



ALONG THE TOWPATH

A quarterly publication of the
Chesapeake & Ohio Canal Association

An independent, non-profit, all-volunteer citizens association established in 1954 supporting the conservation of the natural and historical environment of the C&O Canal and the Potomac River Basin.

Volume LIII

March 2021

Number 1

2021 World Canals Conference Update

By Bill Holdsworth

Fueled by optimism created by the distribution of COVID-19 vaccines, we are charging ahead with preparations for the 2021 World Canals Conference in Hagerstown on August 30 through September 2. Registration opened on February 1.

All Association members qualify for the Inland Waterways International member discount. The early bird price is \$475 if you register by May 15. The price includes:

- » Morning presentations Monday through Thursday at the Maryland Theatre
- » Afternoon study tours Monday through Wednesday
- » Sunday evening reception at the Ramada Plaza
- » Monday evening dinner at the Western Maryland Sportsmen's Club at Dam 4

- » Wednesday evening banquet at the Springfield Barn in Williamsport

Visit the website, wcc2021.org, for more information. Fans of the C&O Canal should enjoy the promotional video there.

We are recruiting speakers to make presentations. Those interested can apply via the website. Our theme is *Historic Canals Today: Education, Recreation, and Tourism*.

Association support has made this conference possible. Members have donated nearly \$44,000. Many members have worked on the preparations and many more have volunteered to help during the conference. If you are interested, we need more volunteers.

Continued on page 2



Boxes overlooking the auditorium in the Maryland Theatre



Hagerstown's historic Maryland Theatre – Photos by Bill Holdsworth

President's Report

By Bill Holdsworth

Despite the pandemic, the Association has been able to make progress on some projects along the canal.

The Association's board of directors has agreed to provide 70% funding for a full-time park employee at the Cumberland Visitor Center. As president, I will be signing a formal, written agreement with the park for the first year. The motion approved by the board commits the Association to provide three years of funding.

The financial commitment is substantial; \$39,759 for the first year and \$126,245 total for three years. The Association has historically championed the importance of a park

presence in Cumberland. We funded a seasonal position there in the summers of 2017 and 2018.

Our agreement with the park requires that the employee devote a portion of his/her time to a historical research project examining the relationship between the railroad and the Canal Company between 1870 and 1938.

The Association is poised to spend funds for repairs to Monocacy Aqueduct. We have been negotiating with the park to remove and replace the deteriorated mule kick-boards. We must still clear a few bureaucratic hurdles within the National Park Service before we finalize the agreement.

World Canals Conference (Continued from page 1)

We are blessed with strong partners. Visit Hagerstown's practical experience with this type of event has been invaluable. Heart of the Civil War Heritage Area has committed \$17,800 in grant support. The Canal Towns Partnership has been supportive.

Our vaccine-inspired optimism is tempered with respect for the unpredictability of the virus. When we canceled our mid-March 2020 Association annual meeting, we felt

confident we could gather in late April. Twelve months later we are a bit wiser.

The organizing committee views May as the "point of no return" in our planning. We will assess conditions and public attitudes at that point. We will then decide whether to cancel or continue. In the meantime, we will try to minimize any nonrefundable financial commitments.

We realize that potential attendees face the same uncertainty in their travel planning. All registration fees are fully refundable at the customer's request until July 1.

C&OCA Welcomes New Members

Linda Aguirre, Potomac, Md.

Michael Bitner, Hagerstown, Md.

Ed Conner, Fort Union, Va.

Bela Demeter, Bethesda, Md.

Pat & Todd King, Gaithersburg, Md.

Ronald LaRocca, Dickerson, Md.

Penny Mause, Washington, D.C.

Eliza McGraw, Washington, D.C.

Lauri Menditto, Washington, D.C.

Sandy Quick, Millersville, Md.

Did you know –

- » Memberships generally expire on December 31 each year?
- » The year of your next renewal appears above your name and address on each issue of *Along the Towpath*? (Some members renew for multiple years.)
- » There is a membership renewal form in the December issue of *Along the Towpath*?
- » You can download a membership renewal form here: www.candocanal.org/wp-content/uploads/2020/10/2021renewalform.pdf?
- » We could save a lot of this money if you would please send in your renewal on time (and not wait until we mail you a reminder)?
- » You can contact me at membership@candocanal.org with your membership questions?
- » You can renew online at www.candocanal.org/renew2021/?

Well, now you know! Please use your knowledge to help us serve you better.

– Will Stewart, Membership Chair

Along the Towpath, March 2021



Pedal, Paddle and Hike

By Trent Carbaugh

Not all who wander are lost – J.R.R. Tolkien

A Primer of Trail Etiquette on the C&O Canal – And Some Other Useful Information

The National Park Service has a well thought-out set of rules for the use of the C&O Canal towpath. It is wise, at times, for all users of the towpath to review these rules for everyone's safety. There are also things that are not in the rules that you should strive to do as well when conditions warrant. The main thing is to be respectful of other towpath users even if they are not respectful to you. Reviewing the rules is also important as the demographic of towpath users is changing; bicyclists are now the biggest user group. This will only increase as dedicated trail systems grow across the country and folks are making longer trips by bicycle.

All trails throughout the United States pretty much have the same rules as the C&O, though there are fewer trails where you will encounter horses and mules. In a quick search I could find no trails, other than a few dedicated mountain bike trails, that are bicycle only.

The C&O is unique in that it is a National Historical Park on a major river. This means that you can encounter everything from local fishermen to bike touring travelers from anywhere in the world. All of these people need to get along, and usually do. Unfortunately, there are plenty of users of the canal who don't know or understand the rules and this can cause problems. Hopefully this article will help to alleviate this discrepancy. Effectively, trail rules are guidelines; circumstances dictate what you should or should not do. Everyone should use common sense in unusual situations and always try to err on the side of safety.

The Rules per the National Park Service

Right of Way Rules

Words after bold text are my commentary and advice.

1. **Horses and their riders always have the right of way over walkers and bicyclists.** Horses, on a narrow pathway like the towpath, take up quite a bit of space. They take up more space, often randomly with biting teeth and flailing hooves, when they are spooked by walkers and bicyclists. Always try not to startle horses.

2. **Walkers have the right of way over bicyclists.** If you are walking, be alert for bicyclists overtaking you from behind or in front from around curves in the trail and stay to the right. This includes everyone in a group; scattering randomly all over the towpath is not safe for anyone. Runners should act like bicyclists when overtaking walkers and should use a verbal warning when approaching from behind.
3. **Bicyclists need to give verbal or mechanical (bell) warning when overtaking walkers and slower bicyclists.** When overtaking walkers, verbally warn or sound your bell when approaching or both. Do this far enough away to not surprise walkers and be sure your approach is noticed. Be extra cautious if you are riding a wide wheelbase recumbent bike or upright trike.
4. **Stay to the right of the towpath except when passing.** Be mindful of other users. Birders, photographers, and similar users may be distracted and in your way. Always try to safely move around them or wait for them to move.

Hiking

Several park areas have interpretive trails and other hiking opportunities. Aside from the towpath, there are many great hiking trails in the park: the Tunnel Hill Trail near the Paw Paw Tunnel, the Ferry Hill Trail near Sharpsburg, as well as 14 miles of trail near Great Falls.

1. **Bring food and water.** Hydration is important. Even on short outings bring water. It is also wise to have an energy bar or more with you just in case.
2. **Wear sturdy footwear.** The towpath can be a rough place in some locations. Good waterproof hiking boots or shoes can mean the difference between an unpleasant slog or an enjoyable trip. In winter conditions consider carrying ice creepers and a trekking pole/walking stick with you.
3. **Be prepared for changing weather conditions.** On some parts of the C&O it is possible to be rained on, snowed on, and blown over by high winds all on the same afternoon. Check local weather forecasts and carry at least a lightweight rain jacket or poncho. Adjust your gear for weather and time of year.

4. **Know your location.** Keep a mental note of the mileposts that you pass. If you or someone else needs help this allows you to locate yourself when getting help.
5. **Share the towpath with other users.** See previous comments.
6. **Pack out all trash. Trash bags are provided at dispensers located throughout the park.** Always, always practice *Leave No Trace* practices. If you can carry it in, you can certainly carry it out. See sidebar.

Biking

Bicycle riding is permitted on the canal towpath, Western Maryland Rail Trail, Capital Crescent Trail, and Berma Road – biking is not permitted on hiking trails or off trail. The surface of the towpath is for the most part an even hard-packed dirt trail. The towpath can be very muddy following heavy rain. Bicyclists should carry tools for repairs.

1. **15 mph maximum speed limit on towpath.** Keep your speed down. Hitting someone with a bike is not good for you, your bike, and especially not for the person you hit. Hitting a horse will also not go well at all for you. In some areas it is also possible to be in a position where you may have to avoid hitting wildlife. Hitting a thirty pound snapping turtle at speed will ruin your day and your bike. Should you encounter park maintenance workers, especially when they are using heavy equipment to cut grass, weeds, or brush along the towpath, let them tell you when it is safe to pass.
2. **Ride single file.** This should be self explanatory, but if folks aren't paying attention riding side by side can cause some unpleasantness. Also keep in mind that poor weather conditions can cause slipping and

skidding and if you are too close to another bicycle, mayhem may ensue.

3. **Stay to the right except when passing.** See previous comments.
4. **Yield right of way to all pedestrians, horses, and mules.** See previous comments.
5. **Walk bikes over aqueducts.** Towpath surfaces of aqueducts are narrow and often polished by use, making them slippery, especially when wet or damp. Attempting to pass another bike or walker on an aqueduct is just plain foolishness. Walk your bike.

Sound devices (bell, horn, etc.) are recommended and should be sounded within 100' of approaching others.

Helmets required in accordance with county ordinances. Children under the age of 18 are required to wear helmets in Montgomery County, Md., and children under the age of 16 are required to wear helmets in other areas of the park.

E-Bikes

E-bikes are allowed in the Chesapeake and Ohio Canal National Historical Park where traditional bicycles are allowed. E-bikes are prohibited where traditional bicycles are prohibited, except where use of motor vehicles by the public is allowed. Using the electric motor to move an e-bike without pedaling is prohibited. The term e-bike means a two- or three- wheeled cycle with fully operable pedals and an electric motor of less than 750 watts (1 horsepower).

Trail areas where the e-bikes are allowed include the towpath, Berma Road, and the C&O Canal NHP section of the Capital Crescent Trail. A person operating an e-bike is subject to the following sections of *Code of Federal Regulations 36 CFR Part 4* that apply to the use of traditional bicycles: Sections 4.12, 4.13, 4.20, 4.21, 4.22, 4.23, and 4.30(h)(2)-(5).

The Seven Principles of Leave No Trace

1. **Plan Ahead & Prepare**
2. **Travel & Camp on Durable Surfaces**
3. **Dispose of Waste Properly**
4. **Leave What You Find**
5. **Minimize Campfire Impacts**
6. **Respect Wildlife**
7. **Be Considerate of Other Visitors**

Leave No Trace principles may seem like something that applies only to wilderness travel in remote areas. This is not the case. They apply everywhere, from your backyard to the remotest wilderness you can imagine. They are especially important in an environment like the C&O Canal with a high volume of traffic.

These Seven Principles are put forth by the Center for Outdoor Ethics to guide users of the outdoors in how to conduct themselves in a manner that leaves as little impact on the environment as possible. With more and more folks getting out and enjoying the outdoors in various ways, these guidelines are becoming not only a good choice but an imperative one.

Leave No Trace was incorporated as a 501(c)(3) non-profit organization in 1994, though the Forest Service developed the concept in the 1960's. In the 1990's the Forest Service and the National Outdoor Leadership School worked to develop "hands-on, science based minimum impact education training for non-motorized recreational activities" to quote from the Leave No Trace website.

Except as specified in the *Superintendent's Compendium*, the use of an e-bike within Chesapeake and Ohio Canal National Historical Park is governed by state law, which is adopted and made a part of the compendium. Any violation of state law adopted by this paragraph is prohibited. The maximum speed on designated routes within the park is 15 mph.

Horseback Riding

Horseback riding is a unique way to enjoy the canal. Horses are not for rent along the canal but there are opportunities for horse owners to enjoy the park.

For the most up to date regulations on group overnight rides, please consult the *Superintendent's Compendium* Section 2.16, which specifically addresses horses in the park.

1. Horseback riding is not allowed between Georgetown (Mile 0) and Swains Lock (Mile 16.6) or from Offutt Street (Mile 181.8) to the canal terminus (Mile 184.5). Horses are not allowed in the Paw Paw Tunnel. Riders must take the tunnel hill trail that goes over the tunnel instead.
2. Riders may not exceed the speed of a slow trot.
3. Riders must dismount and walk their horses across aqueducts. Horses may not cross wooden footbridges, which are not designed to carry their weight.
4. Trail riders are responsible for hauling manure away. No grazing is permitted in the park. Bring in feed for horses. Do not water, clean, or tether horses near park wells. **Hikers and bikers must yield the right of way to horses on the towpath.** Access from private property is prohibited. Horses are not allowed

in drive-in campgrounds, picnic areas, or adjacent parking lots. Riders may camp at hiker-biker campgrounds but must tether horses at least 50 feet from the area's boundaries for sanitary and safety reasons. Owners must prevent horses from damaging trees or undergrowth.

Other Animals

Dogs are allowed in most park areas, but are required to keep their humans on a leash no longer than 6 feet in length. Some areas, such as Billy Goat Trail A, are closed to pets. Service animals are permitted without exception.

Trail Users with Disabilities

Many sections of the C&O Canal towpath are accessible to wheelchairs and adapted bicycles. Wheelchair users can use the trails along with "racing chairs" (wheelchairs adapted for sporting use), or a powered chair with wheels or caterpillar treads. Wheelchairs are about twice as wide as a bicycle and are less maneuverable than a bicycle.

Please be aware that a trail user with a disability may not have an obvious handicap. They may have hearing or vision problems. Some may have a problem with their balance.

Trail users with a disability may need an extra bit of courtesy when they interact with horses and riders, bicycles, and groups of walkers since they cannot ambulate without the vehicle, so they can't yield off the trail.

General Hiking Guidance from the NPS Website

Hiking is one of the best ways to spend time in the great outdoors. With more than 400 national parks across the country, the opportunities to get out and take a hike are nearly

Bike Bells

Bells, though recommended, are not required on the C&O Canal towpath. As stated in the conclusion of *Recognizability and Perceived Urgency of Bicycle Bells*, (a scientific paper by Frohmann, Weger, and Holdrich, of the University of Music and Performing Arts, Graz Austria), the best bicycle bell is one that sounds like a bicycle bell. This is not as silly as it sounds. This conclusion was reached by testing different types of bells and horns in both soundproof rooms and in traffic. These bells were evaluated with both instrumentation and test subjects in traffic. What these intrepid music scientists found was the response of listeners was more of a psychological nature than just a physical warning. The "briing briing" or "ding ding" sound of a classic bike bell was associated *with actually* being an approaching bicycle. Sounds that were louder or perceived as better in some way acoustically but did not sound like a bike bell were perceived as "something else," causing slower response times on the testers. Granted this study was done in Austria, and Europeans are much more cognizant of bicycle traffic rules, but I think it says a lot. (Note that this was the only scientific research that I could find on the subject.)

The simple thing is bike bells work, they are inexpensive, and fun to use.



Far left – Classic "briing briing" bell by bike accessory company Zefal. Cost is about five dollars. Near left – "Ring type" bell has a very pleasant "ding ding" sound. These are about 10 to 15 dollars from your preferred internet merchant. Right – My personal favorite – the Incredibell Spring. This bell mounts to the stem cap of your two wheeled conveyance. It makes a "ding ding" sound that is louder if you push the spring mounted striker harder. It's about 20 dollars at your local bike shop.



endless. Whether you're hiking alone or in a group, be sure to follow the written and unwritten rules of the trail. Proper hiking etiquette helps instill respect for other trail users, and it promotes stewardship of the land.

The best thing you can do when hiking is to remember the "golden rule": treat others the way you would want to be treated.

Here are some main points of hiking etiquette:

Know your right of way. Check signage for the trail you are hiking, and follow the correct right of way yields. Signs may vary from park to park, but these are the general guidelines of yielding on the trail.

Hikers coming uphill have the right of way. If you're descending the trail, step aside and give space to the people climbing up.

Bicyclists yield to hikers and horses or other pack stock. Come to a full stop and step to the side to give the right of way. Be mindful of the plants or animals that are near the trail if you must step off the trail. Bicyclists should always ride within their abilities. Before your visit, check individual park regulations to see if biking is allowed.

Hikers yield to horses and other pack stock. Slowly and calmly step off to the downhill side of a trail. If you approach from behind, calmly announce your presence and intentions. Horses and other pack stock can frighten easily, so avoid sudden movements or loud noises.

Make yourself known. When you encounter other hikers and trail users, offer a friendly "hello" or a simple head nod as a greeting and acknowledgment. This helps create a friendly atmosphere on the trail. If you approach another trail user from behind, announce yourself in a friendly, calm tone and let him/her know you want to pass.

Stay on the trail. Don't step off trail unless you absolutely must when yielding. Going off trail can damage or kill certain plant or animal species, and can hurt the ecosystems that surround the trail. Always practice *Leave No Trace* principles: Leave rocks, vegetation, and artifacts where you find them for others to enjoy.

Do not disturb wildlife. They need their space, and you need yours, too. Keep your distance from the wildlife you encounter. Some parks require you to stay a certain distance from wildlife, so check park regulations before your visit. Never leave the trail

to try and get a closer look at an animal because it can hurt the habitat and the animal and put you in danger. For more information about safely viewing wildlife, check out *7 Ways to Safely Watch Wildlife*.

Be mindful of trail conditions. If a trail is too wet and muddy, turn back and save the hike for another day. Using a muddy trail can be dangerous, damage the trail's condition, and damage the ecosystems that surround the trail.

Take time to listen. When hiking in the great outdoors, let nature do all the talking. Be respectful of both nature and the other users, and keep the noise from electronic devices at bay. Not only will other visitors appreciate the peace and quiet, but so will the wildlife. Many wildlife species rely on natural sounds for communication purposes, and disrupting those sounds can hurt their chances of survival.

Be aware of your surroundings. Always be aware of your surroundings when hiking in our national parks. It will help keep you and any members of your group safe, and it will help keep wildlife and their habitats safe and healthy. Know the rules for *Hiking in Bear Country* and know what to do if you encounter a bear on the trail.

These are some hiking etiquette guidelines that will help you have a safe, fun, and relaxing trip next time you go hiking in a national park. When in doubt about something just remember the "golden rule" — treat other trail users how you want to be treated, and respect the wildlife and lands of our great national parks.

Some Things to Remember That Are Just Common Sense and Courteous

- » If you are on a bicycle and are approaching a large group of walkers consider dismounting and walking past them. This can save all concerned a bit of trouble or prevent an accident.
- » If you want to use the towpath for speed training on your bike – please go somewhere else. The 15 mph speed limit is there for a reason; don't be a safety hazard to other park users or yourself.
- » Carry a small first aid kit, and if you take regular medications it is also wise to have extra with you just in case.
- » Don't give park maintenance staff any trouble for doing their job. Their tasks are hard enough as it is.
- » Be cautious around fishermen; fishing rods and distracted casting can be a hazard.

» The C&O Canal is not a place to play loud music; use your ear buds and be aware that your hearing will be compromised. If you like to walk or ride listening to music consider a rear view mirror for your bike or helmet. Walkers can use a bicycle type helmet mounted mirror clipped to a hat for the same purpose.



Emergency Information

For law enforcement or emergency services call **911**

NPS 24 hour emergency number **866-677-6677**

Report hazards on the park at **CHOH_Hazards@nps.gov**

References and Internet Resources

Towpath Guide to the C&O Canal (revised edition), Thomas F. Hahn, Harpers Ferry Historical Association, Harpers Ferry, W.Va. 2015

Chesapeake and Ohio Canal Official National Park Handbook, C&O Canal Association, 2015

Recognizability And Perceived Urgency Of Bicycle Bells, Lisa Frohmann, Marian Weger, Robert Holdrich, Institute for Electronic Music and Acoustics (IEM), University of Music and Performing Arts, Graz, Austria, Scientific Paper, 2018

Chesapeake and Ohio Canal National Historic Park – www.nps.gov/choh/index.htm

National Park Service – www.nps.gov

Superintendent's Compendium – www.nps.gov/choh/learn/management/superintendent-s-compendium.htm

Code of Federal Regulations 36 CFR Part 4 – www.govinfo.gov/app/details/CFR-2000-title36-vol1/CFR-2000-title36-vol1-part4

Leave No Trace Center for Outdoor Ethics – www.LNT.org

7 Ways to Safely Watch Wildlife – www.nps.gov/subjects/watchingwildlife/7ways.htm

Hiking in Bear Country – www.nps.gov/articles/hiking-in-bear-country.htm

MIPS Protection, developers of the Multi-directional Impact Protection System – www.mipsprotection.com

And many thanks to Grace Zarate for being my head wear model.

Helmets

When you are born you are issued with one head, (only one, you can't return it and get another). Your head contains many important things that you need to stay alive. Protect your head.

According to the U.S. Consumer Product Safety Commission in 2013, U.S. emergency rooms treated 78,740 bicycle head related injuries, 13,597 of these were concussions.

Any Department of Transportation approved bicycle helmet will provide protection, but not all helmets are created equal. Bike helmet technology is changing due to better research into head injuries, vastly improved testing methods and innovative design. The best bike helmets currently on the market now are Multi-Directional Impact Protection System (MIPS) helmets. Research has shown that rotational forces involved in a bike crash can do some really bad things to your brain. The MIPS system was devised to alleviate this by acting like your skull and brain act during an impact. If you take a blow to the head, especially one that involves rotational motion, the slight fluid layer between the interior of your skull and your brain slide slightly in opposition and this motion absorbs the energy safely. A MIPS helmet duplicates this wonder of evolution and adapts it to higher speeds. A liner/support system allows the foam lined shell of the helmet to rotate slightly during impact absorbing energy as well as protecting your noggin from straight-line impacts from any other direction. Also keep in mind if you should crash and your helmet does its job of keeping your head in one piece you should replace it. A serious crash usually damages a helmet past the point where it will continue to protect you.

Get a helmet, wear it, protect the only head you'll ever have.



Giro Fixture MIPS helmet, note the yellow MIPS trademark logo. A good helmet is designed to protect the back and sides of your head from straight line impact and the MIPS system protects you from rotational impact.

Donors to Association Funds

November 1, 2020 to January 31, 2021

Nancy C. Long Aqueduct Fund – A

– Supports restoration and preservation of the 11 aqueducts on the C&O Canal. The fund was established with a generous donation made by C&O Canal advocate Nancy Long.

The Cumberland Repair & Maintenance – C

– Donations specifically identified for repair and maintenance of the historic canal boat replica in Cumberland.

Davies Legal Fund – D

– Supports the Association's involvement in activities such as opposition to the transfer of public land to any individual or enterprise for private use.

Ken Rollins C&O Canal Fund – R

– Supports current projects and programs in and for the C&O Canal National Historical Park.

Rachel Stewart Swains Lock Area Fund – S

– Funds improvements to the area around Swains Lock as they are identified in conjunction with the National Park Service.

2021 World Canals Conference Fund – W

– Supports the 2021 World Canals Conference at the C&O Canal. Includes donations from private individuals as well as sponsorship by corporations and organizations.

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 James & Judith Nelson – *R*
 John W. Newland III – *W*
 Roberta & David Niklewski – *R*
 Diana K. Niskern – *A, R*
 Ronald & Linda Nosalik – *A*
 Thomas E. O'Dea – *D*
 Mark D. Pankin – *R*
 Joan G. Paull – *A, D, R, S, W*
 Charles Pekow – *A*
 Jeanette M. Penner – *A, W*
 Robert & Jane Perry – *A, D, R, S, W*
 Thomas & Linda Perry – *R, W*
 Paul A. Petkus Jr. – *R*
 Suzanne Picard – *S*
 Patricia M. Pickering – *R*
 Mark W. Podvia – *A*
 Richard Poremski – *D, R*
 Ned & Leni Preston – *R*
 Rodney Putman – *W*
 Patrick & Rosalinda Rahe – *A*
 William Ravenscroft – *D*
 Farnum & Gayle Reid Jr. – *A, D, S*
 Rod & Pam Rempt – *R*
 Craig A. Reynolds – *A, D, R*
 Robert & Lucinda Reynolds – *A, R, S, W*
 David Romanowski – *A*
 Dr. James and Lucille Ronan Jr. – *S*
 Lisa Rosenthal – *A, D, R, S, W*
 Lia & David Royle – *R*
 Patrick & Erica Jo Saccoia Jr. – *A*
 Edwin Sauer – *A, W*
 Walter & Eileen Schauermaun – *W*
 Cory Schlegel – *S*
 Jan Schoonmaker – *W*
 Kurt Schwarz – *D, R, S*
 J. Cameron & Jane Scoleri – *S*
 Raphael & Katherine Semmes
 – *A, D, R, S, W*
 Jan V. Sengers – *A, S*
 Joe & Martha Shannon – *A*
 Lois Schiffer – *S*
 Michael Shallenberger – *A, D, S, W*
 Sierra Club Potomac Region Outings – *W*
 Rima Silenas – *A, D, R, S, W*
 Bridget Sisson – *A, D, R, S*
 Leonard & Joyce Skoglund – *A, D, R, W*
 Susi Slocum – *A*
 Clifford & Valerie Smith – *R*
 Jayme Sokolow – *W*
 James Spangenberg – *R*
 Steven & Brenda Sparenborg – *R*
 Wallace H. Spaulding – *R*
 Bruce Staskiewski – *R*
 Charles Steg Jr. – *A*
 Robert & Jody Stevens – *A, R, W*
 William R. Stewart – *A, D, R, S, W*
 Edwin Stockham – *A*
 Elaine Stonebraker – *A*
 Mark Stover – *W*
 Walter S. Stull III – *W*
 Marcia Swain – *S*
 Lowell & Jean Swank – *A, W*
 Lawrence Swiader – *R*
 Robert & Judith Swift – *A*
 George M. Swisko – *A, D, W*
 Tim & Carolyn Taylor – *R*
 Steven Teitelbaum – *A, R*
 Teresa Thacker – *W*
 Paul & Mercedes Tibbits – *W*
 Jean C. Toleman – *A, D, W*
 William Trout – *W*
 Frank W. Valentine – *A, D, R, S, W*
 Porter & Marjorie Venn – *A, D, R, S*
 Walter J. Wagner – *W*
 David & JoAnn Wahl – *W*
 James P. Waite III – *A, R, W*
 Paul A. Ward – *A*
 Alexis Webb – *R*
 Walter & Elizabeth Wessel – *A*
 Katrinka Westendorf – *A, R, S, W*
 Tom & Marie Wetzel – *A*
 Evelyn & Ronald Williams
 – *A, D, R, S, W*
 Peter B. Williams – *R, W*
 Fred & Nancy Wilson – *W*
 Kristine M. Wilson – *A, D, R, S, W*
 Mary Pat Wilson – *D*
 Ed Wojtaszek – *R*
 Linda Worthington – *A, W*
 Barbara Yeaman – *R*
 Keith & Esta Yoder – *R*
 John & Marjorie Ziegler – *D*
 Douglas Zveare – *A, D, R, S, W*

In Memory of Hal & Jane Larsen
 Anna Porter – *R*

In Memory of Marion Robinson
 Don Robertson – *R*

Accompanied by the Past

By Karen Gray

History is the witness that testifies to the passing of time; it illumines reality, vitalizes memory, provides guidance in daily life, and brings us tidings of antiquity. **Marcus Tullius Cicero (106–43 BCE), *Pro Publio Sestio***

1889–1890: Two Courts and a New Railroad¹

Following the great flood at the beginning of June, 1889, the canal languished in disrepair. By late July the C&O Canal Company's efforts to sell \$300,000 worth of new repair bonds (discussed in the December 2020 *Accompanied by the Past*) had utterly failed. However, the 5-mile Georgetown level was rewatered with financing arranged with Georgetown's millers, and Frederick Merton made the 23 miles from Okonoko to Cumberland navigable for his lumber products.

On September 10th a canal convention organized by leaders up and down the canal was held in Hagerstown. It resulted in an effort to lobby the state to repair the canal and then lease it to regional businessmen who, it was argued, could operate it profitably—something that had only briefly happened under Maryland's politically volatile control of the presidency and board.

By October of 1889 the possibility of the state repairing the canal and allowing private interests to lease it was getting nowhere, and the first rumors were appearing of a proposed new railroad that would be built on canal lands from Cumberland to Washington. It was also said that the holders of the 1878 repair bonds and the B&O Railroad (owning \$260,000 worth of the total \$500,000) were in favor of the appointment of receivers to sell the canal.

Finally, on December 31, 1889 a bill of complaint was filed in the Circuit Court of Washington County, Maryland under Judge Richard Alvey. That case was numbered 4191 and its five complainants, including George S. Brown, were the trustees for the holders of the 1844 C&O Canal bonds issued to pay for the completion of the last 50 miles of the canal. Those bonds had mortgaged the tolls and income from the canal and the fact that the 1844 bondholders could recover none of their investment if the canal were not operating and making money became particularly important in the subsequent court decisions.

In their complaint filed in the Maryland court, the 1844 bond trustees asked that the court:

... appoint receivers to take possession of the said property, its franchises, works, records, books,

accounts, papers, and everything belonging or pertaining to the said Company, **with authority to manage and operate** [emphasis mine] the said Canal, and to pay over the net revenues due to the said Bond holders until their debts shall be fully paid.

On the same date, a similar bill was filed in the Supreme Court of the District of Columbia under Judge Cox by the 1878 bondholders' trustees: George S. Brown (vested in and a trustee for both sets of bondholders), James Sloan, Jr., and Lloyd Lowndes, Jr. Those bonds had mortgaged the *corpus* (all the possessions and property) of the canal company. Those trustees also asked for the appointment of receivers but for the purpose of selling the canal.



Judge Richard Alvey

Subsequently, various people and the State of Maryland asked to be made a party in the case and by January 31 there was a second case before Judge Alvey, numbered 4178, which he consolidated with the original No. 4171. The consolidated cases involved both sets of trustees, the State of Maryland represented by its attorney general and, of course, the C&O Canal Company, represented by its president Stephen Gambrill and the company's lawyers.

It was immediately clear that the status of the physical canal and the extent of its holdings had to be determined. Judge Cox was the first to appoint receivers, both canal businessmen and users: Henry C. Winship, of the District of Columbia, and Victor Cushwa, of Washington County. He gave them authority to take control of all the canal company books and records, which created difficulties, as the Maryland court's receivers Robert Bridges, Richard D. Johnson and Joseph D. Baker attempted to acquire the same records, only to find them in the control of the D.C. receivers.

Ultimately, the reports on the physical canal revealed a mixed situation along its length. While it was popularly said to be "a complete wreck," the estimates of the repair costs varied greatly, and detailed both areas requiring major repairs and miles of canal with only minor or no damage.

However, among the issues that emerged immediately, was that of the competing rights of the two sets of bondholders as well as of Maryland as the largest lien holder and majority stockholder. As Maryland had placed its liens behind those of the 1844 bonds, it could not recover any of its investments unless the canal was earning substantially or sold at a very high price.

On the other hand, the repair bonds of 1878 had mortgaged the actual value of the canal properties, etc. Consequently, the holders of those bonds would be the first paid from the proceeds of the sale of the canal, and because the canal was not expected to sell for anywhere near the amount of the liens against it, they alone were likely to benefit from its sale.

During the first half of 1890 the receivers were busy gathering the essential information that their respective courts required and submitting reports as they did so. Meanwhile, the canal's future—to be repaired and operated as a waterway, leased or sold—hung in the balance.

The Washington and Cumberland Railroad

Back on February 4, 1890, articles were filed in the office of Maryland's secretary of state incorporating the Washington and Cumberland Railroad Company with \$2 million in initial capital stock. The incorporators were Enoch Pratt, David L. Bartlett, and John A. Hambleton, of Baltimore city; Asa Willison, of Cumberland; Martin N. Rohrbach, of Frederick; E. Kurtz Johnson, of Washington city; and H. W. Talbott, of Montgomery county.

The act incorporating the W&CRR stated specifically that it was:

... authorized to construct, maintain, equip, and operate, by steam or other power, a railroad upon and along the towpath or bed of the Chesapeake and Ohio Canal, or upon land of the Chesapeake and Ohio Canal Company adjacent to said canal, or upon land acquired for the purpose from the terminus of the said canal from the city of Cumberland to such point on the canal in or near the city of Washington, in the District of Columbia, as the corporation may select.

Subsequently, a bill was submitted to the Maryland legislature in its 1890 spring session that would further authorize the railroad "to acquire by lease from the Chesapeake and Ohio Canal Company, or by condemnation proceedings, the title held and enjoyed by it to all its properties and water and other rights between Cumberland, Md., and West Seventeenth street, in the city of Washington."

Around these legislative efforts to extend the powers and rights of the W&CRR a major political furor developed. None of the court documents or receiver reports overtly referenced it or the political machinations it triggered. But away from the courts such was not the case, as both news of what was happening in the courts and legislature became a major focus of politicians, powerful capitalists, ordinary people, and the newspapers—especially the *Baltimore Sun*.

The push for the new railroad to lease the canal was kicked off when Governor Jackson sent a message to the general assembly asking that (as the *Baltimore Sun* of Feb. 6 reported): "A bid for the perpetual lease of the Chesapeake and Ohio canal made by the Cumberland and Washington Railroad Company be accepted." The proposed lease was for 99 years "renewable forever" on terms highly favorable to the railroad. This action assumed that Maryland and/or the canal company, both of which had opposed the appointment of receivers in their petitions and responses to the courts, would be allowed to dispose of the canal without court interference.

The W&CRR appears to have been a hastily conceived affair as the only "survey" they had made for their railroad prior to February 10, 1890, was a horseback ride by Charles H. Latrobe (son of Benjamin Latrobe)—although it was said to be "not his first such journey." The incorporators were awaiting his report on the feasibility and cost of their project even as their project was being promoted in the legislature.

Latrobe's ride had included a cross-country jaunt to Baltimore associated with the railroad's seeking an amendment to the original charter allowing a branch to that city. The W&CRR promoters recognized, however, that their rates on such a line were "problematical at present in view of the existing contract between the Baltimore and Ohio and Western Maryland Companies." Also, it was widely recognized that the W&CRR might injure as well as benefit Baltimore and its B&O and Western Maryland railroad interests.

As the bill for the W&CRR to lease the canal was considered in the Maryland legislature, a deep division arose between its powerful supporters and its opponents. The latter regarded the lease arrangement as violating the Maryland constitution, insisting that in reality, under the conditions of the bill, it was a de facto sale of the canal.

The opponents also emphasized that the Maryland constitution required that when the state's interest in any internal improvement (such as the Chesapeake and Ohio Canal) was sold, that the state could only receive in payment "the bonds and registered debt now owing by the State equal in amount to the price obtained for the State's said interest." The W&CRR bill ignored entirely that constitutional provision designed to assure that the result of a sale of any work that had contributed to the state's large debts would directly reduce or eliminate them.

As the controversy grew, the president of the West Virginia Central Railway, Henry G. Davis, was asked if he was backing the W&CRR—a belief that had emerged shortly after the W&CRR's incorporation. On February 9 a *Baltimore Sun* reporter found him initially reluctant to be interviewed on *any* subject until "he answered without hesitation that his

company was not backing the new project, that it had all it could attend to, to develop the coal and lumber fields it now owns.”

A mere month after its incorporation, a bill was introduced to increase the powers of the W&CRR, giving it the right to borrow money and connect with other roads. At the same time the committee of ways and means was asked to introduce a bill that would authorize the C&O Canal Co. “to lease and release all the liens of this State upon the canal and all its property in favor of the lessee” (i.e., the W&CRR).

The W&CRR, however, landed in the middle of an effort to provide “for the most liberal traffic arrangements with the Western Maryland Railroad Company upon the best terms that are given the most favored customer” and ultimately, a connection with Baltimore city. And, as a director of the WMRR stated to the Baltimore *Sun*:

“It is about this time that this warfare upon the Western Maryland road, owned by the city of Baltimore, should cease. We have the Pennsylvania Railroad crippling us in Baltimore with proscriptive terminal and tunnel charges, and attempting to keep us from getting out of their clutches and reaching tidewater over our own lines. On the other end there is the Baltimore and Ohio Road wanting to put out the inference that the Western Maryland, because of a traffic contract which is not intended to give it business to Baltimore, cannot arrange with another company which wants to get to Baltimore over its own lines.”

The tensions and efforts emerging were important, but they spoke of political and economic forces not widely considered in the canal and railroad history of the time. The battle over the canal towpath and possible creation of a new railroad in the Potomac corridor actually added to such tensions, especially those from the growing competition for the carriage of coal to the seaboard ports—a competition beginning to hurt the coal mining and transportation industry.

While Walter Sanderlin in his masterful (but largely administrative) work on the C&O Canal—*The Great National Project*—erroneously saw the trajectory of C&O Canal’s bankruptcy as primarily driven by the B&ORR interests; in reality the B&O itself was caught in the intense struggles to control the Potomac route to Tidewater and ultimately, to serve coastal, tidewater, and Atlantic trade from all the great ports on the mid-Atlantic seaboard and its bays.

In the 1880s, coal mining and railroad shipping for the coastwise trade was becoming so competitive that it was creating financial instabilities for the companies operating in the industry. The first major effort at self-regulation of coal

shipment quantities and rates occurred in 1887 with the formation of the Seaboard Steam Coal Association. Although it failed in 1896 due to an inability to gain members, a new organization, the Bituminous Coal Trade Association, was formed that same year in a fresh attempt to bring order to the industry and its self-damaging competition.² The B&ORR was one of the original members of both it and the former organization.

“The Canal Lease Bill” (as the bill authorizing the W&CRR came to be known), was caught up in a deeply divisive battle that was fully comparable to the divisions among those battling each other in the courts over the rights of the various canal lien holders. The fate of these two works—a new would-be railroad and an old, financially insolvent and badly damaged canal—ultimately depended on fine points of the law and in particular the superb legal mind of Judge Alvey.

However, another bill submitted that added to the complexity of the canal’s situation provided for:

... the restoration of the C. and O. canal as a waterway and the reorganization of the canal company, and to authorize the foreclosure of the mortgages and the enforcement of the liens thereon held by the State, and to regulate the mode of judicial sale of the canal, and to authorize the Allegany and Tidewater Canal Company to purchase the same upon compliance with certain terms, and to authorize the board of public works to sell the State’s interest in the canal and transfer it to the Allegany and Tidewater Canal and Transportation Company.

If you’ve lost track of the players in this increasingly complex struggle, they were: The C&O Canal Company, its stockholders, the State of Maryland, the 1844 bondholders, the 1878 bondholders, the Washington & Cumberland Railroad Company, and the (not yet incorporated) Allegany and Tidewater Canal and Transportation Company. The story of the middle and endgame actions in this epic tale will continue in a later column.

Notes:

1. This column draws heavily from the court documents for the three cases (DC 12,240; MD 4191 and 4198 consolidated), official government documents, and newspaper reports.
2. No studies have been made of the relationship of the coal industry’s and coal-carrying railroads’ troubles at this time relative to the canal’s troubles, although it is clear in the canal company records and other sources, that the competition with the railroads impacted the canal in direct and significant ways. A major journal article on the issues is: Graebner, William. “Great Expectations: The Search for Order in Bituminous Coal, 1890-1917.” *The Business History Review*, vol. 48, no. 1, 1974, pp. 49–72. JSTOR, www.jstor.org/stable/3113197.

Painted Bunting Sighting on the C&O Canal

By Kurt Schwarz

Birding on the canal is a pleasant pastime, and sometimes it can be quite exciting. The current winter has been enlivened by incursion of northern finches, with small flocks of evening grosbeaks seen at Riley's Lock and just south of Milepost 117, north of Big Pool. But the real highlight of the winter was the discovery of a brilliantly colored male painted bunting just south of the Great Falls Tavern on January 1.

The painted bunting is a sparrow sized bird. The male is very brightly colored, with a blue head and bright red on its breast, belly, undersides, and above the tail. The back is a chartreuse color. In Maryland, the species is a vagrant.

There are two breeding populations, one along the Atlantic coast from southern North Carolina to northern Florida. The other is along the Gulf Coast and including: Louisiana; Arkansas; most of Texas and Oklahoma; southeast Kansas; and southwest Missouri. They winter in southern Florida, in Cuba and other islands in the Caribbean, much of Mexico, and throughout Central America. But the species has a habit of straying into Maryland, typically in winter. As of this writing, at least

three others were sighted in Maryland, but all visited private feeders with no public access. The Great Falls bird is unusual, because in Maryland this species tends to be a feeder visitor. This bird is foraging exclusively on wild seed and other food.



*Above – Painted bunting; Below - Evening grosbeak
Photos by Kurt Schwarz*



Word of the Great Falls bird spread quickly, and over the New Years weekend, large crowds gathered. The wait at the fee collection station was said to take a half hour or more, as parking was scarce in the lot. This was no doubt exacerbated by the good weather, which prompted non-birders to want to visit Great Falls as well.

By January 7th well over 200 people had seen the bird, which was seen typically across the prism from the tow-path between Locks 17 and 19. Some lucky viewers have had it at close range. At any given time, there have been two to three dozen hopefuls along the tow-path between those locks. There are roughly 240 sightings in eBird, the on-line database of bird distribution and abundance.

So get out and bird! As Edmund Gwen said in the final lines of the science fiction film *Them!* – “What we will find, no one can predict.”

Continuing Hike Series



Jon Wolz recently led several continuing hikes to visit sites of historical significance in the Dickerson-Monocacy area. In the left photo, participants are visiting Benjamin Latrobe's marble quarry on January 10th. Historian Paul Kreingold talked about the history of the quarry and its connection to the United States Capitol building. In the right photo, a group visits White's Ford Fort with Jon on February 6th. The 10th Vermont Regiment was stationed at the fort during the Civil War. Photos courtesy of Jon Wolz

The Canal's Earliest Culverts, 1829-1831

By Rod Mackler

Among the most interesting features of the C&O Canal are its culverts, structures built to carry water under the canal. Steve Dean is an acknowledged expert on these constructions, having explored, documented, photographed, and "crawled" most of them. He's examined over 160 numbered culverts that ascend (not always consecutively) from Culvert 2 near Little Falls to Culvert 240 in Cumberland.

Confusingly, there is no culvert designated Culvert 1, for reasons that remain unclear. Historic Culvert 2, likely the oldest canal structure on the C&O, was built in 1829 near Little Falls. It is close to the spot where President John Quincy Adams turned the first shovel for the C&O Canal on July 4, 1828.

In addition to these numbered culverts, though, there were originally at least six culverts below Culvert 2. Were they Culverts A through F? No, that would be too simple. They are Culvert A, Culvert B, Culvert C, Culvert H, Culvert I, and Culvert K. They were all constructed in the first three years of the canal (1829-31), although most have been substantially altered or replaced over the years.

In the paragraphs below, we will examine these six original structures, as well as newer culverts that now exist near some of them. We should note, however, that there were also a number of sewers, water intakes, and mill races in Georgetown that drained into or from the canal, but were not true culverts passing underneath the canal. They are a reminder that canal water captured in Georgetown for powering factories provided income for the canal company.

Culvert A, Mile 0.80. Culvert A was just west of the Potomac Street Bridge. It was built in 1830, with a wooden conduit, 2 ½ feet in diameter, 122 feet long. (Davies, p. 19)

New culvert: there is now a relatively modern, two-gate, concrete culvert under the towpath on the east side of Key Bridge; that is, between the bridge and the exit ramp for the Whitehurst Freeway. According to Davies, this culvert was formerly a waste weir. (Davies, p. 24) This does not count as one of the six lettered culverts.

Culvert B, College Run, Mile 1.04. This culvert clearly carried a creek originating up the hill at Georgetown College. Besides conducting the stream under the canal, this culvert carried water to a small turbine and electric generator housed in a brick building on the river side of the canal. Culvert B was originally constructed in 1830-31. (Davies, p. 30) It was a cylindrical culvert, 3 feet in diameter. The original was later replaced by a 36-inch galvanized steel pipe, which is part of a storm sewer. The pipe is exposed on the river side of the towpath.

Culvert C, Foundry Branch, Mile 1.50. This stream has also been called Deep Branch and Mill Branch. Henry Foxhall built a foundry here about 1801 to produce arms. Commodore Perry used Foxhall-bored cannons in his naval battle on Lake Erie in the War of 1812. (Hahn, p. 19) The original Foundry Branch culvert had a semi-circular arch with a span of 22 feet and a rise of 10 feet. (Davies, p. 33) This culvert has been substantially altered and lengthened, running under both the canal and Canal Road. It now provides a connection

Status of Historic Culvert 2 –

We have written twice about Culvert 2, arguably the oldest structure on the canal, in the March 2016 and September 2017 issues of *Along the Towpath*. An update is sad, but relatively short:

1. The offer by the intelligence community to pay for the remediation of the culvert is no longer on the table. The park squandered an excellent opportunity.
2. The Environmental Assessment in which we had placed our hopes was a huge disappointment:
 - a. The EA did not recommend restoring the historic culvert.
 - b. The EA did not recommend correcting the source of the silt, only dredging the canal.
 - c. The EA showed no coordination with the intelligence community or the U.S. Army Corps of Engineers.
3. The "alluvial fan" in the canal prism is no longer a small semi-circle, but rather blocks the entire canal prism, capturing logs, additional sediment, and trash, and trapping a pool of duckweed above the dam. The canal is stagnant from the blockage to Lock 6, and in warm weather it smells.



Foundry Branch Culvert – all photos by Rod Mackler

between the Capital Crescent Trail and the Georgetown University campus. Next to the river end of the culvert there is a staircase that climbs to the towpath and canal prism about 30 feet above. Just above Culvert C, is Waste Weir 3, at Mile 1.52, constructed in 1833. (Davies, p. 33)

New culvert, Mile 3.08: This is a brick arch culvert, with a five foot span and a 2 ½ foot rise. (Davies, p. 37) It runs under Canal Road on the berm. It has a 10-foot rubble parapet and coping above. Again, this does not count as one of the six lettered culverts.

Culvert H, Maddox Run, Fletcher's Cove, Mile 3.18. The culvert and the nearby road culvert were constructed in 1829-30. (Davies, p. 38) The original culvert had a 6-foot span and a 3-foot rise, and carried Maddox Run under the canal. It is also called the Battery Kemble culvert (Hahn, p. 23), as the stream flows down from Battery Kemble Park in the District. The same stream passes under Canal Road through a more modern brick culvert and under a small, wooden bridge



Culvert H, Maddox Run, berm arch



Foundry Branch Culvert barrel



Waste Weir 3



Maddox Run culvert under Canal Road

between the upper parking lot and the viaduct. The stream then passes through a culvert under the canal. The berm end is masonry, perhaps original. The river end, behind the boat-house, is nondescript concrete.

Road culvert, Fletcher's Cove, Mile 3.21. The road culvert allowed passage from the Abner Cloud house (built in 1801, the oldest surviving structure in the park) to Cloud's mill. Ruins of the mill are still visible between the canal and the river. The mill earlier captured water from the Patowmack Canal, George Washington's late 18th century skirting canal. This skirting canal began at the Little Falls Dam and ended here at the top of the tidal reach. The road culvert still permits vehicles to pass from the upper parking lot at the Abner Cloud House to Fletcher's Boathouse, the picnic area, and the docks below. The berm arch has a span of 14 feet, a rise of 7 feet, and a two-foot abutment with twenty ringstones and a keystone of cut granite. (Davies, p. 39) On the berm end, you



Fletchers Cove road culvert, berm side



Fletchers Cove road culvert, river side

can see that the road culvert was cut through live rock. On the river end, it was extended in concrete to continue under the Baltimore & Ohio Railroad's Georgetown Branch, now the Capital Crescent Trail. The river end of the road culvert, of course, is modern concrete.

New culvert, Mile 3.55: This is a relatively modern, brick arch culvert that passes under Canal Road. (Davies, p. 39)

Culvert I, Mile 3.77. (Davies, p. 39.) Davies notes that the original structure was built in 1830 and was replaced by a 5-foot concrete pipe in 1967.

Chain Bridge, Mile 4.22. Water mains attached to the bottom of the bridge carry water to Arlington, Virginia. (Davies, p. 46) This water originates at Great Falls and travels through the conduit built in the 1850s and 1860s by Montgomery Cunningham Meigs and the U.S. Army Corps of Engineers. The Washington Aqueduct is 12 miles long, 9 feet in diameter, lined in brick, completely gravity-powered, and carries the water that still serves the District, Arlington, and Falls Church City.

Modern culvert, Mile 4.25, just above Chain Bridge. The culvert is a reinforced concrete box that is 6 feet high with an 8-foot span. (Davies, p. 46) As one drives down the Clara Barton Parkway and stops for the traffic light at Chain Bridge, one often sees a waterfall tumbling down the cliffs to the left. In the winter, the waterfall is frozen, an attractive sight.

Modern culvert, Mile 4.55. A 5-foot concrete pipe carries drainage from the Dalecarlia filtration plant under the canal.

Culvert K, Little Falls Branch, Mile 4.78. The original culvert was built in 1830-31. (Davies, p. 46) The present culvert, built in 1962, is a flat, concrete, two chambered, 20-foot coursed rubble span, 6 feet high.

This brings us back to **Culvert 2**, Mile 5.68, constructed in 1829. (Davies, p. 52). The river face and wing walls appear

to be original masonry, but the berm end has been replaced by a concrete box drain that is nearly clogged with sediment and debris largely deposited there by surges of storm water released over decades from a 10+ acre surface parking lot at the Army Map Service (later the National Geospatial-Intelligence Agency). Storm water surges from the parking lot deeply eroded the Palisades forest floor before entering a natural stream channel. The augmented stream flowed towards the canal and Potomac River down steep national park slopes and under MacArthur Boulevard, the trolley right-of-way, and the Clara Barton Parkway, also suffering substantial erosion. As a result of the sediment clog, the box drain and culvert cannot keep up with the flow, so the stream overflows and dumps sediment into the canal prism. A small flow of stream water penetrates the clog in the box drain and culvert.

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Culvert 2, river side

Nature Notes

By Marjorie Richman

Zombies!

In the voodoo tradition, a zombie is a deceased person who has returned to our world under the control of an unknown force, usually not a benign one. Scientists have long denied the existence of zombies, which is quite reassuring. However, today's entomologists have a different story: zombies do exist in the world of insects, and the unknown forces controlling zombie-like behavior in insects are fungi, innocent appearing members of a kingdom most of us don't pay much attention to. These fungi exist all over our planet, including right here in our Mid-Atlantic region.

Picture yourself as a fungus, just for a moment. You desperately want to win the evolutionary arms race, but you can't move, you are not mobile, yet conditions are not always the best for spore reproduction in any one place. The key to survival is to spread spores as far as possible, in as many places as possible, assuming that one or more of these locations will be good for reproductive success. What might be the best way to accomplish spreading spores far and wide? Perhaps by finding a host that will carry the spores for you. Certainly, this can't be easy. What creature would volunteer for a job with no discernible benefits?

Since willing creatures might be hard to find, fungi had to develop a novel way to enlist help with spore dispersal. Predation on insects could have begun as much as 400 million years ago when insects begin to appear in the fossil record. By that time fungi were already well established planetary residents. There has been ample time, therefore, to perfect the system we see today: the invasion of the bodies of insects in order to control their behavior.

Several species of fungi are able to bore their way into the bodies of certain insects. Once inside, the fungus destroys the organs of the insect's body, but miraculously the insect seems impervious to the problem. The insect carries on, walking, climbing, flying, but its life style changes radically. The insect is now under the control of the fungus, and the fungus will manipulate the insect to go to places where conditions are best for successful spore dispersal. Sound crazy? Here is the way it works.

For example, the fungus, *Ophiocordyceps unilateralis*, is one of the best documented of these zombie inducing fungi. The victims are ants. The fungus bores through the insect's exterior and, once inside, it slowly digests the insect's body. Under control of the fungus, the ant will leave its safe nest and climb to the top of a plant, exhibiting a syndrome known

as "summit disease." It will bite down on a twig or leaf in what is described as a death grip so that the ant will not fall off. The fungus' mycelia (threadlike masses of hyphae) grow from the ant's feet to firmly hold the insect tightly to its perch. Once properly positioned, the insect dies and the fungus sends a fruiting body through the ant's head. Spores can then be sent showering down to the ground, either to create new fungi or, if that fails, find new victims. Either way, as far as the fungus is concerned, mission accomplished.

An even more amazing part of this process is the fact that the fungus seems to know exactly where the insect should perform this task. The location is selected with precision as to temperature and humidity and the ant is oriented towards the sun, therefore establishing the most advantageous conditions for the fungus. When the ant is no longer useful it dies and the fungus completes the task of spore dispersal. A perfect zombie scenario.



Cicada with fungus invasion – photo by Brian Lovett

This spring, those who are vigilant may see another insect affected by pathogenic fungi. Our periodic cicadas are due for a return to our region. They have been living underground for 17 years as nymphs and they are getting ready to emerge and mate. Other creatures are also readying for action, fungi associated with the genus *Massospora*. Some members of this genus specialize in infecting periodic cicadas. Since cicadas spend most of their lives underground, it's unclear when the invasion of the fungus takes place. It could be while the nymph is underground, or it could be during the molting stage after the nymph emerges. During molting, insects are particularly vulnerable, which is perhaps why fungi target them.

On cicadas the infection takes the form of a brown mass on the lower abdomen, obliterating the sex organs of the insect and causing the disintegration of as much as one-third of the insect's body. The central nervous system remains intact

so that the animal can walk, fly, climb and attract a mate, all the necessary activities for fungal success. The cicada will climb to a height as directed by the fungus and at some point release spores from its abdomen. In the meantime, the insect will assume a mating position. Attracted cicadas will be infected by the fungus upon contact. Instead of reproducing its own species the cicada is now enlisted in the process of dispersing spores and infecting other insects.

Researchers have taken to the laboratory to determine the reason for this strange behavior. It's been found that the fungus secretes substances related to stimulants and psilocybin. Psilocybin is the name given to a class of naturally occurring psychedelic compounds present in certain mushrooms commonly referred to as "magic mushrooms." Although the insect's body is invaded, the brain still functions. The physical activity of the insect is probably hyper activated as we would be if under the influence of amphetamine type medication. Similarly, perhaps

lulled into a state of euphoria from the psilocybin, the insect seems to be in no distress as it is being manipulated by the fungus. Exactly how the fungus manages to accomplish this type of domination is not well understood. Scientists have figured out what happens, but not how a life form with no brain as far we know is able to orchestrate a complex series of chronological events as a means to its own survival.

There is a good reason why you may not have heard of insect zombie-like behavior: not much has been written about it. This may change with the emergence of the periodic cicadas. Dr. Matt Kasson and Dr. Brian Lovett of West Virginia University are involved in research on pathogenic fungi. They are hoping to engage citizen scientists to help with observing and recording instances of fungi infections among the cicadas. A useful tool for recording data is the popular app, iNaturalist. iNaturalist is free and can be downloaded on smart phones. Another app, BugGuide, can also be used (see BugGuide.net). If apps aren't your thing, you can send an email directly to Dr. Lovett (brian.lovett@mail.wvu.edu) or Dr. Kasson (mtkasson@mail.wvu.edu) with a photo and information on location, date and time of the sighting. The cicadas should be emerging sometime in the April/May time frame. Since there is much to learn about *Massospora* fungi and their insect hosts, documentation from community scientists will be especially welcome during this year's periodic cicada emergence.

Psychedelic effects of mushrooms are well known. People have been using them for centuries. As far as we know, people simply enjoy the experience and then move on with their normal lives. Zombie experiences have not been noted. Yet nature is vast, and we know there could be species out there that have not been discovered. Could there be, in some remote location, fungi that could control us? Best not to think about it.



Cicada with fungus invasion – photo by Angie Macias

They're on their way!

Some people love cicadas and others hate them. A few even consider them delectable and call them "shrimp of the land." There's no denying it though, cicada Brood X will invade the C&O Canal this spring. They should appear in mid-May and be with us until late-June. They will indeed make quite a racket during our towpath travels. Visit www.cicadamania.com for more info about these creatures. Cicadas pictured are from Brood II in 2013.

– Steve Dean



2020 C&O Canal Thru-Ride Report

By Deborah Poole

There comes a point in everyone's life when decisions are made. For the five riders who completed the 2020 C&O Canal October Through Ride, it was the right choice. Despite fears of the coronavirus, rain and possible mechanical breakdowns or flats, our small group (which started out as 21, dwindled to 6 and then to 5 persons) went on to ride and considered ourselves to be part of a great adventure. When there is adversity, fear or challenge, riding provides those who persevere with memories and smiles that last a lifetime. I will always remember my decision to ride against fear.

This past year, the people in our group experienced many setbacks. Two riders lost a parent, several riders have aging parents and several riders (both past and present), were not able to ride due to physical/medical conditions or the coronavirus concerns.

As Pope Paul VI once said "Somebody should tell us, right at the start of our lives, that we are dying. Then we might live life to the limit, every minute of every day. Do it! I say. Whatever you want to do, do it now! There are only so many tomorrows."

Riding the C&O requires preparation and determination. The trail can be muddy or dry. While you never know what you will get, there is one thing for certain – over a course of 184+ miles, you will make memories, you will feel accomplished and you will be able to say that you did what you wanted to do and for that you are indeed experiencing living!

Thursday, October 8. Several riders met for pizza and salads in Cumberland the evening prior to our ride. This "pre-trip" allows most riders to meet, discuss trip expectations, and get to know each other better. Our instruction was to be ready to ride and meet at 10:00 a.m. at the famous Cumberland mule statue.

Friday, October 9. Friday morning was a cool, sunny morning with a mostly dry towpath. Our ride began with four riders who were returning for the through ride, Denny Sloppy (as our leader), Donna Sloppy, Wayne Anderson, and Deb Poole, along with two new riders, Melody Miles and Kelly Moore-DeSantis. Prior to leaving, we heard the rules of the canal and had pictures taken at the 184 mile marker. The

river was low and during our ride we spotted many turtles on logs enjoying the sun in the canal. We had not traveled far, when we approached horses. Using our "pre-trip" knowledge, we knew what to do, stop and ask the rider if we should dismount or if it was OK to pass.

Close to the C&O Canal, our group went for a delicious lunch at Schoolhouse Kitchen in Oldtown. While the school is known for great food at reasonable prices, what many do not know is that the school house cafeteria walls contain history, with the pictures of the students who attended Oldtown High School. Class sizes were obviously small and a photo of the graduating class of 1959 contained 29 students. What made this lunch special was that months prior to the ride, I read a post from a friend on Facebook that she was a graduate of Oldtown High School. When we arrived

at the school, I was anxious to see if I could find her class photo. Investigating using Facebook, my human mind and my cell phone, I was able to find my friend's photo and sent it to her. Imagine my surprise, when I explained to the cashier, why I took the photo and the cashier exclaimed "I graduated with Jo-Anne." Where else but in Oldtown, can one find that a high school senior from 1959 works at her old high school cafeteria 61 years later!

We continued to ride after lunch into Paw Paw. Our group split up, with several riders using the "Get Out and Play Shuttle" back to Cumberland for a night at either a hotel or home, with two riders staying at the recently newly constructed Paw Paw Cabins.

Saturday, October 10. After the Cumberland riders were shuttled back to Paw Paw, a quick tour of the Cabins occurred and we met at the Paw Paw gas

station. It was here the four girls got their new nickname, known as "the Spice girls." While the girls did not break out in song, several bikers wanted to use the station's bathroom before beginning their journey. However, in order to use the bathroom a purchase had to be made as the bathrooms were for customers only. So, Denny decided to buy Kit Kat bars for everyone on the ride. However, upon his return with the bars, a story broke out about the Pumpkin Spice Kit Kat bars. As relayed by Mel, these bars were totally awesome! So, the hunt



Above – At Mile Marker 184.5 in Cumberland. Kneeling: (l-r) Melody Miles & Kelly Moore-DeSantis. Standing (l-r) Wayne Anderson, Deborah Poole, Donna Sloppy, Denny Sloppy



Below – At Mile Marker 0 in Georgetown. (l-r) Deborah Poole, Kelly Moore-DeSantis, Denny Sloppy, Donna Sloppy, Melody Miles

began for the Pumpkin Spice Kit Kat bars. In every store and shop throughout the trail, the search for the Pumpkin Spice Kit Kats became a quest (although we never found them).

We walked our bikes through the Paw Paw Tunnel. After that, we found Bills Place in Little Orleans open. The place was busy and the food was great! The group made a pact to be “purists” riding the C&O vs using the Western Maryland Rail Trail. We were able to view Devils Eyebrow, the kilns and many other wonderful places along the river. However, we realized that our late morning start would get us into Hancock a little late. Therefore, we decided to dine at Buddy Lou’s restaurant before checking into the town’s Super 8 motel.

Sunday, October 11. The morning began early for Denny, as he was sent on a secret mission to buy pies from Park and Dine to take them along for our group to eat as a snack. Due to the pumpkin spice reference and the fall season, a decision was made to purchase both pumpkin pie and caramel apple nut pie. The whole pies were boxed and taped to Denny’s bike rack.

Our ride began at 9 a.m., however, one rider, Wayne, decided to not continue. This left Denny with four girls. We assured him it would all work well, and Denny got to hear many conversations about hair, length, styling, etc. We laughed every time we spoke of hair. Again, the decision was to be “purists” and ride the canal instead of the rail trail. We passed both Little Pool and Big Pool before arriving at Fort Frederick. Our pie benefactor requested that Denny take some pie to the Fort Frederick Ranger. Ranger Jefferson divided the pies and we shared half with the staff of Fort Frederick. According to the ranger, Maryland State Parks usually see 4.5 million visitors each year; however, this year they saw 17 million visitors! With the coronavirus, many people simply went outdoors.

After lunch, we rode to Dam 5 where we got some amazing pictures. Upon leaving, one rider was riding so fast her bungee cords were rubbing against her tire, and smoke began to billow from it. Our leader, Denny, called out “Kelly, stop – you’re on fire!” From spice girls, to hair fashionistas to fire starters, the ride was not dull. No real damage was done, and the ride continued.

We arrived early at Williamsport around 2 p.m. and explored Abner Doubleday’s memorial which is also known as

Doubleday Hill. Several of our C&O riders had never walked up this hill; however, on this trip all went to the top.

We ate dinner at Desert Rose Café. A trail friend, Ken Johnson, met us at Red Roof Inn and was our chauffeur. We slept well, but each person silently dreaded the next day. Rain was imminent – it was going to rain on the longest and hardest day of riding (42+ miles).

Monday, October 12. The morning started with a warm breakfast for all at the Waffle House. Past C&O president, Tom Perry and his wife Linda met our riders along the road as we pedaled toward the C&O. After a few wrong turns and finding our way back to the towpath, we rode on through both mud and rain. We passed beautiful views at McMahon’s Mill and Big Slackwater. At Shepherdstown we came to the resurfaced section of the towpath. After fighting mud and rain, this section was wonderful for tired and wet riders. This resurfaced section continued into Whites Ferry. During this part of the trip a decision was made to take individual photos at mile markers that corresponded with our birth year. Arriving at Harpers Ferry we took our bikes and bags up the spiral staircase using a “two person method” originally taught to us by Norman Liebow. The girls laundered muddy sneakers, only to have one set fall completely apart. Not wanting to mess up the good shoes for the next day, this rider used packing tape to make her shoes last. The soles were taped to the shoes. In fact, the girls proved very resourceful throughout the trip, using shower caps to protect shoes and socks, and also finding a way to use garbage bags to minimize/eliminate mud splattering to jackets.

Tuesday, October 13. We continued our early morning ride, taking some beautiful photos of birth year markers and other sights. We had a leisurely lunch at Beans in the Belfry in Brunswick. We arrived at Whites Ferry, called the Comfort Suites for a shuttle and

took the ferry across the Potomac. After our late arrival we went directly to Del Rio Restaurant in Leesburg for dinner.

Wednesday, October 14. Our last day! On our trip, near Seneca Lock, we literally were the first to cross a resurfaced section of the canal, as it was being resurfaced as we rode. Nearing Great Falls, we spotted a bald eagle perched high in a tree. We saw many deer this day, with one rider spotting 17.

When we arrived at Great Falls two things happened. First, the packing tape shoes were thrown away because they



Above – At Dam 5. (l-r) Deborah Poole, Donna Sloppy, Kelly Moore-DeSantis, Melody Miles.

Below – Four Masked Men. (l-r) Bob Robinson, Art Wise, Frank Wodarczyk, Norman Liebow

Photos courtesy of Denny Sloppy

Volunteers in Parks

By Jim Heins

Volunteers – Start Your Engines!

There is great optimism that many activities will be able to be restarted in 2021. After almost a year of learning about and gaining experience dealing with this pandemic, many of us are feeling much more confident in volunteering at this time.

Our work environment is the outdoors. Collectively, we have become accustomed to and committed to following the recommendations of wearing masks, keeping social distances and keeping our hands cleaner than we ever thought we would. Even if some of us may not feel as strongly about the safeguards, these folks are willing to cooperate and go along for the sake of the rest of us. Adding to this, anyone not happy with the conditions are free to not participate. This is a win-win situation.

Based on this atmosphere, your VIP program plans to fire up its engines and begin what we hope will be a safe and productive summer of supporting projects for the park.

Our first activity will be our participation in the Alice Ferguson's 33rd annual Potomac River Watershed cleanup to be held on Saturday, April 10 from 9 a.m. to noon. We will again be covering sites at Carderock, Anglers, Great Falls, Swains, Pennyfield, Violettes, Rileys and Edwards Ferry. (Edwards Ferry is a closed site, being covered by Clarksburg E.S.) I do need to know ahead of time who will be helping, as we limit the number of volunteers at each site. All are welcome to support this effort. If interested, please contact Jim Heins at vip@candocanal.org.

Following this project, we will also be gearing up for another exciting year of installing benches and repairing picnic tables throughout the park. We will address other needs as they arise.

Thru-Ride Report (Continued from page 21)

could no longer be worn. Secondly, we were treated to a wonderful lunch by Art Wise, Norman Liebow, Frank Wodarczyk and Bob Robinson. These men rode with us for some miles, with Norman riding all the way to Mile Marker 0. After many photographs at Mile Marker 0, we circled behind the Thompson Boat Center to meet our shuttle back to Williamsport and Cumberland. Get Out and Go Tours of Ashburn, Va., operated by Tom Knoerzer, was our shuttle, and going back with him is like riding with an old friend. This year we used the Sunshine Luggage shuttle to carry a lot of our bags. We'd like to thank both Wayne Anderson and John Betting who, even though they didn't ride or do the whole ride, contributed to our shuttle fees. We found our trip to be fun, challenging and without stress. We experienced beauty and close friendship. We enjoyed the ride. Both new riders would like to ride again! And Denny got to learn what it is like to travel alone with 4 amazing women!!!

We are thankful as always for the time and commitment put into the planning of this ride by both Denny and Donna Sloppy, and the help we always seem to get from trail friends and others. We missed many of our riders who could not ride.

If you want to ride or explore the C&O and feel you can't, start small. Get out there and do what you can. If I leave you with one thought, remember it's important that living

holds so many blessings, it is up to each of us, to find them, do what we can when we can to help others and enjoy life and living. No matter where you are in life, look always forward toward experiencing wonder and making memories!

Through-Bikers Contribution to Friends of Fort Frederick

\$5 Fix for Western Maryland Rail Trail Program

Each year the through-bikers contribute to a worthy cause along the C&O Canal National Historic Park. A \$25 dollar donation per-person is collected as a commitment to ride by those signing up. The group then decides where the money should go during the week of the bike ride. Last year no decision was made and we kept the \$300.00 to be used for a future contribution. This year we learned of the Friends of Fort Frederick *\$5 Fix for the WMRT* fund raiser. The paved trail has become quite bumpy due to tree roots under the surface. The Friends figured that if every trail user would contribute just \$5, enough money would be raised to fix the surface. After checking with last year's riders, the decision was made to donate last year's money and this year's to this fund. With \$300 from last year and \$150 from this year we donated a total of \$450 to the *\$5 Fix for WMRT* fund.

– Denny Sloppy

On the Level

By Steve Dean

This report covers level walker activity for November 2020 through January 2021. Fall and winter on the towpath are favorite seasons for many level walkers. The crowds are down and foliage is gone, making it an ideal time to observe wildlife and inspect structures. There's also the chance to get a snow day walk in – always a special time on the canal.

As we start 2021, all previous level walkers who indicated that they wanted to reactivate have completed the training and sign-up process. We've also had a few new volunteers join us as level walkers – either as new members or in response to my "help wanted ad" in the December Along the Towpath. You'll see more from the new level walkers as the year progresses. Some current level walkers signed up for an additional level or swapped their previous assignment to support a level that needed more coverage. Thanks to all of you who have pitched in and helped!

If you're not familiar with our program – level walkers are C&O Canal Association members who agree to cover one of 69 levels on the canal park. They can volunteer on their own schedule and participate as an individual, family or group. For more information, visit the Association web site at candocanal.org/level/. Information for level walkers is also available at levelwalker.blog/.

Level 3 Lock 5 to Cabin John Creek: Alyson Miller reports Dec. 11, 23 and 27; and Jan. 12, 14 and 25: Two spots in the prism on this level are filling in from run-off. The first spot is upstream of the Sycamore Island bridge; a small stream has deposited enough soil that almost totally blocks the prism and this spot is filling up with weeds and shrubs. The second spot is half-way between Locks 6 and 7 and is also almost totally blocked with soil and overgrowth. The Lock 7 house looks in generally good condition, except it could use a coat of paint to hide some old graffiti that is showing through the paint. It may also need a new roof. There is generally water in the stairwell leading to the basement. In January, several large trash objects were noted that had been left along the towpath; these were reported to the NPS.

Level 4 Cabin John Creek to Lock 14: Alyson Miller reports Nov. 9, and Dec. 9, 10 and 23: I typically find the usual food and beverage containers, personal protective equipment, lost gloves, lots of beer containers, and cigarette paraphernalia on this level. There is a pile of five to eight tires between Cabin John Creek and Lock 8 that is a real eyesore. The prism at Lock 10, including the bypass flume, is filling in with weeds and small trees. **Larry Heflin reports November through January:** The towpath was monitored over numerous walks, through all conditions. No significant issues were reported during this period.

Level 5 Lock 14 to Bridge at Cropley: Jude and Mary Fran Franklin report Nov. 6 and 7: The level was busy on both days. The towpath was in good shape with only one large puddle. The biggest problem was at the 30-foot stone wall east of the Marsden campground. On the prism side of the towpath the plastic placed to control erosion was degraded, possibly from ultraviolet light. On the river side of the towpath at this point, the orange plastic fence has breached and presents a safety risk. **John N and Fran Maclean report Dec. 27:** The walk was virtually trash free. Perhaps the extra use of the canal during the pandemic has resulted in greater responsibility about picking up trash. The canal prism was a mess, with low or virtually non-existent water, algae and downed trees. We were passed by about 15 bikers, none of whom used bells, whistles or shouts to announce their presence. A couple were going at high speed. I finally suggested to a party of four that they get some bells, and

didn't draw a reaction. I realize that bikers think they have control of the situation when they pass from behind—I've been a biker. But they do not, especially when a group of them passes—when the first one goes by, there's a tendency to think the threat is over and move around a little on the towpath, which can put you in the sights of the next biker. It's a very unsafe and unpleasant situation. **Trevor and Lauren Laurie report Jan. 2:** Overall, we were surprised by the large numbers of visitors. With the exception of a group ignoring signs that the Billy Goat Trail was closed, everyone seemed to be respectful of park rules and social distancing. There was little garbage, with the exception of bags of dog waste left along the towpath, which we collected and took out of the park. There was towpath puddling and mud due to recent rains, and some rutting caused by bikes was starting to form. A gate across the Culvert 14 outflow was noted. *Note: Trevor and Lauren are new level walkers – welcome to the team!*

Level 10 Seneca Aqueduct to Milepost 25: Monica Hanna reports Dec. 20: Four adults were present at the Seneca Aqueduct, including one fisherperson. Another group of eight were beginning a hike upriver on the canal. Walking upstream, I was happy to only collect five small pieces of trash, including two discarded masks. I saw a few more hikers and bikers as I traveled to Milepost 25. The trees were pretty devoid of leaves except for rhododendron. I saw three bluebirds and numerous sparrows. I also saw one turkey vulture perched near Milepost 22.

Level 15 Whites Ferry to Lock 26: Jon Wolz reports Nov. 22, Dec. 23 and Jan. 8: The weather during the November walk made for a nice trip on the towpath. There were numerous towpath users that day. A red-tail hawk and wild turkeys in flight were observed during the December walk. More trash was recovered on the December walk than the November and January walks. It was a cool day for the January walk and there were very few visitors. There are several dead trees with yellow tagged FY21 with a number on the tags along the level. This includes the giant silver maple tree at Lock 26, though someone removed the tag before the January walk. Unfortunately, this historic tree is slated for removal because it has died. In all reports it was noted that many towpath users were not wearing masks. The grill is still broken at the Marble Quarry hiker-biker camp. It has been broken for the six years I've walked this level.

Level 16 Lock 26 to Monocacy Aqueduct: **Jon Wolz reports Nov. 24, Dec. 28 and Oct. 26:** Towpath use was light in November, perhaps because it was the day before Thanksgiving. There was no change to the prism since October; the water from the Dickerson entrance to Lock 27 was low and no water was flowing into the prism from the power plant pipe. For most of the watered level, the bottom of the prism can be seen. In December the water level was up in the prism from Lock 27 down to the entrance at the Dickerson lot. The river was high and one of the two picnic tables at the aqueduct had flood waters surrounding it. A new "cavity" inside the growing sink hole over Culvert 69 was noted in January. The scaffolding and the metal mixing tub that had been at Culvert 65 since December 2017 were removed in January. The biker dismount signs on the Monocacy Aqueduct have not been replaced; it's been over two years that they have been down. **Mike Ciansiosi reports Jan. 9 and 16:** The walks were conducted to assess the culverts on the level. Culverts 65 and 69 were visited during the earlier walk. Culvert 65 was mostly unchanged from earlier visits, but there were large tree trunks against the berm arch. Culvert 69 had a tree against the berm arch, but water could flow under it. Water in the prism flowed into a sink hole over the culvert. Culverts 66 and 68 were unchanged from earlier assessments, which noted loose stones on both culverts.

Level 17 Monocacy Aqueduct to Nolands Ferry: **Earl Porter reports Nov. 19, Dec. 15 and Jan. 13:** The towpath was generally in good condition. Trash was at a consistent moderate to high level during the monthly visits. Arch blockages of the aqueduct varied, but it was not completely blocked. The condition of Culvert 71 is an ongoing concern, and Mr. Porter has tracked progressive degradation on both the berm and river sides during his tenure as a level walker. **George and Mary Kennett report Nov. 29:** Two couples were enjoying a picnic lunch near the aqueduct. An open-air artist was doing a painting of the Monocacy River looking upstream toward the railroad trestle. The towpath was resurfaced and in great shape along the entire level. We noted several occasions where visitors left their dog waste along the trail in various colored bags, which is disgusting and irresponsible, to say the least. Several species of woodpeckers were noted and were easy to see because most of the trees had surrendered their leaves.

Level 19 Point of Rocks to Catoctin Aqueduct: **James Spangenberg reports Jan. 21:** The towpath was clean but there was lots of trash on both the riverside and the prism. I counted a total of 15 bags of dog waste in small bags next to the towpath. There were numerous park visitors, including one person voluntarily picking up trash along the river paths upstream and downstream of Point of Rocks. She said that she was upset by the amount of trash she noticed and picked near Nolands and was inspired to see if she could clean messy spots along the river in the woods around Point of Rocks.

Levels 21 through 24 Lock 30 to Dargan Bend: **Tom Crouch reports Nov. 5 (21-23), Nov. 20 (21-24), Nov. 27 (21-23), Dec. 3 (21-22), Dec. 12 (21-22), Dec. 28 (21-24), and Jan. 14 (21-22):** Trash on the towpath was consistently heavy on the November walks, but the towpath was free of obstructions. The towpath was particularly busy on the day after Thanksgiving. Visitation and trash on the towpath were light to moderate in December, but picked back up in January. There was a pile of rusted metal at the river overlook just below the Harpers Ferry crossover bridge.

Level 23 Lock 33 to Dam 3: **Arthur Tsien reports Nov. 27:** The towpath was busy in the area near the Harpers Ferry crossover bridge. Quite a few of the visitors were walkers. The Maryland Heights parking area was still blocked off by concrete barriers; apparently this is permanent. A moderate amount of trash was picked up. Almost all leaves were down, and wildlife was mostly squirrels and ducks.

Level 26 Lock 37 to Antietam Aqueduct: **Lynn and John DiCarlo report Oct. 20:** The towpath was busy with bikers and walkers on a fall day with fair. No problems were reported. **Larry Cohen reports Nov. 8:** The towpath was in excellent condition. I cleared branches off of it. A moderate amount of trash was found. Large items were visible on Mile 68 that were dumped from the road into the canal.

Level 27 Antietam Aqueduct to Lock 38: **Jonnie and Joycie Lefebure report Nov. 19:** The towpath was clean. The resurfacing is solid, and the edges were mowed. Many dead trees were marked for cutting. We observed assorted woodpeckers, Carolina wren, a few sparrows and Canada geese on the river. The Osage orange trees around the campground still had green leaves; most other trees were bare.

Levels 28 and 29 Lock 38 to 30 Snyders Landing: **Clifford Smith reports Jan. 8:** There were a number of fairly large trees down, but were none across the towpath. The towpath was in good condition, with remarkably few sticks or branches. The picnic table at the Killiansburg hiker-biker camp needs to be replaced. The only trash found consisted of two masks.

Level 30 Snyders Landing to Lock 40: **Charles Connolly reports Jan. 4:** The condition of towpath was excellent except for a few developing potholes. The river was very high, brown in color, and fast moving because of recent heavy rains. There was also quite a bit of water in the prism. Downy and pileated woodpeckers were noted.

Level 32 Marsh Run Culvert to Dam 4: **David Plume reports Dec. 28:** The towpath was in good overall condition, although there were a few puddles and muddy spots. There was not much water in the canal. A blue plastic barrel was in the canal between Milepost 84 and the Dam 4 cave. A board was missing on the side of the winch house, and another was loose and ready to fall. There was some graffiti on the Dam 4 interpretive wayside. There was also graffiti on a few trees between Dam 4 and the Dam 4 cave. The river was moderately high.

Level 37 Falling Waters to Lock 44: **Jim Tomlin reports Nov. 27:** It was another great day to be out on the canal. The towpath was in good shape. There was more trash than usual, and much of it was personal care items, including masks. The area around the I-81 bridge construction was very trashy, but being outside the fence, I could not get to it. I saw two thru-bikers carrying lots of gear, both riding by themselves. One was setting up at the Cumberland Valley hiker-biker camp. There were no apparent culvert issues.

Level 41 Dam 5 to Four Locks: **Mike Anderson reports Nov. 10:** The towpath was in excellent shape, but covered with leaves. The graffiti previously reported on the Lock 46 house was painted over. I encountered some local walkers and bikers, as well as a through-hiker from Kent Island. The ruts in the Dam 5 parking lot were repaired.

Level 44 Fort Frederick to Ernstville: **Jim Biasco reports Dec. 6 and Jan. 9:** In December the towpath was clean and dry. I noted that CSX recently worked on the bridge at Milepost 114 and had

dropped plates and spikes onto the towpath below. I filed a safety report with the NPS on that matter because if the debris is dropped when towpath users were out it could cause an injury. In January the level was in good condition.

Level 45 Ernstville to Licking Creek Aqueduct: Dennis Kubicki reports Nov. 6: The weather was unbelievably warm, and it was a great day to be on the towpath. Conditions were good and there were no significant changes from earlier walks. Near Milepost 115 a deer darted out from the underbrush bordering the canal and crossed over to the river side of the towpath. As I drew nearer, I noticed that the deer had stopped in the bushes and was watching me as I approached. Surprisingly, it allowed me to get within 10 feet. We watched each other for about five minutes.

Level 47 Little Pool to Hancock: Mike and Judi Bucci report Dec. 2 and Dec. 7 (with Mark and Izzy Kovach): Most trash was found near the end of the watered section in Hancock. We noted a yellow sign marking a toxic spill near the crossover bridge. Graffiti was on the side of wayside located on the upstream end of the Tonoloway Aqueduct.

Level 49 Round Top Cement Mill to Lock 53: Paul Petkus reports Dec. 21: I didn't see anyone on the towpath. From tracks left in the snow it appears that one cross-country skier, one hiker and one or two bicyclists visited the towpath prior to my visit. No changes were detected in any of the structures on the level. It was a quiet afternoon overall. The flow of the Potomac River provided the background sound for most of the afternoon. Birds were heard in some areas. The crowing of a rooster and the barking of a dog in West Virginia were the only sounds that indicated the presence of other human existence. A short distance downstream from Milepost 129 there was a red ribbon on a tree with "WILDLIFE" written on it. In spite of the clue written on the red ribbon, it was not obvious what wildlife was being flagged or the reason it was. I've seen river otters and wood ducks in that area in the past so it may be related to that.

Level 50 Lock 53 to Dam 6: Steve Dean reports Nov. 12: The culverts on the level were visited and assessed. No significant issues were noted. The resurfaced towpath is in good condition.

Level 51 Dam 6 to Sideling Hill Aqueduct: Steve Dean reports Nov. 7: The culverts on the level were visited and assessed. The prism over Culvert 201 continues to erode significantly on the berm side and the back of the headwall and barrel are exposed in places.

Level 53 Fifteen Mile Aqueduct to Lock 59: John Wiggins and Kathleen Moriarty report Nov. 8 and 9: We walked on unusually warm, beautiful November days. On the first day, Little Orleans was very busy with several campers, including a Boy Scout troop. The level was fairly clean, and the Fifteen Mile Creek and Devils Alley camps were in good shape. Some trash picked up there in both camp areas, but not a lot. There was quite a lot of wildlife on both days. Birds noted included woodpeckers, ravens, crows, vultures, cedar waxwings, cardinals, bluebirds, geese, kingfisher, ruby-crowned kinglet; we were treated to a red-shouldered hawk and a flock of 10 or so turkeys. We trimmed some multi-flora rose back from the towpath.

Level 54 Lock 59 to Lock 60: Dennis Kubicki reports Nov. 9: The areas around Locks 58, 59, 60, and the Devils Alley and Stickpile Hill hiker/biker campsites were clean. From Little Orleans to about Milepost 144 the towpath was in generally good condition.

From Milepost 144 to Lock 60 a significant towpath surface issues continue to exist on the level. In many locations there is deep rutting, with potholes of various shapes and sizes. There is often standing water in the potholes, while other holes are concealed by leaves and debris. There was some additional loss of integrity of the embankment at Culvert 207. The earth in several places has eroded up to the "Caution" tape barrier that was erected along the edge of the embankment, such that the metal posts are partially exposed.

Levels 59 through 61 Paw Paw Tunnel Parking Area to Lock 68: Trent Carbaugh reports Nov. 9: Level 59 looked very good. The prism was mostly dry on Level 60 but otherwise normal. The waste weir at Mile 160.26 appears to some have some more slight movement of the eastern riverside wing wall into the structure. There was quite a bit of woody debris in the weir and no water flow at all. There was a little bit of mud on Level 61 and a few intrusive multi-flora rose stems that were summarily dealt with. Lock 68 looked normal, except for the large aquatic critter living in the waters in the lock. It has gotten bigger, and the wake it makes while swimming just below the surface is quite impressive. Perhaps we should call it the "Lock 68 Monster."

Levels 62 and 63 Lock 68 to Kellys Road Culvert: Steve Dean reports Nov. 10: The culverts on these levels were visited and assessed. No significant issues were noted. There was less trash than normal around Oldtown.

Level 64 Kellys Road Culvert to Spring Gap Recreational Area: Nasra Sakran reports Nov. 9: There was very little trash. Several bikers and one walker were out on the towpath. Graffiti was painted on part of the overflow spillway on Mile 171.

Levels 65 through 67 Spring Gap Recreation Area to Evitts Creek Aqueduct: Trent Carbaugh reports Dec. 13: All three levels looked in good shape; weeds and brush were recently cut back on Levels 66 and 67. All structures looked about the same and, though there was some mud and puddles in spots on the towpath, it wasn't bad. There was an invasion of pumpkins and a few squashes on Levels 65 and 66. I usually see some of this in the fall, pumpkins stuck in the crotches of trees and such. I don't necessarily think of this a particularly bad thing, as pumpkins are natural to the area and wildlife, especially the raccoons and opossums, eat them, but the Lock 74 house was covered with them. Rotting squash on a rotting building is not a good thing so I removed them to the riverside and broke them apart so they could be more easily eaten by the critters. The effort that it took to get perhaps 150 lbs. of pumpkin and squash to the remotely located lock house required some sort of dedication from someone.

Levels 68 and 69 Evitts Creek Aqueduct to Cumberland Terminus: Travis Medcalf reports Nov. 27 and Jan. 30: All structures were in good shape on both dates. In November, the weather was warm. The berm drainage pipe system near the aqueduct was holding up well. The prism was partially full of water and duckweed in some places on the levels. The prism in the Candoc area had a little neighborhood trash in it. In January it was cold and brisk, and a fabulous day to be on the canal. I noted some potholes within the last half to the terminus. There was profane political graffiti on the concrete wall riverside about a mile from the terminus and Milepost 184 was splashed with same shade of blue paint as the graffiti. Ducks and Canada geese were plentiful.

Calendar of Events - 2021

Non-C&OCA event	June 6, Sun. Board Meeting , 1 p.m., at Williamsport Town Hall, 2 North Conococheague St.
C&OCA business	Aug. 1, Sun. Board Meeting , 1 p.m., at Glen Echo Town Hall, 6106 Harvard Ave.
C&OCA hike and dinner or other key event	Aug. 30 - Sept. 2, Mon.-Thu. World Canals Conference , Hagerstown, Md. Follow this newsletter for updates on the conference. Visit www.wcc2021.org for information.
C&OCA hike	Oct. 3, Sun. Board Meeting , 1 p.m., at Williamsport Town Hall, 2 North Conococheague St.
Mar. 20, Sat. Annual Meeting 2 p.m., on-line meeting. The meeting will use Zoom video conference software. See sidebar on this page for details about the meeting.	Oct. 23, Sat. Annual Heritage Hike and Dinner , with program to follow. Location TBD. Complete details will be in the September <i>Along the Towpath</i> . Contact Steve Dean at programs@candocanal.org .
Apr. 11, Sun. Board Meeting , 1 p.m., on-line via Zoom or at Glen Echo Town Hall, 6106 Harvard Ave.	Dec. 4, Sat. Frostbite Hike : 10:30 a.m. Great Falls. Contact Bill Holdsworth at 301-762-9376 or website@candocanal.org .
Apr. 24, Sat. (Tentative) Douglas Hike , See details in sidebar on this page. Contact Steve Dean at programs@candocanal.org .	Dec. 5, Sun. Board Meeting , 1 p.m., at Glen Echo Town Hall, 6106 Harvard Ave.
June 5, Sat. (Tentative) President's Day Breakfast , See details in sidebar on this page. Contact Steve Dean at programs@candocanal.org .	

About the 2021 Calendar –

We're still monitoring the coronavirus situation and its impact on our activities. We may add events as conditions allow, including a limited Douglas Hike (see other sidebar). Please check with candocanal.org/calendar/ or social media for updates, email the program chair at programs@candocanal.org or call 301-983-0825 for upcoming event status.

2021 Douglas Hike –

The ongoing restrictive conditions limit our ability to host a one-way hike with bus transportation or an indoors dinner. We are considering a limited version of the Douglas Hike to restore the tradition, after a year off in 2020. The proposed event will be a two-way hike from a designated meeting point, with a box lunch provided to enjoy during or after the hike. This will allow us to mingle safely outside and restore some of the camaraderie that is a big part of the experience of being an Association member. We are also considering a similar option for the June President's Day event if conditions still prohibit indoor gatherings.

Further details about the events will be provided at www.candocanal.org, via social media and via email. Please contact programs@candocanal.org for further information.

2021 C&O Canal Association Annual Meeting –

The Association board has decided to conduct the 2021 annual meeting as an on-line meeting using the Zoom video conference capability. Participants will be able to participate with Zoom software on their computer or dial in for audio only. The agenda will be provided in advance and voting will be held for the 2021 officers and directors, as well as for four proposed bylaws amendments. The officer and director nominations and the proposed bylaws amendments were all summarized in the December *Along the Towpath*.

If you would like to participate in the annual meeting, email Bill Holdsworth at president@candocanal.org. He will email you the Zoom connection information a few days before the meeting.

Important Information –

- » Liability waivers are required for many Association activities. You will be asked to sign a waiver before participating in certain events.
- » Hikes require proper footwear.
- » Paddling, hiking and biking participants are responsible for their own equipment and food.
- » Reservations are required for many events.
- » All events are subject to cancellation. Before attending, visit www.candocanal.org, Facebook [@candocanal.org](https://www.facebook.com/candocanal.org) or contact the event coordinator.

C&O CANAL NATIONAL HISTORICAL PARK Telephone Numbers and Personnel



C&O Canal National Historical Park Headquarters

1850 Dual Highway, Suite 100, Hagerstown, MD 21740

Superintendent	301-714-2202	Tina Cappetta
Deputy Superintendent	301-714-2200	John Noel
Superintendent's Assistant	301-714-2201	Mackensie Henn
Chief Ranger	301-714-2222	Ed Wenschhof
Chief of Business Mgmt.	301-714-2204	Ben Helwig
Chief of Resource Mgmt.	301-714-2225	Jeri DeYoung
Chief of Maintenance (Acting)	301-714-2211	Jim Yelton
Chief of Interpretation, Education and Volunteers	301-714-2238	Christiana Hanson
Partnerships Coordinator	301-714-2218	Anthony Bates
Volunteer Coordinator	301-491-7309	Emily Durán Hewitt
Cultural Resources Manager/Historian	301-491-2236	Justin Ebersole
Volunteer Historian	301-714-2220	Karen Gray
Safety Office	301-745-5804	John Adams
IT Specialist	301-745-5817	John Lampard

Palisades District – Mile 0 (Tidelock) to Mile 42.19 (Monocacy River)
11710 MacArthur Blvd, Potomac, Md.

Interpretive Supervisor	301-767-3702	Pete Peterson
District Ranger Law Enforcement	301-491-6279	Joshua Cunningham
Supervisory Visitor Use Assistant	301-767-3703	Stephanie Lyons
Georgetown Partnerships Coordinator	240-291-8466	Millie Jimenez

Great Falls Tavern Visitor Center 301-767-3714
11710 MacArthur Blvd, Potomac, Md.

Western Maryland District – Mile 42.19 (Monocacy River) to Mile 184.5
(Canal Terminus, Cumberland, Md.)

District Ranger Law Enforcement	301-722-0543	Todd Stanton
Cumberland Subdistrict	301-722-0543	
Hancock Subdistrict	301-678-5463	
Ferry Hill Subdistrict	301-714-2206	

Williamsport Visitor Center 301-582-0813
205 West Potomac St., Williamsport, Md.

Supervisory Park Ranger	240-625-2931	Joshua Nolen
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Hancock Visitor Center 301-745-5877
439 East Main St., Hancock Md.

Supervisory Park Ranger		Stephanie Siemek
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Cumberland Visitor Center 301-722-8226
Western Maryland Station, Cumberland, Md.

Supervisory Park Ranger		Stephanie Siemek
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OTHER USEFUL TELEPHONE NUMBERS:

Great Falls Boat Operation	301-767-3714
Boathouse at Fletcher's Cove (concessionaire)	202-244-0461
Carderock and Marsden Reservations	301-767-3731
Canal Quarters Program	301-714-2233
Williamsport Boat Operations	301-582-0813

24-HOUR EMERGENCY:
911 or 866-677-6677

REPORT SAFETY HAZARDS OR TOWPATH ISSUES:
866-677-6677 or HAZARDS CHOH_Hazards@nps.gov

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C&O CANAL ASSOCIATION

Membership in C&OCA is open to all persons with an interest in the C&O Canal, the C&O Canal National Historical Park, and the Potomac River Basin. Annual membership dues are: \$15 individual, \$20 family, and \$25 patron, assessed on a calendar-year basis, and include subscription to the newsletter. Dues should be mailed in to the C&O Canal Association. C&OCA is a non-profit organization as defined by section 501(c)(3) of the Internal Revenue Code, and all contributions are tax deductible to the fullest extent of the law. A copy of our current financial statement is available upon request by writing to C&OCA at the address above or calling 301-983-0825. Documents and information submitted to the State of Maryland under the Maryland Charitable Solicitations Act are available from the Office of the Secretary of State for the cost of copying and postage.

C&OCA maintains a home page at www.candocanal.org. The webmaster is website@candocanal.org. C&OCA also maintains a telephone number for recorded information and inquiries: 301-983-0825.

Association Officers

President: Bill Holdsworth, president@candocanal.org

First Vice President: Vacant

Second Vice President: Anthony Laing

Secretary: Kerry Gruber, secretary@candocanal.org

Treasurer: Richard Radhe, treasurer@candocanal.org

Information Officer: Doug Zveare, inquiries@candocanal.org

Board of Directors: (terms expire in 2023): Jill Craig, Karen Gray, Jim Hutzler, Jonnie Lefebure, vacant. (terms expire in 2022): Tom Aitken, Tom Crouch, Tim Snyder, William R. Stewart, Pat White. (terms expire in 2021): Trent Carbaugh, Philip deVos, Dick Ebersole, Christine Holdsworth, Paul Petkus.

Committees (contact at C&OCA address/tel. no. above): Archives, Christine Holdsworth; Auditing, Jon Wolz; By-laws, Dave Johnson; Editorial Review, Steve Dean; Environmental, Rod Mackler; Festivals, Rita Bauman; Finance, Richard Radhe; Legal Advisory, Vacant; Level Walkers, Steve Dean; Membership, William R. Stewart; Nature, Paul Petkus; Nominating, Barbara Sheridan; Programs, Steve Dean; Sales, Jill Craig; Special Projects, Vacant; Volunteers-in-Parks (VIP), Jim Heins; World Canals Conference 2021, Bill Holdsworth.

CHESAPEAKE & OHIO CANAL ASSOCIATION INC.

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Along The Towpath

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Tuscarora Creek flows through Culvert 71 at Mile 44. With a 16-foot span and angled wing walls, the culvert presents an impressive view on the river side. The berm arch collapsed many years ago and, along with the river arch, is a concern monitored by the NPS. The berm presents an opportunity to view culvert barrel construction in cut-away detail. Care is needed around the berm due to erosion. Photos by Steve Dean



Check us out on social media!

C&O Canal Association



Founded in 1954



@candocanal.org



@CandOCanalAssoc



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