MARYLAND HISTORICAL TRUST
DETERMINATION OF ELIGIBILITY FORM

NR Eligible: Yes ___
No ___

Property Name: **Washington Biologists' Field Club on Plummers Island** Inventory Number: **M: 12-46-2**

Address: Plummers Island on the Potomac River Historic District: No

City: Cabin John Zip Code: 20818 County: Montgomery

USGS Quadrangle(s): Falls Church

Property Owner: United States of America Tax Account ID: 07-00437236

Tax Map Parcel(s): P705 Tax Map: GN121

Project: I-495 & I-270 Managed Lanes Study Agency: MDOT SHA

Agency Prepared By: Dovetail CRG

Preparer's Name: Mical Tawney Adriana T. Moss Date Prepared: August 20, 2021

Documentation is presented in: Project review and compliance files

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Preparer's Eligibility Recommendation: Recommended

Criteria: X A B C D

Considerations: A B C D E F G

Complete if the property is a contributing or non-contributing resource to a NR district/property:

Name of the District/Property: C&O Canal National Historical Park

Inventory Number: M: 12-46 Eligible: Listed: Yes

Site visit by MHT Staff ___ yes ___ no Name: Date:

Description of Property and Justification:

Setting

The Washington Biologists' Field Club on Plummers Island (WBFC) is a private research station composed of a cabin, recreational elements, and landscape features situated on a 12.23-acre island known as Plummers Island in the Potomac River (Eckerlin et al. 2021). The island is situated on the northern side of the river, south of the Clara Barton Parkway and Locks 11 and 12 of the Chesapeake and Ohio (C&O) Canal, and east of I-495 and the American Legion Memorial Bridge in Montgomery County, Maryland. According to WBFC records, the cabin building was constructed in 1901 by the club and is still used by club members and the public (Carla Dove, personal communication 2021; Perry 2007). The island is accessed by crossing Rock Run Culvert from an unpaved trail that extends south from the C&O Canal Towpath near Lock 10. The island, currently owned by the National Park Service (NPS), is located within the National Register of Historic Places (NRHP) boundaries of the C&O Canal National Historical Park (M: 12-46).

Description

MARYLAND HISTORICAL TRUST REVIEW	
Eligibility recommended:	**Eligibility not recommended:**
Criteria: ___ A ___ B ___ C ___D	**Considerations: ___ A ___ B ___C ___D ___E ___F ___G**
MHT Comments:	
Reviewer, Office of Preservation Services:	**Date:**
Reviewer, National Register Program:	**Date:**

The WBFC cabin and several associated recreational elements, situated atop the highest part of the island on the eastern of two naturally terraced rock formations, are surrounded by local native, introduced, and invasive flora, fauna, birds, and insects that the club members research (Washington Biologists' Field Club 2021a). The two rock formations (late Precambrian muscovite schist to the west and gneiss to the east), also called rock buttresses, feature many small to large rock outcrops of erosional remnants of former falls and gorge walls with sparse herbaceous vegetation (Fleming 2015; Simmons et al. 2016). Lower points of the island, between and surrounding the rock formations, are covered with plants and trees whereas the southern bank of the island, exposed to the Potomac River, features a sandy and muddy bank with boulder-like colluvium and rocky outcrops (Fleming 2015). The island is thickly covered by primarily mature deciduous trees including silver maple, red oak, birch, and other minor species such as sycamores. The island comprises 12 natural communities of which four are globally rare communities (two of which are also rare to the state). Twenty-one species within the communities are state-rare extant flora species (including one globally rare extant species) and 36 state-rare historic flora species (four of which are globally rare historic taxa) (Simmons et al. 2016, 2020). For over a century, the vegetation on the island has grown unplanned and organically, without intervention by the researchers. The scientists mark their research plots of study with pin flags or flagging tape, which can be found all over the island today. South and downslope from the cabin is Cactus Rock, a part of lichen studied throughout the mid-twentieth century and a traditional gathering spot for the club members due to its vistas of the Potomac River and associated wildlife (Perry 2007, 30, 34; Robert Soreng, personal communication 2021). The island is also open to the public who use it for fishing, hiking, or to observe wildlife (Carla Dove, personal communication 2021).

The one-story, three-bay cabin faces south and has a side-gabled roof. Constructed into a slope, the building sits on a stone and timber post foundation supporting a wood-frame structural system clad in cypress shingles. A one-story, three-bay full-width porch with wood decking spans the south elevation, and timber posts support the moderately pitched shed roof. The main entrance, centrally positioned beneath the porch, is filled with a single-leaf flush wood door, a replacement of the original. A secondary entrance in the north elevation has a similar door and mirrors the primary entrance on the opposite elevation. Window openings are unglazed, enclosed only by operable, wood, vertical board shutters. The low-pitched, side-gabled roof features replacement asphalt shingles. An exterior-end, broad, rubble stone chimney is centered on the west elevation; it was repaired with new mortar where necessary in the 1990s but entirely reconstructed in 2015 utilizing the stone of the original chimney (Perry 2007, 10; Steve Sheffield, personal communication 2021). A one-story, shed-roofed wing is appended to the east half of the north elevation. This wing, which appears original to the building according to historic images on file with the club, is clad with cypress shingles and features a metal stovepipe flue and an engaged, poured-concrete porch that covers a single-leaf, wood door on the wing's west elevation and the single-leaf door on the main block's north elevation (Perry 2007, 18).

The interior of the cabin has an open plan, and the structural system is left exposed. New wooden cross beams were installed in the 1990s; however, the floor, floor supports, and walls were only repaired as necessary (Perry 2007, 10). A loft area, where researchers formerly slept during periods of on-site study, is in the west half of the building above the fireplace (Carla Dove, personal communication 2021). The brick fireplace hearth and surround which formerly featured a wooden mantel supported by wood rounded posts, were completely reconstructed using brick for the surround and concrete block for the fire box in 2015 (Perry 2007, 10, 17; Steve Sheffield, personal communication 2021). Above the fireplace surround, the chimney is parged. The wing contains a kitchen, which has a stove, stainless-steel stovepipe, and cabinets.

In addition to the cabin, there are many man-made recreational and landscape elements on the island associated with the WBFC. Four circa-1990 wood picnic tables and benches are permanently installed to the north of the cabin atop the eastern rock formation, and just northwest of the tables is a circa-1904 stone fire pit (A) (associated letter throughout remainder of text correlates to the site plan submitted with this DOE) that is used for roasting oysters at annual gatherings (Perry 2007, 10, 18). Also near the cabin are a series of four steel posts stamped with "U.S.S.," standing for United States Steel, set in a rectangle shape just northwest of the cabin on the west side of the picnic site; they are the supports to set up a temporary latrine on event days (Robert Soreng, personal communication 2021). The original signage situated at the eastern end of the island upon entry was recently replaced with a metal sign on wood posts by the NPS; the original sign is currently kept inside the cabin. Bronze memorial plaques, dating between the 1940s and the early 2000s, have been fixed to the eastern stone formation marking the scattering of cremated remains of former club members, or other commemorative honors.

In the western section of the island is a fire pit (B) and the remains of a possible fire pit (C) created from stone found on the island. The fire pit (B) is located atop the highest point of the western rock formation while the remnants of a possible fire pit (C)

is situated just southeast of the western rock formation in a lower-lying area of the island. WBFC members do not know for whom or when these were constructed and if they are still in use (Robert Soreng, personal communication 2021).

Historic Context

The WBFC was founded in the early twentieth century by a group of like-minded scientists and researchers. The idea for a club came about after Charles L. Pollard (1872–1945) learned about a biology club in New Jersey. Pollard, a curator at the U.S. National Museum (the Smithsonian Institute) and editor of the Plant World magazine, was inspired to form a similar club for biologists in the Washington, D.C., area (The Manchester Journal 1945; Perry 2007, 2). In January 1900, Pollard and other scientists met for the first time in Pollard's home at 1854 Fifth Street in Washington, D.C.; it was here that the WBFC was born (Perry 2007, 2). In addition to Pollard, the other early members of the club included Adrian Pieters (botanist in charge of seed and plant introduction and distribution in the U.S. Department of Agriculture), William Palmer (a taxidermist and modeler at the Smithsonian), Orator Cook (curator at the National Herbarium and professor of botany at George Washington University), William Hay (head of biology at Washington High School and visiting professor at Howard University and Georgetown University), Guy Collins (Office of Botanical Investigations), William Maxon (chairman of botany at the U.S. National Museum/Smithsonian), Edward Morris (a biologist with Washington high schools), and William Pollock (U.S. National Herbarium) (Perry 2007, 2). These founding members were all scientists, botanists, curators, geneticists, zoologists, and biologists living in and around the Washington, D.C. area. Many taught at local schools, such as Georgetown or Howard University, or worked closely with the United States Department of Agriculture, the Smithsonian Institution, and other institutions (Perry 2007).

Soon after forming, the WBFC began looking for a more permanent location for their club to meet and conduct research. According to the early club members, it was necessary for the WBFC headquarters to be situated in an area with easy access to the natural environment in order to research and collect biological materials, the focus of their club's activities. Initially, the WBFC rented a cottage in Upper Marlboro, Maryland; however, the inconvenient distance of the cottage from Washington, D.C., made it difficult for members to make the trip, and the club began looking for another location (Perry 2007, 2). In 1901, the same year that the WBFC was formally incorporated "for the promotion of research of fauna and flora and the general advancement of biological science," the club relocated to Plummers Island, the present-day location of the club (The Evening Star 1901, 3; Perry 2007, 2). Plummers Island, an island situated in the Potomac River and located to the northwest of Washington, D.C., was an ideal location for the WBFC as it offered a natural setting where the club could conveniently conduct research and gather data. The island had been brought to the club members' attention by a fellow researcher who had collected biological specimens on the island before (Perry 2007, 2).

The WBFC originally rented the land on Plummers Island for $30 a year, but after several years of negotiation with the landowner, the club purchased the 12.23-acre island in 1908 (Washington Biologists' Field Club Archives n.d.; Washington Biologists' Field Club 2021a). In that same year, they purchased 25 acres of land on the mainland, just to the north of the island past the C&O Canal (Washington Biologists' Field Club 2021a). Since the island was undeveloped, the WBFC constructed a cabin to support their research mission and provide a place where club members could stay during trips to the island. Club members William Beattie and William Palmer drew the plans for the cabin, which was to be constructed on the highest point of the island, and obtained building materials for its construction (Perry 2007, 2; Washington Biologists' Field Club 2021a). Construction started in the spring of 1901 and the cabin was completed by November of that year, comprising a one-story one-room building with a rear kitchen wing (Perry 2007, 3). The total cost of the cabin came to $200, which is approximately $6,200 today (Perry 2007, 3).

As the WBFC continued to grow, so too did their land holdings in the area. Issues with individuals trespassing on their mainland property prompted the organization to purchase additional land in the 1920s, bringing their mainland holdings to 38.5 acres (The Washington Post 1927; Perry 2007, 6). Throughout the early- to mid-twentieth century, the club continued to maintain, visit, and research the island and the mainland property. However, in June 1958, the National Capital Planning Commission (NCPC) initiated condemnation proceedings against the WBFC's land holdings for the expansion of the George Washington Parkway under the Capper-Cramton Act. (Perry 2007, 7). It was also around this time that a site to the west of Plummers Island was selected for the construction of a bridge across the Potomac River that would connect with the planned Capital Beltway (I-495) (Perry 2007, 7). After an unsuccessful attempt to find a new location for their club, an agreement was reached with the NCPC in February 1959 that allowed the club to transfer the property to NPS but maintain use of the island (The Washington

Post 1959). In exchange, the WBFC received financial compensation only for its mainland holdings (Perry 2007, 7). In the agreement, the club was permitted to fence the island to keep the public out. Instead, the club has asked non-members to respect the island and the cabin, to not stay overnight, and to remove their trash (Robert Soreng, personal communication 2021). Today, the WBFC continues to operate under that agreement with NPS.

Since its inception, the WBFC has sought to conduct research and advance various biology-affiliated fields of study. Using Plummers Island as the base for most of the club's research, members have conducted a wide variety of studies, many of which have been long term, intending to provide a better understanding of the natural environment over time. Topics ranged from field- or species-specific research to research on the general natural history of the island and surrounding area. Studies from the 1900s, 1910s, and 1920s examined fish, insects, reptiles, birds, and mammals located on the island and in the surrounding D.C. area. (Washington Biologists' Field Club 2021b). The earliest study that explored the natural history of Washington, D.C., was conducted by Waldo McAtee in 1918, and future studies expanded upon his work (McAtee 1918; Perry 2007, 191–192).

Starting in the mid to late 1930s, club members began a series on the natural history of Plummers Island. The series, documenting the flora and fauna observed on the island to that time, included the contributions of multiple club members, including William Maxon, co-founding member; Albert Kenrick Fisher, surgeon and co-founder of the Branch of Economic Ornithology in the U.S. Department of Agriculture (USDA) and the Division of Economic Ornithology and Mammalogy; Sidney Blake, botanist and plant taxonomist; Ellsworth Killip, botanist and curator at the Smithsonian Institution; Emery Leonard, botanist; Edna M. Ermold, biologist with the USDA specializing in mycological collections; and Maurice Brady, research staffer for the Bureau of Biological Survey of the USDA (Washington Biologists' Field Club 2021b). By 1960, the WBFC had documented 26 mammals, 186 birds, 22 reptiles, 20 amphibians, 55 fishes, 776 flowering plants, 70 mosses, 80 lichens, and 118 fungi on the island (Christmas 1960). This ongoing series has continued into the 21st century.

The club's early studies have provided important baselines for identifying environmental changes on the island over time. Already by the 1930s, club members and other scientists recognized the value of continuous observation of the island to outside researchers. In his 1935 introduction to the "Natural History of Plummers Island," cofounding member William Maxon noted the alteration of habitat and resulting changes in species on the island over 35 years and how scientific observations throughout that period had given it an "almost unique place in current natural history studies" (Maxon 117). The club's long history of extensive research on the island, if not wide-ranging or individually groundbreaking, is rare in the field of biological studies, making the island a valuable point of comparison for future studies in the area or in similar environments (Cohn 1994).

In a notable study starting in the 1960s, Mason E. Hale, Jr., curator of lichens at the Smithsonian Institution, and James Lawrey, of George Mason University, examined the long-term growth rate of rock-inhabiting lichens on the island. To do so, Hale and Lawrey relied on data from specimens collected by WBFC members on Plummers Island since 1907, giving them access to over 60 years of detailed information (Lawrey 2011, 6). Lawrey and Hale found that lichen growth was slower on Plummers Island than other nearby areas. The study demonstrated that lichens located near roads and other heavily populated regions can accumulate lead and other metals (Lawrey and Hale Jr. 1979) and inferred through comparisons of past and present-day lichen species on the island that a less diverse community and fewer species existed on the island because of environmental stressors (Lawrey 2011, 7). This research added to the growing body of evidence demonstrating how elements of the natural environment can be negatively impacted by roadways and other forms of air pollution, supporting efforts in Congress and at the EPA in the 1970s to eventually eliminate the use of tetraethyl lead in gasoline as part of air quality and emissions standards (Eckerlin et al. 2021, 13; Environmental and Energy Study Institute 2016; U.S. Energy Information Administration 2020).

Throughout its history, the WBFC membership has included prominent scientists, researchers, and practitioners in diverse fields of biology. From 1901 to 1996, membership of the club was limited to 50 members, all of whom were male (Perry 2007, 8). It was not until 1995 that women were recruited to join the club; the organization's first female president was elected in 2005 (The Washington Post 2005). Because of the limited membership opportunities, club members have historically been leaders in their respective fields. Members have often held influential positions in Washington, D.C.-area educational institutions, government agencies, and non-profit organizations, directing research and policy at the national level. Since its inception, the WBFC has provided a forum for members with ties to the Smithsonian Institution, the USDA, the Department of the Interior, the National Institute of Standards and Technology, the University of Maryland, Georgetown University, George Washington University, the National Council for Science and the Environment, and many others. Their membership has included multiple directors of the National Museum of Natural History, the National Zoological Park, the Fish and Wildlife Service, and the

Patuxent Wildlife Refuge. These ties with various institutions have made the WBFC a uniquely influential avocational club.

Notable members with achievements outside the WBFC include Vernon Bailey, who developed live traps that would not harm small animals during study; Frederick Coville, whose research allowed for blueberries and cranberries to be grown commercially; Henry Henshaw, a zoologist and ethnologist who completed an extensive study on native North American languages; Charles Piper, who is credited with making the soybean one of America's top crops; and Roger Tory Peterson, who developed the first modern field guide with his "A Field Guide to the Birds" in 1934.

In the realm of national policy, influential members have included Gifford Pinchot, the first chief of the U.S. Forest Service and "father" of modern forestry; Howard Zahniser, who was critical to the creation of the 1964 Wilderness Act which made it possible to preserve and protect certain lands in the U.S. from development (Eckerlin et al. 2021, 13); Clarence Fredine, who as chief of the National Park Service's Division of International Affairs in 1964 organized and expanded student conservation programs and developed the service's policies for international activities; and John S. Gottschalk, who as director of the Bureau of Sport Fisheries and Wildlife (1964-70), initiated the first formal endangered species program, introduced innovative waterfowl management concepts, and brought about the ban on the use of DDT (Ravo 1999). Although these achievements were made outside the WBFC, the prestigious membership of the WBFC was particularly unique for a scientific club.

Today, the WBFC has about 65 active members. Research is still conducted on the island by members and outside researchers; the club offers research grants to those seeking financial assistance to complete a study (Washington Biologists' Field Club 2021c). Grants have helped fund studies on fish in the Potomac River, on breeding birds on the island, on plants specific to the area, and many other topics (Perry 2007, 11). The breadth of research completed on Plummers Island supports the claim that it is the most thoroughly studied island in North America (Ethridge 1951; Eckerlin et al. 2021, 12).

In addition to conducting research, members of the club have maintained the natural and man-made elements of the island. In the mid-1960s, repairs were made to the property, specifically the cabin, which had been frequently vandalized. Shutters were added to windows, sturdier doors were installed, the roof was replaced, and the kitchen was enlarged and given new windows. Maintenance repairs were made again the 1990s, including reconstruction of the original fireplace with brick and concrete block, replacing an original wood surround. Support beams were added to the cabin interior to reinforce the roof and provide additional storage. In 2015, the chimney was reconstructed using the original fieldstone. This regular upkeep of the cabin has allowed members to continue to utilize the space there while completing research (Perry 2007, 10). The WBFC still meets on the island to complete research, attend annual meetings -- which often coincide with an annual shad bake and oyster roast -- and to spend time in the natural environment they have preserved on the island for over 100 years.

Evaluation

The Washington Biologists' Field Club on Plummers Island is eligible for inclusion in the NRHP under Criterion A. The WBFC is a twentieth-century, private-club research station set on an island in the Potomac River. For over a century, Plummers Island has been used by scientists for short- and long-term biological research studies as well as natural history and geological studies. Nearly 400 published studies have established and expanded upon a continuous body of research encompassing 120 years of observation. These studies have provided a unique source of long-term historical data for comparative studies involving the effects of outside forces such as climate change, invasive species, and pollution. Few places in the world provide a similar breadth of historical data with a location so close to a national capital.

In part due to the WBFC's proximity to Washington, D.C., club members, consisting of some of the leading researchers in their respective fields, have contributed to, influenced, and continue to inform new knowledge and understanding of biology, natural resources, and agriculture (Perry 2007, iv). The WBFC has been a forum for major scientific figures in the twentieth-century environmental movement for over a century. This membership of influential policymakers is unique among twentieth-century naturalist clubs.

The WBFC is eligible for listing in the NRHP under Criterion A for its association with contributions to science and conservation as the site of long-term scientific studies conducted by the club and as the meeting place for the club's collective membership of influential and accomplished scientists.

The WBFC is not eligible under Criterion B. Although there have been several notable individual members of the club that have made lasting and significant contributions to their fields, these specific accomplishments were made outside of their association with the WBFC. Such individuals are more appropriately represented by other properties more directly associated with their productive lives. Their cumulative importance as part of a club of prominent scientific members is best expressed under Criterion A.

With respect to NRHP Criterion C, the built environment of the WBFC is not a unique resource. The island contains a natural landscape that has evolved over time with limited human intervention. The only building on the island, the 1901 cabin, is typical of vernacular buildings of the period and has been altered. Other structures or designed elements include the fire pits, memorial plaques, hiking trails, and signs. Neither the cabin nor these simple additions represent the work of a master or possess high artistic value. As a natural landscape, its significance is derived from an association with the research and studies conducted on it; therefore, the WBFC is not significant under Criterion C.

The resource was not evaluated under Criterion D.

Period of Significance

The WBFC derives its significance from its role as an important research site and for its unique membership including influential Washington, D.C.-area biologists. Its period of significance begins in 1901, when the club acquired the island, constructed the cabin, and began their work on the island, and continues to 1971, the current 50-year cut-off date as established by the NPS in National Register Bulletin 16A, regarding historic properties in which significant activities began within the period of significance and continue to have importance, but no more specific date can be identified to end the historic period (U.S. Department of the Interior National Park Service 1997, 42). The WBFC does not qualify as exceptionally important under Criteria Consideration G, but future investigations may determine that the period of significance extends beyond 1971.

Character-Defining Features

Cabin site: the cabin site includes the cabin, picnic area, and fire pit (A) atop the easternmost rock formation. The 1901 cabin and adjacent picnic site have been used since the club's founding as a gathering place for researchers during their studies and club events and continue to be used as such. The cabin has been altered with new materials as part of repairs over time, but its use and overall design remain intact. Likewise, although the picnic tables themselves are 1990s replacements, the picnic area has been in continuous use since the establishment of the club on Plummers Island in 1901.

Memorial plaques: these plaques on the western rock formation of the island commemorate past important members of the club and indicate the location of several members' cremated remains. The plaques demonstrate the important role the island has played in members' lives and are one of the club's few physical alterations to the island, reflecting the value of past contributions of the founders and other members to the club.

Walking trails: the trails were established by club members to access the cabin, picnic site, and study areas and have been an integral part of the landscape for over a century. Although walking trails may change over time, the presence of trails on the island (as opposed to specific alignments or locations) is an important aspect of the WBFC's character.

Cactus Rock: a local landmark used as a traditional gathering spot and Potomac River overlook; it has also played an important role in the study of lichens on the island.

The natural, unplanned character of the Plummers Island landscape: although specific plants, plant communities and geological features, other than those noted above, do not contribute to the historical significance of the WBFC, the overall character of the landscape, which has been allowed to evolve naturally and organically for over a century, is a character-defining feature of the property. The continual, undirected growth and evolution of the natural environment played a pivotal role in the club's contributions over the last century, as researchers studied changes to the flora and fauna of the island resulting from outside stimuli such as drought, invasive species, pollution, etc. that reflect similar changes occurring in the world at large.

Fire pit (B) and fire pit (C) do not contribute to the property's significance. These appear similar to fire pit (A) but are not in use

and are not documented in the club's history. The NPS sign near the entrance to the island is a later replacement and is also noncontributing.

Integrity

The WBFC and Plummers Island have undergone continuous change and evolution over time. As such, the integrity of the WBFC is not tied closely to design, materials, and workmanship, but more to the location, setting, feeling, and association.

The WBFC has integrity of location due to its continued presence on Plummers Island.

The WBFC retains integrity of design. The layout and appearance of the buildings and structures on the island retain the appearance of an early twentieth-century naturalist club.

Setting: The WBFC retains integrity of setting. The island's natural landscape has undergone continuous change, but specific flora and fauna are not critical to the club's significance. The natural setting on Plummers Island is intact.

The WBFC lacks integrity of materials and workmanship. Changes to the cabin and picnic area over time include the replacement of doors and the roof, the addition of ceiling support beams, the reconstruction of the fireplace, and the reconstruction of the chimney. However, these aspects of integrity are not critical to the WBFC's significance.

The WBFC retains integrity of feeling and association. The island location, natural landscape, and the presence of the cabin, picnic area, walking trails, and other features combine to convey the character of the WBFC from the early through the mid-twentieth century.

Boundary

The resource encompasses 12.23 acres and is confined to the current tax parcel which is found on Montgomery County Tax Map GN11, Parcel P705 (2021).

References:

Christmas, Anne H. 1960. "New Span to Unmask Island Jungle," Evening Star (Washington, D.C.), July 5, 1960. Accessed June 1, 2021. www.newsbank.com.

Cohn, D'Vera. 1994. "Island Under a Microscope: In Plummers, Scientists Have a Living Laboratory." The Washington Post. May 19, 1994, C1.

Eckerlin, Ralph, Robert Soreng, and Lowell Adams. 2021. Washington Biologists' Field Club Comments on Section 106 Process for Construction of I-495/I-270 Project. Letter on file at Washington Biologists' Field Club archives, Cabin John, Maryland.

Environmental and Energy Study Institute. 2016. Fact Sheet: A Brief History of Octane in Gasoline - From Lead to Ethanol. Accessed June 9, 2021. https://www.eesi.org/papers/view/fact-sheet-a-brief-history-of-octane.

Ethridge, Mark. 1951. "Biologists Devote Half Century to Lab on Potomac Island." The Washington Post. August 20, 1951, 1. Accessed April 22, 2021. www.newsbank.com.

The Evening Star. 1901. "Certificates of Incorporation." May 24, 1901, 3. Accessed May 24, 2021. www.newspapers.com.

Fleming, Tony. 2015. Geologic-Geomorphic Map of Plummers Island. Accessed June 9, 2021. https://wbfc.science/wp-content/uploads/2019/09/geologic_map_plummers_island.pdf.

Lawrey, J. D. 2011. A lichen biomonitoring program to protect resources in the National Capital

Region by detecting air quality effects. Natural Resource Technical Report NPS/NCRN/NRTR—2011/450. National Park Service, Fort Collins, Colorado. Accessed June 9, 2021. https://irma.nps.gov/DataStore/DownloadFile/428476.

Lawrey, James D., and Mason E. Hale, Jr. 1979. "Lichen Growth Responses to Stress Induced by Automobile Exhaust Pollution." Science 204, no. 4391:423–424. Accessed June 1, 2021. https://science.sciencemag.org/content/204/4391/423.

The Manchester Journal. 1945. "Arlington Librarian Dies Suddenly." August 23, 1945, 2. Accessed May 24, 2021. www.newspapers.com.

Maxon, William R. "Natural History of Plummers Island: I. Introduction." Proceedings of the Biological Society of Washington 48: 115-138. Accessed June 21, 2021. https://wbfc.science/wp-content/uploads/2020/07/1935_Maxon_NatHistPlummerIntro.pdf.

McAtee, W.L. 1918. "A Sketch of the Natural History of the District of Columbia." Bulletin of the Biological Society of Washington 1:1–150. Accessed June 1, 2021. https://wbfc.science/wp-content/uploads/2020/07/1918_McAtee_SketchNaturalHistory.pdf.

Perry, Matthew C. (editor). 2007. The Washington Biologists' Field Club: Its Members and Its History (1900–2006). The Maple Press Company, York, Pennsylvania. Accessed May 24, 2021. https://wbfc.science/wp-content/uploads/2019/09/wbfc_booksm.pdf.

Ravo, Nick. 1999. "John S. Gottschalk, 86, a Leader in Federal Efforts to Save Species." The New York Times. August 24, 1999. Section B, page 11. Accessed August 10, 2021. https://www.nytimes.com/1999/08/24/us/john-s-gottschalk-86-a-leader-in-federal-efforts-to-save-species.html.

Simmons, R.H., A.H. Fleming, and R.J. Soreng. 2016. Natural Communities of Plummers Island, Montgomery County, Maryland. Accessed June 9, 2021. https://wbfc.science/wp-content/uploads/2019/09/plummer_island_nc_map_v1.3.pdf.

Simmons, R.H., R.J. Soreng, E.M. Barrows, and L.H. Emmons. 2020. Rare Flora and Natural Communities of Plummers Island, Montgomery County, Maryland. Unpublished technical report. Report on file at the Washington Biologists' Field Club archives, Cabin John, Maryland.

U.S. Department of Interior, National Park Service. 1997. How to Complete the National Register Registration Form. National Register Bulletin 16A. Accessed June 22, 2021. https://nps.gov/subjects/nationalregister/upload/NRB16A-Complete.pdf.

U.S. Energy Information Administration. 2020. "Leaded gasoline was gradually taken off the U.S. market." Gasoline Explained. U.S. Energy Information Administration, Washington, D.C. Accessed June 9, 2021. https://www.eia.gov/energyexplained/gasoline/gasoline-and-the-environment-leaded-gasoline.php.

Washington Biologists' Field Club. 2021a. The History of the Washington Biologists' Field Club on Plummers Island. Accessed May 24, 2021. https://wbfc.science/the-history-of-the-washington-biologists-field-club-on-plummers-island/.

--- 2021b. Scientific Papers Associated with Plummers Island. Accessed June 1, 2021. https://wbfc.science/scientific-papers-associated-with-plummers-island/.

--- 2021c. Research. Accessed June 1, 2021. https://wbfc.science/research/.

Washington Biologists' Field Club Archives. n.d. Miscellaneous files on record. Accessed June 1, 2021.

The Washington Post. 1901. "District Biologists Incorporate." May 24, 1901, 12. Accessed April 22, 2021. www.newsbank.com.

--- 1927. "Suburban Rockville." June 28, 1927, 2. Accessed April 22, 2021. www.newsbank.com.

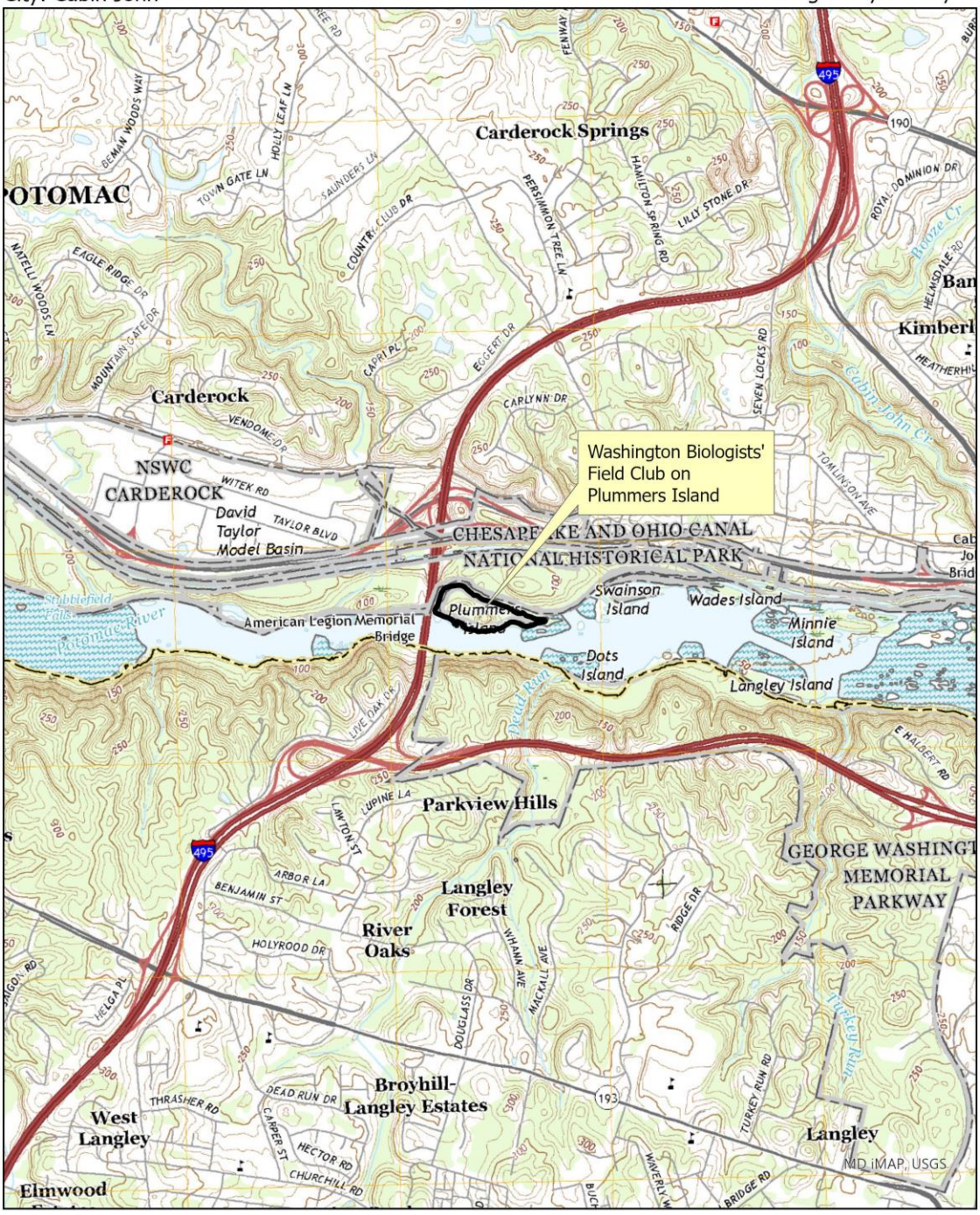
--- 1959. "Plummers Island – It's for the Birds." February 6, 1959, B1. Accessed April 22, 2021. www.newsbank.com.

--- 1990. “Mason E. Hale – Lichens Expert.” April 27, 1990, C6. Accessed April 22, 2021. www.newsbank.com.

--- 2005. “Field Club’s Gender Evolution.” May 22, 2005, C02. Accessed June 1, 2021. www.newsbank.com.

Washington Biologists' Field Club on Plummers Island

Location: Plummers Island on the Potomac River
City: Cabin John Montgomery County



USGS 7.5' Quadrangle - Falls Church

0 0.5 1 Miles
Scale: 1:24,000
N

Washington Biologists' Field Club on Plummers Island

Location: Plummers Island on the Potomac River
City: Cabin John Montgomery County

Parcel Boundaries

0 0.05 0.1 Miles

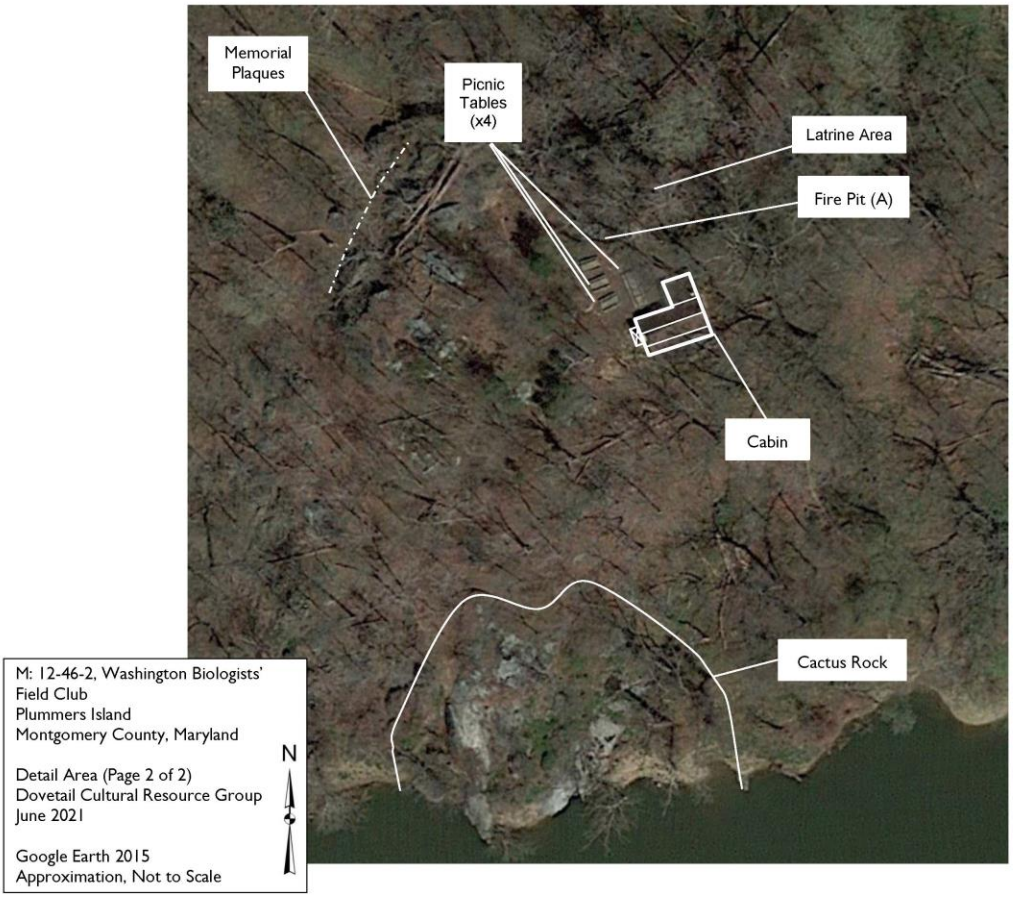
Scale: 1:3,000

N

Washington Biologists' Field Club - Site Map

Plummers Island Cabin John - Montgomery County

MAPS


Memorial Plaques
Picnic Tables (x4)
Latrine Area
Fire Pit (A)
Cabin
Cactus Rock
M: 12-46-2, Washington Biologists' Field Club
Plummers Island
Montgomery County, Maryland
Detail Area (Page 2 of 2)
Dovetail Cultural Resource Group
June 2021
Google Earth 2015
Approximation, Not to Scale
N

M: 12-46-2 Washington Biologists' Field Club on Plummers Island

PHOTOGRAPHS

Plummers Island signage, looking south.

Walking trail in eastern section of Plummers Island with flagging pins in the background demarcating a study area, looking west.

Walking trail in eastern section of Plummers Island showing natural growth of flora on the island, looking west.

WBFC cabin, southwest oblique.

WBFC cabin, northeast oblique.

WBFC cabin, east elevation.

WBFC cabin, west elevation.

WBFC cabin kitchen projection, north elevation, looking southeast.

Detail of WBFC cabin chimney stack on west elevation, looking south.

WBFC cabin interior, fireplace surround on western wall.

Set of picnic tables situated immediately northwest of the cabin, looking west.

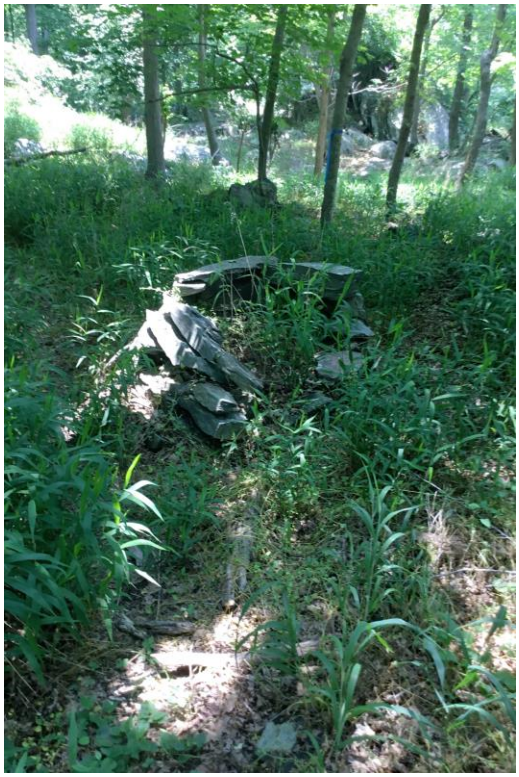
Stone fire pit (A) immediately west of cabin, looking north.

View of memorial plaques, looking northeast.

Cactus Rock, looking south.

View of a research study location of an invasive plant with typical pin flag demarcation, looking south.

Fire pit (B) in western half of the island, looking east.



Remnants of stone fire pit (C) in western half of the island, looking east.

Original Plummers Island sign now stored inside of WBFC cabin.

Plummers Island southern shore, looking west towards American Legion Bridge.

M: 12-46-2 Washington Biologists' Field Club on Plummers Island

PHOTO LOG

Number of Photos: **19**
Name of Photographer: **Heather Dollins Staton**
Date of Photographs: **2021-05-26**
Location of Original Digital File:
File Format: **M: 12-46-2_2021-05-26_01.tif… etc.**

Photographs inserted on continuation sheets:

M: 12-46-2_2021-05-26_001
Plummers Island signage, looking south.

M: 12-46-2_2021-05-26-002
Walking trail in eastern section of Plummers Island with flagging pins in the background demarcating a study area, looking west.

M: 12-46-2_2021-05-26_003
Walking trail in eastern section of Plummers Island showing natural growth of flora on the island, looking west.

M: 12-46-2_2021-05-26_004
WBFC cabin, southwest oblique.

M: 12-46-2_2021-05-26_005
WBFC cabin, northeast oblique.

M: 12-46-2_2021-05-26_006
WBFC cabin, east elevation.

M: 12-46-2_2021-05-26_007
WBFC cabin, west elevation.

M: 12-46-2_2021-05-26_008
WBFC cabin kitchen wing, north elevation, looking southeast.

M: 12-46-2_2021-05-26_009
Detail of WBFC cabin chimney stack on west elevation, looking south.

M: 12-46-2_2021-05-26_010
WBFC cabin interior, fireplace surround on western wall.

M: 12-46-2_2021-05-26_011
Set of picnic tables situated immediately northwest of the cabin, looking west.

M: 12-46-2_2021-05-26_012
Stone fire pit(A) immediately west of cabin, looking north.

M: 12-46-2_2021-05-26_013
View of memorial plaques, looking northeast.

M: 12-46-2_2021-05-26_014
Cactus Rock, looking south.

M: 12-46-2_2021-05-26_015
View of a research study location of an invasive plant with typical pin flag demarcation, looking south.

M: 12-46-2_2021-05-26_016
Fire pit (B) in western half of the island, looking east.

PHOTO LOG

M: 12-46-2_2021-05-26_017
Remnants of stone fire pit (C) in western half of the island, looking east.

M: 12-46-2_2021-05-26_018
Original Plummers Island sign now stored inside of WBFC cabin.

M: 12-46-2_2021-05-26_019
Plummers Island southern shore, looking west towards American Legion Bridge.