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COMING UP ON THE CALENDAR

FEBRUARY

- 21 **WINTER HIKE AT DOUBLE OAK FARM**
(1:30 P.M.—3:30 P.M.)

MARCH

- 14 **ACLT ANNUAL MEMBERSHIP MEETING**
(9:30 A.M.—12:00 P.M.)

SEE MORE OF THE 2014 CALENDAR ON PAGE 7 OR ON THE WEB.

Community Conservation and the Importance of Listening

ACLT Board President Pat Griffin and I both attended thought-provoking workshops at the Land Trust Alliance's national land conservation conference this past September in Providence, Rhode Island. The buzz at this year's Rally was all about "community conservation." There is no one definition of this phrase and each land trust develops its own special brand of community conservation based on the community in which they work.

Our two articles in this newsletter serve as bookends for the "take home" messages we brought back with us from Rally about what community conservation could mean here at ACLT. Pat's article is about the power of personal storytelling in conveying the value of land conservation and its benefits to the community. In this article, I emphasize the importance of listening to the needs of the community and determining when ACLT might be in a position to help address those needs consistent with our mission.

In years past, a significant number of land trusts seemed to be in the business of protecting land *from people*. For these land trusts, the focus on community is relatively new. They are discovering the importance of providing at least some public access to their preserved properties in order to "connect people to nature" and build support for land conservation. At ACLT, I am proud to say, public access has always been a cornerstone of our philosophy. Our first strategic plan, written in 1991, stated that:

ACLT will ... seek to provide public access in a manner that will promote understanding, education, appreciation and contemplation of those resources and the opportunity for renewal and uplifting of the human spirit.

ACLT has gone through several distinct shifts of focus over its 28-year existence while remaining true to our core mission. The four major things that we must do well in order to accomplish our mission are: 1) preserve land in the Parkers Creek and Governors Run watersheds; 2) manage that land responsibly; 3) provide educational and outreach opportunities to the public; and 4) prudently manage ourselves. Our five-year strategic plans are structured around these four basic elements, but the plan usually highlights areas that we would like to emphasize in the next five years. Although meant to be forward-thinking, the plans also provide a historical record of nuanced changes in emphasis over the years.

During the first twelve years of ACLT's existence the primary focus was on preserving as much contiguous land in the Parkers Creek and Governors Run watersheds as possible. In our second strategic plan adopted in 1998, we found ourselves in the position of owning 810 acres and having agreed to manage an almost equal acreage for The Nature Conservancy (TNC). With a 'portfolio under management' soon to include 1,670 acres we recognized that:

This plan will guide us through a period where our responsibilities become larger. As more land comes under our management, and acquisition possibilities are more wide-ranging, we anticipate a shift to an equal focus on land acquisition and land management. *This will increase our obligation to*

(CONTINUED ON PAGE 10)



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From the President's Desk

"Story telling reveals meaning without committing the error of trying to define it." — Hannah Arendt

Tell Us Your Story

I, along with Karen Edgecombe, Joy Bartholomew and Ted Graham, recently attended the National Land Trust Alliance (LTA) convention in Rhode Island. We all went to cheer for Karen as she formally accepted LTA's prized accreditation. This was a hard-earned achievement led brilliantly by Karen and supported by many in the ACLT family.

One of the predominant themes of the conference was the power individual stories have in making the work of land preservation come alive both for those who are doing it and those who may be interested in getting involved. This is a topic that the board, staff and the membership and outreach committee have been exploring for some time. It was also thoughtfully presented in a report by two generous volunteers, Pamela Saalbach and her husband Mark Schleicher.

As a result of our deliberations and the encouragement we got from the LTA conference, we are convinced of the power of story telling and have decided to embrace the concept by making 2015 the Year of Story Telling at ACLT.

How many of you listen to NPR and have heard their segments on Story Corp? They are captivating. They give us a window into people's souls and provide hope as well as insight.

Obviously, ACLT has been a wonderful and improbable success. Over the next year, I would love for us to capture stories about how it came about, who brought it about and what we discovered about ourselves in the process. Keep in mind that story telling is not just about the past. We want to learn about new adventures, discoveries and friendships that may have emerged for you while involved in ACLT activities. We can tell our stories through many media such as recordings, photographs, paintings, and videos. The options are limitless. We will try to feature them regularly on our Facebook page, e-newsletter and web site once the program is up and running.

I think story telling teaches us a bit more about ourselves as well as our neighbors and friends. It also creates portals to welcome new friends and members into the ACLT community. You all are sitting on nuggets of gold. Stories are one of the only commodities that create more value for everyone involved by giving it away. Please do!

In closing, allow me to share one of my stories:

I've been involved with ACLT in some form for over 25 years now. Like many of you, I've hiked and run the trails and sometimes just wandered slowly through them in a peaceful silence. During one of those meanderings, I came upon a bench off the Steve Easter trail just a quarter mile before the trailhead on Scientists' Cliffs Road. It was a sturdy structure with a traditional design made of treated four by fours. However, it sat at the top of a ridge with an expansive view that dipped precipitously in front of you. On the day of my discovery, the light filled up that space in a way that allowed you to feel totally safe and embraced in that spot. I returned there on occasion, never feeling anything less, even if the sun wasn't shining.

A few years ago, my mother passed away. At the time you could work with ACLT to have a memorial bench built and placed on or near our trails in memory of a loved one. After consulting with my extended family, we agreed to pursue having this bench memorialized in my mother, Edith Griffin's, memory. ACLT offered a new bench but we said the existing one was fine, since we cared more about the place than the seat. After having a brass plaque made and secured to the bench we set a date to formalize the memorial. In addition to me and my wife Abbey, my dad, brother and his family, along with my two children and two grandchildren were all present. We read poems and retold stories about family life with my mom who grew up as a first generation, tough little Italian lady from Brooklyn. We laughed and we cried.

While I don't get to the actual bench as often as I used to, there is not a time I pass that trailhead adjacent to the Weems' farm's driveway that I don't whisper a little greeting to her. It comforts me to know that her bench sits just a short way off the road on a little piece of heaven, now a bit sacred to me. The trail, the bench and all the intimate experiences shared by me and my family would not have been possible but for ACLT. What a gift!

Please send your story to ACLT's new Community Relations Coordinator, Pam Shilling at volunteer@acltweb.org. She will coordinate with you as to the best way to relate your story to others in the ACLT community.

Sincerely,
Pat Griffin
pgriffin@griffinhome.com

Member Notice

Mark Your 2015 Calendar

The 2014 Annual Membership Meeting of the American Chestnut Land Trust will be held on **Saturday, March 14, 2014** from 9:30 a.m. to 12:00 p.m. at St. John Vianney Catholic Church in Prince Frederick, Maryland.

Around ACLT

Volunteer Appreciation Dinner

On October 3, 2014 the ACLT staff held its annual Volunteer Appreciation Dinner. Due to unpredictable weather that evening, the traditionally outdoor event was set up inside the main room of the ACLT offices. Wall to wall dinner seating,



ACLT Land Manager, Autumn Phillips, with Volunteer, Abbey Griffin.

decorated with red-plaid table cloths, fall-themed centerpieces and twinkling lights made the event friendly and charming. However, the best part of the evening was the more than 50 ACLT volunteers that attended to share dinner, provided by Hardesty Haven Catering, drinks and great conversation.

ACLT relies on its volunteers for a wide variety of support. From trail/property maintenance to tending the farm, from water quality monitoring to canoe trip guiding, so much of the good work accomplished by ACLT would not be possible without these dedicated and hardworking volunteers.

To all of our amazing volunteers, the staff of ACLT sends its most sincere thanks.

Call for Volunteers!

ACLT plans to expand its event and activity schedule in 2015! We're creating an Events Volunteer Team to help us organize and run a wide variety of fun events.



We would love to have YOU on the team!

Call or email Pam Shilling
ACLT's Community Relations Coordinator
410-414-3400 or Volunteer@acltweb.org

Introducing Pam Shilling

Hello, ACLT Members! My name is Pam Shilling and I am so pleased to be the new Community Relations Coordinator. I have had the pleasure of meeting some of you already. After all, I started on September 20th, at the height of one of ACLT's busiest seasons! Within my first few weeks, I helped coordinate two canoe trips, the Fall Colors hike, the Volunteer Appreciation Dinner, and our major event—the Annual Dinner and Auction. I think it's safe to say I have learned a great deal about ACLT in a very small amount of time—and I'm very impressed!



Although I have worked in the non-profit outreach and communications field for more than 15 years, my original career was in theatre. With an arts degree from the University of Maryland, College Park (Go Terps!), I had the great fortune to work as an actor and vocalist for several years. It was this career path that led me to open a theatre company with a group of fellow performers in 1995. There, I discovered my interest and ability in marketing, communications and outreach. I've volunteered or worked with many non-profits over the years. Prior to ACLT, I spent five years as the Outreach Program Manager at the National Defense University Foundation, where I developed my ability to utilize social media and online marketing strategies for non-profit communications.

All of my time outside of the office is dedicated to my wonderful and crazy family. My husband, Cal, and my 13 year old twins, Cecelia (CC) and Alex, are the light of my life. We, along with our two big, goofy dogs, live in Sunderland. However, we can most often be found on a football field watching my son play or at the Bowie Playhouse with 2nd Star Productions, where my daughter and I perform musical theatre.

I truly look forward to my future with this great organization. If there's ever anything I can do to assist your participation with ACLT please don't hesitate to ask. I hope to meet you soon!



New Master Naturalist Class Now Forming

Are you a lifelong learner? If you enjoy all the sights and sounds of nature, you will love the Master Naturalist classes where you will receive an introduction to ecology, botany, geology, ornithology, weather and climate, freshwater and tidal wetlands systems, and much more! Besides the fascinating talks by experts from around the state of Maryland, we have several exciting field trips planned. Next year's class is forming now and classes will begin in late January and run through early May.

Don't Delay! Read more about the classes offered by ACLT and its co-hosts Battle Creek Nature Education Society and Cove Point Natural Heritage Trust on our website <http://www.acltweb.org/programs/LandManagement.cfm#MMNProgram> and download an application http://www.acltweb.org/events/eventdocs/ACLT_MN_VolunteerApplication.pdf. For questions, call our office and learn more by talking with ACLT's land manager Autumn Phillips or email landmanager@acltweb.org.

Take a Hike

Fall and winter are a great time to hike the ACLT trails. When the leaves are off the trees, the views of Parkers Creek are phenomenal!

Please note: The dates when the ACLT North Side trails and the PF2BAY trail will be closed for white-tailed deer firearms hunting are posted on ACLT's home page. <http://www.acltweb.org/>. The trails are open on Sundays during these dates.

If the North Side trails are closed, head down to Port Republic—the South Side trails are open dawn to dusk, 365 days a year.

Left: PF2BAY trail in November 2013. Photo by David Farr



Showing Your Support: Donation Optional

Top 5 Things You Can Do For Your Favorite Charities That Don't Require Cash

Without question, we hope that ACLT is your favorite non-profit and sincerely appreciate any financial contributions you can offer. But we know there are many great charities to support. Most charitable minded people want to protect the environment, stop hunger, provide medicine to sick children and help abandoned animals find forever homes—among a hundred other good causes. So what's a supporter to do?

As the holidays arrive, fundraising season comes into full swing. Research shows that support for charities increases between October 15 and December 31. Why is that? One reason is the opportunity to make a tax deductible contribution for the current tax year ends on December 31. Those who rely on deductions to offset taxes begin to evaluate their contributions from the past year and look for places to donate. Another reason is Americans, as a society, feel more generous during the holidays. And what does that mean for you? You are about to be asked for donations ... frequently.

Unfortunately, most of us can't donate to every charity we believe in. As much as donors want to support all the good work being done, we all have our financial threshold. But don't dismay, oh ye of holiday cheer in this season of giving! There are many ways to support your favorite non-profits that don't require money. **Here's a list of the top 5 things you can do that are almost as valuable as money to your favorite non-profits:**

1) **Offer a good review and rating:** Having a positive online presence is critically important to all businesses, non-profits included. **Facebook** and **Google+** allow you to write a review of any non-profit that has a page and gives you the opportunity to rate it, usually on a five-star system. Other websites such as **Guidestar.org**, **GreatNon-Profits.org** or even **Yelp** and **TripAdvisor** (for destination-based non-profits like ACLT) are designed specifically to offer reviews to the general public. Want to help your charity? Make a point to go onto these sites and post a positive experience or why you're dedicated to the organization and give a high rating. Your post could be seen by thousands, and increase the number of people interested in finding out more about the charity.

Not a fan of the online scene? Write a letter instead! Be sure to include a note that gives permission for the organization to use your letter in their outreach endeavors.

2) **Tell your friends:** Word of mouth is still the primary way we find out about untried businesses. While this communication could be via the internet/social media or just in casual conversation, having someone you know and respect tell you how much they like an organization

makes you more likely to look into it. Make a point to tell ten friends about the charity of your choice. You can do so by posting something on your social media pages or talking about it at a gathering. Friend-raising is as important as fundraising!

Not into Social Media? Ask your non-profit for any lightweight literature that you can mail, then send them off to some of your friends or family who might be interested. Your charity will be pleasantly surprised and very grateful.

3) **Volunteer!!!** : Most non-profits struggle to have enough hands to get all the work done. Contact your non-profit and ask how you can help. Many will have a volunteer plan that has jobs just waiting to be done - both simple, like one or two hour activities and more complicated, like participating on a committee. But they might be caught off guard at first, so think about what you could offer to do: stuff envelopes, help at an event, do yard work, or design a t-shirt. Volunteering is all about you sharing your time and talents and is extremely valuable to non-profits.

4) **Share their events:** Non-profits hold events to 1) raise awareness, 2) raise money, or 3) accomplish a goal. One big thing you can do for your favorite non-profit is to spread the word about their upcoming events. Tell people on Facebook, twitter or google+. Offer to send event post-cards/emails to some contacts in your address book. Include an announcement about it in your local church or civic club calendar. If their event is a fundraiser like our auction, ask people you know that have a business or skill to consider donating an item or time. 90% of all auction items or sponsorships come from friends or contacts of member or supporters, not letters of request from the organization.

5) **And finally... participate:** Nothing is more important to a charity than to know that they are making an impact. No amount of money can take the place of the smiling faces that share dedication to a cause. Show up at an event, share a facebook or twitter post, talk to your friends in the community. Do one. Do all! But whatever you choose to do, find a way to show your support. These simple actions will keep the people working at the non-profit every day motivated to strive on.

Note: Interested in helping ACLT in these ways? We are currently increasing our online presence and are prepping for a new volunteer club to help run many new events in 2015. We'd love to have your help! Feel free to contact Pam Shilling, Community Relations Coordinator, at 410-414-3400 or at volunteer@acltweb.org.

Science in the Watershed

Forests of the Parkers Creek Preserve

By Peter Vogt

Part I—The Present Forests

This two-part series highlights the fascinating, diverse forests of the Parkers Creek Preserve: The forests we know today (Part I) and the forests encountered by the first Europeans and long before (Part II).

Protecting salt marsh, fresh water swamp, Calvert Cliffs and beaches, open fields and variably aged forest, the present Parkers Creek Preserve (PCP) is a 4 1/2 square mile, 0.3% microcosm of nature in our Western Shore Region (WSR) of the Chesapeake Bay. I include in this WSR region Anne Arundel, Calvert, Charles, Prince Georges, and St. Mary's counties—ca. 2000 square miles, 1.7 million people—between the Piedmont and the middle Chesapeake Bay. We like to call today's PCP 'pristine', but this is only relative: even this 'unspoiled' acreage and its nature have been much changed by humans in the 450+ years since English colonization. More on that in Part II.

As true for the entire WSR in pre-Colonial times, by far the greatest part (ca. 95%) of the PCP is forested, and the ca. 0.7% in fields would naturally revert to a similar temperate hardwood forest—the main topic of this article. But first, something about the few PCP areas not naturally forested—the beach and cliff areas, and the saltmarsh and lower freshwater swamp in Parkers Creek. These places—obvious to ACLT's paddlers—would also be forested, were it not for our high and rising sea levels—bringing on combinations of frequent inundation, active shoreline erosion, and brackish waters.

Even so, adventurous pioneer black locust seedlings tempt their inevitable fate on ledges and slide debris along the Calvert Cliffs, a thin strip of dynamic topography, perhaps 5 acres total and even changing with time and tide. Meanwhile, some distance from the open Chesapeake, small green ash pioneers seek root-holds in the less flooded parts of the freshwater tidal swamp—not far from where Parkers Creek emerges from closed forest. The total area of these pioneer watery woods is probably less than one acre.

A natural but stunted and species-poor scrub forest, including persimmon and red cedar, forms a narrow thicket, totaling not more than ca. an acre, on the higher storm beach near the mouth of Parkers Creek. The small size of the persimmon trees belies the delicious taste of their late fall fruit. The storm beach flora are rooted in nearly sterile sands dropped there by rare tidal surges, augmented by fine sand blown by onshore winds into—and trapped by—the vegetation. This unusual scrub forest, which has in recent decades been allowed to replace a pound net operation, and before that Old Bayside Road, derives its nutrients from decomposing driftwood stranded there by those same rare storm tides. No mangrove-type trees have yet evolved to colonize the challenging environments (frequent flooding, low oxygen, brack-

ish water) of salt marshes in our temperate climates, so the Parkers Creek saltmarsh (ca. 50–100 acres) remains off limits to trees. The nearest thing to a tree in lower Parkers Creek is the 5–10 ft high, salt-tolerant high-tide bush (a.k.a. marsh elder or groundsel tree) topping the low, narrow natural levees—totaling less than an acre bordering the tidal channel inland (upstream) to the limits of brackishness, where the channel widens and salt marsh vegetation is replaced by cattails and arrow arum. This freshwater tidal swamp also totals ca. 50–100 acres.

Now about our modern PCP forests: Given the small PCP area, they are remarkably diverse for the typically nearly flat, boring Atlantic-Gulf of Mexico coastal plain. The PCP topography is unusually rough, dissected by numerous steep-sided ravines, all elements of the Parkers Creek and Governors Run watersheds. The steep slopes and multiple slope orientations offer diverse forest microclimates, coolest on north-facing slopes, driest and warmest on south-facing slopes. Elevations within the PCP vary from ca. +160 ft down to sea level. Erosion by water has exposed different geologic substrates, augmenting forest and forest-floor biodiversity. Finally, Calvert County's forest diversity is blessed by its location within a 'botanic Mason-Dixon Line', a climate belt in which the ranges of northern trees (Canadian hemlock, northern red oak) overlap those of southern kinds (bald cypress, loblolly pine, southern red oak).

I subdivide PCP forest associations into four basic types, although most species are not restricted to one province.

Type I PCP Forest: Above ca. +100 ft elevations the PCP substrate comprises low pH (acidic), nutrient poor, heterogeneous sands, silts, clays and even gravels. These are the geologist's "Upland Deposits", non-marine (fluvial) sediments left by the ancestral Potomac and its tributaries while that river still coursed straight southeast from present NW Washington. Upland Deposits underlie much of the higher parts of the WSR. Cleared land initially colonized by Virginia pine is eventually forested by various hardwoods originally (pre-blight) typified by American chestnut, but now dominated by various oaks and hickories, along with mountain laurel. The gently SE sloping Upland Deposit 'terrace' has been widely developed, first as farmland, and more recently for roads, shopping centers, and subdivisions. The type of mature forest naturally (and originally) found on the Upland Deposits is

therefore under-represented in the PCP. Even where the Upland Deposit PCP fields escaped development, their more recent abandonment enabled greater infestation by invasive alien flora. The long ridges heading towards Parkers Creek on the north side of the creek provide examples. In the rare older Type I forests, surprising flora can be found—the State-rare *Monotropis odorata* (sweet pinesap), discovered near the East Loop in the late 1980s is just one example.

Type II forest thrives on the same 15 to 9 million year old Miocene marine strata exposed in the nearby Calvert Cliffs, and which comprise the substrate below ca. +100 ft elevation. These Miocene silty clays are within reach of tree roots only because streams have cut away the overlying Upland Deposits. The deep soils, retaining moisture, are locally limed by underground fossil shell beds, raising the otherwise low pH. Clues to those underground shells—dissolved near the surface—are hard to find—look around groundhog burrows. Tulip (yellow) poplars (*Liriodendron tulipifera*), the tallest deciduous tree in North America, dominate this forest. Depending on species, soil pH has to be right for plants to take up nutrients. Actually in the ancient magnolia family, ‘tulip poplars’ were preferred by WSR Indians (and me) for dugout canoes, still today by sawmills for lumber and by bees for nectar. Pawpaw (*Asimina triloba*) is a common understory tree, the only temperate species in the tropical custard apple family. No native fruit is sweeter or bigger! Its nearest competitor, the persimmon, is also a tropical invader (in the ebony family).

Type III forest occupies relatively narrow, flat valley bottoms. The rich, mesic (moist) forest environment and shelter from winds allows some trees to top +125 ft, locally perhaps +150 ft. Species include sycamore, black walnut, box elder, and tulip poplar. Musclewood (*Carpinus caroliniana*) and spicebush (*Lindera benzoin*), sporting aromatic leaves and red berries, are common in the understory.

The great triple walnut along the Steve Easter trail marks the boundary between the ACLT and Scientists Cliffs common space.

Type IV forest is my catchall for all young and field edge woods. The common denominator for Type IV successional species is ample sunlight, and most would eventually be shaded out by taller, shade tolerant canopy trees such as oaks. Sassafras, black locust, black cherry and red cedar thrive, except where shaded out by invasive vines. Virginia and locally loblolly pine are common on Upland Deposits, while sweet gum, once used for ice cream spoons, grows nearly everywhere. Many of these shade-intolerant species were rare in the ancient forests, and some species might have migrated here from the west as a result of English land-clearing. More on that in Part II—to appear in a later ACLT newsletter.

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>



American Chestnut Land Trust Calendar of Events January–September 2015

February

- 21 Winter Hike at Double Oak Farm (1:30 p.m. - 3:30 p.m.)

March

- 14 Annual Membership Meeting (9:30 a.m. - 12:00 p.m.)
- 28 Spring Hiking Trail Maintenance Day (9:00 a.m. - 12:00 p.m., picnic lunch)
- 29 Water Quality Monitoring Training (9:00 a.m. - 1:00 p.m.) tentative date

April

- 25 Earth Day ACLT Trail Run (9:00 a.m. - 12:00 p.m.)

May

- 2 Calvert Green Expo (10:00 a.m. - 4:00 p.m.)
- 3 Spring Guided Hike (9:00 a.m. - 11:00 a.m.)
- 16 Canoe Guide Training (11:30 a.m. - 3:30 p.m.) (Sunday Rain Date)
- 30 Guided Canoe Trip (12:00 p.m. - 3:00 p.m.) (Sunday Rain Date)
- 30 Family Day Open House at Double Oak (time to be determined)

June

- 13 Guided Canoe Trip (11:00 a.m. - 2:00 p.m.) (Sunday Rain Date)
- 14 Second Sunday in Summer Farmers' Market (time tbd)
- 27 Guided Canoe Trip (9:00 a.m. - 12:00 p.m.) (Sunday Rain Date)

July

- 12 Second Sunday in Summer Farmers' Market (time tbd)
- 25 Guided Canoe Trip (9:00 a.m. - 12:00 p.m.) (Sunday Rain Date)

August

- 8 Guided Canoe Trip (9:00 a.m. - 12:00 p.m.) (Sunday Rain Date)
- 9 Second Sunday in Summer Farmers' Market (time tbd)

September

- 12 Walk Along the Bay Membership Event (12:00 p.m. - 2:00 p.m., picnic lunch)
- 12 Guided Canoe Trip Membership Event (2:00 p.m. - 5:00 p.m.) (Sunday Rain Date)
- 26 Guided Canoe Trip (12:30 p.m. - 3:30 p.m.) (Sunday Rain Date)

Land Manager's Corner

One not-so-simple word: Biodiversity

I recently sat in a room full of adults who were both interested and educated in ecology, but when asked “what is biodiversity?”, the room fell silent. Following several seconds of silence there was a collective embarrassed laugh because, we really should know the answer, right? However, I've also been a member of a room full of conservation biology graduate students who had trouble answering this same simple, loaded question. In my experience, the most common answer given is “the diversity of all living things”. This answer is both correct and incomplete. The truth is, biodiversity has a complex definition and actually increasing, preserving, or measuring biodiversity can be difficult—simply put, biodiversity is not simple.

So what do I claim is a more complete definition of biodiversity? Most ecologists would state that biodiversity includes “the variability of organisms, genetic material, and ecosystems within a given area”. Therefore, it IS the diversity of all living things in an area, but also the variation in their genetic material and the ecosystems in which they live—both of which are mentioned much less frequently than the diversity of organisms themselves. I will go into more detail on each of the three parts of this definition, beginning with the most commonly held idea of biodiversity: species diversity.

Species diversity is what comes to mind when most people think of biodiversity, however, there are two things that need to be considered when determining the species diversity of an area. First, is species richness or the number of different species within a given area. Second, is species evenness or the relative abundance of each species within a given area (McGinley, 2013). For example, if you had a stand of 100 trees which were made up of 5 different species your species richness number would be 5, which would be more diverse than a stand with only 4 different species. Additionally, if the abundance of each tree species was relatively even (approximately 20 of each of the 5 species) then you would have high species evenness. On the other hand, if out of 100 trees, 92 were all the same species and there were only 2 trees of each of the other 4 species present, you would have low species evenness. Scientists have developed formulas such as the Shannon-Wiener Index and the Simpson's Index in which both species evenness and species richness are taken into account to determine the overall species diversity of an area (McGinley, 2013).

The next component of biodiversity is the genetic variation within the species in an area. The genes each individual organism possesses are responsible for variations in physical appearance and physiological capabilities among individuals of the same species (<http://www.nybiodiversity.org/whatis.html>). One of the best examples of the genetic diversity that is possible within a single species is the variation observed between different breeds of dogs despite the fact that they are all members of the same species (*Canis lupus familiaris*, a subspecies of the gray wolf (<http://www.itis.gov/>)) (Fig. 1). In some cases genetic diversity may be

harder to observe or measure than species or ecosystem diversity, but it is just as important to preserving biodiversity. This is because genetic diversity allows species to adapt and survive in an ever-changing natural environment (<http://www.nybiodiversity.org/whatis.html>). For a hypothetical example, some Striped Bass (commonly called Rockfish) may have genes that allow them to have the ability to survive in warmer water temperatures than other members of their species. In the face of climate change and a warming ocean, this genetic variation will allow Striped Bass that carry these genes to survive and live to produce more offspring than those that cannot tolerate warmer water. This means that our Maryland state fish may stand a better chance of persisting in the face of rising ocean temperatures as individuals that possess beneficial traits pass their genes along to their offspring. While this is a hypothetical example of genetic diversity enabling a species to adapt to a largely anthropogenic-driven environmental change, this same process, known as natural selection, is constantly occurring in all species of living organisms.

The last component of the definition of biodiversity is the variation of ecosystems within a given area. Ecosystems include all of the living and non-living things in a given area and the interactions between the two. Ecosystems can be large or small, specific or general, from a single vernal pond to a temperate forest to an entire mountain range (<http://www.nwf.org>). Having a large variety of ecosystems may indeed be the most important factor in preserving both species and genetic diversity because an ecosystem is the habitat that supports all organisms. Additionally, habitat degradation is the leading cause of decreasing biodiversity; therefore, protecting natural habitats may be the biggest step in preventing a further reduction in global biodiversity.

Fragmenting large areas of natural habitats into smaller patches is a form of habitat degradation that heavily impacts some of the world's most threatened species: those that require large patches of contiguous, undisturbed natural environments such as large, wide-ranging animals and forest interior dwelling bird species (Trani, Terrestrial Ecosystems). Organizations, like ACLT, that protect large, contiguous natural areas are very important for preserving biodiversity because, during this time of human disturbance and expansion, they provide a rare ecosys-

tem in the form of a large, undisturbed forested area. Additionally, while the majority of ACLT's properties are forested, we also protect open field, wetland, and stream ecosystems which each support a multitude of different species. ACLT is currently working to improve our fields around our North and South Side trailheads by continually mowing to eradicate the invasive plant Chinese lespedeza. By mowing before the plant can re-seed itself, we are giving native grasses, shrubs, and wildflowers a chance to re-establish in the fields. Because these native plants have co-evolved with our native wildlife, they will provide a much better habitat for species such as Bobwhite and pheasants, which are declining due to a lack of open field habitat.

So now that we have gone over each important component of biodiversity, why is it so important that we work to preserve and maintain it? To this question there are many answers and all of them are important. First, a diversity of species, genetic material, and ecosystems are thought to be more stable and able to adapt to changing conditions overtime. Second, different species and ecosystems provide various services that would cost humans an unimaginable amount of money to do ourselves. These services, commonly known as "ecosystem services", include things such as trees filtering the air and providing oxygen; wetlands removing pollutants from water and protecting the surrounding houses by reducing flooding during storms; bats, bees, and other insects pollinating our crops which we rely on for energy; and the roots of vegetation planted along streams and rivers preventing soil from eroding into our waterways and harming aquatic creatures that we also rely on as a food source (<http://www.nwf.org/>). Conserving biodiversity is also important because it provides a greater variety of food for humans and wildlife. Additionally, many plants and microorganisms have been instrumental in the development of medicines. While the list of reasons biodiversity is beneficial could continue, the last I will list is simply because the array of organisms and ecosystems on Earth are amazing and should remain for future generations to explore, admire, and protect.

To date, 1.7 million species have been identified on Earth, but it has been estimated that there may be anywhere from 3-30 million species on the planet. While extinction is a natural stage for every species, and the Earth has already experienced numerous mass extinctions where

over half of the species on Earth were wiped out, many scientists feel that we may be in the middle of yet another mass extinction. It is estimated that almost one third of all known species are currently in danger of extinction, including 21% of all mammals and 29% of all known amphibians. The large number of currently threatened species has been caused by threats such as habitat loss and degradation, the spread of non-native, invasive plants, over-exploitation, and pollution (<http://www.nwf.org/>). While extinctions are natural, the accelerated rate at which species are currently being lost can largely be attributed to the ways that humans have impacted the Earth. My work with volunteers at ACLT has shown me that I am not alone in my efforts to protect and conserve the species that still populate this planet both because of the ways that they help humans and because every species deserves a place to call home on this great, diverse planet we call Earth.

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Autumn Phillips,
ACLT Land Manager



Figure 1. An example of the diversity in different breeds of dogs despite being members of the same species. Bernese Mountain Dog (left) and Field Spaniel

(CONTINUED FROM PAGE 1)

the public we serve. Through this transition we remain committed to balancing our responsibilities to the people of Calvert County while preserving the delightful flora, fauna, and cultural resources that give Calvert County such a special sense of place.

As a direct result of the 1998 plan, ACLT hired its first full-time land manager. Lands under management continued to grow with an additional 900 acres acquired by TNC and under ACLT management. All of the TNC land was subsequently transferred to the state of Maryland and ACLT entered into a long-term lease with the Maryland Department of Natural Resources to manage a total of 1,700 acres for the state and its citizens.

In the 2004 strategic plan, our focus shifted outward and the words “community-based conservation” crept into our vocabulary:

As we look to the future, we hope that in five years ACLT will continue to serve as a shining example of community-based conservation.

Throughout the past decade we have placed even greater emphasis on measures designed to engage the public, our members, and volunteers. We created an interactive website, added e-newsletters, expanded our trail system, increased the number of guided hikes, canoe trips and other public events on ACLT-managed properties, and started new programs to connect more people with the land, including a new community-supported agriculture program and a Master Naturalist training program.

Our current 2014-2018 plan (http://acltweb.org/events/EventDocs/ACLT_Strategic_Plan.pdf) finds ACLT with 3,116 acres of forest, wetlands and fields comprising the largest natural area in Calvert County, visited by thousands of people annually, with popular hiking trails that draw from throughout the mid-Atlantic area, and utilized by researchers who value its relatively undisturbed natural condition. The 2014 plan’s focus continues to be on outreach and engagement of the community. Key goals of the new plan are to: 1) develop a new network of conservation-oriented organizations to work together towards a sustainable future for Calvert County; 2) continue the board’s initiatives to grow the membership; and 3) create a longer-term plan to engage the community in our conservation mission.

Over the past year, under the leadership of Pat Griffin and Greg Bowen, ACLT extended invitations to resource-based industries such as the Calvert County Farm Bureau and the Calvert County Waterman’s Association as well as traditional natural and cultural conservation organizations such as Calvert Farmland Trust, Cove Point Natural Heritage Trust, Battle Creek Nature Education Society, Southern Calvert Land Trust and the Calvert County Historical Society to meet at our office to explore the notion

of developing a network. When word started getting out, we found that other groups such as the League of Women Voters, the Calvert County Chamber of Commerce, Calvert Eats Local, the Calvert Interfaith Council, among others, wanted to learn more.

At least 14 organizations have participated in at least one of the three Network programs held to date. The thing that has resonated with most organizations was the concept that we are all so busy working for good in the community within our own little spheres that we have developed a “silo” mentality. Our hope is that through a network that values conservation, but is willing to address solutions to community-wide problems across a spectrum that considers the economic and social needs of the whole community, we will be able to offer more valuable and lasting solutions to community concerns and at the same time demonstrate the quality of life values that our conservation-based organizations provide to the community.

At the forefront of the community conservation movement are land trusts that are listening to what the community wants and needs from its conservation-based organizations. For example, Forterra Land Trust in Washington State has advocated for urban light rail networks, pedestrian friendly streets and has helped localities develop transferable development rights programs. They reasoned that, if they wanted to continue to conserve land and the population was going to continue to grow, they had an obligation to make sure that their communities are great places to live—attractive and affordable.

ACLT hopes to take a similar path to a better, more sustainable Calvert County through its participation in the Sustainable Calvert Network. The network’s goals are to share information across member organizations and to achieve a future for Calvert County that fully integrates the county’s traditional farming and fishing industries and its abundant natural and cultural resources with the community’s need for healthy economic growth and a high quality of life for all its citizens. The Network is currently planning a Land Preservation Forum for January that will focus on concerns about the future of the county’s award-winning agricultural preservation program. We plan on doing a lot of listening to the valued input and leadership from the members of the other organizations in the network as we work together to address the complicated issues affecting the future of land preservation.

Karen Edgecombe,
Executive Director

Thank you for your support ...

New Members

ACLT would like to welcome the following new members since the Summer 2014 newsletter:

Ms. Heidi Alsbrooks
Mr. & Mrs. Gary Dzurec
Ms. Alison Ehrlich
Mr. & Mrs. Bruce Fall
Ms. Mary Fey
Mr. & Mrs. Alan Flora
Mr. Scott Fredericks
Ms. Julie A. Jones
Mr. Christopher Keene
Mr. Paul Killmer & Family
Ms. Rosemary Lally
Ms. Rachel Litz
Mr. & Mrs. Brian Mayer
Ms. Rachel McGranaghan
Ms. Emily Mechner
Mr. Christopher Novak
Mr. & Mrs. Jeremy Testa
Mr. David Wagenheim

Sustaining Membership

Congratulations to the following members who have reached the level of Sustaining Membership:

Mr. & Mrs. Greg Bowen
Mr. & Mrs. Walter Boynton
Ms. Kathy Daniel
Mr. & Mrs. D. Duncan Frazer
Mr. & Mrs. Robert O. Ruhling
Ms. Roberta Safer & Mr. Klaus Zwilsky

Gift Memberships

Thank you to the following who gave a gift membership since the last newsletter:

Ms. Joy Bartholomew &
Mr. Mark Edmondson
Capt. & Mrs. Patrick Murphy, USN (Ret.)

General Contributions and Designated Gifts

Thank you to the following for your generous gifts:

Michael Dalgetty
Mary Fey
Lori Walker

Through America's Charities:

Mrs. Dorothy Howe
Mr. Noah Stone

Through the Combined Federal Campaign of the National Capital Area:

Ms. Betsy Cuthbertson
Mr. Matt Forsbacka
Mr. Robert Hardies

Mr. Bruce Hudson
Ms. Laurie Leach
Mr. Kirk Martin
Ms. Teresa Mctigue
Mr. Robbie Miller
Ms. Casey Moton
Me. Velazquez Spring
Mr. Joseph Steller
Ms. Jean Stephens

Harrod Property Donations

Thank you to the following for their 2014 donation to the Harrod Property acquisition:

Ms. Harriet Yaffe and Mr. Jerry Adams
Mr. & Mrs. David Bonior
Mr. & Mrs. Greg Bowen
Dr. & Mrs. Walter R. Boynton
Ms. Kathy Daniel
Dr. Marie & Mr. Randy Estabrook
Ms. Paula Johnson &
Mr. Carl Fleischhauer
Mrs. Magda Freeman
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Dr. Kathryn Z. Nicodemus

Mr. Norman Prince
Mr. & Mrs. Robert O. Ruhling
Ms. R. Mason & Ms. Deb Sheftz
Dr. Nancy McK. Smith
Mr. & Mrs. Peter N. Stathis
Mrs. Crawford Feagin Stone
Mr. & Mrs. Guy Tomassoni
Dr. & Mrs. D. Montgomery Wood

Spring Appeal

The Staff and Board of Directors wish to thank the following for their contributions to the 2014 Spring Appeal:

Mrs. Mary Brogi
Ms. Joy Bartholomew &
Mr. Mark Edmondson
Mr. & Mrs. Thomas W. Kirby
Mr. & Mrs. Curt Larsen
Mr. Don Mighell
Col. Caroline VanMason, USA (Ret)

Fall Appeal

The Board of Directors and staff wish to thank the following for their contributions to the 2014 Fall Appeal:

Mr. & Mrs. John C. Boyd
Dr. & Mrs. Glenn Edgcombe
Mr. & Mrs. Lawrence A. Gates
Mrs. Crawford Feagin Stone

NOTE: All Auction donors will be acknowledged in the Winter Newsletter

Your Holiday Shopping Can Benefit ACLT!

We announced earlier this year that American Chestnut Land Trust is now a charitable organization registered with AmazonSmile. Evidently, some of you are already helping to support ACLT in this easy way—we have already received two quarterly checks through this program! If you do any of your Holiday shopping on line via AmazonSmile, ACLT will receive 0.5% of the purchase price to ACLT. In order to donate to ACLT through AmazonSmile, visit <http://smile.amazon.com>. From there, you will sign in with your Amazon account, or you will need to create one. Once signed in, you will be able to search for American Chestnut Land Trust. Click "Select" next to our name, and you are signed up! It is that simple.





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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.