

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 XLVII June 2015 Number 2

2015 Douglas Memorial Hike

By Steve Dean

Numerous C&O Canal Association members enjoyed a walk on a fine spring day during the annual Justice William O. Douglas Hike on April 25th. Three groups participated in hikes of varying lengths ranging from three to twelve miles. All hikes were in the very beautiful and historically significant section of the canal between Point of Rocks, Md., and the industrial ghost town of Weverton.

Depending on the hike route selected, walkers passed through the railroad-oriented canal town of Brunswick, visited the beautifully restored Catoctin Aqueduct, and passed the railroad tunnel at the site of the Point of Rocks standoff between the canal and railroad. Pepper Scotto provided tours of the Landers lock house, and Canal Quarters guests at the Point of Rocks lock house allowed a peek inside that house. Nature was in full force. The delightful greenery of early spring presented a picture-perfect backdrop. Walkers were treated to the sight of bluebells and an

abundance of other spring wildflowers. After the walk, hikers were met by other members at the Poolesville Fire Department for the annual William O. Douglas dinner. As always, dinner at Poolesville was a popular event.

It was also a very busy day on the towpath. Runners were competing in the annual C&O Canal 100 Mile race. Participants in the race start near Knoxville, Md., at 7:00 a.m. on Saturday and are given 30 hours to complete the 100-mile course, which is mostly on the towpath and ends at Knoxville. In addition to the 100 Mile race, the annual One Day Hike was in progress. Participants in this event start at Georgetown at 3:00 a.m. and walk 100 kilometers (km) to Harpers Ferry, or start at White's Ferry at 9:00 a.m. and walk 50 km to Harpers Ferry.

See page 5 for more photos from the Douglas Hike.



A very popular feature of the Douglas Hike was the timely appearance of the C&O Canal Bike Patrol's Norm Liebow with his ice cream trailer. Here, President Barbara Sheridan helps herself to an ice cream sandwich. Photo by Steve Dean.

C&O Canal Book Releases

2015 is a great year for fans of books related to the C&O Canal. In the March Along the Towpath, we reported on the release of Mike High's book The C&O Canal Companion: A Journey through Potomac History. In this issue we provide the background story on two books with which the Association was very involved. The first, Towpath Guide to the C&O Canal, is a greatly revised version of the classic towpath guide written by Thomas F. Hahn. Numerous Association members assisted the Harpers Ferry Historical Association with production of this book. The second book is a revised version of the Chesapeake and Ohio Canal Official National Park Handbook. This handbook, also known as Handbook 142, was revised, edited, and produced by Association members on a volunteer basis under an agreement with the National Park Service. The handbook is being published and printed by the Association.

See page 2 for the President's comments on these two new publications and page 8 for the stories of their production.

President's Report

Wow! After 16 very long years, Thomas Hahn's *Towpath Guide to the C&O Canal* has finally been revised, updated and reprinted thanks to the Harpers Ferry Historical Association. As the owner of three earlier (and very worn) editions of this much-loved resource, I bought a copy as soon as it was available. I can honestly say that the newly revised edition is impressive.

What struck me immediately was the amount of work that had gone into this revision. The Acknowledgment section cites the contributions made by twenty-three C&O Canal Association members that included a variety of things, such as:

- Updating and revising maps
- · Verifying technical and historical data
- Conducting extensive research
- Enhancing and clarifying Civil War facts
- Editorial assistance
- Contributing new photographs
- Actually walking the towpath and reporting discrepancies in the original text

I would like to add my thanks and appreciation to those seemingly tireless Association members who did so much to make the new *Towpath Guide* what it is today. In alphabetical order they are:

Tom Aitken, Lisa Angstadt, John Barnett, Steve Dean, Dick Ebersole, Karen Gray, Bill Holdsworth, Pat Hopson, Ed Kirkpatrick, Jonnie Lefebure, Jim Lyons, Rod Mackler, Dward Moore, Carl Pederson, Tom Perry, Paul Petkus, Tim Snyder, Dick Stoner, Susan VanHaften, Hilary Walsh, John Wheeler, Stephen Williams and Frank Wodarczyk. You can read more about the process to revise the *Towpath Guide* on page 8 of this issue.

I am also very excited that we are very close to the publication date for the new *Chesapeake and Ohio Canal National Historical Park Official National Park Handbook.* In fact, as we go to press with this issue of *Along the Towpath*, the new handbook will be com-

ing off the presses too. You will find new and updated information, photos and formatting in this revised handbook. Many thanks to Steve Dean for taking the lead on this. Kudos also to Karen Gray and Dward Moore for their invaluable input and assistance. This book is another "must have" for park visitors—check it out! Read more about this book on page 8 of this issue.

Summer is the time for volunteer activity in the park. Please consider volunteering for some of our Volunteers In Park projects. See the listing of projects on page 22.

There has been a lot more happening in the park this spring...

- Volunteers up and down the towpath have been engaged in removing garlic mustard plants in an effort to stem the further spread of this prolific invasive that threatens our native plants.
- The Cumberland replica canal boat repairs are now complete and NPS is again leading tours of the boat for students and other visitors.
- Lockhouse 75 is now open on the weekends for visitation. If you haven't been there, you should go see it. If you can spare a day to volunteer there, please contact William Bauman at wdbauman@visuallink.com.
- And lastly, Past President Dward Moore will be leaving us soon for his new home in Lawrence, Kansas. Dward, you're a tough act to follow. I wish you and Jeanine the best.

- Barbara Sheridan

Andrei Kushnir is a long-time friend of the C&O Canal and the Association. He is noted for his naturalistic C&O Canal art. Andrei has created a music video *Come Walk With Me on the C and O Canal* that showcases his art. The video can be seen at www.youtube.com/watch?v=BklKdhVxPNk

C&OCA Welcomes New Members

Bill Albershardt, Kensington, Md.
Daina Blosteins, Rockville, Md.
Yonina Foster, Germantown, Md.
Morriah Horani, Kensington, Md.
Hardy Howell, Frederick, Md.
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Jon Wolz, Poolesville, Md.

News and Notes from the Park Library

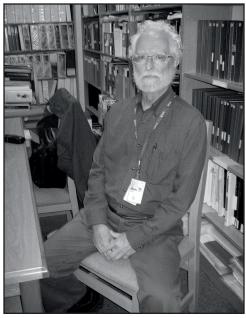
Regrettably, Dward and Jeanine Moore's departure from the area deprives the library of two incredibly valuable volunteers. Beginning in September 2009, both Dward and Jeanine transcribed many documents, and are especially valued for their work on the oral histories. Those projects were uniquely tedious and difficult because of the poor quality of the recordings and some of the speakers' heavy dialects.

Dward's contribution is inestimable, however, as he volunteered in the headquarters library two days a week from September 2009 to April 2015. Realizing that many of our aerial photographs, historical photographs (from both the era of canal operation and since its closing), newspaper articles, and slide collections were not yet organized or cataloged, he took on the enormous task of working his way through these and organizing them. He developed catalog tools that document our holdings and make it infinitely easier to access the collection.

The catalogs created by Dward include an easy-to-use Microsoft Excel file of our library resources and a FotoAlbum file for our images. FotoAlbum supports keyword searches of the images and allows users to view groups of images defined by one or more keywords. With these critical tools, library volunteers and park staff are at last able to easily determine what information and images are related to a particular question and to quickly find specific resources.

Needless to say, the efforts of Dward and Jeanine will serve generations of researchers and their contributions guarantee their place in the park's history.

Karen Gray



Dward Moore at the Park Library – Photo by Karen Gray

Joan Paull Recognized for 40 Years of Volunteer Service

The National Park Service honored Joan Paull's 40 years of volunteer service to the C&O Canal on May 5th with an outdoor celebration at the Pennyfield Lockhouse. Joan started as a C&O Canal Association Level Walker in 1975, and Pennyfield Lockhouse is on the canal level she was responsible for walking.



Joan is well known for creating and managing the Rileys Lockhouse Girl Scout docent program. She served as the Association's Volunteers in Parks (VIP) coordinator, assisted in interpretative operations at visitor centers and on canal boats, and participated in many other projects. She has been and always will be a tireless supporter of preserving the C&O Canal and of sharing its unique story with the park's visitors.

Thanks, Joan, for your outstanding contributions to the park! Your dedicated service is an inspiration to all volunteers and park staff.

- Steve Dean, photo by Chad Crumrine

Chesapeake and Delaware Canal

By Pat White

For the first half of my life, I crossed the Chesapeake and Delaware (C&D) Canal several times a year on the St. Georges Bridge and took the canal for granted as just a waypoint on the route to Grandma. I moved to the D.C. metro area, became involved in the C&O Canal, and rarely thought about the C&D, since I no longer traveled over it. Then, last October, I visited the Cape Cod Canal, which proudly proclaimed itself as the longest sea level canal in the United States. The C&D Canal returned to my thoughts because, although I vaguely remembered something about early locks, I thought the C&D later became a sea level waterway longer than the 8-mile-long Cape Cod Canal. The C&D wins, it's now sea level and 14 miles long! Therefore I blithely tossed out invitations for a field trip.

In mid-April, Jill Craig, Kerry Gruber and I set off to explore the C&D. We began at the C&D Canal Museum in Chesapeake City, Maryland. The museum is actually the pump house for the nineteenth-century canal and still houses the steam engines that lifted water from Back Creek into the highest level of the original canal. The first thing I noticed on entering the main room was a painting showing a lock with a drop gate at the upstream end. Was this artistic license? No, the four locks on the first canal did have drop gates. A model with flowing water demonstrated lock operation although the model drop gate didn't drop completely, as it should have. After we digested all the main room had to offer, we explored the adjacent rooms with steam engines and paddle wheel. Wandering outside, we walked the grounds, wondered about a cast iron fox with a real tail, and got brave. We walked up to the C&D Canal Office next to the museum, knocked, introduced ourselves as canal nuts and asked to see the control room.

We received a warm welcome and a detailed explanation of the workings of the canal and its control systems. Multiple cameras on the bridges and approaches provide real-time views of the entire canal. An electronic map identified all vessels in the canal and in the nearby Delaware and Chesapeake Bays, with travel and speed indications. We were told that traffic is down on the canal, with rail and highway traffic taking some of the cargoes previously shipped by barge. Incidentally, the fox is used to deter geese. It works for a week at a particular location, but then has to be moved.

After a waterside lunch in Chesapeake City we drove to a parking area under the St. Georges Bridge and walked along the canal on the Michael Castle Trail, a paved trail that will eventually run from bay to bay but is still under construction. We walked under the beautiful new State Route 1 Bridge, whose suspension cables sparkled in the sunlight. Traffic had picked up on the canal and several large barges and a law enforcement speed boat passed us. We didn't see any of the really huge vessels shown on the website.

Continuing east, we visited Delaware's Fort DuPont State Park along the Delaware River with its decaying coastal defenses that remain from World Wars I and II. Then, having figured out that there were access roads along both sides of the canal, we went exploring on a minor road alongside state Route 9 until we reached the canal.

From there we walked all the way to end of Reedy Point, the eastern end of the modern C&D Canal.

The original nineteenth-century canal went through Delaware City a few miles north of the current terminus and small craft still use that route. In a riverside park in the city center we found the single remaining lock of the nineteenth-century canal. Near the lock was a diving bell used to make underwater repairs to the lock.

Background:

The C&D Canal was a contemporary of the C&O Canal. Like the C&O, it now belongs to the federal government. Unlike the C&O, it was a commercial success and is managed by the U.S. Army Corps of Engineers. The USACE website provides information on the canal, both historical and current: www.nap.usace.army. mil/Missions/CivilWorks/ChesapeakeDelawareCanal.aspx

Originally envisioned as early as the seventeenth century to reduce shipping distance between the east coast ports and Baltimore, the C&D was successfully completed in 1829 at a cost of \$2.5 million. The waterway was 14 miles long, 10 feet deep, and 66 feet wide at the waterline with four locks, and bypassed 300 miles of sea and bay travel. The canal was purchased by the federal government for \$2.5 million in 1919 and rebuilt by 1927 as a 12-foot deep, 90-foot wide sea level canal. It has been widened and deepened several times since then and is currently 35 feet deep and 450 feet wide. The C&D Canal carries 40 percent of the shipping traffic in and out of the Port of Baltimore.

The C&D Canal Museum is located at 815 Bethel Road, Chesapeake City, MD 21915 (410-885-5622) and is open on weekdays from 8:00 a.m. to 4:00 p.m. The Michael Castle Trail is a 9-mile route along the north shore of the C&D Canal. Visit www.traillink.com/trail/michael-castle-trail.aspx.



Tug boat and barge on modern C&D Canal. - Photo by Pat White.

2015 Douglas Memorial Hike



Images from the Douglas Hike:

Upper left – Inside the Lander lock house during a tour given by Pepper Scotto.

Middle left – Sven Radhe, Richard Radhe, Leslie Aguila, and Karin Radhe along with Manny enjoy the last bit of the walk to Point of Rocks.

Below – The first group of hikers starts off from Lock 31 at Weverton. They walked about 12 miles on a perfect day on the canal. Photos by Steve Dean.



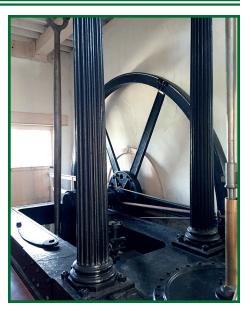






C&D Canal Photos -

(Left) C&D Canal nineteenth-century lock. (Center) Cast iron fox at C&D Canal Museum. (Right) Detail of C&D Canal pump engine. Left and center photos by Pat White, Right photo by Kerry Gruber.



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In Memory of Carl Linden

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Rehabilitation of The Cumberland is Complete

By William Bauman

Efforts to rehabilitate *The Cumberland* replica canal boat are now complete. Canal Place Authority authorized JLD Construction LC to perform the work in accordance with their proposal of December 2, 2014. The Association paid for the work through a grant from the Ken Rollins Canal Fund.

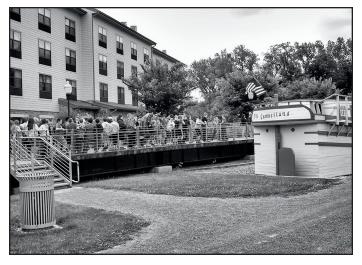
The repairs included refurbishment of the boat cabins. Rotten boards in all the cabins were replaced and the tar paper roof on the mule stable was replaced. All three cabin exteriors were re-caulked to eliminate moisture. An additional repair to the access ramp included replacement of the wire rope used to operate the ramp.

The family cabin windows, bunk beds and table have been furnished by the National Park Service with period appropriate items. Both windows in the mule stable now open for ventilation.

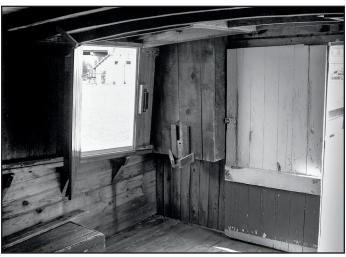
Now that the repairs are complete, local students are already visiting the boat. The NPS interpretive staff tells the students about the cabin and that coal would have been the cargo on the other side of the wall. Exiting through the door, the students are engaged by park staff in a discussion of canal life versus their life today with electricity, TV, Internet, smart phones, indoor plumbing, and recycling. An example given is that feed sacks would have been re-purposed into dresses, table cloths, window curtains, and quilt patches. Straw ticking from the mattresses could have been used for bedding in the mule stables. Manure from the mules would be given to a lock keeper as fertilizer for his garden in exchange for something such as a loaf of bread. Drinking water came from springs along the canal, but not directly from the canal.

Make plans to visit *The Cumberland* during the upcoming summer season. The Cumberland Visitor Center is located in the Western Maryland Railway Station, Room 100 at 13 Canal Street in Cumberland. Visit www.nps.gov/choh or call 301-722-8226 for further information.

Below – Students lined up for a tour of The Cumberland. Photos by William Bauman







Top - The furnished family cabin. Center - The mule stable. The wall hanging box was for feed corn storage. On a real canal boat, there would not have been a door in the rear wall of the stable. Below - Students listening to National Park Service staff during a tour.



C&O Canal Association Produces and Prints Revised Chesapeake and Ohio Canal Official National Park Handbook

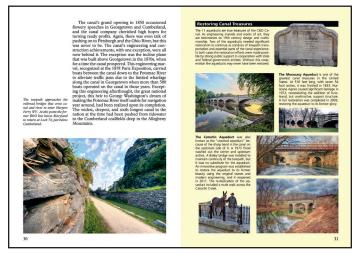
Official national park handbooks are a series of reasonably priced user guides that provide historical background, descriptive details, and visitor information. In 1991 the *Chesapeake and Ohio Canal Official National Park Handbook* was published by the National Park Service Division of Publications. Also known as *Handbook 142*, the book underwent moderate updates during several reprintings through the years. It is consistently the largest seller in the park's visitor centers.

Chesapeake and Ohio Canal

Over time, the handbook started to show its age. The original handbook was maintained on film-based artwork and was not in a modern digital format. The text and images lagged behind some of the changes to the park's facilities and programs. The modern photos started to look dated, with park visitors in 1980's clothing, and canal features that had obviously changed. The text required updates to reflect up-to-date interpretation of the canal's history. It was clearly time for an update and a fresh look.

Park staff wanted to put the handbook in a modern digital format and update it to reflect all of the needed content changes. However, they were faced with a significant cost to modernize the book, and an equally high expense to incorporate all of the content updates that were desired. This high cost would have forced a significant increase in the cover price of the book. In early 2014 the park put the project on hold, with the possibility of never printing the book again.

(Continued on p. 9)



The revised handbook features the original content along with new material.

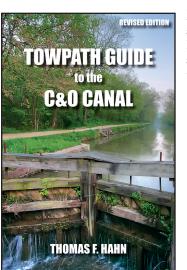
Harpers Ferry Historical Association Publishes Revised Edition of *Towpath Guide to the C&O Canal*

Many C&O Canal Association members have fond memories of first exploring the towpath with the classic *Towpath Guide to the C&O Canal* at their side. Some members even remember personally participating in Association activities with the book's author, Thomas Hahn. The original *Towpath Guide* went out of print in 2006, and a common topic of discussion during Association hikes was when the book would be reprinted.

Hahn discovered the canal during U.S. Navy service in Washington, D.C. Over time he became a devotee of the canal and later a canal expert. He collected C&O Canal related printed material and, as an active member of the Association, served as the editor of *Along the Towpath* and the Level Walker chair. Hahn compiled his data with information and measurements taken by Orville Crowder, and published the first towpath guide in 1971. The first guide only covered Georgetown to Seneca, and ultimately there were four guides, each covering part of the canal. The four guides were combined into one volume in 1982, and that guide went through 15 revisions and sold over 100,000 copies. Captain Hahn died in 2007.

With the book out of print, *Towpath Guide* users faithfully held on to their old copies. Many copies of the guide were in pieces and held together with tape, but still in use. Used copies could be

found at various book resellers. There was always hope that a new edition of the guide was around the corner.



On June 4, 2012 the hopes of many canal fans were answered. The Association Level Walker chair received an email from Cathy Baldau, the publications specialist for (Continued on p. 9)



Cathy Baldau - HFHA

Handbook 142 (continued from previous page)

Rita Bauman, the Association's Festival Committee Chair, informed the board of the situation in May 2014. After some discussion, the Association submitted a proposal to both modernize and update the book on a volunteer basis. The project goals were to recover all text and images, convert the book to a modern digital format, incorporate the necessary changes and deliver a final book file that could be updated as needed in the future. The park accepted this offer and on June 6, 2014 effort started to rebuild the book.

Adobe InDesign software, which is used to produce *Along the Towpath*, was selected to produce the book. A small team, led by Steve Dean and including Dward Moore and Karen Gray, performed the

bulk of the effort. It was necessary to scan the old text, convert it to readable text, and incorporate the comments of park staff and Karen's updates. Once the changes were incorporated in the text, Karen conducted a thorough review and provided even more improvements. Karen's knowledge and remarkable insight were essential to the update. Dward researched all of the historical photographs and artist-drawn images in the book, obtained permissions, and located as many reproducible images as could be found for use in the book. Dward's tireless research and knowledge of the park's image collection



Full-color park maps and other images were updated to reflect park improvements.

provided a tremendous contribution to the revision of the book. In many cases original artwork was not available, and it was necessary to scan from the best possible images available, retouch in Photoshop and convert to the required format for the book. Steve processed all of the content for the book and placed it in InDesign, progressively building the pieces into a book. The modern photographs inside the book were updated, and a cover photo by noted photographer Roy Sewall was provided for the book.

It also became apparent that the best approach to printing the book was for the Association to fund the book's printing. The book will be resold by the Association to Eastern National, which stocks the park's book stands in visitor centers, as well as to distributors. This approach will help place the publication in visitor centers earlier, protect the rights to the content, and ensure that a reasonable price can be maintained.

Production of this book has enjoyed excellent support from the park. Partnerships Coordinator Dan Filer took the lead on this project and has incredible enthusiasm for the project. Dan was never too busy for a meeting or phone call to keep the effort moving; and his interest kept the team motivated throughout this very time-consuming project. Superintendent Kevin Brandt and Deputy Superintendent John Noel were very supportive and gave the project a high priority. Volunteer Coordinator Emily Hewitt and her assistant Chad Crumrine were very helpful tracking down images and data.

The net result of all of this effort is a modernized handbook that remains faithful to the old handbook, provides meaningful updates, and adds new material. The revised handbook increased in size by 20 pages. With all of these improvements, it will still be priced at \$10.95. Look for it in park visitor centers, from the Association's bookstore, and other vendors in early July.

-Steve Dean

Towpath Guide (continued from previous page)

the Harpers Ferry Historical Association (HFHA). HFHA owns the rights to the book, and it was the most requested out-of-print book in their bookstore. Cathy asked if the Level Walkers would be willing to help verify and update towpath details and provide photographs for the planned revision of the *Towpath Guide*. Karen Gray was already helping with text updates, and recommended that Cathy ask for help from the Level Walker team. That email was very quickly answered with an emphatic YES!

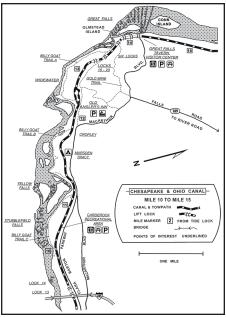
The level walkers quickly got to work. Cathy assigned sections of towpath for the walkers to verify against the existing text, and 16 level walkers covered the towpath miles. Association members also contributed text, provided photographs, proofread, provided GPS data and, notably, updated the maps and gave them unprecedented clarity and accuracy. The acknowledgments section of the revised *Towpath Guide* includes a long list of volunteers from the Association and other organizations; this is the true spirit of volunteerism and teamwork that Capt. Hahn would have embraced.

Cathy made good use of all the effort put forth by the volunteers. She designed a beautiful, easy-to-use book that offers many enhancements, yet retains the personality and flair of the original editions. The revised *Towpath Guide* can be obtained through the Association book sales web site, at park visitor centers, and from the HFHA, either on-line or at their bookstore in Harpers Ferry.

On behalf of the Association members and volunteers, many thanks to Cathy and the HFHA for bringing back one of our favorite books. All of the volunteers will attest that Cathy was great to

work with and very appreciative of the effort. The level walker spirit wore off on her—she and her husband Todd recently signed up to become level walkers!

- Steve Dean



The revised maps are one of the highlights of the new Towpath Guide.

From War to Peace: The C&O Canal in 1865 and its Postwar Recovery

By Timothy R. Snyder

The year 1865 was one of transition for the Chesapeake and Ohio Canal Company. Four years earlier the Civil War had arrived and brought canal navigation to a standstill that some thought would last for the duration of the war. Such predictions, however, did not come to pass. Despite frequent closures due to military incursions and other causes, the canal company was able to make repairs and resume navigation. The canal remained in operation throughout the conflict, aided by a Union government that needed Cumberland coal and the transportation services the canal provided. Although the Civil War ended in 1865, a host of problems confronted the canal company—many resulting from the armed struggle—as it faced a hopeful but uncertain future.

Unlike at the beginning of the war, when military activity impacted the canal very early in the conflict, military action had little impact on the canal in the last phase of the conflict. Small parties of Confederate raiders crossed the Potomac on a number of occasions in the early winter of 1865, but the object of the raids was usually plunder, not sabotage of the canal. In January the Washington Evening Star noted, "The guerrillas who infest the banks of the river have become very troublesome of late, and that hardly a night passes without their firing upon our pickets or making an attempt to cross the river at some point." The destitute condition of the Confederacy was reflected by the type of raids that were conducted. An incursion in late January resulted in the robbery of a store at the foot of Sugar Loaf Mountain, while in February a small squad of Confederates attacked a Union soldiers' camp and pilfered from a store at Edwards Ferry. On January 19 near Harpers Ferry, Mosby's Rangers, a Confederate partisan ranger unit, hoped to duplicate their 1864 "Greenback Raid," during which they had stopped a train and captured two Union paymasters with more than \$100,000 in cash. This time, however, the train they derailed near Harpers Ferry only contained delicacies intended for Union officers. Instead of cash, the Rangers carried away beer, wine, cakes, candy, oysters and sacks of coffee beans. They named their latest exploit the "Coffee Raid."1

On February 21, McNeill's Rangers, another Confederate partisan ranger outfit, crossed the Potomac at Brady's Mill southwest of Cumberland near modern-day Cresaptown. Dressed in Union blue, the band advanced toward Cumberland and captured the first picket outpost that they encountered. The men forced their prisoners to give up the countersign and successfully proceeded past the remaining picket posts. McNeill's men arrived at Cumberland after dark and quietly entered the hotels where Union generals George Crook and Benjamin Kelley slept. They made the generals their prisoners and left town by the canal towpath, crossing the river at Wiley's Ford. Although the event had little military impact, it was an embarrassment to the Union government. General Crook purportedly told his captors that his capture, as well as that of Kelley, was one of the most daring exploits of the entire war. The generals were taken to Richmond, paroled and later exchanged and returned to duty.

As the canal company prepared to resume navigation in the early spring of 1865, a number of problems surfaced. In early March nearly one hundred feet of the berm side of the Conococheague Aqueduct at Williamsport fell into the creek. The superintendent explained, "There has been a crack in it for the last 6 or 8 years,

and I suppose the blasting by the rebels, and the severe freezing weather this winter, caused it to give way." In addition, high water in late February caused two breaks in the canal, one five miles above Georgetown, the other at Great Falls. The flooding also further undermined Dam 5, which was in poor condition at the start of the war and had continued to deteriorate. The superintendent recommended that the company resume work on replacing the existing crib dam with a masonry structure, "as all our experience proves that no reliance can be placed in cribs." ²

In April the American Civil War drew to a close. Confederate General Robert E. Lee surrendered to Union General Ulysses S. Grant on April 9 at Appomattox Court House, Virginia, while on April 26 Confederate General Joseph E. Johnston surrendered to Union General William T. Sherman near Durham Station, North Carolina. As a result, a slump almost immediately developed in the coal market. Anticipating a profound economic decline as a result of the sudden termination of the war, the price of coal in the open market dropped sharply. On the date of the surrender in North Carolina, Alfred Spates, president of the canal company, wrote the company's board of directors, "About all the coal cos. have stopped shipping coale, on account of the high rates of freight, mining, tools, etc., etc.. The canal is doing nothing now. . . . Everything must come down [in price] to enable the coal cos. to make further shipments of coal from here to compete with other coals now in the northern market."3

Canal navigation languished while the coal companies sought to reduce expenses. The companies asked coal miners to accept a forty percent reduction per ton, which the miners refused. On June 1 the Cumberland Civilian and Telegraph noted, "It is evident that the price of mining has come down, and we hope the operators and the miners may come to some agreement soon, and not mutually injure each other by remaining idle." An agreement was reached in early June, by which the miners agreed to return to work at a twenty-five percent reduction per ton.⁴

The coal companies next sought a reduction in tolls on coal from the canal company. In a joint letter, six companies asked for the canal company to lower tolls, explaining, "The coal trade is almost prostrate by the suspension of all industries, consequent upon the sudden transition from War to Peace." The coal companies acknowledged that tolls on the C&O Canal were lower than on other northern canals, but explained that Cumberland coal had to be shipped a much greater distance to reach markets in northern industrial cities. Additionally, the coal operators pointed out that canals in Pennsylvania and New Jersey had recently reduced their tolls from twenty-five to thirty-three percent. The canal company did not immediately reduce its tolls, however, likely because of the long list of repair and maintenance tasks that needed to be completed due to the war and spring flooding.⁵

President Spates summarized the condition of the canal at the end of the war in the company's annual report, which was issued on June 5, 1865: "The canal is now in good navigable condition, but to put it in thorough and permanent order, make it reliable for uninterrupted navigation, and afford proper facilities to the largely increasing trade upon it, considerable expenditures will still be

required. It is proposed to do this during the present season as far as the revenues of the Company will admit consistent with other indispensable obligations."

Once canal navigation resumed in earnest in July, trade was strong. In four of the last six months of the year the company collected over \$50,000 in tolls, including over \$56,000 in August, which was a record up to that time. For the year, the company shipped 80,000 more tons of coal than in 1864, over 57,000 more than in 1860. For the year, revenue exceeded expenses by almost \$154,000. Although the company still had significant debt on its books, it succeeded in paying over \$146,000 toward its floating debt, which it owed to merchants and contractors for supplies and repair work. Seeking new leadership, the stockholders of the canal company in July 1865 selected a new president, Jacob Snively of Hancock.

A long list of repair and maintenance work awaited the company's attention. During the war, many repairs had been neglected or only completed in a temporary fashion due to scant resources. At the end of the year the canal company's new engineer and general superintendent, Charles Manning, estimated that the company needed \$324,500 to complete maintenance and repair work, \$250,000 in 1866, the remainder in the following year. Manning wrote, "It is unnecessary for me to remind the Board that for several seasons previous to the last period of suspended navigation, no repairs beyond those of absolute necessity were either attempted or accomplished; nor that, consequently, the need of repairs during the past winter, and prospectively, for the current season of navigation has been and still is excessive." Among the most urgent tasks, Manning noted that Dam 5 needed repairs "without delay."

Other effects of the war lingered into the post-war period. During the war the Quartermaster's Department of the U.S. Army rented a one hundred-fifty foot lot along the Rock Creek basin for use as a coal yard. The canal company asked the army to begin paying rent on an additional twenty-foot lot of wharf property, but the army refused, stating that the space was reserved for the convenience of boats passing through the locks. The canal company objected, stating that the smaller lot was still occupied by the army. Although no resolution of the matter has been found, the army maintained possession of the wharf property along the Rock Creek basin until January 31, 1868.

The army also maintained possession of the Alexandria Aqueduct in the post-war period. The aqueduct spanned the Potomac above Georgetown and linked the C&O Canal with the Alexandria Canal. Alexandria had better port facilities than Georgetown and was heavily utilized by coal shippers before the war. Late in 1861 the U.S. Army had seized the aqueduct, seeing it as a potential route of invasion leading from Virginia to Washington. D.C. On September 5, 1866, the canal company resolved to ask President Andrew Johnson to secure the release of the aqueduct from the army. The following year the army released the aqueduct from its control, but much work was required to restore it after five years of neglect.

After the army had seized the Alexandria Aqueduct early in 1861, a Congressional appropriation was passed that granted the canal company \$13,000 to raise the bridges over the canal in Georgetown. When empty, the largest class of boats could not ascend the canal in Georgetown because the bridges across the canal were too low. Work to raise the bridges over the canal in Georgetown was completed in 1866, although at least one within the boundary of Washington needed to be raised as well.

During and after the war, the canal company had submitted a number of claims against the U.S. Army, hopeful of recouping some of its losses resulting from the war. The claims were for seizure and destruction of company property, unpaid tolls and the difference between tolls collected in the pre-war and post-war periods. The initial claims totaled over \$75,000 and encompassed the period from September 1861 through April 1862. On July 4, 1864, Congress had passed legislation that established a process by which loyal citizens could seek reimbursement for goods that were provided to or seized by U.S. Army personnel. In accordance with the act, an attorney for the canal company submitted a much smaller claim to the army, for \$5,151.60, for unpaid tolls on supplies and subsistence shipped on the canal by military officials. Presumably, this figure comprised a portion of the original claim. Instead of reimbursing this amount, the army filed a "set-off" claim again the canal company that totaled nearly \$9,000 for repairs it had made to the canal in 1863 during the Gettysburg Campaign. In March 1865 the company submitted another claim for \$292,330, much of which, it argued, was the cost of company property that was seized by the army during the remainder of the war and, therefore, was reimbursable under the July 4, 1864 Act of Congress. The Quartermaster General of the U.S. Army, Montgomery C. Meigs, refused, explaining that the company only filed its latest claim after the army submitted its set-off claim against the company's earlier submission. As late as 1871 the canal company sought to seek reimbursement for at least a portion of the claims, but Meigs, still the quartermaster general, continued to deny them. He only considered the company's \$5,151.60 claim for unpaid tolls in 1861-62 as legitimate—even though it was only for an eight month period—and ignored those that were submitted before and after, and countered the company's submittal with the army's own set-off claim.

After a two year absence, in 1867 the stockholders of the C&O Canal Company returned Alfred Spates to the position of president. Knowing that the canal had deteriorated due to the war and the company's limited resources, Spates and new board of directors made it a special objective to return the canal to pre-war condition. The financial condition of the canal suffered in the short term, but by 1869—Spates' final year as president—he announced to the stockholders that the canal was fully recovered from the effects of the Civil War. Spates, writing for the board, noted that while indeed the expense of undertaking such work was heavy, "the condition of the canal was such after the close of the war, from the fact of its being continually damaged by the contending armies, as to make it absolutely necessary to employ a large force to enable the Board to place its condition beyond any ordinary contingency. This the Board, with judgment and discreetness, have done; and they now have the pleasure of reporting to the Stockholders the canal fully recovered from all damages growing out of the war. The whole line is now in thorough, complete, and safe condition." Among Spates' and the board's accomplishments was finally completing a new masonry dam at Dam Number 5, a project that had been contemplated, begun, abandoned and delayed for at least fifteen years.8

Canal historian Walter S. Sanderlin has described the period from 1870–75 as the "Golden Age" of the canal, the most profitable, stable and successful period in its operating history. The restoration of the canal following the war was an important factor in enabling the company to grow and to handle a heavy volume of goods in the decade that followed. In 1875 the company shipped just shy of \$1 million worth of goods, almost three times what it had shipped in 1860. It never exceeded this volume in the remainder of its history.⁹

During the war, the C&O Canal played an important role on behalf of the Union. Its most significant service was that of a coal carrier, especially during times when the main stem of the B&O Railroad was in disrepair, such as from June 1861 to March 1862. It also delivered a significant quantity of flour to the government at Washington, especially during the first year of the war when the Union army was rapidly expanding. The canal also supplied various armies and commands in the field, such as General McClellan's Army of the Potomac after the Battle of Antietam. Its most significant service in any single battle or campaign was in 1863 when it facilitated the Union army's pursuit of the Confederates into Pennsylvania and, after the Battle of Gettysburg, aiding the army's pursuit of the defeated foe. The canal also provided transportation services to soldiers and commands in the field, including the evacuation of the sick and wounded. Canal boats—both privately owned and company scows—were used as ferries and to support temporary bridges. Finally, the canal's prism itself, drained of water, and its dam abutments were used as a breastworks during military engagements on several occasions.

With its location on the border between the North and South, the canal was fortunate to have survived the conflict. Having done so and then undergone restoration following the conflict, the C&O Canal was poised to grow in tandem with the industrial growth of the nation.

Notes:

- 1. Washington Evening Star [n.d.], in Frederick Examiner, Jan. 11, 1865; John Scott, Partisan Life with Col. John S. Mosby (New York: Harper & Brothers, 1867), 444.
- 2. Masters to Ringgold, March 6, 1865, Letters Rcd, C&O Canal Papers, Record Group 79, Records of the National Park Service, National Archives and Records Administration, College Park, Md.; Masters to President & Dirs., April 3, 1865. Letters Rcd., C&O Canal Papers.
- 3. Spates to Ringgold, April 26, 1865, Letters Rcd., C&O Canal Papers.
- 4. Cumberland Civilian and Telegraph, June 1, 1865.
- 5. Detmold, Bramholt, Culter, Borden, Potts and Campbell to President & Dirs., June 12, 1865, Letters Rcd., C&O Canal Papers.
- 6. Spates quoted in Harlan Unrau, *Historic Resource Study: Chesapeake & Ohio Canal*, U.S. Department of the Interior, National Park Service, Chesapeake & Ohio Canal National Historical Park, Hagerstown, Md. (2007), 768–769.
- 7. Manning quoted in Unrau, *Historic Resource Study: Chesapeake & Ohio Canal*, 771; Thirty-Eighth Annual Report of the President and Directors of the Chesapeake and Ohio Canal Company, to the Stockholders, June 4, 1866 (Washington: R.A. Waters, 1866) 4–9.
- 8. Forty-First Annual Report of the President and Directors of the Chesapeake and Ohio Canal Company, to the Stockholders, June 7, 1869 (Georgetown: Courier Print, 1869), 4.
- 9. Walter S. Sanderlin, *The Great National Project: A History of the Chesapeake and Ohio Canal.* Companies and Men: Business Enterprise in America. (1946. Reprint, n.p.: Arno Press, 1976), 226.

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

C&O Canal Boats and Boating 1870–1889: Part I

By the early 1870s, the long, narrow, and shallow-draft boats used on the Potomac and its tributaries had become a small minority of the boats using the canal. The building of large canal freight boats was booming and trade on the canal was growing, with 395 boats engaged in the coal trade alone in 1870. These freight boats could hold up to 130 tons, and an occasional boat even carried a few tons more. Generally, however, they carried between 105 and 120 tons. In 1870 the total tons of coal carried to various wharves along the canal or in Georgetown, Washington, and Alexandria was 606,707.

The rate at which boats were built is indicated by the fact that 40 were constructed during the 1869–70 winter, 60 in the winter of 1871–72, and in 1873 there were in excess of 500 boats in operation on the canal as a result of the coal companies having 91 additional boats built in the Cumberland yards. These numbers, however, also suggest that older or smaller boats were being retired at the same time.²

Precise data on the number of boats carrying agricultural and other cargoes has not been found, but trade tables for this period document 16,484 tons of flour, wheat, and corn as well as 968 tons of lumber carried in 1870. Annual tonnage shipped hit its peak in 1875: 904,898 tons of coal; 13,447 tons of flour, wheat, and corn; and 1,270 tons of lumber. ³

The importance of the grain trade on the canal emerges in the reports found in Washington's *Daily National Republican*, such as that on September 9, 1870. The report describes eight grain mills along the canal in and on the level above Georgetown, and it states: "The bulk of grain is received by way of the Chesapeake and Ohio canal, and a great deal comes by wagon from neighboring counties of Montgomery and Prince George, Maryland; but the supplies are not always sufficient to satisfy the demand."

By 1871, the inadequacies of the canal's wharf access and methods of unloading the boats in Georgetown were clearly apparent in the complaint of an officer from the company operating the Seneca quarries. He described the Georgetown level as often so clogged with boats that navigation was almost impossible, and on June 14 he counted ten tiers of boats three abreast, twenty tiers two abreast, and two tiers four abreast—all waiting to be unloaded.⁵

In 1873–74 the canal company surveyed the commercial cargo-carrying boats on the canal, creating a register of 539 boats.⁶ Of these, 538 were organized into 5 classes with boat lengths varying from 50 ft. to 96 ft., and the draft when loaded varying from about 2.5 ft. to 4 ft. 9 in. In this heyday of boat building, the variations make it clear that all the boats were not built to the same pattern and other details with regard to the cabins, hatches, and size of the tiller deck, etc. must have varied as well.⁷

The last two—and smallest—classes (labeled D and E) likely included some of the boats able to navigate the upper Potomac and its tributaries, as the smallest had a length of 75 ft., and a draft when

loaded of as little as 3 feet. Class E included only one boat 90 feet in length but with a draft of only 2 feet, 6 inches when loaded.

Of particular interest in the 1850–1889 era is the ownership of the boats and the makeup of the crew. Surprisingly, there is very little indication of boats being operated by a family—i.e., a crew composed entirely of nuclear family members, such as a father, possibly his wife, and one or more of their children. More will be said of this in subsequent columns of this series on canal boating in the different eras, but it is likely that family boating became common only during the receivership years (1891–1924).

In 1851 most boats were registered to individuals, but many of these individuals owned more than one boat and a significant number of single-boat owners can be identified as businessmen in towns on or near the canal. Indications are that businessmen hired men to operate their boats. Examples of this ownership pattern are James H. Anderson of Williamsport and L. W. Poffenberger of Shepherdstown, both of whom owned three boats but were not captains of any of them.⁸

By 1873–74 nearly one fourth of the boats were registered in the name of companies, some with sizable fleets. The largest were the American Coal Company, which boasted 78 boats, and the Consolidation Coal Company, with 55. Among the boats in an 1875 register were those owned by, or operated for, two Williamsport companies: Steffey and Findlay: and Embry and Cushwa.⁴ These firms are examples of the many coal companies that were not themselves involved in mining, but acquired their product from brokers in Cumberland and sold it to their own customers at their own wharf, or to the customers of another coal dealers with a wharf.⁹

In addition to the coal carriers in this register, there were eight grain boats, one boat that carried bricks and another that carried limestone. The remaining boats were simply designated "outside boats" and likely carried whatever cargo their owner and/or captain could obtain. ¹⁰

In 1877, after a rate war with the B&O Railroad and a two-month-long strike by the boatmen, one of the worst floods in the region's 150 years of recorded history devastated the canal on November 24. To repair the flood damage, the canal company in 1878 issued bonds that were ultimately owned by the B&O Railroad. This resulted in the railroad's control of the canal under the receivership established by a 1889 bankruptcy court.

After the 1877 flood, A. L. Miller of the Consolidation Coal Company documented the location of 170 loaded boats along the line of the canal, providing an exceptional picture of the effect on canal boats of a major flood. The fact that the boats tended to be found in groups at specific places may be evidence of the boatmen's awareness of danger and the decision of some to wait out the storm at preferred locations. For example, there were clusters of 6–10 boats on each of the following levels: Oldtown; the Paw Paw tunnel; Seven Mile; Two Mile; Dam 6; Williamsport; Locks 35 and 36 above Harpers Ferry; Berlin (now Brunswick); Monocacy; Seneca; and Seven Locks. 11

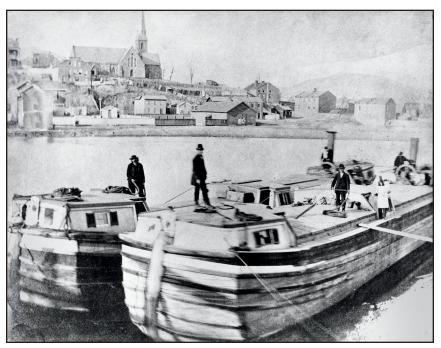
Miller also noted the boats condition, such as those that would need to be lightened before they could be

refloated, and those that were so badly damaged as to be unusable until repaired, if repair was possible. Seven were clustered on the three-mile level between Lock 59 and 60 (above Dam 6 in the Paw Paw bends). Of these, four were damaged and would have to be unloaded, and two required complete unloading or lightening before refloating. Only one boat, which was actually in a lock, appeared to be in good condition. At the Five-Mile Level where Little Orleans is located, one boat had been washed out onto the towpath and was not usable and at Four Locks where 23 boats had sheltered, one had been washed up onto White's coal yard and was unusable. Of the five boats at Lock 43 (below Williamsport), all were unusable, with one washed onto the bank and another onto the river bottom (i.e., flood plain), while one was described as "upset in the lock".¹²

There appears to have been no regular use of steam freight boats until the 1870s, during which time the number on the canal slowly increased, with one coming into service in 1873, three in 1874, five in 1875. By 1879 there were 19 steamers making between 7 and 22 trips in that year, the most notable being the steamer *Areturus* that made the 22 trips, carrying a total of 2,058 tons. It should be noted that this represents an average of 93.5 tons per trip—10 to 15 tons less than a mule boat due to the steamer's boiler and engine occupying some of the hold.

Of particular interest is a packet boat, the *Maryland*, that was built in the winter of 1875–76 by H. Ashton Ramsay, a Baltimore builder of iron ships, marine engines and boilers. Entering service in June 1876, this steamer had an iron hull, two decks, and a skylight. It was one of the boats that rode out the 1877 flood with the 22 other boats at Four Locks. ¹³ At the beginning of the boating season in early April 1878, the canal company president and board took the *Maryland* down to Georgetown, descending to the river on the inclined plane.

The other steam boats were likely all built in Cumberland at the boat yards of: William Young; Weld and Sheridan; R. & M. Coulehan; and Doener & Bender. Among the other steam boats on Miller's list of the location and condition of boats on December



Steam Freighters at Cumberland - Photo courtesy of the National Park Service, C&O Canal National Historical Park

7, 1877, were the *Patton* at Berlin (Brunswick) and the *Regulus* at Seven Locks. ¹⁴

When it comes to the boatmen in this era, Unrau in his Historic Resource Study of the canal notes that the canal company directors were critical of the "abrasive behavior" of the boatmen, citing their:

(1) disregard of company rules and officials, (2) clamoring for access to the coal wharves on the congested Georgetown level, (3) reckless navigation practices which led to boating accidents and to the destruction of works on the canal, (4) incidents of physical violence vis-à-vis the lock tenders, (5) reluctance to meet the minimum requirements of the company regulations relative to the quality of the barges, and (6) attempts to defraud the company of its rightful tolls.¹⁵

In one particularly notorious example, George Reed, captain of the *Mayfield and Heiston* refused to pay fines for violations of canal company regulations, refused to obtain waybills and to pay tolls, and forced his way through the locks from Cumberland to Georgetown where his boat was unloaded. He continued that aggressive behavior on his way back to Cumberland where his boat was seized with the aid of the police until all fines and unpaid tolls had been paid.¹⁶

The most common kind of damage done by carelessness on the boatmen's part involved damage to lock gates when boats were not sufficiently slowed and/or snubbed as they entered the lock or as water levels were changed. In the worst cases the damage could require the replacement of gates, preventing use of the lock until the new or repaired gate was installed. Such damage occasioned a heavy fine on the responsible boatman. In the 1877 to 1880 period, boatmen were fined for running into and/or breaking lock gates on nine occasions.¹⁷

But sometimes it was the boat that was damaged. In late November 1872, the captain of the *Loreto* struck the upper abutment of Lock 15, knocking a one-foot hole in his boat, which caused it to sink and prevented passage by other boats for 24 hours. Another chronic problem involved leaky boats that would sometimes sink, impeding navigation. In the 1877 to 1889 period, some 20 citations were issued by the company for boats that sank or required help in pumping to keep them afloat.¹⁸

Arguments that sometimes turned violent between crews on different boats, or between boatmen and locktenders, also appear as a repetitive problem in canal company records and newspaper reports. ¹⁹ At times it is difficult to tell from the reports precisely what happened, as in the report "that a man named Bushrod, employed on the steamer *Areturus*, was seriously injured on Saturday by being struck with a hammer in the hands of the captain, W. T. Hassett." ²⁰

Drownings were among the most common cause of deaths among the boat people as well as the locktenders and their family. In one case, a father watched his nine-year-old son drown after falling from the boat into the canal. Neither could swim and no means of aiding the boy was apparently available on the boat.²¹ Incidentally, this incident is significant as an example of a father and young son on the same boat but no indication of other family members being present.

The extent to which closely related family members made up crews in this period can only be determined from news reports of canal incidents, and these largely provide a picture of apparently-unrelated all-male crews, not families. When a young boy is men-

tioned, he is as likely to be simply referred to as a "tow boy" as to be described as a son of the captain or a crew member.

In my next column, I'll continue a discussion of boating in this 1870–1889 era and explore some mysteries about boat operation in the 1870–89 era that emerge in an analysis of the information in William Bauman's transcriptions of coal boat departure reports from the Cumberland papers. This data also suggests that captains did not always command the same boat or work for the same company, and it provides further evidence contrary to the traditional image of one captain running the same privately owned boat with his immediate family serving as crew.

Notes:

- 1. Unrau, Harlan D., *Historic Resource Study Chesapeake & Ohio Canal* (2007 edition), 352. Sanderlin, Walter S., The Great National Project, 307.
- 2. Ibid., 353.
- 3. Ibid.
- 4. *Daily National Republican* articles from 1870–71 concerning the canal were transcribed by William Bauman and are available from the C&O Canal NHP library as a pdf file.
- 5. Unrau, ibid.
- 6. William Bauman has transcribed this register (as well as others) and made it available in pdf format on the Association's website at www.candocanal.org/histdocs/index.html.
- 7. Ibid., 353–54. Note that the first 24 locks were built with about 90–91 ft. between gate pockets (or miter sills)—i.e., the lockage space available for a boat. This is too short for boats of the length given here. The mystery of boats that appear to have been too long, for the shorter C&O Canal locks, according to the registries, has not been solved. Locks 5, 6, and 7 were lengthened by 10 feet in 1876–77. In addition Locks 28 and 31 were both under 91 feet. I have discussed this problem more fully in past columns.
- 8. "1851 Canal Trade", consisting of transcriptions by William Bauman of canal-related article from the Cumberland *Alleganian*.
- 9. Ibid., 354.
- 10. Ibid., 354-55.
- 11. The Cumberland *Alleganian & Daily Times*, December 7, 1877. This information was extracted from William Bauman's 1877 Canal Trade document containing his transcription of canal-related information in this paper.
- 12. Ibid.
- 13. Ibid.; and Unrau HRS, 358.
- 14. Ibid., 359; and Miller's list from the *Alleganian & Daily Times* cited above.
- 15. Unrau, 809.
- 16. Ibid., 810.
- 17. Ibid., 811.
- 18. Ibid., 812.
- 19. Ibid., 813-814.
- 20. The *Alexandria Gazette*, October 7, 1878 as recorded in William Bauman's "1878 Canal Trade" transcriptions.
- 21. Hagerstown Weekly Mail, September 25, 1874.

On The Level By Level Walker Chair Steve Dean

Spring is quickly evolving into summer and Level Walker activity has increased as a result of the fine spring weather. This report is the largest one we've done in some time; it summarizes around 100 walks! Unfortunately this success means I don't have room for photos in this issue. I had some good photos to select from, and will include some in the September issue.

In the last issue I reported on the Four Seasons level walkers. Four Seasons walkers cover their levels in each season. I failed to include one of our most active and enthusiastic volunteers—Karlen Keto. Karlen walks Level 22, and occasionally other levels, with her beautiful dog Chessie. Thanks, Karlen, for your excellent service and patience.

Level Walkers are C&O Canal Association volunteers who are assigned a section, or "level" of the canal, and periodically walk it and perform light trail maintenance, assessments, and cleanup. The program is popular because the walks can be performed by and individual or family, and on their own schedule. Please contact me if you are interested in joining us.

Welcome to our newest level walkers: Morriah Horani, Carolina Kendrick, and Liz and Paul Wagner. I look forward to meeting Level Walkers, both newcomers and old-timers, on the towpath this summer.

Level 1 Tidelock to Incline Plane: John Barnett, occasionally with Mary Budarz, reports March 17, April 17, May 9, and May 12: John, a.k.a. the "Lock One Monster" conducted several walks, often with the assistance of Mary. They typically focus on one area or another and provide valuable support in the area. On a recent cleanup John noted that "I must compliment Mary for having the patience to pick up what looked like around 10,000 cigarette butts." John and Valerie Wheeler report 10 May: As always there were numerous people out. Several trees have started growing on *The Georgetown* canal boat.

Level 2 Incline Plane to Lock 5: Rod Mackler reports April 6 and 13: It was a beautiful day for a level walk. Unfortunately, there was a fair amount of trash. People were in fine form and rather chatty. I almost picked up, as trash, some clothes left beside the towpath, then I decided the clothes probably belonged to a rower. A paving contractor was resurfacing the towpath upstream from Lock 5. On April 13th I wanted to check out the status of the maintenance on the dock and picnic area at Fletcher's Cove. The dock is in good usable and well used, even though launching is possible only from the end. There were scads of shad fishermen, most in Fletcher's rowboats.

Level 3 Lock 5 to Cabin John Creek: **Hugh Robinson reports March 8:** I removed a large branch from path from parking lot to lockhouse 6. The path from parking lot to the lockhouse was still snow and ice covered. The towpath in the area was still covered with packed snow and ice and very difficult to traverse.

Level 4 Cabin John Creek to Lock 14: Larry Heflin reports February through May: The towpath was monitored over numerous walks, through all conditions. Conditions and usage were normal for the time of year. Bagged dog waste continues to be an issue on Level 4 and on many other parts of the canal. Mary and George Wheeler report April 12: The level was in good condition.

Level 5 Lock 14 to Bridge at Cropley: **John N. Maclean reports May 15:** The canal is better watered at Carderock than it has been in a long time, but it still gets skinny before you get to the first turning basin, which has a heavy growth of algae even this early in the season. I know dredging creates a waste problem, but I wish something could be done to flush the canal out or dredge it out. The turning basins in particular look unhealthy, except for turtles.

Level 7 Lock 20 to Lock 21: Nancy Benco and Kay Miller report 12 March: Because of all the snow melt, the towpath was primarily muddy, with some slushy areas. There was much rutting by bike wheels. We removed scores of small and medium size tree branches. At Swains Lock, we met Ryan Weldon, formerly a U.S. Marine, tented next to the lockhouse. He'd spent the night there. He's hiking across the country (Delaware to San Francisco) pushing a large wheeled cart (150 pounds) to raise post-traumatic stress disorder awareness. He'd put up his tent next to the lockhouse because the ground toward the river was wet. Bill James reports 15 April: The canal was watered throughout and there was very little floating debris that was out of my reach. One tree section was rolled into canal apparently as a prank. There were some deep tire ruts filled with water after the rain. Bridget Sisson and Oren Swain report April 18: There were quite a few park users out. The only thing unusual we saw was a crew of four with a U.S. Geological Survey jeep. We saw them at various locations along the level. We never had the opportunity to engage them in conversation and ascertain what they were doing.

Levels 8 and 9 Lock 21 to Seneca Aqueduct: Jennifer Stoker reports February through May: The towpath was monitored over numerous walks, through all conditions. Conditions and usage were normal for the time of year. Storm damage was noted in May and quickly cleaned up by the NPS.

Level 8 Lock 21 to Lock 22: Karen and Steve Appleton report March 15: The towpath was in excellent condition, although here was a high amount of trash. The potholes in the Pennyfield parking lot are too numerous to count. Joe D'Amico and Amy Proft report May 4: The canal water showed no signs of algae growth this early in the spring. The level of water in the canal seemed high and the by-pass channel at Pennyfield contained rapidly flowing water. It appears new fencing may have been installed and more debris was in the opening of the riverside erosion site just above Swains Lock.

Level 9 Lock 22 to Seneca Aqueduct: Paul and Rita Marth report 13 March & 14 May: In March we encountered one couple walking a dog, a total of three walkers, one runner, and two people in kayaks. The canal was covered in ice in a number of places. I asked the kayakers how they how gotten through that; they had gotten out and done a few short portages. Before returning on the canal, they had run the river from Seneca. That must have been an exciting trip, as

the river was quite high (6.6 feet at Little Falls) and was quite noisy between Violette's and about Blockhouse Point (very few rocks were visible in the river). In May the debris caught behind the river lock gates at Violettes was minimal. It was mostly tree debris with a small number of bottles and cans. **John McGraw reports March 30, April 2, and April 30:** Over the three walks trash was minimal. There are very bad potholes in the access roads at both ends of the level. I saw many more birds than humans during the walks and the weather was perfect. It doesn't get much better than this.

Level 10 Seneca Aqueduct to Milepost 25: Paul Graunke reports April 14: I struck up a conversation with one well-weathered biker from California. He had left San Luis Obispo in January. He was pleasantly surprised how bike friendly the DC area was and elated by the sights and sounds along the C&O. Potholes in the area by the lockhouse seemed to have been filled in.

Level 11 Milepost 25 to Sycamore Landing: Carol Ivory and Frank Wodarczyk report March 14: We removed many branches of varying sizes from the towpath while walking down, and removed more walking back which indicates that branches were actively falling. All the large branches were very rotten, so the snow and wet are bringing them down. Despite all the earlier snow and rain the towpath was in relatively good condition. There were deep horse hoof prints in muddy stretches of the towpath near Sycamore Landing. John Kochowicz reports March 24 and April 6: I visit the area frequently. The towpath was in excellent condition during my visits. I have noticed evidence of horse riders on the level but not observed any horses. The spring rains have left a considerable accumulation of rainwater in the prism.

Level 13 Lock 25 to Harrison Island: Amy Greenberg reports May 1: The towpath was busy, but surprisingly clean for the amount of traffic. Users were all on bikes except for two ducks and me.

Level 14 Harrison Island to Whites Ferry: Bill Holdsworth reports April 9: Conditions were a little bit wet on the level on a cool, overcast day as winter grudgingly yielded to spring. There was much more water in the prism than usual. The towpath was generally in good shape, but a little bit muddy after recent rains.

Level 15 Whites Ferry to Lock 26: Jon and Patricia Wolz report April 29: There was quite a bit of trash near White's Ferry. A large tree dams up the berm side of Culvert 60. The canal wall has washed out. Water flows under and above the culvert. Bill James reports May 13: There was just a bit of light trash. The towpath is good, but this level gets very overgrown and needs mowing.

Level 16 Lock 26 to Monocacy Aqueduct: Mike Cianciosi reports April 4: As usual, there was very little trash on the towpath. Most of the trash was found in the parking lot, and included a bag full of empty beer cans. A portion of the gutter downspout on lockhouse 27 has fallen off. It's about a 12-foot long pipe that gathers water from where the front & rear gutters come together. I moved it to the back of the lock house, where hopefully nobody will disturb it until the NPS can get around to putting it back up. The logjam behind the Monocacy aqueduct appears to be the same size it was when I saw it last December. It might be a little bit denser though, as it looked like there was more debris stuck in the maze of branches. Jon and Patricia Wolz report April 20 and May 13: Several bees were swarming in front of the lockhouse at Lock 27 in April and we

reported this to the park safety officer. In May there were only five bees buzzing in front of the lockhouse. Also, in April the right rear downspout was unattached in one section and there was foundation erosion. In May the downspout had been repaired and dirt had been put up against the foundation where there had been erosion.

Level 17 Monocacy Aqueduct to Nolands Ferry: Earl Porter reports March 16 (with Jio Porter), April 28, and May 19: The level is in general good condition with a moderate to high amount of trash. Debris continues to block arches at the Monocacy Aqueduct. By May arches 2 through 6 were blocked to various degrees. In March the towpath east of the aqueduct was closed for an emergency. Laura Gilliam and Marion Robertson report March 16: The NPS had recently cut many trees along towpath; we removed a few branches and many small branches and twigs. On this date the towpath just south of the level was barricaded off, we understand because of a large sinkhole; barricade had been knocked down when we came back so we set it back up. At Nolands Ferry the river was high and water reached about three inches up from bottom of red "danger" mark; at the Monocacy boat ramp the river was high and reached five inches from top of red "danger" mark.

Level 18 Nolands Ferry to Point of Rocks: John Anderson reports April 12: The river level was quite high. The towpath was dry and in good condition despite the recent rains. There was quite a bit of trash.

Level 19 Point of Rocks to Catoctin Aqueduct: Lynn Walker reports 2 and 3 April (with Jim Walker), and May 4 and 5: The towpath was mostly dry and in good condition in both April and May. One of the main concerns on this level was the rocking port-a-pot at the Bald Eagle hiker-biker campsite. It has been reported to the NPS.

Levels 19 through 21 Point of Rocks to Lock 31: **Don Peterson reports February through May:** Towpath was monitored over numerous walks. Conditions are generally good on all three levels, and no significant issues were reported.

Level 20 Catoctin Aqueduct to Lock 30: **Doug Zveare reports March 8:** The towpath was icy and snow covered. I was not able to access culverts due to the icy conditions. Culvert 85 is still blocked. The wooden walkway over Culvert 82 is still in need of attention since it was undermined by a breach last year.

Level 22 Lock 31 to Lock 33: Karlen Keto reports March 19 and April 22: During the March walk I took a lunch break in Harpers Ferry and met an ex-Marine who was pushing a cart across the country to support veterans with PTSD (see Level 7). I treated him to lunch and forgot I was on duty. In April the morning was spectacular! It was warm and sunny. The most unusual item found was about ten dryer fabric softener sheets. I encountered a Mainebound through-hiker.

Level 23 Lock 33 to Dam 3: John and Mary Ferguson report May 3: The towpath was in good condition. Although it was a beautiful day and there were many visitors to the park and Harper's Ferry, there were very few people heading north of the towpath while we were there. There were a lot of people congregating around the base of the footbridge on the towpath side of the footbridge and quite a few people heading south, maybe a dozen.

Level 26 Lock 37 to Antietam Aqueduct: Jack and Karen Forster report April 2: The river water level was high. Much tree and brush

cutting by the Park Service was evident along the entire level. The towpath was in good condition.

Level 27 Antietam Aqueduct to Lock 38: John Lefebure reports February 26: It was a great day on the snow-covered canal. I noted a cross-country skier with dog and a hardy camper. After hiking for several hours, the sloping base of a large sycamore beside the towpath, where the sun had melted snow and dried the leaves, beckoned me to sit, lean back, let sun on my face, and restore my energy. Wonderfully reinvigorating.

Level 28 Lock 38 to Lock 39: Bill Warren reports April 21: As usual, the level was very clean and I saw no trash to collect. There were no kayakers, boaters, or fishermen. The river was high, fast moving and very muddy from the rains over the weekend. Good sense kept the boaters on land.

Levels 28 and 29 Lock 38 to Snyders Landing: Elliot, Edwin and Julia Krafsur report 24 May: New water line installed just upstream from lock 39 to Sharpsburg is completed and operational. The adjacent road is an eyesore and especially the filled-in prism to allow vehicular traffic to pumps.

Level 29 Lock 39 to Snyders Landing: Steve and Joni Bittner report 29 April: The level was clean and in good condition. The work near Lock 39 appears to be complete.

Level 30 Snyders Landing to Lock 40: Charles Connolly reports February 26, April 12 & 26: During the February walk there was heavy crusty snow on the towpath, and I noted a cross-country skier. I also noticed that the boat ramp was in use. There was more activity during the April walks with runner and bike traffic. The amount of garlic mustard appears to be inversely proportional to the amount of bluebells. Marge Knott reports 29 April: Workers were cleaning up dirt and mud from winter of flooding on ramp. It looks really nice now.

Level 31 Lock 40 to Marsh Run Culvert: Bill Warren reports December 26: The towpath, as usual, is in good shape and mostly dry. The flood plain along the river and the canal bottom were wet or muddy. Since my last walk in December of last year, there has been a lot more trash washed up along the shore and in the floodplain around Horseshoe Bend. Some of it was there before but much of it is new. The piles of flotsam and trash are quite large and look unstable. It would be dangerous for one person alone to climb on them to remove garbage. It may be time to consider a clean-up day in the area.

Level 32 Marsh Run Culvert to Dam 4: Dave Plume reports February 12 and May 4: In February, although it was Presidents Day holiday, there were not many people out; probably because of the cold weather. In May the towpath was in excellent condition. Water was flowing from Dam 4 Cave. I sent photos to the NPS as part of my effort to monitor the cave's water output.

Catherine Fenselau Cotter reports February 8 and April 12: In February the towpath surface good, with snow remaining in a few places. In April it was a beautiful day for a level walk. The towpath is in good shape and the bluebells are in bloom. The good news is that algae is no longer visible in the canal at Dam 4. However, there is water standing in the canal up-river from Dam 4 Cave, which is hosting a lot of algae. The bad—shocking—news is graffiti on the walls of the cave.

Level 33 Dam 4 to McMahons Mill: Elizabeth Howe and Jill Craig report April 4: It was a bit chilly. We removed quite a few large sticks from the path and put them to the side. Fishing season is just beginning. Nan Johnson reports March 16: The towpath was in good shape. There was little mud and no puddles despite recent snow melt and rain. I am still amazed at the many trees cut up off the towpath that fell last July from many severe thunderstorms. One large family had lots of questions on the canal.

Level 34 McMahons Mill to Opequon Junction Hiker Biker: Tom and Linda Perry report April 12: We found the towpath in excellent shape and very clean; we could tell however that at the points where the cliffs just out into the River the water had been over the trail. We removed a great amount of wood debris that lay across the path.

Level 36 Lock 43 to Falling Waters: **Dick Ebersole reports April 30:** The towpath is in great condition. Lock 43 and the lock house seem to be stable. There was a good deal on water in the canal and no way to get to the lock house for a close inspection.

Level 37 Falling Waters to Lock 44: Jim Tomlin report April 11: All sticks and litter were removed from Mile 95.8 to Lock 44. Towpath was easily passable by bicycles except for a 36-inch blow down at Mile 95.8; it was reported to Williamsport Visitor Center. I did not examine the culvert faces but there were no obvious issues.

Level 38 Lock 44 to High Rock Quarry: Nick Russo reports 18 March: Litter was very light; some plastic and cigarette filters. Towpath is in very good shape. Lockhouse 44 looks great. It was nice to see that the logjam has been cleared at the Conococheague Aqueduct.

Level 39 High Rock Quarry to Nessle RR Bridge Piers: David and Barbara Miller report April 11 (with William and Bonnie Miller) and April 18: The level was clean but there was a pile of trash in the parking lot on the 18th. Water appeared to be flowing through the culverts. There were downed trees, but none across the towpath. Stefanie Boss reports 11 May: The towpath was in good condition. A dead tree near Mile 100 was reported.

Level 40 Nessle RR Bridge Piers to Dam 5: Vallie Compher and Catherine Bragaw report April 11: There were only a few sticks impeded the towpath, which we moved. In general the towpath is in very good condition. There was one downed tree leaning against another, but it is in the canal itself, and poses no threat to those walking on the towpath. The orange barrier at Culvert 136 and just below mile marker 106 was cut, leaving gaps. We temporarily fixed the webbing at Culvert 136 by using NPS clear trash free park bags. I fixed this section with zip ties on a later date. Unauthorized fires pits were just below the dam. We removed the firewood and threw the rocks into the river.

Levels 42 Four Locks to McCoys Ferry: Jack and Deb Ebersole, with Logan and Owen Stewart report April 6: The towpath was generally free of trash, but there was a large amount around McCoy's Ferry. The towpath is in excellent condition on this level.

Levels 43 McCoys Ferry to Fort Frederick: Jill Craig and Karen Gray report March 15: There was an extraordinary amount of water in the canal prism—not only almost the whole length of the level, but also much more than seen previously with perhaps a foot depth and in some places possibly more. Karen noted that she had never seen

this much in this level before. The only place that there wasn't water was the deteriorating Culvert 147 with the large holes in the prism above the vault and in the berm-side berm. We looked through the culvert from the downstream end and could see no stones on the floor of the culvert or hanging down from the vault. Nor was water falling into the culvert from the vault—although there was some water flowing into the hold in the prism on the downstream side of the vault. It was not evident where the water was going. On previous walks Karen has seen water falling through the vault into the culvert like a waterfall when there was a lot of water in the prism. It is possible the water running into this hole is falling down along the culvert wall below the prism and may be seeping through the bottom of the culvert into the stream flowing through it and out the downstream end.

Level 44 Fort Frederick to Ernstville: James Biasco reports March 16: The towpath was clean, really clean. What was collected was mainly stuff that had been there awhile but was hidden by the undergrowth. There was a number of plastic bottles under the railroad trestle.

Level 45 Ernstville to Sideling Creek: Dennis Kubicki reports March 17: As is typical on my walks on this level, the towpath was quite clean from Fort Frederick through to the aqueduct. No other trash was observed in the immediate vicinity of the path or the canal. The "problem" is that there are homeowners along the canal who discard trash onto the far side of the canal. This was particularly noticeable at a home site at about Mile 114.3. Generally, the towpath was in good condition with no significant rutting or obstructions. At approximately Mile 114.7 two large trees had uprooted and fallen. The NPS had cut up the tree trunks and removed the obstruction from the towpath.

Level 49 Round Top Cement Mill to Lock 53: Kristin Zimet reports April 21: The level was clean because Paul Petkus recently walked it. I led a group of five new Virginia Master Naturalists who asked me to take them on their first birding field trip to complete their ornithology credit. I offered to show them birds if they would help me walk the level. Paul Petkus reports February 28 and April 14: In February a thin layer of snow and ice was present on a few sections of towpath. On the other hand, the majority of the water within the canal prism and in the Potomac River was iced over. I talked to an 84 year-old gentleman from the area, He stayed only long enough to assess the thickness of the ice on the Potomac. His concern was that when the temperatures rose that it would break up into large chunks. Those chunks could get caught on a downstream bridge and cause flooding, as happened in the past. In April I noted the most human activity that I've witnessed on the level. I encountered a group of seven bicyclists, consisting of three generations of a family. The grandparents reside in the area, and the younger generations are visiting from the Cincinnati area. The grandparents used to ride horses on the towpath, but they no longer do. They stopped due to a concern that their horses would get spooked due to the increase in the number of bicyclists.

Level 52 Sideling Hill Aqueduct to Fifteen Mile Creek Aqueduct: **Tom Aitken and Candee Schneider report May 15:** There was a considerable amount of water below Little Orleans, but the swampy section below Lock 57 was very low for this time of the year. The towpath was in good condition.

Level 54 Lock 59 to Lock 60: Dennis Kubicki reports April 6: Other than an NPS crew, I encountered four people all day; one cyclist, two fisherman and a hiker. The hiker claimed that he was doing a "coast-to-coast" hike. He was wearing sandal-like footwear that didn't seem particularly appropriate (to me) for a long journey. In fact, he stated that he normally hikes bare-footed. I wished him a safe journey. The towpath was in reasonably good condition. It had not rained for some time and, consequently, there were no significant ruts or muddy patches. However, the south (river side) facade of the culvert at mile marker 148.2 has completely collapsed.

Level 55 Lock 60 to Culvert 208: Paul Petkus reports March 29 and May 3: (As usual Paul's reports include so much excellent information and photographs that space does not allow including all of it; the reports make great reading, though.) In March, I took a close look at Culvert 208. No changes were detected to the arches at either end of the culvert. They have been photographed for future comparison. I compared my photos with those of previous years, and it appears that some bricks are being shed from the barrel. Numerous through-bikers were encountered in May. It was also a bit noisy on the towpath, with motocross bikes riding on nearby Kasecamp road and gun target practice across the river. The lock crossover bridge at Lock 60 was repaired by the NPS. Much garlic mustard is present on this level.

Level 59 Tunnel Parking Area to Opposite Little Cacapon: Tom Aitken and Harry McBride report April 5: The towpath and culverts were in good condition, but there was quite a bit of trash.

Level 62 Lock 68 to Oldtown: Jim and Alison Lyons report March 13: We found a bit of fishing related trash. Water in canal was still partially frozen. The river level was very high, and water had risen in some places to the canal. This was especially the case at Oldtown, where water was present between towpath and high ground area on riverside. Port-a-potties in Oldtown parking lot are physically damaged.

Level 63 Oldtown to Kellys Road Culvert: David Tosten reports April 11 and May 6: The area around Oldtown seemed cleaner than usual in May. The towpath was in good condition on both dates. The water level seems to be rising just west of the Alum Hill cut. This threatens some nice maples. The lockhouse at Lock 71 was unsecure on both dates; this has been reported before.

Levels 65 and 66 Spring Gap Recreation Area to Mexico Farms: Jim Lyons reports March 10: There was trash on the towpath and it was very wet. Due to the pouring-down rain, no visitors spotted; birds were singing, though! I noticed in several spots that trees trunks were down in the canal, particularly at Mexico Farms. Towpath was muddy, making ruts due to bicycle traffic even worse.

Levels 66 and 67 Lock 74 to Evitts Creek Aqueduct: Jim Lyons reports March 17: The towpath was in good condition for a St. Patrick's Day walk. I collected one large bag of garbage around Mexico Farms. It's always messy there, with plastic buckets and storage containers in the canal and lots of trash around the towpath.

Level 68 Evitts Creek Aqueduct to Wiley Ford Bridge: **Bob Mischler reports April 13:** The towpath was dry and in good shape but from sports complex to where the breach used to be they must have re-graveled because it was fairly bumpy. I also visited part of Level 69 and it was in great shape. There was very little trash.

Dragonfly and Damselfly Study

Dr. Richard Orr conducted a survey of dragonflies and damselflies covering the upper 116 miles of the C&O Canal National Historical Park during 2012 through 2014. The survey was requested by the National Park Service. Dr. Orr operates Mid-Atlantic Invertebrate Field Studies and is respected as the leading authority on dragonflies and damselflies in the Mid-Atlantic Region.

Dr. Orr's report provides some fascinating details of dragonfly and damselfly (odonata) life on the park. He identified 81 species of dragonflies and damselflies during his study. Ten of the species found are considered to be of conservation importance due to rarity by the Department of Natural Resources in Maryland. Dr. Orr collected data on 41,939 individual dragonflies/damselflies by species, date, and location, along with other relevant information. Data from the current survey was combined with dragonfly/damselfly surveys that covered the eastern section of the Park during the 1990s and 2000s. The known dragonflies/damselflies current species found within the park numbered 106 plus three additional species that were previously considered expired.

The combined surveys demonstrate that the C&O Canal National Historical Park has the highest diversity of dragonflies and damselflies species of any single National Park Service property in the nation. For further information about Dr. Orr's work and odonata visit www.marylandinsects.com/DragonfliesDamselflies.html. Visit www.flickr.com/photos/dragonflyhunter to view some of Dr. Orr's magnificent dragonfly and damselfly photography.

- Steve Dean, summarized from report by Dr. Orr

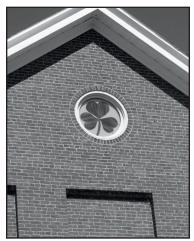


Dragonfly - Photo by Steve Dean

Continuing Hike Series

As usual the Continuing Hike Series will take a break over the summer. We will resume September 27 at Town Creek.

The highlight of the early 2015 hikes was the Green Ridge State Forest exploration led by Champ Zumbrun. Champ brought the area's past alive for eight members as we investigated



The shamrock window at St. Peters Church in Little Orleans

the Fifteen Mile Creek Aqueduct, St. Peter's Church with shamrock window, the overlook on Carroll Road, the Carroll steam powered sawmill site, the Robey Cemetery, and Green Ridge Station. Then Champ led us into the forest and to an old home site with a four-story chimney. The house originally belonged to "McCraken" in the 1780s. According the McCraken's journal, George Washington gave his horses a snack here in 1784. Much to our surprise, the chimney was visible from the towpath, which we followed back to Bond's Landing. We saw so many spring flowers this could have been a nature hike: colt's foot; bloodroot; trout lilies; spring beauties; plus a turtle.

- Pat White



Bill Burton at the base of the tall chimney. Photos by Pat White

Nature Notes by Marjorie Richman

Riley's Vultures

One warm August day, as I approached Riley's Lock on my bicycle, I was greeted by a flock of 50-60 black vultures. They were roosting on interpretive signs and fences and strolling along the towpath, seemingly oblivious to the fact that they were sharing the towpath

with a weekend crowd of hikers, bikers, and energetic children. Several birds struck dramatic poses with wings extended. The photo ops were numerous. It looked like a vulture convention.

Curious bystanders gathered, all asking the same question: "What are they doing here?" We were puzzled, and very much intrigued. Later I consulted with Kurt Schwarz, a long time leader of bird walks for the Association.

According to Kurt, this type of behavior of large flocks of black vultures is not unusual. He has seen similar displays on several occasions at Riley's Lock. He believes they roost near the lock overnight. Early in the morning they dry their wings or just bask in the sun to warm up. They don't seem to be bothered by people. Kurt has also seen blue herons exhibit this type of behavior with the same lack of concern for proximity to people.

Black vultures are social birds, which makes them different from their near relatives, turkey vultures. Whereas turkey vultures are solitary hunters, black vultures soar in flocks. Since they have the advantage of numbers, they often dive bomb a lone turkey vulture and chase it from a carcass. They are, despite their rather fierce appearance, very family oriented. They will share food with relatives and feed their chicks well after they have fledged.

Since they are social birds, they roost in groups in wooded areas, which explains why there were so many birds on the towpath. They were probably getting ready for a day of hunting. Standing with spread wings, as shown in the picture, seems to serve several purposes, such as drying wings, warming the body, and baking off bacteria. Once the air has warmed up and thermals develop, they are off.

If you go to Riley's Lock this summer, be prepared to see these very large birds roaming, roosting, and posing. Fortunately they are quiet birds, which reduces the intimidation factor. Besides their size and solid black plumage, they can be recognized by their bare heads, short tails and white wingtips. To catch the show, pick a warm, dry summer day and get there as early as possible. Be sure to bring a camera.



Black vulture. Photos by Marjorie Richman



Black vultures roosting near Riley's Lock



Black vultures extending their wings on the Seneca Aqueduct

Restoration of Areas after Garlic Mustard Removal by Jim Heins

Carol Ivory, a master gardener with 3000 hours experience, recently proposed a method of restoration following successful garlic mustard removal. Her concerns and suggestions are supported by park biologists with the C&O Canal National Historical Park. Carol's proposal is to replant the area with desired native plants, wildflowers or other ground cover so that the newly-exposed area is not overtaken by the same or other unwanted plant life.

Carol level walks and participates in garlic mustard control at Edwards Ferry along with Pat Hopson and others. This area was selected as an experimental area to attempt to grow selected plants both from already established plantings and from seeds. The initial stage was started in April, with the planting of ten bluebell plants, and of this experiment will take two years. A follow-up visit in May found that the plants had adapted and were surviving well.



Carol Ivory planting bluebells at Edwards Ferry. Photo by Pat Hopson

Spring Tree Walk

The March 27th tree walk was well attended, with 26 participants in all. The walk lasted over two hours. The group started at the Dickerson Conservation Park, and from there crossed the towpath to the river. They made their way upstream on the floodplain, admiring the numerous large silver maples and sycamores. The spice bush was close to blooming. A large hollow sycamore was investigated; a flashlight will be needed next time to get a better look inside. The tree observers also admired the state champion sycamore and took some photos of the group at the base of the largest tree in Maryland.

About 25 yards behind the sycamore tree was a vernal pool. The wood frogs were singing a wonderful song. Immediately downstream from the champion sycamore, a buckeye was noted. That was quite a rare treat and its palmate leaves will be visible on the next walk. A large grove of big walnut trees was nearby, and one wonders whether they were planted or simply reproduced to create the grove. We returned to the towpath and walked down to Lock 26 to observe the silver maple there. There is water in the canal just above the lock and we heard more frogs.

We'll report on our June 7th walk in the September *Along the Towpath*. Plan to join us for our October 31st walk.

Carol Ivory



Above - Tree walk group at Maryland's largest tree. Below - Vernal pool near Dickerson. Photos by Pat Hopson



Spring Bird Walk

The spring 2015 C&O Canal bird walk took place on April 25 at Riley's Lock. The weather was excellent for bird watching. The first observation was a half-dozen red-breasted mergansers in the Potomac, but only one was a spectacular male. Fortunately they were close to shore for a good view. A short time later the group was entertained by an excellent look at a singing prothonotary warbler. These bright yellow songsters nests in boxes in the watered portion of the prism above the aqueduct.

Many birds remained invisible, but their songs and calls were evident. Blue-gray gnatcatchers, migrant nesters, were abundant, and migrant ruby-crowned kinglets were observed. Two different green herons posed nicely for the group. At the turn-around point, an orange-crowned warbler was singing, but it could not be seen. This bird was a relative rarity, a migrant that was apparently a bit earlier than normal. The walk concluded with a very distant view of an adult bald eagle, far downstream, perched in a tree at the rapids below Riley's Lock. A total of 43 species were seen or heard, though many, including the only orchard oriole, were noted by the leader before the group assembled.

Look for the fall walk, on September 26, at a location yet to be determined.

- Kurt Schwarz



Above - Green heron. Below - Orange crowned warbler. Photos by Kurt Schwarz



Calendar of Events - 2015

June 20, Sat., Nature Walk along the towpath to view dragonflies, about 4 miles total between Oldtown and Lock 68, meeting at 10 a.m. Contact Steve Dean for directions and details at levelwalker@candocanal.org or 301-904-9068.

June 27-28, Sat.-Sun., Montgomery County Heritage Days, various sites. For more information, visit www.heritagemontgomery.org.

July 10, Fri., Work party at Swains Lock, 9 a.m. The group will check on conditions and tend to the picnic tables, fire rings, and vegetation in the area. The association is responsible for the Swains Lock Recreation Area under the Canal Steward program. For more information, contact Pat White at hikemaster@candocanal.org or 301-977-5628.

July 18, Sat., Paddle trip, Brunswick to Monocacy. Reservations required. Contact Bill Burton at canoemaster@candocanal.org or 703-801-0963.

Aug. 2, Sun., Board Meeting, 1 p.m., Glen Echo Town Hall, 6106 Harvard Ave.

Aug. 8, Sat., Nature Walk along the towpath to view dragonflies. Meet at 10 a.m. Location TBD in the 40 miles of the canal, depending on summer dragonfly sightings. Location will be selected by July 15. Contact Steve Dean for location and details at levelwalker@candocanal.org or 301-904-9068, or visit www.candocanal.org.

Aug. 14, Fri., Work party at Swains Lock, 9 a.m. For more information, contact Pat White at hikemaster@candocanal.org or 301-977-5628.

Aug. 21-23, Fri.-Sun., Paddle trip in Paw Paw Bends area. Reservations required. Contact Barbara Sheridan at canoemaster@candocanal.org or 301-752-5436.

Aug. 22-23, Sat.-Sun., Williamsport C&O Canal Days. Events will be taking place in various areas of the town. Contact: Tom Perry, 301-223-7010.

Sept. 7-10, Mon.-Thu., World Canals Conference, Ghent, Belgium. For more information, see www.wccghent2015.com.

Sept. 11, Fri., Work party at Swains Lock, 9 a.m. For more information, contact Pat White at hikemaster@candocanal.org or 301-977-5628.

Sept. 19, Sat., Paddle trip, Old Patowmack Canal, Va. Reservations required. Contact Bill Burton at canoemaster@candocanal.org or 703-801-0963.

Sept. 26, Sat., Nature Walk focusing on birds, 8 a.m. to about 11 a.m., location TBD. Kurt Schwarz of the Maryland Ornithological Society will lead the group. Contact Marion Robertson (morobertson@verizon.net or 301-657-8992).

Sept. 27, Sun., Continuing Hike Series: 10:30 a.m., upstream from Town Creek (Mile 162). Contact Pat White (301-977-5628 or hikemaster@candocanal.org).

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

Oct. 7-12, Wed.-Mon., Through bike ride, Cumberland to Georgetown. No sag wagon provided. Reservations required, no later than September 16. Limited to 20 riders. Contact: Pat Hopson, 703-379-1795 or phopson727@verizon.net.

Oct. 9, Fri., Work party at Swains Lock, 9 a.m. For more information, contact Pat White at hikemaster@candocanal.org or 301-977-5628.

Oct. 24, Sat., Annual Heritage Hike and Dinner. Details will be in the September Along the Towpath. Contact Chris Cerniglia at programs@candocanal.org.

Oct. 31, Sat., Nature Walk focusing on tree identification, 10 a.m., Dickerson Conservation Park. Last in a series of three walks in the same location to observe seasonal differences. Bring water and a snack. Bring a walking stick and wear sturdy shoes. Optional equipment: binoculars and your favorite tree ID book. The walk will focus on three champion trees, the state champion Sycamore and the county champion cottonwood and silver maple. See Google map. For more information, contact Carol Ivory at carolivory@verizon.net or 703-869-1538 (cell).

Nov. 13, Fri., Work party at Swains Lock, 9 a.m. For more information, contact Pat White at hikemaster@candocanal.org or 301-977-5628.

Nov. 23, Mon., Continuing Hike Series: 10:30 a.m., downstream from Licking Creek. Contact Pat White (301-977-5628 or hikemaster@candocanal.org).

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

Dec. 13, Sun., Frostbite Hike, Washington City Canal, 10:30 a.m. Contact Bill Holdsworth (301-762-9376 or website@candocanal.org).

Liability waivers are required for many of these Association activities. The event leader will provide the forms. Hikes require proper footwear.

For updates on any of the above events visit www.candocanal.org.

Stay Connected!

Our website, www.candocanal.org – Visit it regularly and add it to your favorites or bookmarks. Also check out our access guide with your computer or smart phone at www.candocanal.org/access.html.

Facebook – If you have a Facebook account, look for "C&O Canal Association" and "Like" us. If you are not on Facebook, go to www. facebook.com and register (there is no cost), and then look for us.

Email – C&OCA members may receive our periodic updates by mail. If you haven't been getting those and would like to, please send your request to communicator@candocanal.org.

Upcoming Volunteers In Parks Projects

The VIP program has a number of projects lined up for this summer and we will need your help. The following projects are planned:

- Completion of painting the railings on the bridges leading to the falls at Great Falls. There are 15 openings on a Saturday morning.
- Installing four waysides in the Western District between Williamsport and Spring Gap. There are six to eight openings on a weekday or Saturday.
- Installing five waysides in Palisades District from Seneca to Fletchers. There are four openings on two days. This will take place weekdays or Saturdays.
- 4. Restriping (painting lines) in parking lots/boat ramp parking throughout the entire canal. This will involve a number of days and possibly a fair amount of travel time. The activity could be one team of four for a number of days, or several teams on one or more days. This will be on weekdays only.
- Repairing a number of picnic tables in the Carderock area. Four openings here. This will be on weekdays or Saturdays
- Inventory sign storage at Great Falls. Two volunteers needed on a weekday or a Saturday.

The dates of these projects will be dependent on when the most folks are available to help. Two time frames are being considered for the activity: "A" between June 22 and July 11; and "B" between August 17 and September 3.

If you can spare some time and energy, and are willing to pitch in, let me know which of the above specific project(s) you are interested in, which time frame(s) work, and whether you can support weekdays and/or Saturdays. We will contact you to narrow down specific dates.

This should be a busy and fun-filled summer in the park. I hope you can join us. Contact Skip Magee or me at vip@candocanal.org

- Jim Heins

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	Kevin Brandt
Deputy Superintendent	301-714-2200	John Noel
Superintendent's Secretary	301-714-2201	Annette Martin
Chief Ranger	301-714-2222	Ed Wenschhof
Administrative Officer	301-714-2204	Connie Hufford
Chief of Resource Mgmt.	301-714-2210	Chris Stubbs
Chief of Maintenance	301-714-2239	Greg Kniesler
Chief of Interpretation,		
Education and Partnerships	301-714-2238	Catherine Bragaw, Acting
Partnerships Coordinator	301-491-2465	Ben Helwig, Acting
Volunteer Coordinator	301-491-7309	Emily Hewitt
Historian	301-714-2236	Ahna Wilson
Librarian	301-714-2220	Karen Gray
Safety Officer	301-745-5804	John Adams
IT Specialist	301-745-5817	John Lampard

Palisades District Milepost 0 (Tidelock) to Mile 42.19 (Monocacy River)

11710 MacArthur Blvd, Potomac MD 20854

District Manager	301-491-6265	Catherine Bragaw
Park Ranger Law Enforcement	301-491-6279	Joshua Cunningham
Supervisory Visitor Use Assistant	301-767-3703	Betsy Buchanan

Georgetown Visitor Center 202-653-5190 1057 Thomas Jefferson St, NW, Washington DC 20007

Great Falls Tavern Visitor Ctr 301-767-3714 11710 MacArthur Blvd, Potomac MD 20854

Western Maryland District, mile 42.19 (Monocacy River) to Milepost 184.5 (Canal Terminus, Cumberland, MD)

Williamsport Visitor Center	301-582-0813	
Ferry Hill Subdistrict	301-714-2206	
Hancock Subdistrict	301-678-5463	
Cumberland Subdistrict	301-722-0543	
District Ranger	301-722-0543	Todd Stanton

205 West Potomac St., Williamsport MD 21795

Supervisory Park Ranger Ben Helwig

Hancock Visitor Center 301-745-5877 439 East Main St., Hancock MD 21750

Supervisory Park Ranger Rita Knox

Cumberland Visitor Center 301-722-8226 Western Maryland Station, Cumberland MD 21502

Supervisory Park Ranger Rita Knox

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

24-HOUR EMERGENCY

(TOLL FREE): 1-866-677-6677 HAZARDS CHOH_Hazards@nps.gov



Along the Towpath is published in March, June, September, and December by the C&O Canal Association (C&OCA), P.O. Box 366, Glen Echo, MD 20812-0366. Material for consideration may be submitted to the Editor at that address, for receipt by the 15th of the month prior to publication. Electronic submission is preferred: editor@candocanal.org.

Editor: Steve Dean

Associate Editors: Dave Johnson, Don Juran, Nancy Long, Ned Preston, and Marjorie Richman



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, P.O. Box 366, Glen Echo, MD 20812-0366. 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 extend 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 web-master@candocanal.org. C&OCA also maintains a telephone number for recorded information and inquiries: 301-983-0825.

2015 Association Officers

President: Barbara Sheridan, 11550 Farm Dr., La Plata, MD 20646-4402, 301-752-5436, president@candocanal.org.

First Vice President: Rod Mackler, 944 N. Potomac St., Arlington VA 22205, 703-536-1737, firstvp@candocanal.org.

Second Vice President & Level Walker Chairman: Steve Dean, P.O. Box 132, Saint Leonard, MD 20685-0132, 301-904-9068, levelwalker@candocanal.org.

Secretary: Susan VanHaften, 944 N. Potomac St., Arlington VA 22205, 703-536-1737, secretary@candocanal.org.

Treasurer: Richard Radhe, 8902 Skyrock Court, Columbia, MD 21046, 410-302-2721, treasurer@candocanal.org.

Information Officer: Pat White, 66 Oak Shade Road, Gaithersburg MD 20878, 301-977-5628, inquiries@candocanal.org.

Board of Directors: (terms expire in 2018): Bill Burton, Dick Ebersole, Kerry Gruber, Christine Holdsworth, Anthony Laing. (terms expire in 2017): Chris Cerniglia, Jill Craig, Harry deMoll, George Kennett, Doug Zveare. (terms expire in 2016): David M. Johnson, Tom Lightfoot, William R. Stewart, Craig Roberts, Marion Robertson.

Committees (contact at C&OCA address/tel. no. above): Archives, Susan Van-Haften; Auditing, John Wheeler; By-laws, Dave Johnson; Editorial Review, Steve Dean; Environmental, Rod Mackler; Festivals, Rita Bauman; Finance, Richard Radhe; Legal Advisory, John Wheeler; Level Walkers, Steve Dean; Membership, William R. Stewart; Nature, Marion Robertson; Nominating, Steve Dean; Programs, Chris Cerniglia; Sales, Jill Craig; Special Projects, vacant; Volunteers in the Park (VIP), Jim Heins; Youth, vacant.

CHESAPEAKE & OHIO CANAL ASSOCIATION INC.

P.O. Box 366

Glen Echo, MD 20812-0366

Along The Towpath

Chesapeake & Ohio Canal Association www.candocanal.org

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Waste weirs were used to drain the canal in winter or regulate the water level of the canal. Many waste weirs in Western Maryland were located on the berm side of the canal, and some flowed directly into the berm arch of a culvert.

The berm arch of Culvert 174, with waste weir, is shown here and is located just below Hancock, Md. Photo by Steve Dean

C&O Canal Association



Founded in 1954

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