

# 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 LII

June 2020

Number 2

## President's Report

By Bill Holdsworth

Oh my, how the world has changed in the last three months.

As of this writing, the C&O Canal National Historical Park has been open on a restricted basis since mid-March. Some of the major parking lots are closed. Restrooms are closed. Volunteer activity is on hold, and we can't conduct Volunteers-in-Parks projects or file level walker reports. Most National Park Service employees are working from home.

And yet the park is more popular than ever. On a week-day visit to Noland's Ferry in late March, I saw enough people to remind me of a weekend day at Great Falls. On a recent Saturday afternoon, the Old Anglers Inn restaurant was selling parking spaces to canal visitors for \$10.

The Association has had to scramble. We had to cancel our March 14 annual meeting. We rescheduled the election, first to align with the annual Douglas Hike and Dinner. When the Douglas Hike was canceled, we converted the election/membership meeting to a conference call.

We had over 40 people participate in the conference call. Thanks to their cooperative spirit, we were able to get through the short agenda. We have a fresh set of officers, in compliance with the bylaws. See the contact list on page 19 for a summary of the new board. We currently have a vacancy at First Vice President and will select one at a later date.

None of us can recall when so many events have fallen by the wayside. Starting with the cancellation of the annual meeting, we also canceled:

- March 29<sup>th</sup> – Continuing Hike
- April 5<sup>th</sup> – Board Meeting
- April 12<sup>th</sup> – Wildflower Nature Walk
- April 18<sup>th</sup> – Potomac Watershed Cleanup
- April 25<sup>th</sup> – Douglas Hike and Dinner
- May 2<sup>nd</sup> – Bird Nature Walk
- May 16<sup>th</sup> – Paddle Trip
- May 17<sup>th</sup> – Continuing Hike
- June 6<sup>th</sup> – Presidents' Breakfast
- June 7<sup>th</sup> – Board Meeting

We will continue to exercise caution. You can always check the website calendar for the status of events.

These inconveniences are trivial compared to the grim events that provoked them. Tens of thousands are dead. Tens of millions are unemployed.

Everybody, please stay safe! I eagerly look forward to the day when we can gather on the towpath again.

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### *In this issue –*

Join adventurer Trent Carbaugh on a trek to find the Fairfax stone and discover the story of this significant landmark. See page 4.

*Right – The Fairfax Stone – the spring is just under the point of the stone.*

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# 2021 World Canals Conference Update

By Bill Holdsworth

We are continuing our preparations for next September's 2021 World Canals Conference, albeit at a slower pace, as we adapt to the conditions created by the COVID-19 crisis.

Prospects for the 2020 conference are bleak. The city of Leipzig will almost certainly be forced to cancel their conference. As I write, we are awaiting the official word.

The cancellation will be tragic. Leipzig had outlined an attractive program of events. The eastern German city has converted many of its open pit lignite mines into waterways, creating a new lake district.

We looked forward to taking the stage on the last day of the conference with representatives of Visit Hagerstown and the National Park Service. We would have invited the Leipzig attendees to join us next year on the C&O Canal. Visit Hagerstown had started work on a promotional video.

In March we were asked whether we would consider shifting our conference to 2022 and letting Leipzig stage theirs in 2021. After extensive deliberations, unfortunately we had to say, "No." We want to maintain our tie to the

park's 50<sup>th</sup> anniversary. Our partner organizations didn't want to shift. We couldn't ask our hard-working volunteers to extend their efforts for another year.

Work continues. We applied for a Maryland Heritage Areas Authority program grant to support the conference. Tiffany Ahalt of Visit Hagerstown has assumed the role of event planner. She will provide invaluable help. When conditions improve, we're ready to reach out to vendors to nail down logistical arrangements for evening events and the study tours.

The lost promotional opportunity in Leipzig means that we will have to work harder on our marketing. We can't predict how much COVID-19 will impact tourism in 2021. Some anticipated trends could work in our favor. Analysts expect domestic travel to bounce back before foreign travel. They expect tourists to seek out drivable destinations rather than those that require air travel. Hagerstown is at the junction of two interstate highways. These same analysts predict that travelers will prefer outdoor attractions, such as the C&O Canal, to indoor attractions, such as casinos or museums.



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## About this Issue ...

By Steve Dean

As Bill Holdsworth noted in his President's Report on page 1, we are in the midst of historic times. Everyone is affected, and we are all wondering when it's going to end and what the lasting impacts will be.

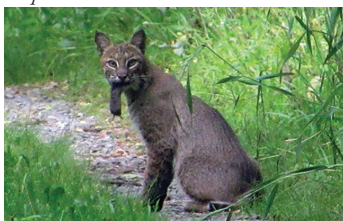
The most immediate impacts for Association members are cancellation or postponement of our traditional events and business meetings – a list is included in the President's Report. Additionally, volunteer programs are on hold and park projects are moving slowly or not at all.

All this translates to less to report on. This is the 30<sup>th</sup> issue I've produced – and also the shortest. You will note that this issue features our usual mix of quality content – just a bit less of it. Hopefully, if it is safe to do so, things will pick back up soon. If we are still



*Bill Holdsworth recently visited Great Falls and found that the park was quite busy in the Palisades area; with parking lots closed at many locations roadside parking was at a premium.*

*In the quieter western parts of the park wildlife is becoming more active – Paul Petkus came across this bobcat hunting on the towpath above Hancock.*



moving at a slow pace for a while longer, rest assured, I have great content in mind for the September issue.

Your *Along the Towpath* subscription is a very popular benefit of Association membership. Typically, we maintain your subscription through the March issue if your membership lapses at the end of the previous year. We realize that the COVID-19 pandemic has added stress to everyone's lives, and for this reason some of you may have forgotten to renew your Association membership. We have extended the "grace period" for *Along the Towpath* through this issue, but if you do not renew soon you won't receive the next issue. Please don't let that happen – you can find out how to renew your membership on page 7.

# Donors to Association Funds

## *February 1 to April 30, 2020*

### **Nancy C. Long Aqueduct Fund – A**

– Funds to support restoration and preservation of the eleven aqueducts on the C&O Canal. The fund was established with a generous donation made by long-time C&O Canal advocate Nancy Long.

### **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**

– A revolving fund to support 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**

– Funds to help support the 2021 World Canals Conference at the C&O Canal. The first \$10,000 raised will be matched dollar-for-dollar by an anonymous donor.

Mario & Anne Abbate – **A, R, W**

Thomas L. Aitken II – **S**

Mary Bell – **D**

Nancy L. Benco – **A**

G.N. Bloom – **W**

Dorothy Boerner – **A**

Marguerite A. Bradley – **R**

Patricia Brown – **D**

Richard T. Busch – **W**

Wayne & Christine Cerniglia – **A, R, S, W**

Jerome A. Conlon – **D, W**

Alford & Rita Cooley – **R**

Tom Crouch – **R**

John E. Ferguson – **D**

Karen M. Gray – **D**

Douglas M. Hackett – **R**

Don & Liz Harrison – **W**

Lisa Hendrick – **A, D, R, S, W**

Bob & Stephanie Hibbert – **A, D, R, S, W**

Patricia Hopson – **A**

Joseph T. Howard – **R**

Chris & Kathryn Lillie – **W**

Deborah & Anthony Lodato – **R**

Rod & Susan Mackler – **R**

Linda & Michael Marmer – **A**

Paul & Rita Marth Jr. – **A**

Phillip & Luella Mast – **W**

Forrest & Lorraine Minor – **S, W**

Mary Ann D. Moen – **A**

Constance A. Morella – **A**

Network for Good – **R**

Louis & Janice Odom – **A, D, R, W**

Paul A. Petkus Jr. – **R**

C.S. & W.J. Petzold – **W**

Bernard Plavko – **W**

Richard Poremski – **R**

Carol Purcell – **S**

Richard & Karin Radhe – **R**

Ed & Linda Rhodes – **S**

J. Cameron & Jane Scoleri – **A**

Raphael & Katherine Semmes – **A, D, R, S, W**

Alan R. Shane – **W**

Robin Sue & Malcolm Skiver – **S**

Steven & Brenda Sparenborg – **R**

William R. Stewart – **W**

Sally C. Strain – **A, W**

Walter S. Stull III – **W**

John Urman – **W**

Sandra Vanfossen – **S**

Peter Van Vliet – **R, S**

Hilary Walsh – **W**

Jean Wilson – **A, D, W**

Douglas Zveare – **W**

### ***In Memory of Randy Astarb***

Jane & Norman Liebow – **R**





# The Fairfax Stone

## *History and Controversy, as well as an Interesting Piece of History*

By Trent Carbaugh

Imagine, if you will, being far out on the western edge of the colonies of Maryland and Virginia in the year 1746. You are a surveyor with the task of defining the southern and western borders of the Maryland colony in the employ of Lord Fairfax, the proprietor of the colony of Virginia. Your task is to find the head waters of the Potomac River in order to define the borders of two land grants. This was not an easy thing to do.

The surveyors moved up the Potomac, probably starting at the Harpers Ferry area. They examined the creeks and streams flowing on the north side of the river until they determined that the spring that flows from the base of the current Fairfax Stone, now at the current extreme southwestern border of West Virginia and Maryland, was the true beginning of the North Branch of the Potomac. This defined the western and southern border of the Maryland colony with Virginia to the south and west.

The forest in those days was all old growth with trees of prodigious girth and very little undergrowth. It was a dark and forbidding environment for those not used to it. Bears and mountain lions could be a problem but more importantly, so could people. Native Americans actually controlled the area and were not very friendly to surveyors; they understood the implications of the compass and surveying chain. The French also were not pleased with the English defining their western colonial borders and could, at times, instigate their native allies, often with French leadership, into acts of guerrilla warfare. Not only did a surveyor need the tools of his trade, he also needed to carry a good flintlock long gun, pistol, and a sword as well as being proficient in their use.

In 1756 this frontier tension would erupt into the French and Indian War (1756-1763). This long and vicious frontier war spread to Europe as the Seven Years War. Winston Churchill called this war the first true world war as it involved every major power and was fought on every known continent.

The experience of the war on the American frontier forever changed warfare. Modern infantry and special operations soldiers still learn the tactics developed during this time of colonial strife. In the end the issue was firmly settled in favor of the British, defining the effective western edge of the English colonies as the Mississippi river.

### Drawing Lines

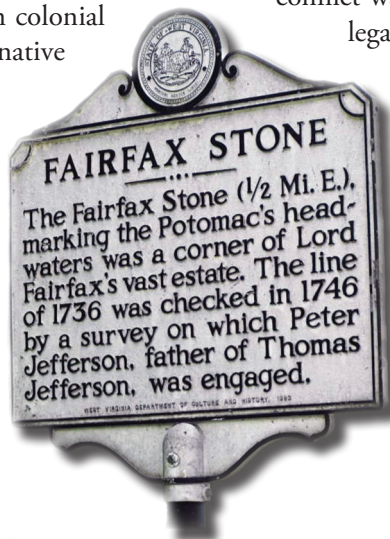
The original land grant of territory in Virginia from King Charles II of England to the Culpeper family in 1649 was a political payoff for assistance to the Crown during the English Civil War (1642-1651). The name Fairfax is associated with the grant because a Culpeper daughter married a Fairfax in 1690. A son of this marriage, Thomas, sixth Lord Fairfax, through inheritance and marriage, ended up with 100% control of the grant.

The original Culpeper (later Fairfax) Grant extended from the Atlantic coast to a line drawn north/south between the headwaters of the Potomac and Rappahannock Rivers. As was usually the case in colonial land grants, which were often bestowed with absolutely no knowledge of the land in

question or who was actually inhabiting it, a dispute arose and a law suit was filed between Lord Fairfax and the Colony of Virginia (the original Jamestown Grant to the south). The conflict was on the subject of the extent, as well as the legality, of the King's original gift to the Culpeper family, as well as determining the actual size of the original grant. Deciding this was important, not only to legalize land sales and grants (and the all important taxes and fees to be gathered from them), but to quickly establish a buffer zone between the settled eastern areas of Virginia and the very real threat of attack by Native Americans and French fur trade interests. The case of *Fairfax vs. Virginia* went before the British Privy Council and was settled in Lord Fairfax's favor in 1746.



*18<sup>th</sup> century surveying needs. Long flintlock smoothbore, a smallsword, map, map case, drawing tools and a sighting compass. Distances were measured with calibrated chains checked by triangulation. Photos by Trent Carbaugh*





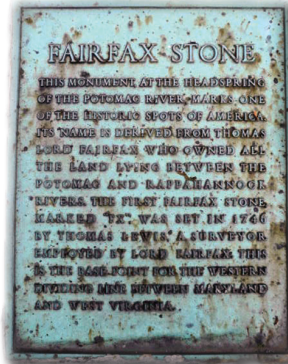
Lord Fairfax came in person to Virginia in 1735 to defend his claim to the land and negotiate a survey of his boundaries with the Virginia General Assembly. He returned to England in 1737 to negotiate with the Privy Council, and then returned permanently to Virginia in 1747.

In 1733 Lord Loudoun asked the Privy Council in Britain to order a survey to determine where the Potomac River began. They obliged, and the survey was put into motion. The original grant included all of the land between the Potomac and Rappahannock rivers from the mouths of the rivers to their head springs in the western mountains. Neither rivers head spring location was known, and no one really had a clue where to look for them.

In the interest of fairness, commissioners were appointed by both Lord Fairfax and the Colony of Virginia to select surveyors and to oversee the project. Lord Fairfax's commissioners hired Benjamin Winslow and John Savage; the commissioners of Governor Gooch of Virginia hired William Mayo and Robert Brooke. The survey party for the Potomac started with 17 people, including chain men and the guide Thomas Ashby. At the mouth of the Shenandoah, current Harpers Ferry, Ashby was let go and Israel Friend was hired as a guide. This may not be a reflection on Ashby's abilities so much as the mode of travel, for the party changed from horseback to canoe at this point, and Mr. Friend, who was involved in the fur trade, was probably more experienced in river travel and more familiar with the area. Though it is never placid and calm, the upper Potomac River then was much more dangerous than it is now. In the 18<sup>th</sup> century the water levels were higher and there were no dams to impede water flow. It was a serious and dangerous undertaking to travel upstream by canoe through the numerous rapids and "falls."

As the surveying party traveled further upstream and the Potomac got narrower they had to choose between what was a tributary and what was the main stem of the river. The stream with the most water flow was considered to be the main stem. Close to the area of the future site of Oldtown, Md. at the confluence of the north and south

branches of the Potomac, which are similar in volume and size, they determined the north branch as having the most water flow and continued traveling west.



The surveyors mapped the path up the north branch until they reached what all four of them agreed to be the head spring of the Potomac River on December 14, 1736. The site was marked by blazed trees. The first Fairfax Stone was not put into place until 1746 after a second survey was completed.

The Rappahannock survey was completed in much the same way, thereby defining the limits of the Fairfax Grant. Surveyor William Mayo produced "*A Map of the Northern Neck in Virginia, the Territory of Right Hon. Thomas, Lord Fairfax, situate between the Rivers Patomack and Rappahanock, according to the late survey.*"

The 1746 re-survey was primarily done to define the "backline" or western border of the Fairfax Grant between the Potomac and Rappahannock headwaters.

### The Problem Being...

The Fairfax Stone effectively defined the southwestern point of the western border of the colony of Maryland. This point in turn was used to set in 1788 what became known as the Deakins Line, named for surveyor Francis Deakins, which was the North to South border of the colony of Maryland with Virginia, and Pennsylvania. (*The Mason-Dixon Line, the northern border of Maryland, was not established until the famous survey of 1763-67*) The problem was that Maryland did not agree that the Deakins Line was correct. More to the point, Maryland argued that the line was not a straight one and had never been properly surveyed. Maryland also contended that the spring at the base of the Fairfax Stone was not the actual beginning of the Potomac River. The issue was not resolved prior to the U.S. Civil War, after which it became a conflict between the new state of West Virginia and Maryland.

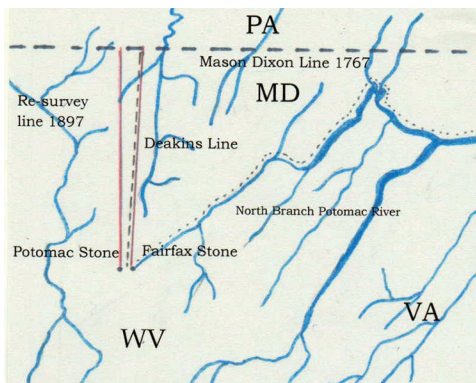
No efforts to come to an agreeable solution of the issue seemed to work out between the two states, and in the 1890's a lawsuit was filed. Twenty years



Top – The bronze plaque on the stone describing the history  
Center – The park with the stone and Fairfax Run to the left  
Bottom – The "witness stone" for the area. A witness stone was often placed close to a survey marker, typically on high ground, to make it easier to find a specific point after an area had been surveyed.







Above – Map showing the discrepancy between the Deakins Line and the later corrected line from the Potomac Stone.

Right – “A survey of the northern neck of Virginia, being the lands belonging to the Rt. Honourable Thomas Lord Fairfax Baron Cameron, bounded by & within the Bay of Chesapoyocke and between the rivers Rappahannock and Potowmack: With the courses of the rivers Rappahannock and Potowmack, in Virginia, as surveyed according to order in the years 1736 & 1737.” The legal survey map of the Fairfax Grant. – Library of Congress, Geography and Map Division



later it ended up in the U.S. Supreme Court. In the intervening time both states were surveying and checking elevations to determine once and for all where the elusive headwaters were located. Maryland also wanted the boundary to run astronomic north from the “Potomac Spring” (this would have been a straight line), not the magnetic line (a curved line subject to magnetic variance, in this case about  $3\frac{3}{4}$  degrees) used by Deakins. In 1859 Lt. Nathaniel Michler of the U.S. Army Corps of Topographical Engineers was employed by the states to run a line due north from the Fairfax Stone. He reported the “Deakins Line” was “generally adopted by the inhabitants as the boundary line,” but actually struck the Mason-Dixon Line about  $\frac{3}{4}$  of a mile further eastward than intended. Michler warned that using the true meridian would “cause great litigation as the patents ... call for the boundary as their limits.”

In 1897, the surveyor for Maryland, William McCollough Brown, determined that a spring located slightly further west was the true head spring of the Potomac. This spot was marked by another stone, the “Potomac Stone,” as a surveying reference point. This information meant that a large triangular strip of land along the western border of Maryland was not technically in West Virginia.

In 1910 the U.S. Supreme Court decided in favor of West Virginia, even though they agreed that the Brown survey was most likely correct. The reasoning was that the current border had been accepted and used as the boundary for over a century by the people, and to change it because of a long ago surveying error would not have been proper. The Potomac Stone was then promptly lost to posterity.

## Enter Some Modern Surveyors

During the summer of 2012, members of the West Virginia Historical Surveyor’s Society (WVSHS), an organization of working and retired surveyors with an interest in the history of their profession, managed to locate the original Potomac Stone inscribed with “POTOMAC 1897” chiseled into its surface. This was facilitated by using William McCollough Brown’s original survey notes found in the Maryland archives, as well as by using the skills and knowledge of the WVSHS members. Thanks to the dedication of some interested and highly skilled people a piece of history once lost has been located.

## The Fairfax Stone Historical Monument State Park

By 1884, vandals had destroyed the original Fairfax Stone. The Davis Coke and Coal Company installed a replacement that same year. By 1911, that replacement was gone, and only the base of a 4-foot high survey marker built by Lt. Michler in 1859 still survived. In 1910, a replacement concrete marker was erected, and in 1957 the West Virginia Conservation Commission placed a 6-ton sandstone marker at the site. The current Fairfax Stone, the fifth, was dedicated as a state historic monument and became part of the West Virginia State Park system in 1957 when the Western Maryland Railroad gave four acres of land surrounding the stone to the state. In 1970, the stone was listed on the National Register of Historic Places.



# Across the Berm – Molly Schuchat

By Steve Dean

Long-time C&O Canal Association member Molly Schuchat died on May 19<sup>th</sup>. Molly and her husband Michael joined the Association in 1991 at the urging of Gilbert Gude. The Schuchats were active members and frequent donors to Association funds. Michael was a long-time level walker and board member, and preceded her in death in 2012.

Molly served as the archives committee chair from 2000 to 2012. During her tenure she worked to ensure that the Association's official archives were maintained and supplemented in the Gelman Library Special Collections section at the George Washington University. She encouraged other members to both use the archive and to support its maintenance, noting that the Gellman Library "is a pleasant place to work, and the various collections needing to be identified and cataloged are fascinating to say the least." As an archivist, Molly conducted interviews with people who shared their experiences of life on the canal.

Molly and Michael were regular attendees and supporters of Association events. Pat White recalls working with Molly on 1999 Douglas Hike in support of food runs. Pat shared: "Molly was a wonderful person."

# C&OCA Welcomes New Members

By Will Stewart

*Michael Anderson, Hagerstown, Md.*

*Mark & Meredith Andros, Keedysville, Md.*

*Michael Craul, Mechanicsburg, Pa.*

*Joseph Fioramonti, Herndon, Va.*

*Trevor Laurie, Alexandria, Va.*

*Meredith Matczak, Shepherdstown, W.Va.*

*Lisa Milner, Annandale, Va.*

*Glenn Richards, Boyds, Md.*

*Chengbiao Tu & Cindy Gong, Rockville, Md.*

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## A Note about Membership Renewals:

Check the "Membership Expires" section on your address label of this issue to see when your membership expires. If the date on yours is Dec. 2019, please send us your renewal today. You can download a paper renewal form on our web site at [www.candocanal.org/2020renewalform.pdf](http://www.candocanal.org/2020renewalform.pdf), or renew online at [www.candocanal.org/renew2020.html](http://www.candocanal.org/renew2020.html). If you ever have any membership questions, please contact Will Stewart, Membership Chair, at [membership@candocanal.org](mailto:membership@candocanal.org).

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**Fairfax Stone** (Continued from previous page)

## Traveling to See the Stone

The Fairfax Stone Historical Monument State Park can be accessed from County Route 9, three and a half miles north of the delightful town of Thomas, W.Va. on Route 219. The park is a pleasant small four acre parcel of meadow and forest accessed mostly on gravel roads through logging areas that are in the process of being restored. It is about a two and a half hour drive from the vicinity of Williamsport, Md. The closest camping is at Blackwater Falls State Park, W.Va. just a few miles away.



*Blackwater Falls, Blackwater Falls State Park, W.Va.*



*Fairfax Run, with no water.*



*One of the abundant wildflowers found on the park*

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## References:

"*Finding the Potomac Stone*", by Don Teter, PS and John L. Green, PS, *The American Surveyor*, Vol. 10 No. 10, Copyright 2013 Cheves Media [www.Amerisurv.com](http://www.Amerisurv.com)

*Geodaesia, or the Art of Surveying and Measuring Land Made Easy*, by John Love, 1984 reprint of the original 1768 edition, David J. Gingery Publishing, Springfield Mo.



# 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***

## When Construction Faltered 1842–1850<sup>1</sup>

In the December, 2019 issue of *Along the Towpath* we left the C&O Canal Company in August 1843, after construction had declined to a dribble and then was brought to a standstill. This was because of the illegal effort of the new company president, Williams Gibbs McNeill, to unilaterally execute a contract to continue construction. Maryland, which by that time held controlling interest in the company, removed McNeill and chose James M. Coale, a canal company director from Frederick County, as his successor.

Coale (1805–1882), a lawyer, proved to be one of the most capable presidents in the canal's history. In 1849, while still C&O Canal Company president, he became a brigadier general of the Ninth Brigade of Maryland Militia and would later serve several terms in the state legislature. The Baltimore *Sun's* obituary for Coale largely credits him with the defeat of the effort by Secretary of War Edwin M. Stanton to attach the Maryland eastern shore counties to the state of Delaware (one of several such efforts in Maryland's history).

In 1843 the canal was operating for 134 miles to where the Dam 6 feeder entered the main stem at the foot of Lock 54. Since 1831, when the first section of the canal opened from Inlet 2 beside Lock 23, the long, narrow, shallow draft boats designed to navigate the upper Potomac and its tributaries could access the quiet waters of the canal. As additional sections opened from the inlets feeding water into the canal from pools behind each of the dams, this access happened farther and farther inland. Also, the three river locks had come into service: the Shenandoah River Lock opposite Harpers Ferry in 1833, that across from Shepherdstown in 1835, and the staircase locks just below Edwards Ferry in 1838. William Bauman's transcription of shipping news from period newspapers<sup>2</sup> documents the lively

activity of boats carrying produce from upriver to tidewater and from tidewater back to the towns and villages to the north and west.

The promise of what was to come if the canal could access the coal fields near Cumberland was well understood, as indicated in this Washington *Daily Madisonian* article from 1842. That article also, almost incidentally, reflects the importance of the river being in the right condition for shipping (i.e. neither too high as in a flood state or too low when rocks become a problem):

From the Georgetown (D.C.) *Advocate* – A foretaste of what is to be enjoyed by us on the completion of the Chesapeake and Ohio Canal to the coal region at Cumberland, has been administrated this week by the arrival hither of a fleet of boats, laden with the black diamonds of the Alleghany. Fifteen

boats freighted over 17,000 bushels of coal, are already arrived, and there are many more to follow.... We ought perhaps to state that we are indebted for this arrival to the high water mark in the Potomac between Cumberland and the head of the Canal [i.e. Inlet 6], whereby the rapids of the river were comparatively obliterated.

Coale, however, found himself in a situation where the idea of finishing the canal to Cumberland was rapidly losing support. The B&O Railroad had reached Cumberland in 1842, although stalled there until the end of the decade when it began construction westward again. An arrange-

ment made by Coale in September 1843 with the railroad to carry coal to the then-Virginia side of Dam 6 for transshipment to boats that could navigate the canal, proved to be more harmful than helpful for two reasons: (1) The amount of coal handled in this way was too little to even be recorded in official documents of the time ("inconsequential" in Sanderlin's words<sup>3</sup>); and (2) It invited the suggestion that completion of the canal to Cumberland was unnecessary. Also, by 1842 the advantages of the railroad as a mode of transportation were becoming obvious to virtually everyone, as were the difficulties of building and operating the canal.



Portrait of James M. Coale – The J. Paul Getty Museum

However, the 50 miles to Cumberland above Dam 6 already had substantial construction done along them. The Paw Paw tunnel had been holed through on June 5, 1840. The Sideling Hill and Evitts Creek Aqueducts had been completed to the point of their final estimate being paid in May–June 1840 on the former and October 1841 on the latter. In addition, Locks 55, 57, 72, 73, and 74–75 had been completed. No lockhouses had been built, although a building had been constructed or a nearby one acquired to serve the locktender at the inlet lock at Dam 6. It likely continued to serve lockkeepers at the adjacent Locks 54 and 55 when they were watered more than a decade later in the summer of 1850. On all the other structures and the canal prism, work done when westward construction ceased (on different dates ranging from 1838–1842), varied from none or very little to a considerable amount.

Coale's task in the summer of 1843 appeared to be impossible. The company was deeply in debt and as much as it was being used—primarily by the shallow river boats (although some boats were being built just for the canal)—it was clear that it needed to tap the product of the coal fields west of Cumberland if it had any chance of becoming a commercial success. To counter the argument that transshipment from the B&O to the Canal at Dam 6 was adequate, Coale did a thorough analysis of transportation by railroad and canal, drawing on information from Britain. His special report in November 1843 showed that the Dam 6 connection would not return to the state its investments in the canal. The canal must be finished to Cumberland if Maryland were to see a return on its investments.

Fortunately, the 1844 elections saw canal-friendly governor Thomas Pratt scheduled to take office on Jan. 6, 1845 along with many canal friendly members in the new assembly. Consequently, canal proponents re-introduced a bill that had been defeated in March 1844. Somewhat modified, it would authorize the canal company to issue \$1,700,000 of preferred construction bonds on the mortgage of its revenues. Because the state itself was deeply in debt, a stamp act to provide a means of paying the interest on the state's own debt was linked to the canal bill. After a bitter fight, the canal bill and stamp act passed by one vote in the House of Delegates, 38 to 37.

Needless to say, those concerned about the debts behind this legislation, and especially the Baltimore contingent, were predictably angry at its passage—strengthening the regional

and political animosities that had characterized the canal's struggles from the beginning. Additionally, the canal bill specified that the bonds could not be sold until the company received guarantees from the Allegheny coal companies for 195,000 tons of trade annually for the first five years beginning six months after the completion of the canal to Cumberland. On the plus side, the state waived its previous lien on the canal in favor of the bonds.

Coale, with the help of influential canal supporters, immediately set to work gathering the required shipping commitments from the coal companies. In Boston and New York, Coale himself visited the officials of coal companies, only to discover evidence of interference by the B&O interests. Also, an article appeared in the New York *Herald* focused on the canal's winter closures and the more frequent handling and transshipment of coal shipped by canal that resulted in damage to it. Ultimately, however, Coale was able to deliver some twenty-eight commitment documents for a total of 225,000 tons to Governor Pratt who approved them in August 1845, finally allowing the printing of the bonds.



*Canal obelisk in Georgetown. It was erected in 1850 after arrival of the canal in Cumberland – Photo by Karen Gray*

On Sept. 23, 1845, the C&O Canal board accepted the offer of Messrs. Gwynn & Company (Walter Gwynn, William Thompson, James Hunter, and Walter Cunningham) to complete the canal by November 1, 1848. Further they promised to raise \$100,000 for the company to pay its essential expenses and they agreed to cash the bonds of the canal company at par, paying the interest on them until January 1, 1848. The price to be paid for the work was \$1,625,000 in canal bonds.

All sections were let by October 1845, and on November 1 a small force was on the job. However, the contract depended on the contractor's success in raising the funds for major construction by the sale of the bonds or finding investments based on them. Unfortunately, this proved impossible, at least partly due to the economic effects of the war with Mexico (May 13, 1846 to Feb. 2, 1848). By May 1, 1846 only \$55,384 worth of work had been done and the workforce had decreased to a "nominal" level. By the end of June 1846 only 10 men remained at work. In July negotiations to sell the bonds collapsed, and all work ceased.

For all intents and purposes no significant progress on the unfinished structures or sections of prism had been accomplished between November 1845 and the summer of



1846, and no work would be done the rest of 1846. Additionally, most of 1847 was added to the years with minimal progress, like those from 1838 to 1842. This meant what works there were along the last 50 miles had essentially laid derelict since their contracts had been abandoned in the late 1830s or beginning of the 1840s. One might wonder why the canal company did not simply fold at that point, but of course it still had the face value of most of the \$1,700,000 in bonds.

In February 1847, the directors offered to sell the company's state-backed bonds to the state of Maryland! Not surprisingly, the state was uninterested. But by early March 1847, Maryland had shored up its credit by providing for the payment of the arrears of its debt and the prompt payment in the future of the semi-annual interest—and the canal company's credit benefited indirectly. Virginia finally stepped forward with a guarantee of \$100,000 in canal bonds, and loans were authorized in the combined amount of \$100,000 from Washington, Georgetown, and Alexandria. The loans were essentially a guarantee to take \$100,000 of bonds.

By the fall, the canal company had essentially added arrangements with interests in Boston, Britain's Barings Bank, and the contractors themselves to cover the entire \$1,100,00 needed to finish the work. Although Barings withdrew due to a tightening of the international money market, local capitalists were expected to fill that breach and the mortgage of the canal's revenues was formally executed. It named 29 capitalists in New York, Boston, and Washington who agreed to undertake the sale of the bonds.

Work was resumed November 18, 1847 under a slightly modified contract with a reorganized contractor: Hunter, Harris, & Company. It was formed after Gwynn and Cunningham retired and a new partner, Thomas Harris, joined the firm. Old problems, especially of sickness and lack of laborers, hindered the work, but nevertheless in May 1849 some 1,447 men and 594 horses, mules, and oxen were employed on the unfinished works along the 50 miles. This was, however, as Coale reported to the stockholders in June, "not as large as was desirable." By September the workforce had dropped to half that in May.

Then, in March 1850 Hunter, Harris & Co. found itself unable to pay the workers on the line. Labor violence, such as that seen with the failure of contractors in the 1830s, threatened again until payment of the men's wages was assigned to trustees for the company. But when work resumed under the trustees, it was with a still smaller workforce.

Despite the inadequate rate of progress, Coale reported to the stockholders at the annual meeting in June that Chief

Engineer Charles B. Fisk believed the current force could finish what remained to be done and allow for the admission of water from Cumberland to Dam 6 by the middle of July 1850. Then the date for the completion was extended to August 1 only to have the Trustees exhaust all their resources and all work to end before July was out.

Uncompleted locks in July 1850 included 59, 60, and 61–66. As to lockhouses, Unrau in the C&O Canal Historic

Resource Study states regarding Locks 56–75 and the Guard Lock above Dam 8:

When work resumed on the "fifty-mile" section of the canal on November 18, 1847, Hunter, Harris and Co. subcontracted for the construction of these lockhouses. Canal company records do not indicate the names of the subcontractors, the dates of construction, or the building costs. The records indicate that not all of these lockhouses were completed by October 10, 1850, when the canal was formally opened to navigation. It may be assumed that they were completed during the following year

It also appears that finishing touches were required on the Town Creek Aqueduct and the lining of the tunnel with brick was still not completed. It is not known if there were culverts and waste weirs still incomplete, but it was quite possible that there were.

Since the 1845 contract with Messrs. Gwynn & Company, the C&O Canal Company had been setting dates in the proximate future for the completion of the canal, and again and again, always for complex reasons rooted primarily in the economics, those deadlines had not been met. Essentially, the following would summarize the whole sad struggle:



*Downstream portal of the Paw Paw Tunnel. Contrary to popular belief, the tunnel was not a reason for the delay in finishing the canal. — Unknown photographer*



- In 1837 and 1838 contracts began to be abandoned and in some cases new ones would not be issued until 1845.
- From the spring of 1842 to the late fall of 1845 no construction on the final 50 miles would take place.
- From late 1845 to July 1846 work was done with a workforce too small to make major progress.
- From November 1847 to July of 1850 many structures were completed, but not all, leaving essential work still to be done.

Once again, in July 1850, as it declared the contract with Hunter, Harris & Company abandoned, the company faced yet another year without the canal being open from Cumberland. This must have been especially galling to everyone, as the prospect in late 1849 of a spring opening, and then in the spring of 1850 of a summer opening, had seemed so likely.

It is at this point that an astonishing thing happened: While normally the writing, advertising, and granting of a new contract would take a significant amount of time, a new contract was signed with Michael Byrne before the end of the July.

Michael had been born in Ireland in 1792 and first appeared in the United States working on Pennsylvania's Union Canal in 1825 as a contractor with William Byrne (likely his brother) and a Paul Provost. In August 1830, the company of Byrne & LeBaron (apparently including William as his name is included on the Monocacy Aqueduct builders stone), became the third contractor on the Monocacy and completed it in May 1833. Michael went on to become—usually with a partner—a major contractor on the C&O Canal, building the Conococheague Aqueduct, multiple lift locks, Edwards Ferry staircase river locks, Guard Lock 5, and the original stone-filled crib Dam 5, among other structures. Without question he was the company's most experienced and reliable contractor.

Michael Byrne's company became so well known, that the major 19<sup>th</sup> C. Pennsylvania engineer, James Worrall, in his *Memoirs* (published 1887), when writing about his first job as a young, apprentice engineer on the C&O in 1833, stated:

A grand work was going on in full blast. The heaviest contractors in the United States had it—the great old “Byrne & Co.”—pronounced Burns & Co.—Michael and William Byrne. Locks, aqueducts, culverts, heavy excavations.

So, the question becomes: Why would Michael have his company take on a contract for the minor bits and pieces of canal structures needing to be completed? What was in it for

such a major contractor? Certainly not what the canal company offered: A mere \$3,000 cash and \$21,000 in bonds that Michael would have realized were of questionable value.

My personal belief is that Michael approached Coale and offered to complete the canal for watering by fall. I think it extremely likely that he simply could not countenance yet another year with the canal unfinished and that he must have been appalled by the canal's endless financial difficulties and delays. Finally, by virtue of the number of structures his company had built, he must have had a personal, subjective association with the great work as well as understood his professional reputation would always be linked to it.

Be that as it may, Michael Byrne's company finished the canal in August and September, making possible the rewatering and opening of the last 50 miles on October 10, 1850. The lining in the tunnel was completed over the winter and on February 17, 1851 the final payment was made to Byrne, completing his contract. This date marked, in a technical sense, the formal completion of the canal to Cumberland.

Also, that February 1851, after seven years and seven months of service, James M. Coale left the presidency of the C&O Canal Company. Having come into the office at the darkest and most hopeless time in the construction era, he had been a major force—if not *the* major force—in getting the construction going again and, despite the false starts and abandoned contracts, finished. Looking back, it is hard to believe that the canal did not end at Dam 6, where it would have certainly died before long. I credit Coale with its completion and consider him one of three most effective and dedicated C&O Canal Company presidents alongside Charles Fenton Mercer (June 1828–June 1833) and Arthur Pue Gorman (June 1872–August 1882).

#### Notes:

1. Well-documented, secondary sources for the story told here are Walter S. Sanderlin's *The Great National Project*, p. 149 ff. (Eastern National, 2005) and the 2007 pdf version of Harlan D. Unrau's Historic Resource Study on the C&O Canal, section II on Construction Economics. [https://www.nps.gov/parkhistory/online\\_books/choh/unrau\\_hrs.pdf](https://www.nps.gov/parkhistory/online_books/choh/unrau_hrs.pdf)
2. Available on the C&O Canal Association website at <http://www.candocanal.org/histdocs/Newspapers-1841-44.pdf>
3. Sanderlin, Walter S.; *The Great National Project: A History of the Chesapeake and Ohio Canal*; p. 151 (Eastern National 2005).

# Milepost Repainting Project, 2019-2020

By Jim Tomlin

From July 2019 to May 2020, all of the mileposts (1-184) on the C&O Canal towpath were repainted. Three volunteers, Meredith Matczak, Jim Tomlin, and Mike Bucci, did the repainting, with the general support of the Potomac Appalachian Trail Club and the C&O Canal Association.

Each milepost was photographed before and after restoration. The photos were loaded to the PATC GPS Rangers Flickr public photo site and placed in an album. It can be viewed on Flickr at [flic.kr/s/aHsmNbr4Py](https://www.flickr.com/photos/aHsmNbr4Py/).

Each milepost was painstakingly scraped to remove all flaking paint with a wallpaper scraper. A smaller scraper was used to remove the crumbling paint in the letters, numbers, and “smiles.” A Dremel cordless tool with a small grinding head was utilized to clean out the numbers and letters, then a cordless drill with a wire wheel sanded and dusted off the mileposts. Finally, the mileposts were painted with NPS brown latex paint, flagged with “WET PAINT” flags and tape and, later that day when the brown paint was dry, had the letters and “smiles” painted with bright white latex paint. Curiously, this is the same official white paint that is used to blaze the Appalachian Trail.

Travel to each milepost was by bicycle or on foot. No motor vehicles were used on the towpath. Various strategies were employed to re-visit each post after the brown paint had dried. In general, the most effective way was to ride 4-5 miles, preparing and painting each post brown, then waiting for one hour at the end to allow the brown paint to dry, and paint the white lettering and adornments while riding back.

Each post required 1.5 hours of work, on average. Four posts per person per day was a good number to attempt, five was a long day, more than five was a grueling challenge. It took 45 individual work days to paint them all.

Planning was especially complex in order to find access points suitable for each 4-5 mile stretch and to optimize routes to ensure that small sections of posts were not left unpainted. Other effort involved tracking status, coordinating effort, replenishing supplies and keeping NPS and Association staffs up to date. The Thomas Hahn *Towpath Guide to the C&O Canal* was extremely helpful and was a constant companion of each volunteer.

The most complicating challenge of the project was the unseasonably cold and persistently rainy spring weather, rendering many plans unworkable. Painting could only happen in dry weather with temperatures at least 50 degrees. Patience, flexibility, and the ability to take off with little notice and paint on a rare sunny day was necessary. Volunteer hours totaled 999 hours for the entire project, including administrative, field, and driving time.

This project was very difficult but also very enjoyable. When volunteering is possible again, the team plans to learn how to cast new replacement posts and replace those that are in the worst shape.

An interesting fact, literally uncovered by the paint scraping, is that many posts still had their original green layer. A few had a fluorescent orange layer, and at least one had a blue layer. Most of the posts evidently have been in place for the entire 49 years that C&O has been a national park, or even longer. Almost all are concrete, with a few old wooden ones near the Georgetown end. There was not only more than one concrete mold – many of the posts show an individuality; either no “MILE,” wider “smiles,” different beveling on the sides, etc. Try to note this on your next canal visit!

Thank you to the C&O Canal NHP staff for supporting this project. The superintendent's office graciously allowed this volunteer project to



*Typical before and after views. This is a mystery marker you may not have ever seen – it's on the original towpath just above Dam 4. Most hikers take the path on the high guard wall and not the original towpath. Photos by Jim Tomlin.*





# Volunteers in Parks

By Jim Heins

## Life on the Canal in the Year 2020

Well, certainly, it isn't like it was in the 1830s and 1840s with all the problems they had while building the canal with issues like fighting, cholera, malnutrition and miserable working conditions.

And it certainly isn't like any other recent year, either. The Volunteers-in-Parks (VIPs) of the Association are in the same (canal) boat as most everyone else in wanting to get back out there to enjoy and work in our beautiful park.

We were all set up and ready to go to help with the Potomac River Watershed Cleanup in April. Everything was in place with volunteers lined up to lead us in cleaning up eight sites within the park.

Dates were set for our annual Garlic Mustard Challenge (GMC) and new

benches were being ordered for installation along the towpath. Plans were being completed for the installation of some new waysides that the Association has been working on with the park for several years. New picnic tables were being planned for the area at Rileys Lock and Swains Lock was crying for attention to be ready for the summer's influx of campers and day-use folks.



*The VIPs will be back in business as soon as conditions allow them to resume – Photo by Jim Heins*

The river cleanup and garlic mustard will have to wait for another year but the rest is similar to the start of the Indianapolis 500 auto race. We are sitting here with our engines running and ready to hit the starting line. And – we can do this pretty well and still exercise social distancing.

I am anxious to get back together with all of you wonderful volunteers who make the VIP projects such a great experience.

The weather and outlook are both looking good and with just a little more patience, we will get there – together.

### Mileposts (Continued from previous page)

complete while all other volunteer work had been paused. Since all painting was done by one solo volunteer in one place, social distancing was trivially easy. Thankfully, the more-crowded sections of towpath were repainted in 2019, leaving only the sparsely-visited western sections for 2020. We would often paint all day without seeing another person.



*The last one! 'Matisse' Matczak paints the last milepost. What a project!*

A huge amount of thanks goes to Meredith Matczak. The project would never have succeeded without her energy, enthusiasm, skills, optimism, teamwork ability, dedication, and fantastic positive attitude.

For more information about this project, contact Jim Tomlin at [jftomlin@gmail.com](mailto:jftomlin@gmail.com).



*Tools of the trade*



# On the Level

By Steve Dean

*This report reflects level walker activity for February and early March. Volunteer activity was limited because programs were put on hold in late March due to the COVID-19 pandemic. A frequent question is – what does a hold on volunteer activity mean?*

*When the park is affected by a federal funding lapse, weather emergency, health crisis or other emergency, the park superintendent or other National Park Service (NPS) authority will make a determination of the park's status. The park may be completely closed for visitation or volunteer activity, or there may be a partial closure of selected facilities or limitations of usage. The closure status is passed on to volunteer program leads and other entities, and the guidance is passed on to volunteers. In*

*the case of the pandemic, the determination was made that the park would remain open, with closure of selected facilities, but that NPS personnel would work off-site and volunteer programs would be put on hold. The Association's level walker policy is that we will always comply with all NPS regulations, including closures. When the volunteer program is suspended, the NPS volunteer service agreements are suspended, and volunteers are not authorized or protected by those agreements; also NPS staff is not available to support the volunteers. For those reasons it is important that volunteers always comply with the NPS requirements. With the park still open during the pandemic, many people are visiting the park, and in some cases volunteers send informal observations, but do not perform level walker duties.*

**Level 4 Cabin John Creek to Lock 14: Alyson Miller reports Feb. 18 and 19:** I got cabin fever and went out to the park on two days. Good news – the Lock 8 house has a new roof! The Lock 8 parking lot continues to be heavily trashed. I picked up the usual food and beverage containers, including lots and lots of alcoholic beverage bottles/cans, large food containers, a diaper and numerous dog waste bags. Most of the items were just off the parking lot at Lock 8. This area appears to be a hangout and most of the trash is thrown into the woods, easily visible from the parking lot. The Lock 10 area was in good shape.

**Level 7 Great Falls Tavern to Lock 21: Jim Goheen reports report Feb. 17:** The towpath was in fairly good shape considering the weather. I saw around 75 hikers, including a group of 24 Army National Guard hiking along towpath downstream from Great Falls. The Swains campground was spotless, with no trash. I spoke to a couple who stayed overnight at the Swains Lock house – they loved it. I observed ducks, geese & egrets near Swains.

**Level 11 Milepost 25 to Sycamore Landing: Pat Hopson reports March 8:** There was only a small amount of trash along the level. I think one reason this level gets little trash is that the towpath is well above the river, maybe 15 feet or more; so, it doesn't get a lot of river borne trash. Lots of people were out enjoying this beautiful day. I talked to a man at the hiker-biker who had ridden his bike from his home in Herndon via the W&OD Trail, the Custis Trail, the Key Bridge, and then onto the towpath, and he was planning to return the same way – a round trip of about 100 miles. I noticed how much work the National Park Service has done to clear the towpath of downed trees – many thanks, NPS! I also noted how rampant the invasives are: there is plenty of Japanese stilt grass bordering the towpath, and the multiflora rose is omnipresent in the bushes. The prism hole at Culvert 38 looks about the same as usual; the water level was relatively low. It doesn't appear that this level has been resurfaced, but it's in good shape, at least now. The highlight of this walk was undoubtedly a red-headed woodpecker, which I don't see often. His head looked so brilliantly red when the sun shone on it.

**Level 12 Sycamore Landing to Edwards Ferry: Ray Abercrombie, Larry Broadwell, Elizabeth Dame, Pat Hopson, Margaret Neuse, and Frank Wodarczyk report Feb. 23:** As usual, there was very little trash on the towpath itself; most of it came from the area between the towpath and the river. We saw very few people at first, but there

were more as the day warmed up. We encountered a group of 7-10 young men who had camped overnight at the hiker-biker and were still enjoying their stay. They brought a huge amount of gear and provisions. They were returning some of their supplies to Edwards Ferry when we first saw them, but they were still at the hiker-biker when we finished. They assured us they'd take out their trash. The Goose Creek locks look in even worse shape than on our last trip. The weight of the large fallen logs is causing the already-unstable stones to deteriorate further. Also, a lot of the stones very near the river have slid into the river. The Jarboe store ruins and the lock-house both were in good condition. The lockhouse has a new roof.

**Level 15 Whites Ferry to Lock 26: Jon Wolz and Steve Hovarth report March 12:** It was a quiet walk. At Milepost 36, there were several snapped off trees in the prism as a result of strong winds. The Potomac River water level was about normal. The Whites Ferry store was open, and the ferry was operating. I left a handful of the *The Granaries at White's Ferry and the Monocacy Aqueduct* pamphlets at the display rack inside the store. The stone I stuck in the long-broken grill in December at the Marble Quarry Hiker-Biker was still in place. Steve opened the door of the rest room, let out a yell and slammed it shut without going inside. He said there was a 2-foot black snake inside. There was a great blue heron in the prism near Mile 36.5. There were turtles in the prism, and we saw a snapping turtle. Bluebells were sprouting and were especially thick between Mileposts 37 and 38. Bloodroot was in bloom and spring beauties were also in bloom. Garlic mustard was sprouting up.

**Level 16 Lock 26 to Monocacy Aqueduct: Jon Wolz reports Feb. 12:** I saw two people walking a leashed dog across the aqueduct. After that, I saw no one else on my walk. There were beer cans and empty water bottles along the towpath all the way to Lock 26. There was a leak at the usual place at Mile 41.25, with water flowing from the towpath wall. There were no changes to the culverts or Lock 27. The maple tree at Lock 26 appears to be dying. There is beaver activity is still on-going in the vicinity of Milepost 40. There were several Canada geese floating in the Potomac near Culvert 68. White snowdrop flowers were in bloom near the parking lot at the aqueduct.

**Level 19 Point of Rocks to Catoctin Aqueduct: James Spangenberg reports Feb. 5:** Resurfacing of the towpath from Point of Rocks to the Catoctin Aqueduct was in progress. There were signs at Point of Rocks and the crossing at Lander, warning of the work in progress

*Along the Towpath, June 2020*

and that horses were prohibited in this section. The towpath was already resurfaced up to the end of the Point of Rocks parking lot. It looks as though trees near this section of the towpath have been trimmed or cut down. It also appears that towpath beyond the resurfacing has had some leveling work done, particularly up to Lander.

**Levels 21 and 22 Lock 30 to Lock 33: Tom Crouch reports Feb. 3, and March 2, 9 and 18:** During the February walk the canal prism within a quarter mile of the Brunswick gate was strewn with trash. I filled a trash can sized bag and a black construction size bag. The canal prism in that area is discouraging. On every level walk I can count on spending nearly an hour battling the briars and slogging across mushy ground collecting trash, certain that there will be fresh accumulation waiting for me on the next level walk. In March I recovered a typically high amount of trash along these levels. I encountered a number of people around Harpers Ferry who asked about the time frame for repairing the pedestrian bridge. With good weather and the approach of summer, that is clearly a matter of concern. It is apparent that horse's hoofs are having an impact on the new towpath surface. Both upstream and down from Lock 31 seem rougher than it was originally. This is hard to spot visually, but you feel it on a bike. Spring was arriving on the levels in March.

**Level 22 Lock 31 to Lock 33: Karlen Keto reports Feb. 3, and March 2 and 18:** I took three level walks with my dog Chessie. I was so pleased on the walks that I was not finding any trash. Then, in March, I met a man on a bike pulling a cart. (Tom Crouch) He mentioned he, too, was a level walker, and turned to show me all the trash in the cart he had gathered, only to find that his large garbage bag had bounced out of the cart. He turned back towards Harpers Ferry to successfully find his cargo. No wonder the towpath was clear of trash! One possible concern I noted is a hole on the side of the foundation of the cellar door of the lock house. It looks very much like the hole at my home porch made by a groundhog. I do not like to see critters invading the lock house. Towpath users expressed concern that the Potomac River pedestrian bridge is gone.

**Level 27 Antietam Aqueduct to Lock 38: Jonnie and Joycie LeFebure report April 19:** Notes were provided from an informal walk conducted during the volunteer program hold. It was very busy out, with the highest usage we've seen. The towpath itself was clean. The towpath resurfacing has become solidly compacted. Several trees that had blown down recent high winds were removed from towpath by the NPS. Blue jays, cormorants, robins, Carolina wrens, woodpeckers and brown thrashers were all observed. A highlight of the day was a bald eagle sitting in trees across river from the Antietam Aqueduct.

**Level 30 Snyders Landing to Lock 40: Charles Connolly reports Feb. 2:** Towpath conditions were excellent; previous repair work was in perfect shape. I saw a black squirrel. Cut branches are in place at Lock 40, clogging the upper end of the lock. **Hilary Walsh and Maryanne McTighe-Bass report April 18:** Notes were provided from an informal walk conducted during the volunteer program hold. Virginia bluebells were still out, star of Bethlehem was blooming, and garlic mustard was on the level. There was little animal activity except for our two canines. We observed two cherry pickers and three trucks, one of which was carrying cut logs. We noted many cut trees as well as felled trees in the canal prism and tire ruts in the mud from the tree trucks a good two miles in.

**Level 42 Four Locks to McCoy's Ferry: Jack and Dick Ebersole report March 12:** A large sinkhole in the prism has developed between Mile Marker 110 and the stop lock. It looks as though an old sinkhole had taken place next to it, but this new one is quite large. The towpath was in good condition; completely dry, no ruts or limbs, and covered with leaf litter. Maryland Natural Resources Police were at Four Locks, testing their new boat, and said it was very fast.

**Level 49 Round Top Cement Mill to Lock 53: Paul Petkus and Sue Muller report Feb. 22:** This was my 49<sup>th</sup> level walk on Level 49. Work at the Round Top cement mill appears to be done. Piles of bricks remain on the site, so there's a possibility that work will resume at some point. The restoration work was evident. Missing bricks have been replaced and missing mortar between the bricks was restored. Random daffodil emerging from the ground and red maple that was starting to bloom were indications of spring. Bird species included American crow, white-throated sparrow, eastern phoebe, white-breasted nuthatch, mourning dove, hooded merganser, tufted titmouse, pileated woodpecker, hairy woodpecker, downy woodpecker red-bellied woodpecker, belted kingfisher, Carolina chickadee and a bald eagle. Spotted salamander egg masses, red-spotted newts and eastern fairy shrimp were observed.

**Level 54 Lock 59 to Lock 60: Dennis Kubicki reports March 8:** It was a great day for being on the towpath! I met three hikers. One asserted that he was in the midst of completing the "Great American Rail Trail." He told me that he was going to rely upon grocery stores and restaurants in the communities through which he was passing. Some additional loss of integrity of the embankment at Culvert 207 was noted. What one observes is a layer of turf (grass and roots) that extends in a cantilevered fashion over exposed earth embankment. The exposed earth seems to be continuing to deteriorate and the root system that acts as support for the embankment is now fully exposed. There is nothing holding back further erosion. From Little Orleans through to Lock 60 there was much evidence of wind damage to the wooded areas that border the towpath. The vegetation (i.e., bushes) along the path was cut back so as not to project into the plane of the towpath.

**Level 55 Lock 60 to Culvert 208: Paul Petkus reports March 14:** It was sunny and very pleasant in the morning, making a great day for a Pie Day level walk. Conditions at Lock 60 and Culvert 208 were unchanged from earlier walks. Spring beauty, speedwell, dandelion, and daffodils were in bloom. Virginia Bluebells were beginning to emerge. Buds were emerging on bushes lining the towpath. Spotted salamander and wood frog egg masses were in the water within Lock 60. Red-spotted Newts were active in the prism at Mile 151.

**Levels 65, 66 and 67 Spring Gap Recreational Area to Evitts Creek: Trent Carbaugh reports Feb. 3:** All three levels looked pretty good and the weather was just delightful. I saw turtles, grey squirrels, and some "twitterpated" mallards acting like it was spring already. The lock house at Lock 72 continues to deteriorate, especially the porch, back wall board and batten siding. A large piece is peeling off and the paint is falling in large patches. There is some erosion on the dam at Evitts Creek; the newer drainage work appears to be helping but excessive rain last fall and this winter seems to be taking a toll. Lots of fallen trees have been cut and moved west of the aqueduct. A tree has fallen across the wing walls of Culvert 236 and caused possible damage.



# Nature Notes

By Marjorie Richman

## Ancient Plants in our Forests

In the world of plants there are a bewildering number of types and forms. There are vascular and non-vascular plants, plants that reproduce via spores and those that reproduce via seeds, and leaves of all shapes. There are so many different architectures that one might wonder if there really is only one plant kingdom in the Linnaeus classification system. This variety has led to a debate among scientists as to which plants were the first to colonize land. This might seem academic, but the question is very much involved with our own appearance on Earth, since plants helped create the oxygen that we air breathing animals rely on. Before our species could inhabit the planet, there had to be a significant number of photosynthesizing plants.

Although fossil evidence is spotty, it is generally agreed that vascular plants, plants with structures that provide for the transport of water, minerals and carbohydrates, began to colonize land about 400 million years ago. Among the first were a group of small, leafless plants that reproduced via spores rather than seeds. These plants adapted to land and grew in size and importance until becoming the huge, tree-size plants that dominated forests throughout the planet during the Carboniferous Period, about 300 million years ago. The vast coal seams we exploit today are the proof of their once prolific existence. As climate conditions changed these ancient

plants declined. Although many became extinct, there is an interesting group of ancient plants with living relatives today. They are called fern allies.

Examples of fern allies are quillworts, scouring rushes (horsetails) and clubmosses. Historically they were classified as members of the fern division within the plant kingdom, although they look very different from our concept of what a fern should look like. Like ferns, they are photosynthesizing vascular plants, they do not produce flowers, and they reproduce via spores rather than seeds. Unlike ferns they have unique leaf structures and the spore cases are distributed differently.

The leaves of fern allies are tiny and they contain only a single vein. The fronds of ferns, and in fact the leaves of most plants today, contain complex venation consisting of more than one vein. Furthermore, the spore cases of ferns are distributed in regular patterns on the undersides of fronds and are easy to see. Not so with the spores of fern allies, they are pretty much hidden and are hard for the casual woods walker to find.

Of the fern allies, clubmosses are the most commonly seen plants in our woods. Clubmoss leaves are tiny, shiny green, narrow, pointed needles. The needles remain green all year. They are unique in that they resemble the leaves (needles) of trees such as pines and hemlocks. The plants can easily be mistaken for first growth evergreen trees that will someday



*Clubmoss – Photos by Marjorie Richman*





# Association Project Updates

By Rita Bauman

## ***The Cumberland Brochure Reprinting***

The Association was recently awarded a grant of \$1,300 by the Passages of the Western Potomac Heritage Area (PWPCHA). The grant provides funding to print descriptive brochures that provide interpretive information about *The Cumberland Chesapeake & Ohio Canal* boat replica. The replica boat was originally built in 1976 as a bicentennial project, and is now located at Canal Place. The Association's project was selected as it demonstrates great support in the promotion of heritage tourism in Allegany County. The grant will fund the printing of 25,000 brochures.

The original brochure describing the replica canal boat was created in 2003 by the Canal Place Preservation and Development Authority. When it was found that the supply was depleted, William Bauman, with Board approval, submitted a grant application. Karen Gray reviewed the brochure's original text, updating it where necessary. Another Association member is recreating the brochure in Adobe InDesign and incorporating text and imagery changes. This process will create a master file that can be maintained and updated for future revisions, and easily reprinted. The revised brochure will be submitted to PWPCHA for approval. The brochure will be printed at Hagerstown Bookbinding and Printing (HBP). HBP is the printer of *Along the Towpath* and other Association publications. The brochure is expected to be available later in the summer season. Stop by the recently repaired replica canal boat to pick up a copy.

*A call for volunteers* – Volunteers are needed to staff the boat on weekends. The boat is typically open for tours on weekends from Memorial Day to Labor Day, but at the present time the tours are on hold due to the COVID-19

pandemic. Tours are expected to resume after social distancing requirements are relaxed, and volunteers will be needed. Contact board member Dick Ebersole at [dsebersole@verizon.net](mailto:dsebersole@verizon.net) or Cumberland Ranger Stephanie Siemek at [Stephanie\\_Simek@nps.gov](mailto:Stephanie_Simek@nps.gov) or 301-491-2597 to volunteer to staff the canal boat. Training will be provided and staffing times can be flexible.

## **Monocacy Aqueduct Repairs**

The Association Special Projects committee recently proposed a project to accomplish repairs on the Monocacy Aqueduct, and the Association board approved the project. Association members Jon Wolz and William Bauman met with Ranger Justin Ebersole and contractor HBW Services at the aqueduct on February 26<sup>th</sup> to discuss the project. At the meeting it was decided that the contractor would submit a detailed estimate to the Association and the C&O Canal National Historical Park covering the following repairs:

- Replace all mule kick boards; some are missing and several are deteriorating. (Safety)
- Replace missing concrete and damaged joints between stones on the aqueduct towpath surface. (Safety)
- Renovate and paint historic fencing.
- Renovate and paint modern fencing.

Park operations were suspended due to the COVID-19 pandemic shortly after the meeting. Site visits and meetings are presently on hold, but the Association has been assured that the compliance process for the process has started.

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## **Nature Notes** (Continued from previous page)

be as tall as the trees they resemble. In fact, clubmosses do not grow vertically. They colonize the forest floor by extending their roots along the soil, either above or below ground. Each year the rootstock increases. Previous growth may die off, but as long as the plant spreads faster than older rootstock dies, the clubmoss colony will continue to increase. Because of their growth pattern and resemblance to conifers, several clubmosses have common names such as running pine, ground cedar, and ground pine. To compound the confusion, clubmosses are often found in conifer dominated forests.

The spores of clubmosses, besides contributing to our supply of coal, were a commercial success during the early

industrial revolution. They are tiny but uniform in size, and therefore proved useful for scientific microscopic measurement. Since they are water repellent and dustlike when dry, they were made into medicine to soothe the pain of open wounds. When dry and ignited, they give off a flash explosion that proved useful for fireworks and flash photography.

Clubmosses are an unusual sight all seasons of the year. They provide ground cover in a forest otherwise dominated by large trees and they contribute a touch of color to the winter landscape. If you come upon clubmoss you might want to keep in mind that these small, inconspicuous plants are the relatives of long extinct plants that once were the canopy trees of our planet's ancient forests.

# Calendar of Events - 2020

Non-C&OCA Event
C&OCA Business
C&OCA Hike and Dinner or Key Event
C&OCA Hike
C&OCA Nature Walk
C&OCA Volunteer Event
C&OCA Paddle Trip
C&OCA Bike Ride
July 11, Sat., <b>Nature Walk</b> focusing on butterflies, 11 a.m., Dickerson Conservation Area. Bring water and a snack. Optional equipment: binoculars and your favorite butterfly ID book. For further information contact Paul Petkus at papetkus@gmail.com or 773-450-6039. Walk will be canceled in case of inclement weather.
July 11, Sat., <b>Paddle Trip</b> from Rileys Lock (Seneca) through the old Potowmack Canal on the Virginia side of the Potomac to Pennyfield Lock. This trip is approximately 4.5 miles and takes only about 4 or 5 hours, but is challenging with numerous rocks and ledges in the old canal. Reservations are required and paddlers must provide their own canoe/kayak and gear. For more information and to make reservations, contact Tony Laing at canoemaster@candocanal.org or 301-980-8932.
Aug. 2, Sun., <b>Board Meeting</b> , 1 p.m., at Glen Echo Town Hall, 6106 Harvard Ave
Aug. 15, Sat., <b>Nature Walk</b> focusing on dragonflies and damselflies, 10 a.m., Dickerson Conservation Area. The group will head upstream. Bring water and a dragonfly guide if you have one. For further information contact Steve Dean at levelwalker@candocanal.org.
Aug. 28-30, Fri.-Sun. <b>Paddle Trip</b> in the Paw Paw Bends area of the Potomac River from Paw Paw, W.Va. to Little Orleans, Md. (22 miles). This 3-day paddle trip includes two nights camping out. Reservations are required and paddlers must provide their own canoe/kayak and associated paddling/camping gear. Paddlers are expected to contribute to community-type meals and help out in camp. For more information and to make reservations, contact Barbara Sheridan at canoemaster@candocanal.org or 301-752-5436.

Sept. 5, Sat., **Nature Walk** focusing on birds, 8-11 a.m., location to be announced. Numerous migrant birds are expected to be seen. Kurt Schwarz of the Maryland Ornithological Society will lead the group. You must register for this walk. To register, or for more information, contact Kurt at krschwa1@verizon.net or 410-461-1643 (home) or 443-538-2370 (cell).

Sept. 20-24, Sun.-Thu., **World Canals Conference**, Leipzig, Germany. For more information, see <http://www.wccleipzig2020.com/>.

Oct. 4, Sun., **Board Meeting**, 1 p.m., at Williamsport Town Hall, 2 North Conococheague St.

Oct. 9-14, Fri.-Wed., **Through Bike Ride**, Cumberland to Georgetown. No sag wagon provided. Reservations required; reserve no later than September 1. Limited to 20 riders. To register or for more information, contact Denny Sloppy at dennysloppy@yahoo.com or 814-577-5877.

Oct. 24, Sat., **Heritage Hike and Dinner**. Hikes of varying lengths in the Brunswick to Harpers Ferry area. Hikers will meet in Brunswick. Dinner will be at the Upper Montgomery Volunteer Fire Department in Beallsville, Md., and will be followed by a discussion of Indian fish traps presented by Don Peterson. For more information, contact Steve Dean at programs@candocanal.org.

Nov. 22, Sun., **Continuing Hike Series**, 10:30 a.m., location to be announced. Contact Pat White at hikemaster@candocanal.org or 301-977-5628.

Dec. 5, Sat., **Frostbite Hike**, 10:30 a.m. Location will be announced in the September *Along the Towpath*.

Dec. 6, Sun., **Board Meeting**, 1 p.m., at Glen Echo Town Hall, 6106 Harvard Ave.

Aug. 30 – Sept. 2, 2021, Mon.-Thu., **World Canals Conference**, Hagerstown, Md. Follow this newsletter for updates on the conference.

## Please note:

*The COVID-19 pandemic increases the possibility of event postponement or cancellation. The Association makes every effort to inform members about changes, but participants should visit [www.candocanal.org](http://www.candocanal.org), Facebook @candocanal.org, or contact the event host for up-to-date information.*

## Important Information About Association Events

- Liability waivers are required for many Association activities. You will be asked to sign a waiver before participating in certain events.
- While we strive to accommodate late sign-ups, please try to register before the RSVP dates.
- Hikes require proper footwear.
- Paddling, hiking and biking participants are responsible for their own equipment and food.
- Reservations are required for many events.
- Outdoor events are subject to cancellation in the event of inclement weather. Contact the event coordinator in the event of weather concerns.



# 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	Linzy French
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	Curtis Rintz
Chief of Interpretation, Education and Volunteers	301-714-2238	Christiana Hanson
Partnerships Coordinator (Acting)	301-714-2218	Ben Helwig
Volunteer Coordinator	301-491-7309	Emily Hewitt
Cultural Resources Manager/Historian	301-491-2236	Vacant
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	Shaun Lehmann
Georgetown Interpretive Supervisor	240-291-8466	Brendan Wilson

**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		Joshua Nolen
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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**  
(TOLL FREE): 1-866-677-6677  
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](http://www.candocanal.org). The webmaster is [webmaster@candocanal.org](mailto:webmaster@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](mailto:president@candocanal.org)

**First Vice President:** Vacant

**Second Vice President:** Anthony Laing

**Secretary:** Kerry Gruber, [secretary@candocanal.org](mailto:secretary@candocanal.org)

**Treasurer:** Richard Radhe, [treasurer@candocanal.org](mailto:treasurer@candocanal.org)

**Information Officer:** Doug Zveare, [inquiries@candocanal.org](mailto:inquiries@candocanal.org)

**Board of Directors:** (terms expire in 2023): Jill Craig, Karen Gray, Jim Hutzler, Jonnie Lefebure, Bert Lustig. (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, Susan VanHaften; Volunteers-in-Parks (VIP), Jim Heins; World Canals Conference 2021, Bill Holdsworth.

CHESAPEAKE & OHIO CANAL ASSOCIATION INC.

P.O. Box 366

Glen Echo, MD 20812-0366

Along The Towpath

Chesapeake & Ohio Canal Association

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Culvert 150, at Mile 140.4 in the Ernstville area, is a 12 foot span road culvert that once provided river and ferry access to Cherry Run. It now carries a steady stream from the Ernstville area. The culvert features extensive wing walls on the towpath side. Photos by Steve Dean



Check us out on social media!

C&O Canal Association



Founded in 1954



@candocanal.org



@CandOCanalAssoc



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