

# Watershed Observer



NEWSLETTER OF THE AMERICAN CHESTNUT LAND TRUST - VOLUME 24 NO. 3, SUMMER 2010

## CONTENTS

CALVERT COUNTY MUST GO ON A  
"POLLUTION DIET" TO RESTORE HEALTH  
TO OUR WATERWAYS 1

LETTER TO THE EDITOR (CALVERT COUNTY  
RECORDER) 7

VOLUNTEER SPOTLIGHT — RON BAILEY 7

ACLT ON FACEBOOK 8

A SECRET WORLD BEYOND OUR DOORS... 9

2010 CALENDAR OF EVENTS 10

CONTRIBUTIONS AND NEW MEMBERS 11

## CALENDAR HIGHLIGHTS

AUGUST 28 A WALK ALONG THE BAY AND IN  
THE WOODS—A SPECIAL THANK-YOU  
INCENTIVE FOR ALL NEW MEMBERS WHO  
JOIN ACLT BETWEEN JULY 20 AND AU-  
GUST 28, 2010 (AND CURRENT MEMBERS  
WHO RECRUIT A NEW MEMBER). (10:00  
A.M. – 12:00 P.M.)

SEPTEMBER 11 HOLLY ARBORETUM WORK  
DAY AT WARRIOR'S REST (9:00 A.M. –  
12:00 P.M.)

SEPTEMBER 18 GUIDED CANOE TRIP  
(12:00 P.M. – 3:00 P.M.)

SEE THE FULL CALENDAR ON PAGE 10 OR ON  
THE WEB.

**Locally Yours**  
**15th Annual Dinner & Auction**  
**September 25, 2010**

<http://acltweb.org/events/auction>

Visit Us Online at  
<http://acltweb.org/nl>

## Calvert County must go on a "Pollution Diet" to Restore Health to our Waterways

### Introduction

Despite years of exhaustive study, effort and expense, voluntary Chesapeake Bay Agreements amongst the various jurisdictions have thus far failed to restore the health of the Chesapeake Bay. The federal Environmental Protection Agency (EPA), under threat of litigation, is now resorting to mandatory measures. The July-August 2010 issue of the *Chesapeake Bay Journal* announced that the Bay must go on a "pollution diet" and lose 63 million pounds of nitrogen and 3.1 million pounds of phosphorous by 2025 "if we are going to restore this national treasure as part of our legacy for future generations." EPA has determined the maximum carrying capacity of the Chesapeake Bay—the "amount of nitrogen and phosphorous the Bay can receive each year while providing water quality suitable for crabs, waterfowl, fish—and even bottom-dwelling clams and worms." This maximum carrying capacity is known as a Total Maximum Daily Load, or TMDL.

Even before this action was ordered by EPA, Maryland passed HB 1141, signed into law by Governor Ehrlich in 2006, mandating that all Maryland counties and municipalities prepare and adopt a Water Resources Element (WRE) in their comprehensive plans to explain "what will need to be done for provision of drinking water and for management of wastewater effluent and stormwater to support planned growth," taking into consideration the limited "assimilative capacity of water bodies."



Calvert County has ambitious plans to study all twenty-two of its subwatersheds, beginning with the five creeks shown above, including Parkers Creek.



**AMERICAN CHESTNUT  
LAND TRUST, INC.**

P. O. Box 2363  
Prince Frederick, MD 20678  
Phone: 410-414-3400  
Fax: 410-414-3402  
info@acltweb.org  
http://acltweb.org/nl

Published quarterly by the American Chestnut Land Trust. The ACLT is dedicated to the preservation of Calvert County, Maryland's Natural and Historical Resources. Since it was established in 1986, ACLT has preserved over 3,000 acres. We own 911 acres, manage 1,780 acres owned by the State of Maryland, and hold conservation easements on 360 privately-owned acres.

Editors: Ellen and David Farr

**Board of Directors**

Edward U. Graham, President  
Patrick J. Griffin, Vice President  
Paul L. Berry, Treasurer  
Caroline E. VanMason,  
Corporate Secretary  
Denise Breitburg  
Martha C. (Marcy) Damon  
Carolyn Ebel  
David F. Farr  
James B. Greene  
Steve Kullen  
John Little  
Gary Loew  
Steve Stadelman  
Peter N. Stathis  
Randi Vogt

**Executive Director**

Karen H. Edgecombe

**Community Relations  
Coordinator**

Joy Woppert

**Land Manager**

Elizabeth Stoffel

Ann White, Contract Accountant

**Volunteer Staff**

Paul Berry, Treasurer  
Jeff Klapper, Farm Manager  
Ginny Murphy, Membership  
Coordinator

Printed on recycled paper.



Calvert County has been developing its “sustainable strategy” for the required “Water Resources Element” (WRE) of the Calvert County Comprehensive Plan, as required by Maryland law for the past two and a half years. The Calvert County Department of Planning and Zoning and the Calvert County Department of Public Works have jointly prepared a roadmap for how they will meet the state law and the roadmap will also help in meeting the new EPA TMDL requirements. *A Sustainable Strategy for Calvert's Aquifers and Watersheds: Guidance Document for the Preparation of the Water Resources Element of the Calvert County Comprehensive Plan*, p. 5, (December 2009). A *Sustainable Strategy* is available on the county website at [http://www.co.cal.md.us/assets/Planning\\_Zoning/Comp\\_Plan/ASustainableStrategyForCalvert-August09.pdf](http://www.co.cal.md.us/assets/Planning_Zoning/Comp_Plan/ASustainableStrategyForCalvert-August09.pdf).

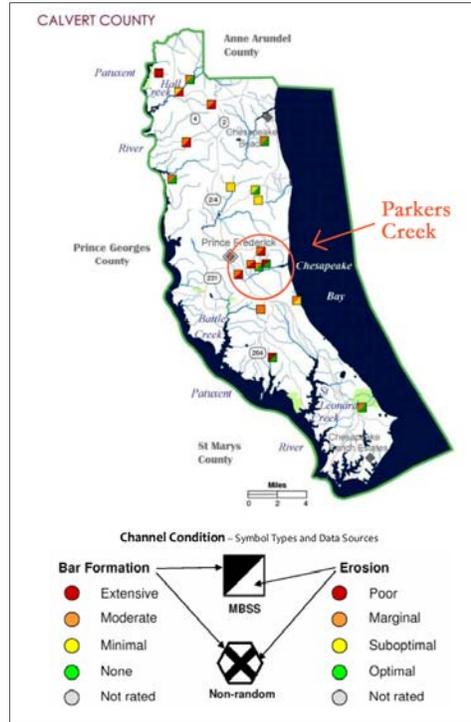
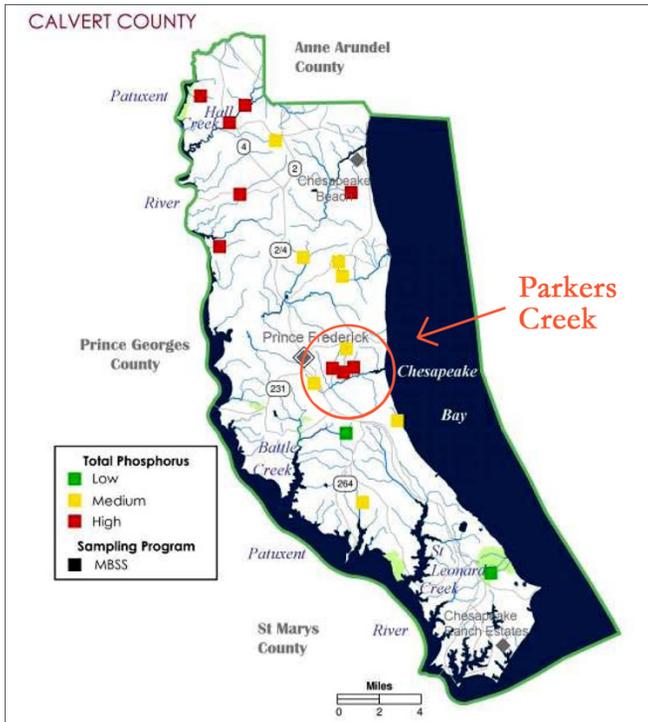
The greatest challenge for Calvert County will be to reduce non-point source pollution from stormwater, lawn fertilization, and septic systems in Calvert County's watersheds. Because Calvert County has already taken proactive steps to reduce residential buildout from approximately 54,000 households to 37,000 households, it is expected to have adequate drinking and other water resources for the next twenty years; however, Calvert County will be required to pursue techniques to reduce nitrogen, phosphorous and sediment either through further limitations on growth or other types of land use and development regulations (*A Sustainable Strategy*, p. 8).

Planning & Zoning Director Greg Bowen has twice made presentations to the ACLT Board of Directors—once in January 2008 and again in January 2009 concerning the county's preparation of the WRE. On June 30, 2010, Calvert County held the first Parkers Creek Subwatershed Stakeholders meeting. ACLT welcomes the effort the county is making to determine what factors are contributing to continued stream degradation, despite the protective land use measures the county already employs, and what additional protective measures we need to adopt to make certain that future planned growth, primarily in the Prince Frederick Town Center, improves conditions in Parkers Creek. The subwatershed planning process is the single most important vehicle we have to accomplish this and we look forward to contributing to a sustainable strategy for Parkers Creek.

***The Problem is Clear***

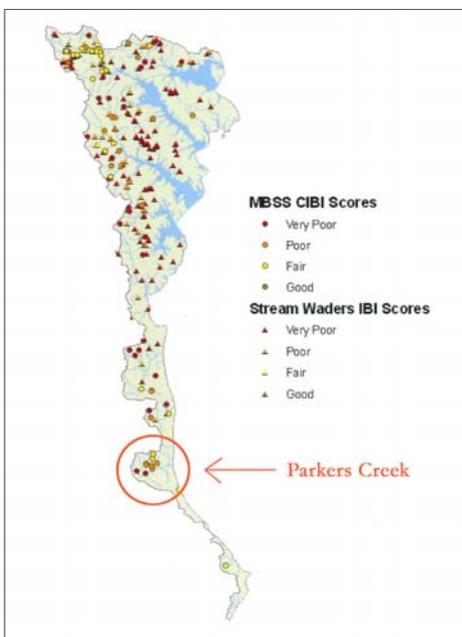
Every year, the University of Maryland Center for Environmental Science (UMCES) assigns the health of the waters surrounding Calvert County two grades in its annual Chesapeake Bay Health Report Card—one for the Bay side, which is part of the Lower Western Shore tributary strategy planning area; and one for our western shore, which is part of the Patuxent River basin. The grades that UMCES assigns are made up of both water quality factors (such as the amount of dissolved oxygen) in the water and the presence of living resources in the water (such as aquatic grasses). These indices of the health of the Bay are objective and quantifiable. Both of Calvert County's shores have received a D-, or lower, in every year since 2006 when UMCES began the grading system (<http://www.eco-check.org/reportcard/chesapeake>).

Clearly, those grades are not solely the result of land use actions in Calvert County because both study areas take in larger and more populated parts of the region. Nevertheless, Calvert County is required to examine closely its own contributions to the Bay's problems. Neither Calvert County's streams



The two maps at the left reveal concerns about stream bank erosion, sediment deposition and high phosphorus levels, often linked to sediment.

The ratings for biological stream health for sites measured in Parkers Creek were scored from “very poor” in Sullivans Branch (on the West side of Route 4 in Prince Frederick) to “poor” or “fair” in tributaries on the north side of Parkers Creek in the map below.



overall, nor Parkers Creek in particular, have escaped the fate of other parts of the Chesapeake Bay system in terms of receiving a poor report card for water quality and living resources in the water. The Maryland Department of Natural Resources periodically conducts the Maryland Biological Stream Survey (MBSS). The most recent Calvert County results are provided on the Calvert County website at <http://www.co.cal.md.us/government/departments/planning/waterresources>. In summary, “overall condition of Calvert County streams during 2000-2004 was Poor.” MBSS, pp. 8-71 to 8-72.

### Importance of Maintaining a Low Percentage of Impervious Cover and a High Percentage of Forest Cover for Stream Health

One of the central conclusions of Calvert County’s analysis in *A Sustainable Strategy*, is that:

“Subwatersheds with the most forest cover and the least impervious surfaces are typically in the best condition. *One benchmark for superior water quality is at least 60% forest cover and at most 10% impervious surfaces.*”

ACLТ’s research substantiates this conclusion. “Imperviousness represents the imprint of land development on the landscape. It is composed of two primary components: the *rooftops* under which we live, work and shop, and the *transport system* (roads, driveways, and parking lots) that we use to get from one roof to another.” As it happens, the transport component now often exceeds the rooftop component in terms of total impervious area created.” (*The Practice of Watershed Protection*, p. 7, by Schueler & Holland, published by the Center for Watershed Protection (2000)).

The experts at the Center for Watershed Protection tell us that the percentage of impervious cover is a primary indicator of the impact of land devel-

opment on aquatic systems, “In many regions of the country, as little as 10% watershed impervious cover has been linked to stream degradation, with the degradation becoming more severe as impervious cover increases (Schueler, 1994).” (*Watershed Protection*, p. 148.)

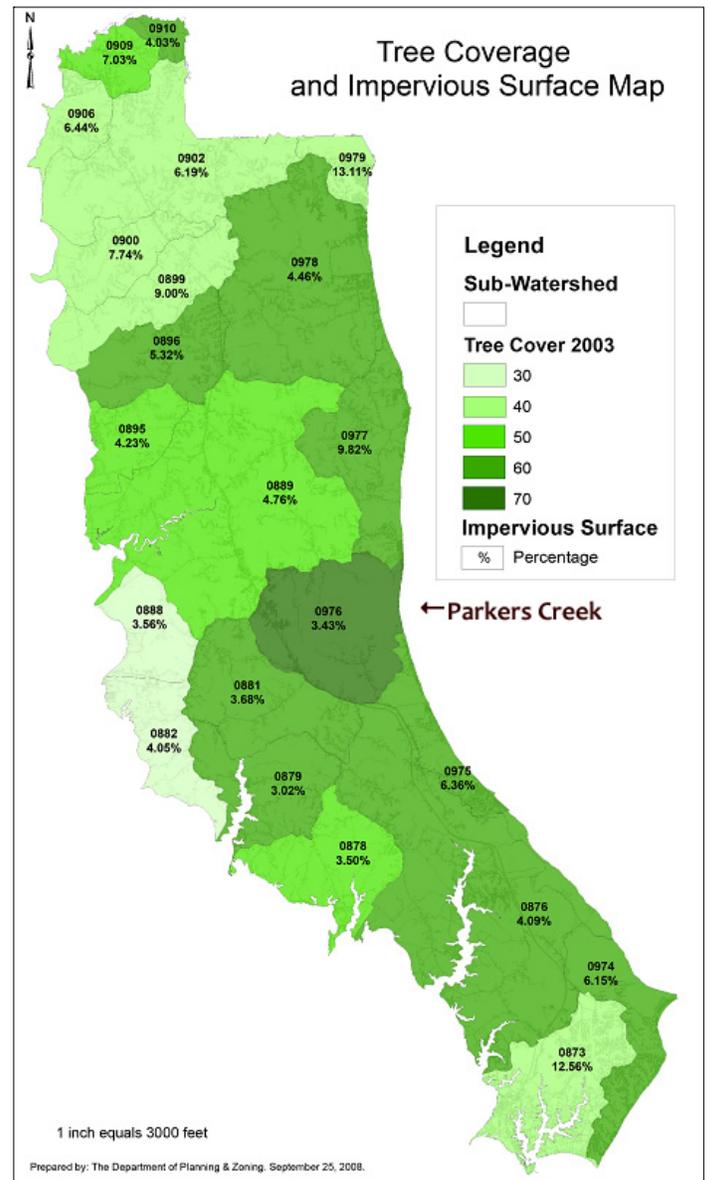
Likewise, *A Sustainable Strategy*, p. 26, summarized the benefits of tree cover:

“Forests provide numerous benefits for water quality protection. Tree leaves, stems, and branches intercept rainfall, absorb water, filter out pollutants, provide shade over streams, and reduce temperatures on the ground and in the creeks. Roots store water, hold the soil and soak up nutrients. Leaf litter diffuses and reduces stormwater runoff. The shade from trees also reduces the ambient temperature for inhabitants by an average of 3 to 10 degrees Fahrenheit, which is particularly important in urban areas where heat islands are created by asphalt, roofs, and other impervious surfaces. *In short, the more forest the better, and at least 60% forest cover is a good standard for maintaining or improving water quality over the watersheds.*

ACLT takes pride in saying that “[t]he crown jewel of our land trust is Parkers Creek—[a] visitor today can still paddle a canoe over a mile and a half through unspoiled salt marshes and wooded freshwater wetlands and see little sign of human activity.” (<http://acltweb.org/about/index.cfm>.) We are also fond of saying that Parkers Creek is a microcosm of the Bay, based on a statement by Jonathan McKnight, Director of the Natural Heritage Division of the Maryland Department of Natural Resources, that: “Parkers Creek is an ecological singularity: a pristine coastal wilderness on the western shore of the Chesapeake Bay. It is a highly complete estuary within itself, wherein a broad range of habitats lie in close association, functioning almost as a scale-model of the larger Chesapeake estuary.”

As the map above right shows, the Parkers Creek watershed is a model subwatershed from the point-of-view of these two benchmarks of stream quality. This is cause for celebration because it means that Parkers Creek still has the conditions in place for a recovery.

Much effort has gone into protecting Parkers Creek and Calvert County is to be commended for the growth control measures it has adopted in recent years. When the land trust was founded in 1986, Calvert County was among the most rapidly developing counties in Maryland and remained so throughout the 1990s. “With the 1997



The Parkers Creek watershed currently has only 3.43% impervious cover. The total land area of the Parkers Creek watershed is 7,957 acres, of which 5,824 acres or 73.2% are forested

Comprehensive Plan, the Board of County Commissioners decided to limit growth to maintain quality of life, protect natural resources, and reduce the need for infrastructure. The zoning density reductions that followed in 1999 and 2003 cutting residential buildout from approximately 54,000 households to 37,000 households” have put us ahead of the curve (*A Sustainable Strategy*, p. 8).

Although the reasons for limiting development are many and sound, we know that comprehensive plans and zoning can change. Here again, the Parkers Creek watershed should be ahead of the game because, since 1986, much of the watershed has been *permanently protected* from ever being converted to developed land. ACLT’s sta-

tistics show that 3,883 acres (48.8%) of the Parkers Creek watershed have been permanently protected through a combination of multiple preservation techniques including ACLT fee-owned land, DNR fee-owned land, land protected by Rural Legacy easements co-held by Calvert County and ACLT, Rural Legacy land owned by Calvert County, permanently preserved privately-owned agricultural preservation districts, and other land under a variety of easements or covenants to restrict future development. With land preservation projects that are currently in the pipeline, we expect to surpass permanent preservation of over 50% of the watershed in the coming months. Given where we started, in 1986, in the most rapidly developing county in Maryland, this is a phenomenal accomplishment!

Sadly, however, the measures that have been taken to date have not been enough. Parkers Creek has not escaped the fate of other parts of the Chesapeake Bay estuarine system in terms of a disappointing report card. Based on what watershed protection experts tell us, Parkers Creek should be a model of stream health. The question ACLT needs to ask as the development of the Parkers Creek Subwatershed Plan gets underway is: “If meeting these two benchmarks for superior water quality—low impervious surface area and high forest cover—has resulted in very poor to only fair water quality in Parkers Creek, what else needs to be done to protect this one little creek that is a microcosm of the Bay?”

### ***A Focus on Prince Frederick***

Since a majority of the Parkers Creek watershed will soon be permanently protected from future development, it makes sense to focus on the fact that 40% of Prince Frederick drains to Parkers Creek and much of this area is not fully built out. Therefore, this is where future impacts to Parkers Creek are likely to originate. Calvert County plans to separately study the portion of the Parkers Creek subwatershed that includes Prince Frederick as a sub-subwatershed.

Calvert County uses 10% impervious cover as the demarcation line between rural and urban streams (a sub-watershed with greater than 10% impervious cover is defined as an urban subwatershed). The Center for Watershed Protection refers to watersheds with less than 10% impervious surfaces as ‘sensitive.’ Subwatersheds with 10% to 25% impervious surface are considered ‘impacted’ and characterized as ‘urban.’ Their description of the impact that impervious cover greater than 10% has on urban streams is very relevant to the Prince Frederick portion of the watershed. “In natural settings, very little annual rainfall is converted to runoff and about half is infiltrated

into the underlying soils and the water table.” In contrast, in urbanized areas, “less and less annual rainfall is infiltrated and more and more volume is converted to runoff. Not only is this runoff volume greater, it also occurs more frequently and at higher magnitudes.” (*Watershed Protection*, p. 148.)

The higher flow events of the urban stream perform more “effective work” in moving sediment. In order to accommodate the higher flows, the stream bed responds by “down-cutting,” widening, or both. It makes sense. Increased volumes of runoff in urban stream beds require more area—sometimes two to five times the area of the natural stream bed (*Watershed Protection*, p. 149).

Route 4 has provided us with a textbook example of this phenomenon. Prior to the road widening work that was recently completed at the intersection of Route 4 and Route 231, ACLT was invited to comment on the State Highway Administration’s proposal to do a “stream restoration project” on a section of Sullivans Branch, located South of Route 231 and West of Route 4. When I visited the site with Dr. Margaret Palmer, Director of the Chesapeake Biological Laboratory and an expert on stream restoration, she was so appalled by the existing conditions that she contacted Maryland Public Television and they filmed the area for a segment known as “Hidden Rivers.” Despite adverse comments by both Dr. Palmer and myself to SHA’s proposed plans, SHA, with the blessing of MDE and the US Army Corps of Engineers, proceeded with a typical state highway “stream restoration” as shown in the photographs on page 6.

Just as the Center for Watershed Protection, p. 149, predicted:

“Urban stream channels are extensively modified in an effort to protect adjacent property from streambank erosion or flooding. *Headwater streams are frequently enclosed within storm drains, while others are channelized, lined, and/or ‘armored’ by heavy stone.*”

Dr. Palmer and I strongly urged a different fate in the case of Sullivans Branch, but our detailed written comments were met with polite emails thanking us for our comments. This type of “business as usual” activity in the way we manage stormwater runoff from roads, coupled with the careless actions of developers, and the understaffed agencies that inspect and enforce sediment and erosion control and stormwater management regulations cannot be tolerated if Parkers Creek is to be restored to some semblance of health.



## A Sustainable Strategy going Forward

ACLT looks forward to participating in the development of the subwatershed plan for Parkers Creek. We suggest here a number of actions that we think the county should consider to restore water quality and meet the new EPA TMDL requirements:

- One of Calvert County's greatest challenges is that most residential development has occurred on septic systems. We need to continue look for ways to discourage new development outside of growth areas that cannot be served by effective community sewerage systems and to encourage the installation of nitrogen-removing septic systems for both new development and replacement systems in priority preservation areas such as Parkers Creek.
- Calvert County should move quickly to implement new state-mandated stormwater management and Environmental Site Design requirements in order to reduce the overall volume of runoff and runoff-borne pollutants from roads and development. Ample space should be required in new developments to allow for natural infiltration of stormwater on site and to manage for larger rainfall events.
- The Water Resources Element of the Comprehensive Plan should explicitly recognize the Parkers Creek watershed as a significant natural resource and commit the county to restore water quality in the creek to a healthy status. Impervious cover should be maintained well below 10% overall and forest cover should be maintained well above 60% for the watershed.
- Calvert County should require at least a 50% tree canopy cover for the "The Forest District" area of Prince Frederick South of Route 231 and West of Route 4, to protect Sullivans Branch, the most impacted headwater tributary of Parkers Creek.
- A reevaluation of the costs and benefits of extending a service road parallel to Route 4, South of Route 231 should be conducted. Does this narrow strip land really need two roads running parallel to each other if it means the certain further degradation of Sullivans Branch? Something has got to change. All of us across the Chesapeake Bay region have got to change the way we live. We've got to not only talk the talk, but also walk the walk. Is it likely that EPA's new mandate will accomplish this? I'm not overly optimistic. I know how Senator Bernie Fowler feels about the Patuxent River and I feel his pain.

Karen Edgecombe, ACLT Executive Director

Photos 1 and 2. Before and after: Stream channel (dashed line) and trees.

Photos 3 and 4. Before and after: Streambed (inside ellipse).

In the third slide from the top, Dr. Palmer and I are standing with the film crew at the bottom of an estimated fifteen-foot deep cavernous streambed. While I was standing there, I bent down and picked up several 4-inch diameter fossilized scallop shells, undoubtedly millions of years old, that had been exposed to the light of day by the erosive force of the stormwater runoff from Route 4 that had moved thousands of pounds of sediment downstream in Parkers Creek.

# Around ACLT

## Letter to the Editor

Published in *The Calvert Recorder* Friday, July 16, 2010

### Calvert's beauty seen first-hand

I have always viewed the western U.S. as the place for adventure—places like Yosemite, Jackson Hole, and Zion capture my imagination.

I had not expected to find a similar level of adventure close to home, but I did on a recent “Park to Park” kayak trip on the Chesapeake Bay.

The trip was organized by the Calvert County Natural Resources Division, in coordination with the American Chestnut Land Trust. The trip was exceptionally well organized, educational, and gave a chance to see natural beauty that one can only see from the water. The Chesapeake Bay was clean (I saw no litter in the water during the entire trip), we got to see local watermen at work, and overall, I gained a greater respect for my own local area.

I hope that our local government will not only continue to support the staff that organizes these trips, but I think there could be an opportunity to draw more people to visit Calvert County if such adventure opportunities and natural beauties received greater press.

Tom Carroll, St. Leonard



Participants from the Park to Park Kayak Trip paddle down the Chesapeake along the cliffs.

## Volunteer Spotlight Ron Bailey



As an avid outdoorsman, it's not a big surprise that Ron Bailey has found a home among our volunteers here at ACLT. His love for all things outdoors, including hiking, boating, crabbing, fishing, hunting, and observing wildlife, make him a perfect fit for our crowd.

Ron grew up in Prince George's County in Landover Hills, MD. He attended Bladensburg Sr. High Vocational School where he focused his studies on auto mechanics, welding, electrical, machinery, and appliance repair. Ron continued this course work through Prince George's and Charles County Colleges. And for the past 22 years, Ron has worked as an Elevator Mechanic for The Architect of the Capital. He relocated to Accokeek with his wife Mary in 1988 and after the birth of his two sons, Ryan and Kyle, they moved again to their current home in Charlotte Hall. One thing his whole family enjoys about this town in St. Mary's County is witnessing the farmland, wildlife, and the simple lives of the Amish.

Ron started volunteering with ACLT in 1999 when he joined the Double Oak Hunt Club (DOHC) as a part of our Deer Herd Management Program. All members of DOHC are required to give 18 hours of volunteer service a year to help preserve and protect ACLT property. Ron is one of the guys that always completes his hours, plus more, on a yearly basis. He has helped with a variety of projects including: trail maintenance, boundary marking, sign painting, trail blazing, and is an officer of the Hunt Club to name a few.

One of Ron's favorite projects was filling an old well on the Gravatt property that was becoming increasingly dangerous. Ron and the volunteer crew removed five 50 gallon steel drums of roofing tar and filled the hole with gravel in preparation to have it sealed with concrete—a huge improvement to the dilapidated boards that once were covering the hole. Keeping people safe while they enjoy the outdoors is very important to Ron.

When he's not volunteering with ACLT you can find Ron leading Scout Troop 1321 in La Plata as the Advancement Chairman. He has guided his son Ryan and other scouts in advancing through the ranks to obtain the

highest honor in scouting: Eagle Scout. And now he is helping his youngest son Kyle reach the same goal. Ron has attended nine different week long summer camps, one week aboard a 44 ft. sailboat in the Florida Keys at sea base and, as you read this, just completed a ten day adventure at Mt. Desert Island in Maine where the Scout troop explored, learned, and experienced the outdoors through hiking, biking, and kayaking.

Since I started at ACLT, I can wholeheartedly say that Ron is a dedicated volunteer who is passionate about the outdoors, and he knows how to get the job done—whatever job that might be. Even when he can't make one of our big work days he always finds time to make up for it. Like this past year, for hiking trail maintenance day, when Ron went out a week or so before to flag all the downed trees so that volunteer crews knew what and where to cut. This was no small job considering the amount of snowfall and downed trees we had and this is just one of the many examples of what he's done for us when we've needed him.

To Ron, ACLT serves an important role in protecting the Parkers Creek Bay watershed as well as the Chesapeake Bay and its tributaries. "Certain aspects of the ACLT could not function without the assistance of dedicated volunteers," Ron shares. And we couldn't agree more. So the ACLT Board of Directors, staff, members, friends, and neighbors would like to thank you, Ron, for your 10+ years of service on behalf of the land for future generations to enjoy. We couldn't do it without you!!

Joy Woppert  
Community Relations Coordinator



Ron Bailey assisting his son Ryan on his Eagle Scout project at St. Mary's Newport Church.



Ron (far left) with other Double Oak Hunt Club members and ACLT volunteers during our Earth Day Cleanup and Celebration in 2000.

---

Don't forget to record your volunteer hours online by going to <http://acltweb.org/Administration/volunteer/index.cfm>.

---

---

Check us out on Facebook. Become a fan of the American Chestnut Land Trust today!  
(<http://www.facebook.com/pages/American-Chestnut-Land-Trust/250928382473?ref=ts>)

---

The Facebook logo, consisting of the word "facebook" in white lowercase letters on a blue rectangular background.

# Land Manager's Corner

## A secret world beyond our doors...

Each summer day when I come to the ACLT office at Double Oak Farm I am greeted by the skittering of blue-tailed skinks and fence lizards, buzzing wasps and bees, dancing butterflies and chirping birds. Like the morning news, these greeters make me aware of their presence, of lives and worlds that are well beyond my own. Their visible and audible presence reminds me that the world is so much bigger and intricate than what I can see on my computer screen, hear on the car radio or view on television. Science teaches us to be observant of the smallest things and to find the links, for these can be indicators of the future.

Several times in the last few months, I have noticed the disembodied wings of moths and butterflies lying on the ground or on the bricks of the steps near our office door. There are life and death struggles that go on day and night, just outside the door. My curiosity about this secret world and all the creatures that play their own roles in it has never dwindled from childhood. I want to explore, watch and find the culprits who do these things to such beautiful, graceful creatures.

I first noticed several sets of large, light-green Luna moth (*Actias luna*) wings lying on the ground. More recently, I saw the wings of a rosy maple moth, *Dryocampa rubicunda* (<http://www.marylandmoths.com>), on the



Wings of disembodied moth on front porch of ACLT office.

steps and then I realized there were actually a number of wings out on the stoop. The majority of the wings were moths but some were butterfly wings and some were the clear hard wings of larger beetles. My interest grew as I wondered about who would eat the bodies and leave the wings.

The immediate suspects are the ever-present (at least in the summer) lizards who love to sun themselves on the bricks. They are shy if you come close, but they will laze about and let you watch them from a distance. This year has been a great year for finding lizards and other reptiles; maybe it is the unusual June heat. A few hikers have

reported seeing box turtles and snakes along the trails. There were even two lizards chasing each other on the roof of the office—one fell off but it must have survived the fall because he was not where he landed just a few seconds later. However, I am ruling out lizards since they take their prey whole, including the wings.

So, who else? I have heard the “who cooks for you” call of the great horned owl in the early evenings and have seen them flying across Double Oak Road in search of prey. They glide so skillfully between the trees and so quietly with their large outstretched wings. I can imagine them seeking the moths that are attracted to the porch lights and flying “silent running” to snatch them mid-air. We can rule them out as well, from everything I have researched, they eat their captives whole, anything that is left is found in the pellets we would dissect for biology class. Fur and small bones were all that was there.

Spiders are notorious for capturing flying insects in their webs. They often build the webs in areas where there is heavy insect traffic close to lights. Mostly, from observation, they seem to paralyze their prey and immediately wind them up tight (wings and all) in sticky webbing, keeping them alive and without a chance to escape.

Bats are also suspects. They are often seen flying around the office and farm fields of Double Oak at dusk and they do leave the wings behind (<http://bathouseforum.org/forum/long-eared-bat-eating-moth-t561.html>). They consume large amounts of flying insects; they can eat 2/3 of their weight nightly in insects. Think about your own weight and calculate trying to eat 2/3 of your total weight in one day—it is a phenomenal amount! They can eat 1,000 mosquitoes in a night and up to 20 moths. As with the other suspects, their eating habits benefit our lives by keeping crops safe from the ravages of caterpillars and other insects. They also reduce the number of disease-carrying mosquitoes. Bats are another indicator species that are in danger from a mysteri-



Blue-tailed Skink sunbathing on ACLT's office porch at Double Oak Farm.

ous cold-tolerant fungus commonly known as White Nose Syndrome. The disease has been found in bats in Virginia and Maryland (as well as other places) and affects the hibernation and eating habits of bats. Worldwide it has killed over 100,000 hibernating bats in just a few years (<http://www.fws.gov/whitenosesyndrome/>). The future of many bat species may be in serious jeopardy.

ACLT has been active in working to control the spread of non-native invasive species on its properties. Another villain of native moths and butterflies is the European Hornet (*Vespa crabro*) which was introduced in the mid 1800s to New York state. This non-native hornet is about an inch long and flies during the day and at night and has spread its range from Canada to Florida and west of the Mississippi. My first introduction to these predators was when I was watching them pick off butterflies around a mimosa tree, tear off the wings and fly away with the bodies to feed their young. These non-native invasives are also known to damage native trees such as green ash by girdling their branches and twigs and using the sap and wood fibers to build their nests in walls and hollow trees (<http://www.aces.edu/pubs/docs/A/ANR-1134/>). In science, one link leads to another. Another non-native invasive is also jeopardizing green ash trees which are in trouble because of the Emerald Ash Borer Beetles (a new and devastating threat).

By following each lead into the secrets of the world outside the office door, beginning with noticing the disembodied moth and butterfly wings, many other investigations can be developed—from delving into the science of the predator-prey relationship to discovering more about the impact of non-native invasive species. Connect yourself to the world outside. Always stay curious, keep observing the little things, explore the world outside, and look at the links for indicators of the future.

**Note:** *If you are curious and interested in how reptile and amphibian species are doing in Calvert County, the Department of Natural Resources is looking for volunteers to participate in a herpetology atlas project <http://www.washingtonpost.com/wp-dyn/content/article/2010/04/27/AR2010042704757.html>—contact Andy Brown for more information at 410-535-5337, or e-mail [cy-pressswamp@co.cal.md.us](mailto:cy-pressswamp@co.cal.md.us).*

Liz Stoffel  
ACLT Land Manager

## ACLT Calendar of Events 2010

<b>August</b>	14	Vine Vindicator Training (9:00 a.m. – 2:00 p.m.)
	28	A walk along the Bay and in the woods—a special thank-you incentive to all new members who join ACLT between July 20 and August 28, 2010 (and current members who recruit a new member).
<b>September</b>	11	Holly Arboretum Work Day at Warrior's Rest (9:00 a.m. – 12:00 p.m.)
	18	Guided Canoe Trip (12:00 p.m. – 3:00 p.m.)
	18	Vine Vindicator Work Day (9:00 a.m. – 12:00 p.m.)
	25	Silent Auction & Dinner Celebration (6:30 p.m. – 10:30 p.m.)
<b>October</b>	26	Guided Canoe Trip (5:00 p.m. – 8:00 p.m.)
	9-10	Patuxent River Appreciation Days
	22	Volunteer Appreciation Dinner (6:30 p.m. – 9:00 p.m.)
	24	Guided Canoe Trip (3:30 p.m. – 6:30 p.m.)
	24	Barn Work Day (8:00 a.m. – 12:00 p.m.)
	30	Vine Vindicator Work Day (9:00 a.m. – 12:00 p.m.)
	31	Fall Foliage Hike at Double Oak Farm (1:00 p.m. – 4:00 p.m.)
<b>December</b>	5	Arboretum Work Day at Warrior's Rest (1:00 p.m. – 4:00 p.m.)
	11	Greens Sale & Beach Hayride (11:00 a.m. – 2:00 p.m.)

### New Member Incentive — Join ACLT and Join Us!

Take a walk along the Bay with Smithsonian Marine Biologist Denise Breitburg and Chesapeake Bay Foundation Grassroots Restoration Coordinator Marcy Damon to be followed by a walk in the woods with Appalachian Trail hiker and naturalist Carolyn Ebel. August 28, 2010, 10 am - noon. This event is a special thank-you incentive for new members who join ACLT between July 20 and August 28, 2010 (and for current members who recruit a new member). Annual membership for individuals or families is only \$35. For more information contact Joy at 410-414-3400 or email: [info@acltweb.org](mailto:info@acltweb.org)

# Thank you for your support ...

## New Members

ACLT would like to welcome the following new members since the Spring 2010 newsletter:

Ms. Mary K. Davis  
Ms. Patricia Davis & Mr. Bart Stichman  
Mr. & Mrs. Spencer DeWindt  
Ms. Margaret Dunkle  
Mr. Bob Field  
Ms. Ann Marie Oliva & Mr. Prasad Gerard  
Mr. David Graybeal  
Mr. Robert Hardies  
Mr. & Mrs. Thomas Insel  
Mr. Mark Iwinski  
Mr. Alexander Joseph Kuhn  
Mr. & Mrs. Ronald Landis  
Ms. Kathryn S. McLaughlin  
Mr. Christopher Mlinaric  
Mr. Patrick Murphy  
Mr. Steve Nelson  
Dr. Jessica Ramella-Roman  
Mr. & Mrs. Kyle Richmond  
Mr. Anuradha Sharma  
Mr. & Mrs. Matthew Smith & Family  
Mr. Gerald Sneeringer  
Mr. & Mrs. Mark Stachnik  
Mr. Steven Stanford  
Mr. & Mrs. Christopher Stuart  
Unitarian Universalist Congregation  
of the Chesapeake  
c/o Ms. Laura Webb  
Ms. Munkanit Viphunphong  
Ms. Angela M. Walters  
Mr. Heath Wilson

## Sustaining Membership

Congratulations to the following member who has reached the level of Sustaining Membership:

Dr. Carolyn Ebel

## Spring Appeal

The Staff and Board of Directors wish to thank the following for their contributions to the 2010 Spring Appeal:

Mr. & Mrs. Louis Amtmann  
Mr. & Mrs. William Arms  
Mr. & Mrs. Don Baier  
Mr. & Mrs. Ronald W. Bailey  
Ms. Joy Bartholomew  
Mr. & Mrs. Stanley O. Benning  
Ms. Marsha Berry  
Mr. & Mrs. Paul L. Berry  
Mr. & Mrs. David Bonior  
Mr. & Mrs. John C. Boyd  
Ms. Melanie Maholick  
& Dr. David C. Brownlee  
Mr. & Mrs. James T. Cavanaugh

Dr. Andrea Clarke  
Ms. M. Susan Cole  
Mr. & Mrs. Michael R. Cunningham  
Ms. Kathy Daniel  
Capt. & Mrs. Freeman Dodsworth  
Mr. & Mrs. Curtis A. Drumm  
Ms. Ethel Dutky  
& Mr. Alvin Wilson  
Mr. & Mrs. Ralph H. Dwan, Jr.  
Sen. Roy Dyson  
Dr. Carolyn W. Ebel  
Dr. & Mrs. Glenn R. Edgecombe  
Mr. & Mrs. Samuel M. Ellsworth  
Ms. Lynn Ferris  
Ms. Paula Johnson and  
& Mr. Carl Fleischhauer  
Dr. & Mrs. Oliver S. Flint, Jr.  
Mr. & Mrs. D. Duncan Frazer  
Mr. & Mrs. Timothy Hackman  
Mr. & Mrs. Howard Hammack  
Mr. & Mrs. Daniel M. Head  
Mr. & Mrs. Daniel Hildebrand  
Mr. & Mrs. Steve A. Howerton  
Mr. & Mrs. Taysir Jaouni  
Mr. Peter A. Johnson  
Cristina Chan Johnston, M.D.  
& William Johnston  
Ms. Elizabeth Johnston  
Ms. Marcy Damon  
& Dr. John Kane  
Ms. I. Engleberg & Mr. A. Kennedy  
Ms. Louise Woerner  
& Mr. Don H. Kollmorgen  
Mr. & Mrs. Ron C. Magnussen  
Ms. Anne Warner  
& Mr. Michael Makuch  
Mr. & Mrs. Michael K. Manning  
Mr. Gilbert S. Masters  
Mr. Kevin McCarthy  
Mr. Howard J. McDonald  
Mr. John P. McGahey, Jr.  
Mr. Frank Meador, Bayside Chevrolet  
Mr. & Mrs. Joseph A. Mihalcik  
Mrs. Anita Mlinaric  
Ms. Pamela-Jeanne Moran  
Mr. Kevin Murphy  
Mr. & Mrs. Edwin A. Noell  
Mr. & Mrs. Franklin W. Nutter  
Mrs. Virginia L. O'Neill  
Col. & Mrs. Geoffrey Parker  
Mr. & Mrs. Stephen T. Phillips  
Dr. & Mrs. Austin Platt  
Rev. William M. Plummer  
Mr. & Mrs. Robert D. Prince  
Lt. Col. Carol Randell  
& Mr. Brian Walker  
Mrs. Betty Lynn Roberts  
Mr. & Mrs. Michael J. Rubino  
Dr. & Mrs. James G. Sanders  
Dr. & Mrs. John R. Saunders, Jr.

Mr. & Mrs. George Surgent  
Ms. Mary McGahey  
& Mr. Todd Sheldon  
Mr. Joseph W. Showalter  
Mr. Henry Shryock  
Ms. Bernadette Lewis, SMECO  
Mrs. Rosalind Springsteen  
Mr. & Mrs. Steven P. Stadelman  
Mr. Steve Stanford  
Mr. & Mrs. Peter N. Stathis  
Ms. Jean Stephens  
Ms. Elaine Strong  
Mrs. Rhoda Switzer  
Col. & Mrs. Harry C. Teich  
Col. Caroline VanMason, USA (Ret)  
Dr. & Mrs. Peter R. Vogt  
Mr. & Mrs. W. A. White  
Mr. & Mrs. James E. Williams  
Mr. & Mrs. Paul J. Wilson  
Mr. & Mrs. Richard Woppert  
Mrs. Margaret Young  
Mr. & Mrs. Robert Yuill  
Mr. & Mrs. Albert W. Zahniser  
Ms. Roberta Safer  
& Mr. Klaus Zwilsky

## Memorial Contributions

Thank you to the following members who made a memorial contribution since our last newsletter:

In memory of Tom Wisner, who was the recipient of the ACLT's 2009 Conservation Award, given to him in recognition and appreciation of his tireless efforts on behalf of the Chesapeake Bay and our environment:

Mr. & Mrs. Walter Boynton  
Del. Sue & Mr. Steve Kullen

## General Contributions and Designated Gifts

Thank you to the following for your generous gifts and support:

Land Preservation and Acquisition Fund  
Mr. & Mrs. Paul L. Berry  
Mr. Conrad L. Hoska

Through America's Charities  
Ms. Dorothy Howe

## Gift Memberships:

Thank you to the following members who donated gift memberships since our last newsletter:

Mr. & Mrs. Gary A. Loew  
Mr. & Mrs. Leon Myers

# Come Join Us!

Detach and Mail to: The American Chestnut Land Trust, Inc., P.O. Box 2363, Prince Frederick, MD 20678

Name \_\_\_\_\_ e-mail \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_

Phone \_\_\_\_\_ I (we) learned about ACLT from \_\_\_\_\_

## Regular Membership

## Corporate Membership

Land Saver - \$35.00

Habitat Protector - \$500.00

Land Saver Corporate - \$150.00

Land Protector - \$60.00

Trustee of Land - \$1000.00

Land Protector Corporate - \$250.00

Land Conservator - \$150.00

Sustaining - \$2500.00

Land Conservator Corporate - \$500.00

The American Chestnut Land Trust is a 501 (c) (3) charitable organization. A copy of the current ACLT financial statement is available on request. Requests should be directed to the American Chestnut Land Trust, Inc, P.O. Box 2363, Prince Frederick, MD 20678 or call (410) 414-3400. For the cost of copies and postage, documents and information submitted under the Business Regulation Article of the Annotated Code of Maryland are available from the Secretary of State.



**American Chestnut Land Trust, Inc.**  
**Post Office Box 2363**  
**Prince Frederick, MD 20678**

**NONPROFIT  
ORGANIZATION  
PERMIT NO.  
548  
PRINCE FREDERICK  
MD**