



**FRIENDS of the
BLACK RIVER**

A Citizens' watershed
conservation organization

Reading the River



Volume 17, Issue 1 ~ Spring 2019

In this Issue

Vice president's message	1
Upcoming meetings and events	2
Upcoming paddling outings	2
Raising monarch butterflies program	3
BRF dam and power utility program	4
Building birdhouses program	5
Water Acton Volunteer program	6
Charitable contributions	6
Supporting FBR's mission	7
Membership information	7

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What's happening here?



See page 2 to learn the answer to the question.

Greetings from the vice president

Hi everyone!

Spring is here, so we'll be able to brag that we made it through the Wild Winter of 2019! Who would have believed in December we would have this much snow and cold?

With spring comes a few things to remind you of. Our Earth Day Cleanup at Castle Mound State Park is now scheduled for Sunday, May 5.

A free lunch will be served afterward, sponsored by the DNR.

We have been joined by some terrific people from Neillsville who would love to have help for their Earth Cleanup April 27. Reminders will be coming out later, but you can mark it on your calendars if you are interested. We are always glad to

Greetings, continued on page 2

Vision

The Friends of the Black River is a citizen-led organization that is a well-informed, respected, active contributor to projects and decision-making enhancing the river and its watershed.

Mission

The Friends of the Black River will foster community appreciation, understanding, and sustainable use of the river and its watershed by hosting educational and enjoyable programs, events and conservation projects and by promoting wise decision-making when issues affect the health of the Black River Basin.

Upcoming meetings and events for 2019

Wednesday, April 10 - Monthly meeting, program by Wisconsin Woodland Owners Association
Saturday, April 27— Neillsville Earth Day Cleanup
Sunday, May 5—Black River Falls Earth Day Cleanup, Castle Mound State Park
Saturday, May 11 - Wildflower walk
Wednesday, June 12 - Monthly meeting, program, 7 Rivers Recycling mattress processing
Tuesday, July 9 or Wednesday, July 10—Prairie flower walk, rain dates—July 16 or 17, location to be determined
Saturday, August 24 - Annual river cleanup
Wednesday, September 11 - Monthly meeting, program about fungi in the Driftless Region
Wednesday, October 9 - Monthly meeting, program to be determined
Wednesday, November 13 - Monthly meeting, program to be determined
Tuesday, December 3 - Monthly meeting, movie night

Watch for messages sent to your email box for up-to-date announcements of future events.

Announcements about FBR activities are also posted on FBR's Facebook page and website, the Black River Area Chamber of Commerce's calendar of events, the School District of Black River Falls' television channel and broadcasted on WWIS and WCCN radio.

We welcome suggestions for programs and for 2019 meetings. Send ideas to FBR email at info_fbr@yahoo.com.

Monthly meetings are free and open to the public. Programs subject to change. Unless indicated otherwise, the Wednesday evening programs are held at 6:30 p.m. in The Hub meeting room at the Lunda Community Center.

Earth Day Cleanups in Jackson and Clark counties

This year's Earth Day Cleanup has been rescheduled from the weekend near Earth Day to Sunday, May 5, to ensure the ground is completely thawed from this past winter.

Volunteers are needed and should plan to arrive at Castle Mound State Park by 8 a.m. to receive assignments.

FBR will also host an Earth Day Cleanup in Neillsville, Saturday, April 27. The cleanup will begin at 8 a.m. and finish around 11 a.m. Volunteers are asked to meet at Neillsville's yard waste disposal area at the end of W. Eighth Street. For more information, email marciniakdesigns@gmail.com or call Adam at 715-610-7529.

Upcoming paddling outings

A paddle on Robinson Creek is planned for Saturday, April 6. Participants should plan to meet at 10 a.m. at the Old Highway I landing. A paddle is also planned for Halls Creek Sunday, April 7. Paddlers should meet at 9 a.m. at the Lower Lake landing.

Both kayakers and canoers are welcome, and

cold water gear is available for use during the paddles.

A flatwater paddle on the Black River will be held May 19 beginning at 12:30 p.m.

For more information and directions, contact Jeff at 715-896-5534.

Greetings from the vice president, *continued from page 1*

have lots of help to keep our earth, and especially, our area cleaned up.

Steve will be back from his Brewer Spring Training Trip, probably with a great tan.

Upcoming, the river and streams should have lots of water to enjoy this spring. Have a great time in our Black River Falls wonderland.

Mitch Wester

Answer to page 1 photo question

A group of intrepid hikers took part in the February 10 snowshoe hike on the Highbanks Trail.

Throughout the year, FBR organizes hikes and walks to encourage people to get out and enjoy the outdoors.

Raising monarch butterflies topic of March program

Holmen resident and gardener Scott Marshall is cultivating an unconventional crop; he's raising monarch butterflies in his home. He talked about how he raises the insects from egg to adulthood at the Friends of the Black River's March 13 meeting.

Marshall started collecting monarch butterfly eggs last year when he was volunteering at the Holmen Community Garden and observed a female monarch on a nearby milkweed plant.

A female monarch can lay between 250 and 400 individual eggs in a season. The eggs aren't placed near one another so the hatchlings won't be in competition with each other and the early hatchlings won't eat nearby unhatched eggs.

Collecting the head-of-a-pin sized eggs helps to ensure the caterpillar's survival because the eggs are generally not infected with parasites. The caterpillars can become infested with parasites when certain fly species lay their eggs on the monarch caterpillars.

When he finds an egg, Marshall will clip the section of the milkweed plant leaf and take it home and puts it in his "butterfly nursery." It takes about four days for the egg to hatch after it's laid.

"A black dot will appear when it's about to hatch," said Marshall. "The egg shell is the first food for the tiny caterpillar; it's a good source of protein."

When the caterpillars emerge, Marshall is kept busy collecting fresh leaves for the caterpillars to keep the growing larvae supplied.

"The caterpillars are eating machines," said Marshall. "As it grows, the caterpillar will split its skin (to allow for its larger size); those changes are known as instar stages."

The monarch caterpillar or larvae only feed on the common milkweed plants. Since the plants and insects have evolved together over the millennia, both have developed defense mechanisms for surviving.

If the plant can produce enough latex, the white sticky substance can smother caterpillars. Any caterpillars that survive and eat enough of the milkweed, the latex in the leaves makes the caterpillars toxic. Predators such as birds trying to make the caterpillars a meal soon discover the



Naturalist Scott Marshall (left) discusses methods for raising monarch butterflies in the home with Larry Zirk at the March 13 meeting program. Photo by Pat McKnight

morsel will upset its digestive system.

When the caterpillars are ready to form a chrysalis, the term for the monarch's cocoon, it will crawl to the top of the butterfly cage and attach its posterior to the mesh screen and begins to spin a type of silk to make the chrysalis. In about 10 minutes, the caterpillar will be fully encased in its lime green cocoon. Inside the chrysalis, the caterpillar-turned-pupa metamorphoses into a butterfly in about 20 days.

When it emerges from the chrysalis, the butterfly's wings are wet and must be allowed to dry before adult insect is released. Licensed to release butterflies on the Upper Mississippi Wildlife Refuge, Marshall will tag the butterflies before releasing them. The marker on the insects' wings help scientists in their research of the butterflies and their migratory patterns.

In the wild, it's estimated only one out of 50 to 100 caterpillars survives to adulthood. In addition to the various predators, diseases and other adversities afflicting the butterflies, habitat destruction reduces the number of hatchlings reaching maturity.

Habitat destruction due to illegal logging in their overwintering grounds in Mexico and the loss of food sources due to pesticide and herbicide use in their summer breeding grounds in the United States have played a role the steep decline of the species.

Midwest monarchs migrate to Florida or to the Transvolcanic Mountains in central Mexico. The Mex-

Raising monarchs, continued on pg. 6

Black River Falls hydroelectric utility and 2016 flood

The Black River can be a blessing and a curse for the Black River Falls community, and most likely, no one knows that as well as Black River Falls Municipal Utilities General Manager Casey Engebretson.

Engebretson presented a talk at the Friends of the Black River's Feb. 13 meeting about the value of the river in its role to produce hydroelectric power along with the hazards its high water events can pose to the utility's operation.

The new dam, completed in 2012, lost one of its Tainter gates in the Sept. 22, 2016 flood. The heavy rainfall in the northern parts of the Black River watershed caused the river to rise to a level just shy of a 50-year flood.

"It was estimated 405,000 gallons per second of water was going through the dam at the time the river crested," said Engebretson.

The flood debris carried large items such as boats, docks and large trees. One of the trees was a two-foot diameter pine that became entangled in gate three, tearing the gate from its trunnions and sending it down river where it came to rest under the State Highway 54 Bridge.

With photographs taken by a bystander that morning, the BRFMU had a visual record of the tree floating toward the dam and ending upright as it went into Gate Three.

"That large pine tree came down and got stuck between the gate and the gate hoist drum," said Engebretson. "The forces exerted on the gate from the tree and the current of the water deflected the gate enough to make it become detached from the trunnion pins, which are embedded in the piers, and caused the gate to become dislodged from the spillway. It is really a fluke thing to have that big a tree come down and get stuck in there the way it did."

An employee of the BRFMU for 19 years, Engebretson became general manager about three months after the hydroelectric dam sustained the damage from the 2016 flood. In the weeks and months following the flood, Engebretson dealt with the studies and the paperwork involved with replacing the



FBR President Steve Rake (left) discusses the Black River dam and the 2016 flood that took out one of the dam's gates with BRFMU general manager Casey Engebretson. Photo by Pat McKnight

gate, a two-year project.

The first phase of the repairs required an emergency declaration because the utility needed to get the overflow section repaired before the river level was raised ahead of winter hibernation season. The Wisconsin Department of Natural Resources informed BRFMU the river had to be refilled by Nov. 15 or risk having to wait until spring to refill the reservoir. With the emergency declaration, the utility was able to make temporary repairs to meet the November deadline.

The cost of Phase I was \$359,797.88, which covered the costs of installing a bulkhead in the open bay to stop water from flowing through. In addition, the overflow section of the dam on the west side of the river, also damaged in the flood, was repaired.

The nearly \$600,000 Phase II involved installing a permanent replacement of the damaged gate. The second phase of the repairs took much longer than the first because the utility had to complete and submit documentation to meet Federal Procurement Guideline requirements.

"FERC (Federal Energy Regulatory Commission) had to accept the design and specifications of the bulkhead," said Engebretson, "and we had to comply with federal procurement rules of fair competition."

"That's the scary part; although highly unlikely, this could all happen again," said Engebretson.

When it is fully operational, the power utility can supply the city with about 12 percent of their power needs. That equates to providing the yearly power needs of approximately 750 of the 2200 residential households in BRFMU's service territory.

Engebretson also showed information about flood categories and statistics of other historic crests of the Black River.

Building nest boxes and helping birds was topic of program

Building boxes for cavity nesting birds is an example of environmental stewardship. The best practices for helping song birds have secure places to raise clutches was the topic of the Jan. 9 Friends of the Black River meeting program.

Retired naturalist and former county coordinator for the Manitowoc County Bluebird Restoration Association, Curt Kittleson, was joined by Jackson County Bird Club members Darrel Eberhardt and Larry Casper to talk about building bird houses and monitoring bluebird nests.

Eberhardt and Casper have made numerous nesting boxes for bluebirds, which they monitor for the Bluebird Restoration Association of Wisconsin. Due to BRAW members' efforts, Wisconsin has become the number one state in the nation in the goal of increasing bluebird populations.

"Bluebirds need help from people because of the lack of wooden fence posts," said Eberhardt. "BRAW started the program to revitalize the bluebird population 40 years ago."

While the birders agree birds don't care whether the builder is an accomplished carpenter, they do agree there are a number of things to consider when putting together a nest box.

Kittleson advised the builders need to decide whether the house will be constructed for nesting or for decoration. He tested a decorated birdhouse against one made from plain wood and found the temperature inside the dark painted birdhouse became hotter than the unembellished box.

"Decoration doesn't work for practicality," said Kittleson.

Cavity nesters such as bluebirds, wrens and juncos build their nests in the holes of



Jackson County Bird Club member Darrel Eberhardt (left) discussed how he built a bluebird nesting box when he joined fellow bird club member Larry Casper and retired naturalist Curt Kittleson in presenting a program about bird house construction. Photo by Pat McKnight

tree trunks. A tree cavity is one of the best locations for cavity nesting birds because the wood surrounding the nest serves as a natural insulator against temperature extremes.

Unfortunately, too many trees that could make good nesting sites are taken down. So, nesting boxes, properly constructed, can serve as substitutes.

Among the consideration when building a nest box is its entry. The hole size must match the bird's size; a bird nest box for a wren can be as small as one inch.

"Too big a hole, starlings can get in," said Kittleson. "Too small a hole, the bird can't get in. Bluebirds prefer one and a half inch holes."

Kittleson advised against putting perches on the outside of the house. A perch would give raccoons something to hold onto when they try to raid the nests. In an attempt to keep unwanted visitors from accessing one of his houses, Kittleson said he put staples on the outside of a house.

While wrens don't have any difficulty with swinging houses hung from branches, bluebirds tend to prefer more stable mountings. Finding the best pedestal to pre-

vent predators from getting into the bird houses can prove be a constant battle. Eberhardt has tried wrapping the support pole with barbed wire. He also has set up the bird houses above eight feet because cats can't jump higher than that.

However, other predators seem to defy any attempts to thwart their access to the bird nest boxes. "A big snake will go up anything," said Larry Casper.

The direction of the openings of the nest boxes should also be considered. They should face the rising sun and away from the prevailing winds in the spring and then turned more northward so the interior of the boxes don't become too warm.

Kittleson and the JCBC members strongly advise the houses shouldn't be put up and then forgotten. Eberhardt recommends a schedule of checking the boxes every seven to ten days. "If the houses aren't monitored, don't put them up," said Eberhardt.

According to Eberhardt, cavity nesters generally don't feel threatened by humans peeking in on them.

Bird houses, continued on page 6

Water Action Volunteers report

Volunteers are still welcome to become stream monitors to collect data on the long-term trends of water quality in the Black River basin.

Volunteers are paired to collect data about the water quality of streams in the watershed. Data collected by volunteers is then entered into the statewide water-quality database.

Monitoring takes about two hours per month from May through October. Training and sampling equipment are provided.

Anyone interested in volunteering in the program are encouraged to contact Pete Segerson at 715-333-2033 or email ps205v@hotmail.com.



Raising monarchs, continued from pg. 3

ican mountains are forested by Oyamel trees on which millions of the monarchs will overwinter. From the air, the trees appear as large orange spots and the millions of butterflies accumulating to the point the tree branches bend downward.

Only the third generation of monarch butterflies produced in a season migrates south for the winter. The adult butterflies feed on a variety of flowers to drink the nectar to obtain the necessary nourishment for reproduction as well as migration.

Jackson County resident Larry Zirk also shared his experiences and tips for raising monarch butterflies. He stressed that planting flowers the adults can feed on is as important, if not more so, than planting milkweed for the caterpillars.

Bird houses, continued from pg. 5

The boxes should be constructed with drainage holes and vents along with an access for easy cleaning. Bluebirds like clean nest boxes and the houses should be cleaned out between hatches.

"Bluebirds can have multiple hatches," said Casper. "You can sanitize the boxes with one part bleach to 9 to 10 parts water."

Helping to increase song bird numbers not only improves the environment in insect control, it adds to the enjoyment many get from nature.

"We are accused of destroying our natural world," said Kittleson. "But, think of all the millions of acres we've preserved. If we understand our world, we'll take care of it and appreciate it."



Charitable contributions assist FBR's mission

Charitable contributions received by the Friends of the Black River will be used solely to support the goals outlined in the FBR bylaws.

Those goals are:

- Educate members and the public about the ecology of the Black River watershed and threats to its health
- Promote sustainable use and recreation on the Black River and its watershed
- Increase public awareness and membership
- Promote sound decision-making when issues affect the health of the river and watershed
- Support the protection and improvement of the Black River and its watershed for the benefit of the general public
- Develop a working relationship with local officials and collaborate with conservation organizations
- Promote improved health of the river and watershed through conservation projects and education
- Purchase land or easements for conservation purposes

Information about how to help FBR with its mission can be found on page 7 of this newsletter.

Ways to support FBR's mission

You can help support the mission of the Friends of the Black River by remembering FBR in your will or with memorials or honorariums. Checks can be made out to Friends of the Black River and contributions should be sent to PO Box 475, Black River Falls, WI 54615. Thank you.

FBR sincerely thanks our members and other supporters for their continued dedication to FBR's mission to preserve and enhance the sustainable use of the Black River and its watershed.

Memberships always welcome

Memberships help Friends of the Black River continue its mission of preserving and caring for the Black River.

Show your support for that mission by renewing your membership.

If you are renewing your membership, you do not need to send in a membership form unless there's been a change in your contact information.

Please help us stay current

Please help us keep in touch by letting us know your new e-mail and/or postal addresses when they change. Send your e-mail address changes to info_fbr@yahoo.com

Become a new member by filling out the membership form below and mailing it with your membership dues to the mailing address listed on the form.

Support your watershed - Join the Friends of the Black River

Enroll me as a member

Membership Categories (check one)

- \$1.00 Youth (up to age 18)
- \$15.00 Individual
- \$20.00 Family
- \$30.00 Organization or Business
- \$50.00 Cornerstone Member

Name _____

Address _____

Phone _____

Email _____

I would like to give an additional contribution in the amount of \$ _____

I would like to give this membership as a gift
(Card will be sent to recipient)

Occasion _____

Name of recipient _____

Please check here ___ if you would like to receive a receipt.

Return registration and checks payable to:

Friends of the Black River
PO Box 475
Black River Falls, WI 54615

I'm interested in serving on a committee:

- Land Preservation and Advocacy
- Fundraising and Membership Recruitment
- Programming
- Cleanups and Special Events
- Landings
- I am Interested in becoming a board member

Comments/Questions:

