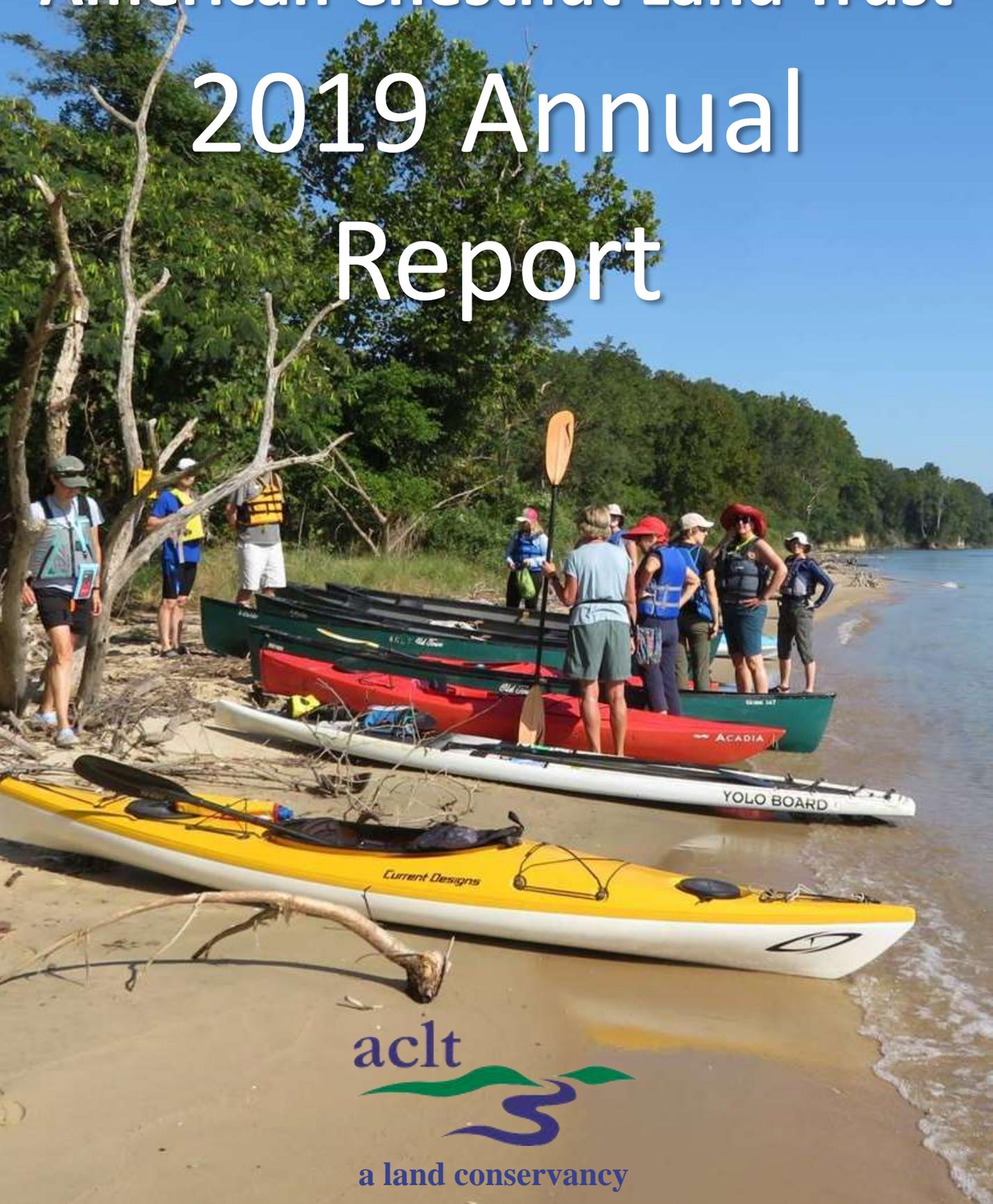


American Chestnut Land Trust 2019 Annual Report



aclt



a land conservancy

For more details, view the
2019 Annual Meeting Presentation
<http://bit.ly/acltAnnualMtg>

ACLT Mission

- We promote land conservation and preservation throughout Southern Maryland.
- We preserve and conserve the natural and cultural resources of the Parkers Creek and Governors Run watersheds for the benefit of this and future generations.
- We provide environmentally sustainable public access to managed properties for educational, scientific, recreational and cultural purposes.

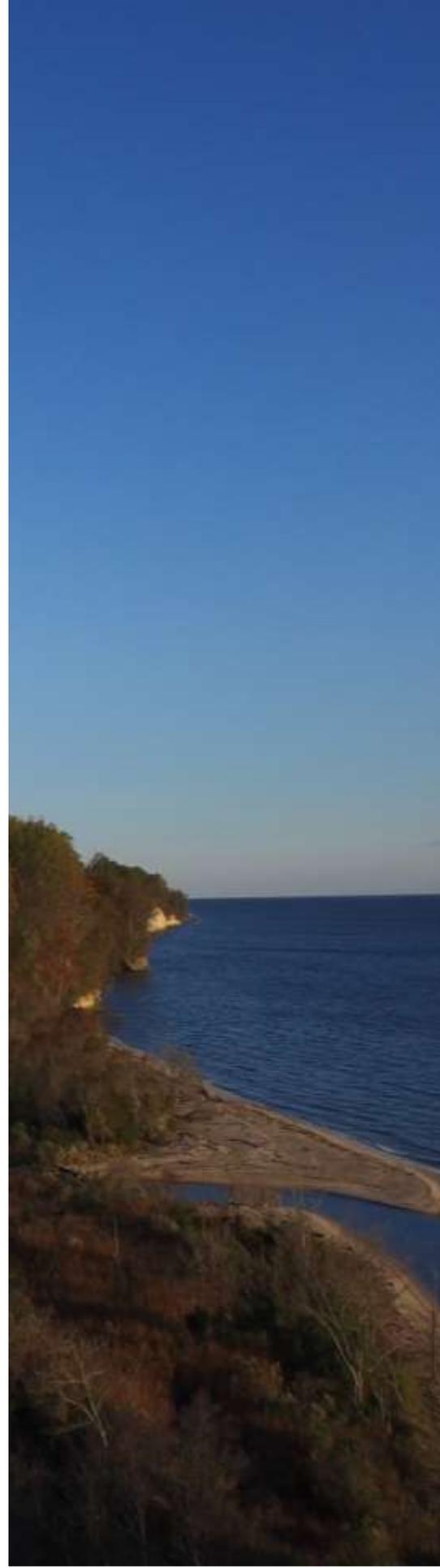
From the Director

Southern Maryland is at the epicenter of the Chesapeake Bay's tidal region and there is a bulls eye on it as the last area in the D.C. region with large blocks of farm and forest land which can be converted to residential development. What happens to each watershed in this region has an impact on the Bay. The cumulative impact affects us all.



Last year, ACLT's mission broadened to promote land conservation and preservation throughout Southern Maryland, not just Calvert. In 2019, ACLT staff began work with the Maryland Environmental Trust to form a Southern Maryland Partnership for land conservation and preservation.

Our work does not end there. ACLT-affiliated scientists are collecting baseline data to monitor change in the forests, the fish, the birds, the reptiles, and the amphibians. They are monitoring sea level rise. Our land stewards are working to slow and/or stop the spread of a variety of invasive species. And our Land Manager Autumn Phillips-Lewis is training the next group of Master Naturalists.



Facing an Environmental Crisis

and what we are doing as per the Five Year Plan



Our world's ecosystems are changing faster than any of us have experienced in our lifetimes. Bird populations are declining. Permafrost regions in Northern Europe are thawing. Millions of acres of forest across the globe are permanently lost each year. Australia has been burning for months. Storms are bigger and they tend to move more slowly. In our region, pristine streams are rare, rather than the norm. According to the Fourth National Climate Assessment by the US Global Research Program, Climate Change "creates new risks and exacerbates existing vulnerabilities in communities across the United States, presenting growing challenges to human health and safety, quality of life, and the rate of economic growth."

In the Chesapeake Bay region, we have seen a glimmer of hope that forty years of concerted effort to clean up the Bay is finally bearing fruit. Submerged aquatic vegetation has increased. Water clarity is improving. Land preservation efforts are strong. However, sea rise is quite evident in waterfront communities. Storms appear to be more violent. Progress is uneven, some states are behind, and more suburban sprawl threatens to offset any nutrient reductions thus far.

Our Five Year Plan calls for ACLT to embrace a leadership role in the long term conservation and stewardship of watersheds not only in Calvert County but all of Southern Maryland. This parallels the direction of our national member organization, the Land Trust Alliance whose mission is "to save the places people need and love by strengthening land conservation across America". There are many places in our region that need to be conserved. By example, leadership, and collaboration, ACLT has the opportunity to help maintain fishable/swimmable waterways throughout our region, to provide good habitats for wildlife, to provide opportunities for young people of all ages to get access to wildlands and waterways, and to reduce the impact of climate change in Southern Maryland.

Of course, our mission will not be achieved if own membership is not strong and engaged. To build that level of affection for the land, our Five Year Plan envisions that ACLT will be a place where...

"...the land trust and its members are able to convey the passion for land preservation and active land management, through art, music, verse, and sweat to build a conservation ethic. We are attentive stewards for the watersheds, serving as a catalyst for effective land conservation and preservation by means of alliances and partnerships with other nonprofit organizations, governmental entities, businesses, and a broad segment of the community."

A Splendid Research Landscape

One of the exciting things that has been happening in our waterways is the level of scientific research underway. The Parkers Creek Preserve is a splendid research landscape for scientists wanting to study lands, forests, and waterways in a more pristine natural condition.

The goal of our Science Committee is to “conserve, protect, and restore, the natural resources of the Parkers Creek and Governors Run watersheds and identify threats to their ecological integrity.” Our own scientists are leading the effort. Dr. Denise Breitburg is Chair of the Committee and is in charge of the fish surveys. Dr. Walter Boynton conducts the Water Quality Blitz and oversees the sampling of the main stem of Parkers Creek. Under the guidance of Dr. Jess Parker of the Smithsonian Environmental Research Center (SERC), Autumn Phillips-Lewis conducts Forest Diversity Surveys. Dr. Ron Kluda is helping to establish baseline data for water quality and macroinvertebrates in streams near Holly Hill Farm.

Other scientists in the region have joined in. Dr. Chris Rowe of the Solomons Chesapeake Biological Laboratory (CBL) is doing an amphibian and reptile diversity study. Dr. Melissa McCormick (SERC) has a grant to replant native marsh grasses that Autumn’s team has cleared of the invasive *phragmites australis*. Dr. Lora Harris is monitoring sea level rise in our marsh and changes in plant species diversity. Audubon Maryland-DC’s Dr. David Curson is working with ACLT volunteers to conduct bird diversity studies each year. John Wolf, GIS Team Leader at the Chesapeake Bay Program is using GIS layers to model changes in the Parkers Creek watershed.

Finally, with the help of volunteer Birgit Sharp, we are beginning to work on ways to make this information more accessible to our leaders, our membership, and the public.



Preservation First!

One of the key strategies in the Five Year Plan is to “complete, wherever possible, preservation of remaining priority properties in the Parkers Creek and Governors Run watersheds”.

In 2019, ACLT’s Land Acquisition and Preservation Committee continued its quest. The Board acquired a 9-acre tract from St. John Vianney Catholic Church, which raises our overall land holdings at this important trailhead to 45 acres. The new purchase provides a stream buffer and maintains the forest canopy near the Prince Frederick to Bay (PF2Bay) Trail.

We also completed contractual negotiations to buy the 78-acre Governors Run Development Corporation (GRDC) property. It is fine forested land, through which flows Governors Run. Upon purchase, it will be known as the Yowell Property in honor of the initial purchasers (Alyssia and Greg). The northern end of this tract is adjacent to ACLT’s first land purchase, the Gravatt East property. The same “Old Growth Forest” conditions on East Gravatt also exist on the north portion of the GRDC property. With this purchase, we are able to extend ACLT trails to Governors Run Road. Settlement on this property is contingent on Board of Public Works approval of the Rural Legacy application.

Work hasn’t stopped there. We are working to protect another large property next year with Rural Legacy funds and actively working with the Sustainable Calvert Network to improve the prospects for land preservation throughout Southern Maryland. As we were closing out the year, we developed an arrangement with the Maryland Environmental Trust to start a Regional Partnership with conservation agencies, governments, and nonprofit organizations over the next couple of years.



Land Management

Throughout 2019, ACLT's Land Management staff and volunteers began working to accomplish goals laid out in the new 2019-2023 Five Year Plan. As usual, monitoring visits were conducted on all of ACLT's fee simple properties and on the 5 properties for which ACLT holds conservation easements. Written reports and photos documenting the current conditions and the conservation values of each property were developed to maintain ACLT's compliance with Land Trust Alliance Accreditation standards. ACLT is one of only 5 accredited land trusts in Maryland.

Another one of the major goals in the current Five Year Plan is to encourage environmentally sustainable public access to ACLT managed lands by maintaining and enhancing the ACLT trail system. To accomplish this goal, ACLT continued its weekly Wednesday Woods Workers (formerly Wednesday Weed Whackers) and Thursday Trail Adventurers volunteer work days. These two groups of volunteers accomplished many projects in 2019, particularly on the trails that experienced a lot of damage due to the historic amount of precipitation received in 2018.

One noteworthy project includes a "bike-friendly" bridge and boardwalk on the East Loop trail to re-route around a section of trail where a culvert and land bridge washed away in the heavy rains (pictured on the right).

Additionally, a 24' bridge was built in the middle of the North-South trail where the former bridge washed away in high water. Multiple bridges, boardwalks, and re-routes were installed on the Parkers Creek trail to cross low wet areas in the most direct route possible and get trails onto higher ground in as short a distance as possible.



In 2018 and 2019 many of our trail improvement projects were reactionary in nature; we found ourselves racing to fix trails after they had experienced major degradation due to the high-level of precipitation. Moving forward, staff has been assessing all 22 miles of trails to proactively address potential problems before they occur. This same goal was kept in mind as the route of the new Holly Hill trail was laid out in 2019. The new trail will traverse the steep slopes of the 405-acre Holly Hill property and connect to the existing PF2BAY trail on one end and the new Griffin Meadow trail on the other end. Work will begin on the 2 new miles of trail in 2020.



Other major goals in the Five Year Plan focused on ACLT's non-forested areas. In the areas around the Double Oak property volunteers maintained both Double Oak farm and the food forest plot and donated 2,412 pounds of fresh food to the St. John Vianney food pantry in 2019. Volunteers were also organized into a farm subcommittee that reports to the Land Management Committee. The subcommittee brainstormed ways to make the sustainable agriculture project more efficient and productive and worked to delegate leadership tasks to a broader number of volunteers.

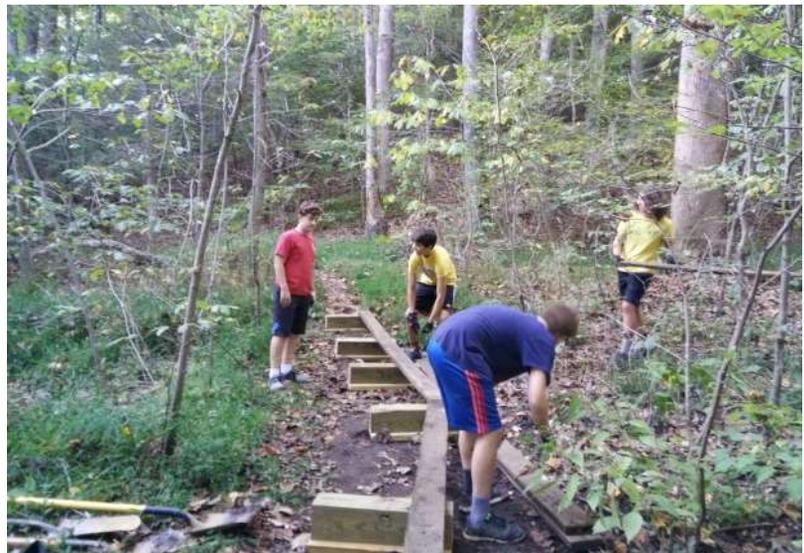
One of the most widely-supported new initiatives in the 2019-2023 Five Year

Plan was the establishment of meadow habitat in the open areas near the North Side trailhead, South Side trailhead, and Holly Hill farm. On Holly Hill, a 35' buffer of native grasses and flowers was planted around a portion of the agricultural fields. The cost of the seeds and the planting were covered by the Environmental Quality Incentives Program, a part of the Farm Bill. Additional buffers will be planted around other sections of the agricultural fields on Holly Hill in 2020, 2021, and 2022. The goal of these buffer plantings is to reduce the significant erosion that is occurring in some places around the edges of the farm and to provide habitat for pollinators and other insects, birds, and small mammals.

ACLT staff and volunteers also attended trainings and met with experts to determine the best way to establish meadow habitat in the open areas near the North Side and South Side trailheads. A meadows subcommittee was formed to develop a plan and report back to the Land Management Committee with recommendations. The meadows subcommittee hopes to implement the necessary first steps to properly prepare part of the area around the north side fields on the Double Oak property in 2020. In 2019, the Griffin Meadow trail was established around the edge of the fields on the Double Oak property to fulfill that goal which was outlined in the Five Year Plan.

Lastly, ACLT worked to meet the goal in the Five Year Plan to continue to diversify its land management volunteers. In addition to maintaining the approximately 120 active Master Naturalist, hunters, and other volunteers, ACLT successfully hosted its 7th annual Maryland Master Naturalist program and added new volunteers through that effort. ACLT also

increased its collaboration with local scout troops in 2019. Scouts completed many great projects such as double digging beds on Double Oak Farm to prep for next season's planting, installing board walks on the PF2BAY trail, and installing picnic tables along the trails at ACLT. ACLT was also awarded two Chesapeake Conservation Corps interns in August of 2019 who helped increase organizational capacity.



Science Committee

Just a few years ago ACLT formed a Science Committee made up of researchers who provide insight on ways to collect data to better monitor the watershed and inform land management decisions. Last year's Science Committee initiatives began in February as Master Naturalist volunteers checked traps located near vernal ponds on both the north and south side trails daily from the beginning of February through the end of April. In the traps or in the vernal ponds, the volunteers found a northern two-lined salamander, a five-linked skink, a red-spotted newt, and green frogs in addition to Cope's Gray tree frog eggs and Southern Leopard frog eggs.

In March, ACLT also conducted its second water quality blitz and measured nitrogen and phosphorus levels at 21 sites throughout the Parkers Creek Preserve. Many of these sites saw an increase in nitrogen levels compared to the samples taken in March of 2018; however, all of the sites were still below the Calvert County goal of 0.07mg/L. Phosphorus was not sampled in 2018 so there is no data to compare to the 2019 results; however, all of the samples except one were below the Calvert County goal of 0.031mg/L. The one site that exceeded the goal was in the Governor's Run subwatershed and it measured a phosphorus reading of 0.052mg/L.

In addition to measuring nitrogen and phosphorus to get a picture of stream health, ACLT staff and volunteers sampled the benthic macroinvertebrate populations in the headwater streams on the Holly Hill property. After sampling at 14 sites in 2018, the number of sites was reduced to 6 in 2019. The data collected was used to assign Index of Biological Integrity (IBI) scores to each site. Two of the sites received a score classified as "good" (the highest ranking) while two were "fair", one was "poor", and one was "very poor". There is not yet enough data to interpret why we may have obtained these results but the poor and very poor sites are located on the tributary that is experiencing the most erosion from the agricultural field located upstream.

In July, fish diversity was sampled at 3 sites in the main stem of Parkers Creek. A total of 13 species were caught in 2019 including white perch, striped bass, and black drum. Some of these species are anadromous, meaning that they migrate into the fresher water to spawn. Having this data that indicates that Parkers Creek may be used as spawning habitat by anadromous fish increases its conservation value.





Another Science Committee initiative in 2019 was the continuation of the annual Important Bird Area (IBA) Champions bird diversity survey. Each year since 2017, the Audubon Society DC-MD chapter has organized volunteers to count the birds they see and hear at 55 sites located along the hiking trails in the Parkers Creek Preserve. In 2019, 63 different species were detected in forest habitats including 18 forest interior dwelling species that made up over half of the total forestland detections. Last year, 38 different species were detected in the marsh habitat including two marsh specialist species, the Marsh Wren and the Least Bittern.

To round out the diversity surveying effort, 6 more $\frac{1}{4}$ -acre plots were surveyed for tree species diversity bringing the total number of plots surveyed to 18. So far, 30 species have been documented throughout the 18 plots. Staff is working with researchers from the Smithsonian Environmental Research Center to analyze the data that has so far been collected and to select a few additional plots that will encompass ecologically unique areas around the Parkers Creek Preserve. The data collected can be used to not only show what species are present and how they change over time but can also be used to determine how much carbon the trees are sequestering and reveal the stocking level of the forest.

In the marsh, *phragmites australis* removal efforts continued as work began with cutting and covering a 4th patch with thick black plastic. Other sites that were cut and covered in 2017 and 2018 have shown hopeful results thus far with minimal *phragmites* re-growth and the regeneration of some native species. Researchers at the Smithsonian Environmental Research Center who initially advised staff on the project have received a Maryland Sea Grant to replant native vegetation in the areas where the *phragmites* was removed. With their replanting efforts, they hope to be able to investigate ways to improve the success of future marsh re-vegetation efforts which have had limited success to date.

Membership & Outreach

ACLT's 5-Year Plan's Goal for the Membership & Outreach (M&O) Committee is as follows:

"Optimize our outreach programs to serve the ACLT mission throughout Southern Maryland; encourage and support strong growth in ACLT's membership and volunteer programs through enhanced communications, programs and activities."

In 2019, the M&O Committee continued the work and programs that have been established to bring more visitors to ACLT, not only introducing visitors to the beauty of the Parkers Creek Preserve, but also educating them about the importance of preserving the land, wildlife and waterways. The major events held in 2019 were:

- Earth Day 5K and Clean-up – a race over north-side trails followed the next day with clean-up efforts
- Bark in the Park – a partner event with Calvert Animal Welfare League (CAWL)
- Southern Maryland Nature Fest – with nature organizations from across Southern Maryland sharing information with attendees
- Sip & Save – a local and regional beer-tasting event with live music, games and a raffle
- Parkers Creek Challenge – a triathlon with a twist where participants bike, run and paddle for 9 miles total
- Annual Dinner and Auction – our biggest event of the year, with generous donations of items from the community and sponsorships from numerous local business
- Wreath-making Workshops & Greens Sale – attendees learn to make wreaths from all-natural greens gathered from ACLT's properties and volunteers and staff create beautiful wreaths to sell as a fundraiser.

Interspersed among the events were several guided hikes and canoe trips lead by ACLT's Master Naturalists. ACLT also had booths at several off-site events, doing demonstrations and sharing information.



Parkers Creek Challenge



Nature Fest



Annual Dinner & Auction



Wreath-making Workshop



Guided Canoe Trip



Farm Visitors



Pizza Garden



Winter Guided Hike

For 2020, ACLT will host most of the events from last year plus seven guided hikes have been added to the Calendar of Events (bit.ly/ACLTCalendar). Since this year marks the 50th anniversary of Earth Day, ACLT will host a special family hike in addition to the annual 5K. A clean-up of two segments of roads in the Parkers Creek watershed that ACLT has adopted through the State's Adopt-a-Highway program is also planned.

Double Oak Farm Visits

Double Oak Farm plays a vital role in ACLT's outreach program. One of the most effective ways to increase local awareness about ACLT and its mission is to host group visits at the farm. Some of these groups visit are for educational purposes while others come to volunteer. In 2019, a wide variety of groups totaling approximately 450 to 500 people visited the farm.

As part of the Master Gardener's "Grow-It-Eat-It/Grow-It-Wear-It" program, three groups started, planted, and harvested cotton, peanuts, and sweet potatoes. Several of the products raised were entered in the County Fair and won major ribbons. The groups returned to ACLT after harvest to make yummy treats from their produce. A fourth group planted a Pizza Garden with garlic, onion, peppers, tomatoes, basil, and oregano. They returned in the fall for harvest and made pizza in ACLT's kitchen.

In addition to hosting tours, Double Oak Farm volunteers regularly give talks offsite and attend events to share information and to sell flowers from the farm.

New Visitor Program

In July 2019, M&O Committee member Penny Moran launched the "Weekend Welcome Program", with a small group of volunteers dedicating several hours each weekend to greeting visitors at each trailhead, sharing information about ACLT, and answering questions. It was a huge success and the program will resume in March 2020. In addition to sharing ACLT's message, there was a steep increase in the number of hikers who signed in when the "welcomers" were there to remind them.

Volunteers

ACLT's outreach programs would not be possible without the support of our dedicated volunteers. And the number of volunteers who have registered with ACLT continues to grow year after year.

Staff members and the Membership & Outreach Committee showed their appreciation to ACLT's volunteers at two separate events in 2019. In October, volunteers were invited to join the Calvert Astronomy Club out at the barn with a spread of sandwiches and desserts and a camp fire. It was a cloudy night and there wasn't a star in the sky, but no one seemed to mind. In December, a volunteer appreciation dinner was held at the community house in Scientists Cliffs. This time it was the heat that didn't cooperate but again, everyone was having too much fun to complain.

5-Year Plan Implementation

It's safe to say that implementation of the 5-year plan is well underway and in 2020, the M&O Committee will continue current programs and seek new avenues for engagement with the community. In addition, the Committee will focus on two specific action items from the Plan. ACLT's neighbors and neighboring communities will be contacted to encourage their involvement and underrepresented communities, including students, minority communities, young families, etc., will be targeted for the purpose of broadening ACLT's diversity.

Many times, ACLT members and supporters are the best "ambassadors" for spreading the word about ACLT. They don't have to volunteer for a specific event or project; rather, just by speaking to their friends about ACLT and its mission, encouraging others to visit our trails, and participating in events, they are helping us meet our outreach goals.



Greens-gathering Crew



Volunteer Astronomy Night



Volunteer Dinner



Sip & Save Event

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Autumn Phillips-Lewis, Land Manager

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Rachel Delbo, CCC Intern (8/19-present)

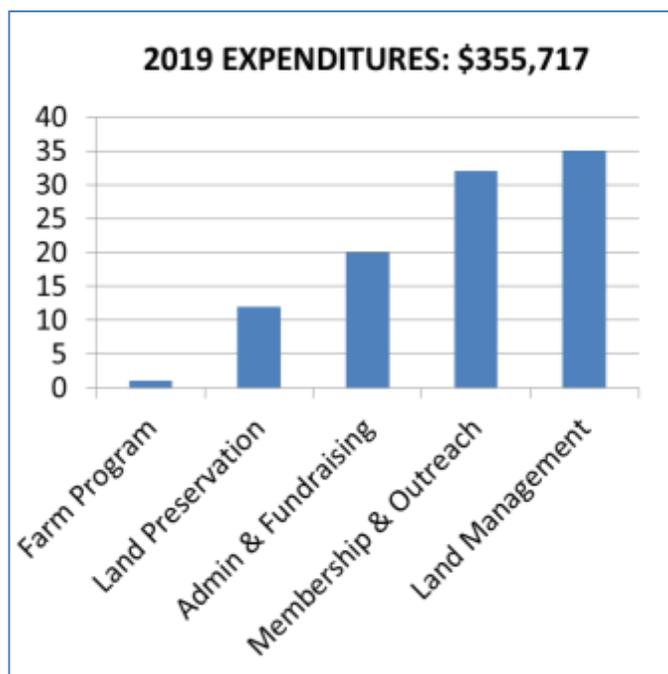
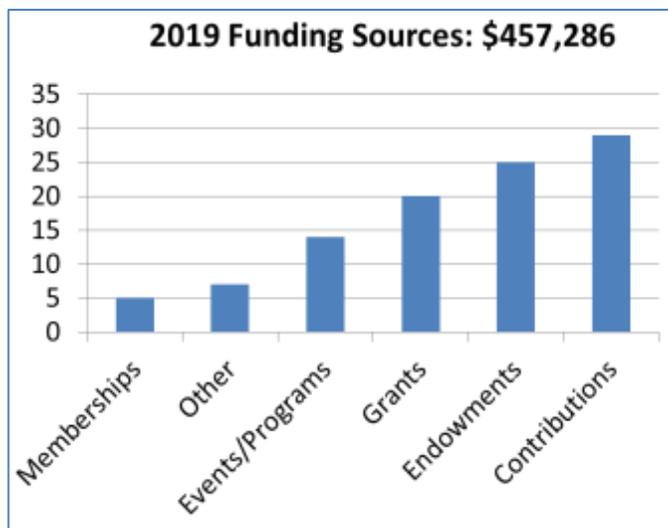
Charlie Kreizenbeck, CCC Intern (8/19-present)

2019 ACLT VOLUNTEER STAFF

Virginia Murphy, Membership Coordinator

Susan Helmrich, Membership Coordinator

2019 FINANCIAL OVERVIEW



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