages 15-18. *With support from the Chesapeake Bay Restoration Fund, six scholarships are available for this workshop.* [Register/apply today!](#) **Members: \$200/non: \$250**

*\*Our host properties will include Hopewell Sanctuary (Private), Leopold's Preserve, and Silver Lake Regional Park. All of these private/public lands are located within 5 miles of each other. Further information on each camp will be provided to participants.*

**BRMC reserves the right to cancel a day of any camp due to severe weather. However, we do not anticipate issues with the time window of the camp hours.**

# BRMC Public Programs

## Spring 2023



### HIKE WITH A NATURALIST

**Wednesday, May 3rd, 10 am (& every first Wednesday of the month)**

Join a professional naturalist to discover some of the flora and fauna of the local region. This program is free, meets at Leopold's Preserve (16290 Thoroughfare Road, Broad Run, VA 20137) and all are welcome.

[Register today!](#)

### MIGRATORY BIRD WALK

**Sunday, May 7th, 7am-10 am**

Join us on a migratory bird walk at North Fork Wetlands. David A. Wiedenfeld, Ph.D., *Sr. Conservation Scientist*, with *American Bird Conservancy*, will be leading our walk. We have seen 60 species, including a variety of warblers and newly arrived migrants in past years. Take advantage of this unique opportunity to enjoy birding on this beautiful property!

[Register today!](#)

**Members: \$20/non: \$25**

### HOMESCHOOL PROGRAMS

**All programs are 10am-12pm. \$5 pp, including adults.**

BRMC invites you and your child to spend an adventurous outing interacting with and learning about nature! We meet at Leopold's Preserve, 16290 Thoroughfare Road, Broad Run, VA 20137.

#### Birds & Blooms

**Tuesday, April 4—age 13 and up—10a.m.-noon.** Join us to enjoy the start of spring by taking in the early ephemeral wildflower display and the beginning of the nesting season with a focus on bluebird boxes.

**Wednesday April 5—all ages—10a.m.-noon.** Join us to enjoy the start of spring by taking in the early ephemeral wildflower display and the beginning of the nesting season with a focus on bluebird boxes.

#### Ferns & Allies

**Tuesday, May 9th—age 13 and up—10a.m.-noon.** Join us to investigate their life histories and how they play a role in all of our daily lives, but you may not know it.

**Wednesday, May 17th—all ages—10a.m.-noon.** Join us to investigate their life histories and how they play a role in all of our daily lives, but you may not know it.

#### Freshwater Ecology

**Tuesday, June 6th—age 13 and up—10a.m.-noon.** Join us for a stream exploration and learn about all the fascinating critters that inhabit our freshwater systems.

**Wednesday, June 7th—all ages—10a.m.-noon.** Join us for a stream exploration and learn about all the fascinating critters that inhabit our freshwater systems.

### LEOPOLD'S PRESERVE

#### Monthly Naturalist Walks

BRMC is proud to partner with **The White House Farm Foundation** and its mission to enrich individuals with knowledge of and involvement with our natural ecological systems through monthly naturalist walks on Leopold's Preserve: 16290 Thoroughfare Road, Broad Run, VA 20137.

#### Spring Schedule

**Saturday, May 13th, 9a.m.-11 a.m....Ferns & Allies!**

Join us to learn about their life histories and how they play a role in all of our daily lives, but you may not know it.

**Saturday, June 10th, 2 p.m.-4 p.m....Freshwater Ecology!**

Join us for a stream exploration and learn about all the fascinating critters that inhabit our freshwater systems.

**Saturday, July 8th, 5-7 p.m....Things That Fly!**

Join us for a walk focused on things that fly including the colorful birds, butterflies, dragonflies and damselflies.



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### Let's Get Social!



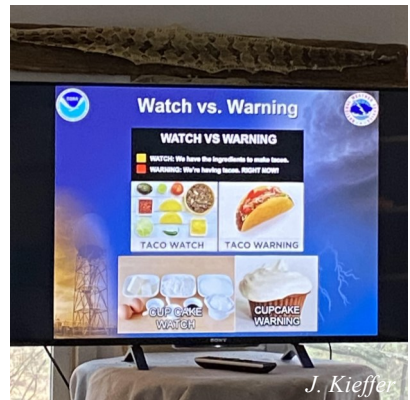
Like, follow us, and share with your friends the latest information on our education programs, as well as partner updates and donor opportunities.

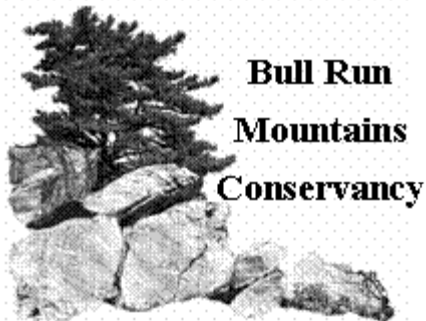
# Introducing Matthew Frost BRMC's Assistant Director! by Matthew Frost

Hi everyone, my name is Matthew Frost, and I am a graduate of George Mason University with a bachelor's degree in environmental sustainability and a minor in conservation. I completed my minor at the Smithsonian Mason School of Conservation where I discovered my passion for environmental outreach and conservation through an internship in D.C. I hope to utilize my experience and passion to create new opportunities for individuals within the region through educational programs and events. Specifically, a future education program that explores the vast world of mycology and adventuring on mushroom forays with cameras in hand to identify various species of mushrooms within the region. Furthermore, one of my main objectives at BRMC is to develop our social media outlets to generate more engaging and user-friendly content. So please, let me know what the audience (you!) would like to see in future posts on both our [Instagram](#) (@brmconservancy) and our [Facebook](#) (BRMConservancy). I would also love to begin utilizing user-generated content in our posts and show off all the beautiful pictures that are taken within the region. Lastly in my spare time, I love reading, listening to music, going to concerts, and being outdoors.



## Public Programs 2023!





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Yes, I would like to become a member of Bull Run Mountains Conservancy.

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| <input type="checkbox"/> \$15 Student                 | <input type="checkbox"/> \$20 Senior         | <input type="checkbox"/> \$25 Individual    |
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Please make your tax-deductible contribution to:  
**Bull Run Mountains Conservancy, Inc., P.O. Box 210, Broad Run, VA 20137**

**Bull Run Mountains Conservancy is a donor driven organization.**

Become a donor today and support our programs and protect the Bull Run Mountains Region. Your contribution provides BRMC necessary funds to operate and shows our foundation and corporate supporters that the public values and appreciates this resource.

**Membership Benefits:**

- Support environmental and historical programs for all ages
- Support research on and around the Mountains
- Discounts on all public programs and camps
- Quarterly newsletter including our program calendar