

NATIVE SEED

ADKINS ARBORETUM, A 400-ACRE NATIVE GARDEN AND PRESERVE, PROMOTES THE CONSERVATION AND RESTORATION OF THE CHESAPEAKE REGION'S NATIVE LANDSCAPES.



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Walking through the woods, your feet scuff through fallen leaves and crunch on twigs and acorns. Brown thrashers search for insects among the dead leaves. Your eyes pick out the fuchsia hue of Hearts-a-Bursting fruits ahead and the pale yellow of paw paw leaves. Overhead a squirrel rustles through the oak trees. Life in the forest lives in layers.

Layers of the FOREST

By Sylvan Kaufman, Ecologist

"The forest is to me the sweetest college... Wisdom doth here in all its branches grow..."

—EDWARD, SECOND BARON THURLOW

Our first thought of a forest is usually of tall trees, such as oaks, pines, hickories, beech, and tulip trees. These majestic trees form the canopy over our heads, a lacy pattern of branches with crowns that barely meet. They form the bulk of the forest, with their massive trunks and limbs and millions of leaves. Even belowground, their roots spread under the soil surface to form a living web.

The middle layer of the forest, though, is around eye level and is inhabited by more delicate-looking tree saplings and full-grown dogwoods and shadbush. We probably notice more detail at this level—the shapes of leaves, texture of bark, colors of fruits, kinds of birds, brilliant flashes of butterflies and damselflies.

On the ground and just below lie more mysterious creatures and processes. Fungi lend bright spots of color. Pillbugs and millipedes cruise just under the fallen leaves. Ants and worms churn the soil. Seeds germinate. Lichens turn rock to dust.

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Adkins Arboretum is operated by the not-for-profit Adkins Arboretum, Ltd. under a 50-year lease from the Maryland Department of Natural Resources.

Adkins Arboretum, a 400-acre native garden and preserve, fosters the adoption of land stewardship practices for a healthier and more beautiful world.

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www.adkinsarboretum.org

HOURS

10 a.m. to 4 p.m. daily except
Thanksgiving and Christmas

ADMISSION

\$3 for adults
\$1 for students ages 6–18
free to children 5 and under.
Admission is free for members.

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An opportunity to make it right.

An opportunity to set the record straight.

An opportunity to test the standards and raise the bar.

An opportunity to be a model.

An opportunity ready to unfold right now!

Dear Members and Friends:

In January, the Arboretum Board of Trustees adopted a new strategic plan that recognizes the far-reaching impact of the Arboretum's programs and services throughout the region. This new plan signals a critical expansion of the Arboretum's role and encompasses a broader definition of land stewardship and sustainability. It envisions the Arboretum as a catalyst and model for best land practices beyond the single focus of native plant conservation.

One strategy is already underway to help the Arboretum achieve this broader mission. With the creation of the *Native Garden Gateway*, the Arboretum entrance and parking area are about to be transformed.

Today the visitor's first view of the Arboretum is a sea of asphalt, a one-acre impervious parking lot that actually violates the lessons the Arboretum teaches. Large concrete pipes under the blacktop are attached to catchment basins that convey every ounce of grit and grime from the parking lot into the upper reaches of the Tuckahoe River. Thirty years ago when the Arboretum proudly opened its doors to the public, this parking lot represented best landscape practices, with the goals of preventing standing water and rapidly moving water off the land and directly into a ditch, stream, river, or bay.

Soon, however, the asphalt lot will be a relic of the past. In May, the Arboretum was chosen as a pilot project for new international guidelines for sustainable landscaping practices, the Sustainable Sites Initiative (SITES™). The proposed redesign of the entrance and parking lot—the *Native Garden Gateway*—will demonstrate best practices based on a rating system that sets benchmarks for increasing tree canopy, reducing stormwater runoff, planting native plants, controlling invasive plants, using recycled materials, and minimizing impervious surfaces and the use of chemicals.

Launched in 2005, SITES is a partnership with the American Society of Landscape Architects, the Lady Bird Johnson Wildflower Center at the University of Texas at Austin, and the United States Botanic Garden to provide “green” design standards for landscaping. While standards have been established for “green building” by the U.S. Green Building Council through its Leadership in Energy, Environment and Design (LEED), SITES is the first effort to achieve a comparable program for landscaping.

The Arboretum competed with hundreds of sites from around the world. The 150 selected projects are located in 34 states along with Canada, Iceland, and Spain. While restoring the Arboretum's grounds, participation in SITES will provide the Arboretum recognition as a regional model for sustainable land management practices.





New entrance to Adkins Arboretum

The ***Native Garden Gateway*** will reduce impervious surfaces and allow stormwater runoff to be filtered by soil and vegetation and absorbed into the ground. The overarching concept of the plan is to transform the existing vehicular approach to the Arboretum into a low impact pedestrian approach that is lushly planted to showcase the ornamental value of the region's native plants, as well as native plants that provide wildlife the benefit of food and cover. Where the asphalt parking lot now stands, a native meadow will be established, and parking will be accommodated in a series of small pervious pods along a circular drive shaded by native trees. The existing underground drainage system will be removed, and runoff from the parking areas and roadway will be directed to and absorbed by vegetated swales.

These changes are part of the Arboretum's Campaign to Build a Green Legacy, its first capital campaign. We are grateful to the more than 300 Arboretum members and friends who have provided the funds to support the Campaign for which the ***Native Garden Gateway*** is the first phase. Once the ***Native Garden Gateway*** is completed, construction will begin on the renovation and expansion of the Arboretum Visitor's Center.

I look forward to sharing our progress toward completing these exciting new "green" facilities. Thank you for your continued support and interest.

My best,

Ellie Altman, Executive Director

The Arboretum welcomes and gratefully acknowledges its new members.

Ms. Ann Marie Anderson
 Mr. Don Andrews and
 Ms. Mary Kay Noren
 Mrs. Leslie Baldwin
 Mr. Barrie Barnett
 Ms. Carole Ann Barth
 Ms. Paula Beatty
 Mr. Hugh Beebe and
 Ms. Carin Starr
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 Ms. Melissa Bryant
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 Mr. Alan W. Byerly
 Mr. Peter Byrnes
 Ms. Meredith Callahan
 Mr. Burton L. Carlson and
 Ms. Andrea P. Wood
 Dr. Agnes Case
 Ms. Sequoia Chupek
 Mr. Andrew Clarke
 Ms. Joanne Cooke
 Mr. and Mrs. James Cooney
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 Mr. and Mrs. Warren Cox
 Ms. Alene Crenson
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 Mr. Dennis J. Dabrowka
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 Mr. Thomas Davis
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 Ms. Lucia Di Rado
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 Ms. Denise L. Elliott
 Mr. Phil Ellis and
 Ms. Robin Morgan
 Ms. Louise Essick
 Mrs. Elizabeth S. Farris
 Mr. Robert Ferraro
 Mr. Joseph Fisher
 Mr. and Mrs. Matt Fitzgerald

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Education Opportunities Abound for Summer Intern

Attending college nearly 300 miles away led Lisa Daffin to an internship opportunity just ten minutes from her home. For this year's summer intern, a passion for horticulture and nature and an interest in native plants made a summer at the Arboretum a perfect fit.

A senior majoring in agribusiness management and rural development and minoring in horticulture at West Virginia University, Lisa grew up on a greenhouse operation and vegetable farm in Queen Anne, MD, just minutes from the Arboretum.

"I knew about the Arboretum from living in the area and wanted to intern close to home," she says. "But I also wanted an internship that could offer a different experience than anything else I had done. My background isn't in native plants, and that's exactly why I wanted to come here. I wanted to know more."

Lisa began work in June and quickly jumped into nearly all aspects of the Arboretum's operation, from learning about visitor services to maintaining the grounds, working with volunteers, and learning about the day-to-day workings of a nonprofit organization. In addition, she is working on converting plant information signs to a new format so that shoppers at Arboretum plant sales can learn about plants before buying them. She cites the Arboretum's education opportunities and staff interaction as reasons for enjoying her internship.

"After I had my interview and met the staff, I really hoped I was offered the position. I was so excited when I was chosen and am grateful for the opportunity," says Lisa. "I absolutely love it here and am learning so much every day. I am lucky to be working with such knowledgeable and passionate people."

Lisa will return to school this fall and will continue her work as an undergraduate assistant in WVU's horticulture tissue culture lab. Upon graduation in December, she plans to work toward a master's degree in horticulture at WVU and eventually hopes to work in a research setting or teach horticulture at the college level. "I really have a passion for horticulture and love sharing that passion with others," she says. "If I could teach horticulture, it would be my dream job."

The Arboretum wishes Lisa great success in her future endeavors.



Lynda Tison Joins Arboretum Staff

The Arboretum is pleased to announce the appointment of Lynda Tison to the position of Visitor Services and Facilities Coordinator. She joined the staff in May.

Lynda oversees the Arboretum's orientation program for visitors and coordinates use of the Arboretum Visitor's Center for programs and events. She brings a broad range of talents to her position, as well as enthusiasm for the Arboretum's conservation mission. She most recently served as assistant director of education operations for Chesapeake Bay Foundation.

A visit to a native plant nursery brought Lynda on a circuitous route to the Arboretum. The visit sparked her desire to learn more about the region's native flora. While completing a Master Gardener training program, she learned about the Arboretum and its diverse roster of education offerings that promote the link between native plants, conservation, and the health of the Chesapeake Bay.

"I had a good feeling about the Arboretum right away," she says. "The quiet peacefulness of its beautiful setting is what attracted me, and I fell in love, just like that. The Arboretum is a calming yet rejuvenating place to be, and I look forward to learning more about its native plant communities and caring for its visitors and staff."

"The Arboretum is on the verge of significant growth with plans to expand and enhance its facilities to address its growing number of visitors and demand for programs," says Executive Director Ellie Altman. "With her infectious enthusiasm and decade of experience at Chesapeake Bay Foundation, Lynda will be a key staff person in helping the Arboretum achieve its goal of offering every visitor an informative and memorable experience in nature."

Lynda can be reached at 410-634-2847, ext. 21 or at ltison@adkinsarboretum.org.



(Members continued from page 3)

Mr. Jack Foehrenback and
Mrs. Kathleen O'Connor
Ms. Carol Fordonski
Ms. Elizabeth Franceschini
Mr. Josh Gallatin
Ms. Jeannie Gaylor
Mr. Walt Gilefski
Mr. and Mrs. Donald Gilman
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Mr. George Maurer
Ms. Lynn Mayo
Ms. Roberta McConochie
Ms. Elizabeth McCue
Mrs. Pegen McGlathery
Mr. Sean Meehan
Mrs. Leslie Merriken
Mr. and Mrs. Gary L. Mervine
Mr. Glenn Michael
Mr. and Mrs. Kenneth M. Miller

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(Layers of the Forest continued from page 1)

"As I walked, I came to realize that every twig on the ground, every tree in the forest, has a story—how it got where it was, why it persisted and prevailed"

writes Daniel Botkin in *Our Natural History*. Follow the connections among the layers, and a fascinating natural history emerges.

An 80-foot-tall white oak tree forms part of the forest canopy. Its leaves gather energy from the sun and carbon dioxide from the air. Within the leaves, chloroplasts process these ingredients into carbohydrates. They turn a gas into biomass. The biomass of the leaves feeds hundreds of species of insects, including the aphids that suck sap out of the leaf veins. The aphid secretes a sweet substance called honeydew that contains excess sugars from the tree's sap. This honeydew attracts carpenter ants foraging among the tree's branches. Carpenter ants feed on the honeydew and chase away other insects that might eat the aphids. The carpenter ants live in a dead branch of the oak tree. The branch may have died because it grew low on the trunk and not enough sun reached its leaves. The carpenter ants carve galleries and passageways through the dead limb where they can raise their young and stay protected. Contrary to popular thought, they do not eat the wood, but just discard it.

A pileated woodpecker flies through the forest seeking its favorite food, carpenter ants, and alights on the dead branch. This large, striking woodpecker only lives in large tracts of forest. It is more often heard than seen because of its raucous call and loud drumming. It may drum on the branch, listening for hollow spaces under the bark that signal the presence of the galleries, or it may be able to smell the formic acid the ants produce to defend themselves. The woodpecker quickly chisels a rectangular opening in the dead wood and extends its long tongue into the carpenter ants' galleries. Sticky saliva traps the ants, and backward-facing barbs on the tongue keep the ants from escaping as the woodpecker retracts its tongue and swallows them.



The hole excavated by the pileated woodpecker attracts a pair of Carolina wrens looking for a dry nesting site. The wrens gather pine needles, dead leaves, bits of moss, and small feathers and weave them into a loose nest within the cavity. The wrens explore for food in the mid-canopy and along the ground, finding caterpillars feeding under leaves and a spider hiding in a funnel web built among some twigs. Also seeking food along the forest floor is a box turtle, but its more varied diet means it will eat anything from slugs to fruit to mushrooms. The box turtle finds a red Russula mushroom and bites off a chunk of the cap.

The red cap and white stem of the Russula are just the "fruit" of the fungus. Most of the fungus remains belowground, associating with the roots of the oak tree. Scientists estimate that

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Nursery Notes

By Joanne Healey, Nursery Manager

What a lot of changes are happening at the Arboretum! The biggest news—at least for me—is that the Native Plant Nursery is now open to the public! Through the end of the growing season, the nursery is open weekdays from 10 a.m. to 4 p.m., and weekends through special arrangement. Stop by to see what's happening!

Preparations are underway for the Fall Native Plant Sale, September 10, 11, and 12. The plant sale list this fall has a few new and some obscure offerings, such as *Solidago rigida* (stiff goldenrod), *Ludwigia alternifolia* (seedbox), and *Franklinia alatamaha* (Franklin tree). We also have *Solidago caesia* (blue-stemmed goldenrod), *Baptisia australis* (wild indigo), *Asclepias syriaca* (common milkweed), and *Monarda fistulosa* (wild bergamot) all propagated from plants on the Arboretum property.

Offerings also include perennial favorites such as *Lindera benzoin* (spicebush), *Cornus florida* (dogwood), *Asimina triloba* (paw paw), *Asclepias tuberosa* (butterfly weed), and *Lobelia cardinalis* (cardinal flower), as well as plenty of fall favorites, including asters, goldenrods, and ferns. This year's fall sale will offer a larger selection of perennials in gallon containers so you have a bigger and stronger plant to plant before winter.

The nursery volunteer crew has been busy propagating plants for the fall sale. An average of six volunteers return each week to pot, weed, and prune to keep the plants looking their best. These volunteers will have the unique experience of being in the hub of the fall plant sale this year. I hope they will enjoy knowing that they are an integral part of the activities, since they will be helping with planning and executing the event. They are a dedicated group of people, and the nursery is lucky to have them.

As summer closes, I would like to thank the Arboretum's summer intern, Lisa Daffin, a senior majoring in agribusiness management and rural development at West Virginia University. Raised in Queen Anne, just ten minutes from the Arboretum, Lisa comes from a farming family and was very familiar with the workings of the nursery. She became part of the Arboretum family quickly. In addition to numerous propagation tasks, Lisa was busy this summer completing plant information signs displayed at plant sales. This daunting project was started in summer 2009 but was never finished because the process is never ending. New plants and new varieties are constantly added to the nursery stock, which translates into new signs.

We have a very special nursery in the woods, and we no longer want to keep it a secret. I hope you will stop by the nursery this fall, and that we will see you on September 10 for the members-only sale day, and for the public sale days on September 11 and 12. 🌿

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Ms. Denise Miller
 Ms. Debbie Mitzel
 Mr. Margaret L. Moor-Orth
 Mr. and Mrs. David Nagel
 Ms. Eleanor Nelson
 Ms. Elizabeth O'Bryen
 Mr. Tony Ogden
 Mr. Michael O'Sullivan
 Ms. Audrea Oudshoorn
 Mr. and Mrs. Peter Pappas
 Ms. Mary Charlotte Parr
 Mr. and Mrs. Gary Pearce
 Mr. David Pogue
 Mr. Kinsey B. Potter
 Mr. Schuyler Pulley
 Dr. Mary Restifo
 Riverview Garden Club
 Mr. and Mrs. Harry H. Rhodes
 Ms. Billie-Lynne Roberts
 Mr. and Mrs. Clint Roby
 Ms. Simone Rones
 Ms. Sheila Rotner
 Ms. Ashley Salas
 Ms. Rebecca Schaafer
 Mr. William C. Schaffner
 Ms. Sara Schomig
 Ms. Karen Sergeant
 Ms. Stephanie Shauck
 Mr. and Mrs. Langley R. Shook
 Ms. Deb Shultz
 Ms. Keonta Silaphone
 Ms. Emma Simanton
 Ms. Stephanie Simpson
 Ms. Lucie Snodgrass
 Mrs. Sara C. Stanhope
 Mr. Robert Stanley
 Mr. G. Stanley Steele
 Mrs. Susan Steele
 Mr. Michael Stevens
 Mr. and Mrs. Kevin Sullivan
 Ms. Eleanor Swink
 Mr. Curtis E. Tate
 Ms. Laura Taylor
 Ms. Carol A. Teets
 Mr. James E. Thompson
 Mrs. Eva Tom
 Mr. William Trepp
 Ms. Staci Walden
 Mr. John Wasilisin
 Ms. Joan Wathen
 Mr. and Mrs. Jim Wilson
 Ms. Carol Wilson and
 Mr. Kevin McKillop
 Mr. and Mrs. John Wilson
 Ms. Elizabeth Ann Wolfington
 Ms. Marianne Wood
 Worcester County Garden Club
 Mr. Tom Wroten
 Ms. Elizabeth V. Yeapanis

Teach interpret plant, enjoy!

VOLUNTEER OPPORTUNITIES

Visitor's Center Receptionist

Help staff the Visitor's Center and greet and orient visitors.

Data Entry Administrative Assistant

Assist staff with data entry and administrative tasks. Training is provided.

Education Programs for Children

Help teach children about native plants and the environment.

Education Programs for Adults

Develop and teach courses about native plants and gardening techniques.

Special Events

Volunteer for the Fall Native Plant Sale, Fall Festival, or Holiday Greens Sale.

Community Outreach

Promote the Arboretum's mission at community events.

Nursery Work Crew

Join the nursery work crew on Tuesdays and learn about plant propagation and care in preparation for the Arboretum's annual plant sales.

Grounds Work Crew

Help maintain the woodland and meadow paths and assist with other maintenance projects.

Membership Promotion Team

Join a team of volunteers to promote the benefits of Arboretum membership.

Individual Volunteer Projects

Propose your own volunteer project. Ongoing projects include maintaining bluebird habitat and teaching the public about native plants and sustainable horticultural and gardening practices.

For more information, including volunteer schedules, contact Ginna Tiernan, Adult Program Coordinator, at 410-634-2847, ext. 27 or at gtiernan@adkinsarboretum.org.

Application forms can also be obtained at the front desk or downloaded at www.adkinsarboretum.org.

Volunteer Orientation

NEW!


**Tuesdays, September 21 and November 16,
10 a.m.–noon**

Learn about the Arboretum's conservation and stewardship mission, meet the staff and other volunteers, and find your niche. Then join the bimonthly Scuttlebutt Volunteer Luncheon from noon to 1 p.m. to meet more volunteers and hear what they are up to at the Arboretum.

(Layers of the Forest continued from page 5)

85–90 percent of terrestrial plants form mycorrhizal associations with fungi and that nearly all woody plants form mycorrhizal associations. The fungi colonize the roots of plants and absorb water and minerals from the soil that they pass on to the plants. The plants in turn provide the fungus with carbohydrates they have manufactured through photosynthesis. Although plant roots can take up water and minerals, the fungi more efficiently seek out water and absorb minerals because they cover a larger volume of soil and are able to absorb some forms of minerals that plant roots cannot. Plants with mycorrhizae are sometimes more disease and drought resistant. Fungi even connect different species of trees underground. Scientists have followed the path of carbon, nitrogen, and phosphorous from one tree species to another via their shared mycorrhizal fungi.

Though the pileated woodpecker may never encounter the *Russula* and the *Russula* knows nothing of aphids, they are interconnected by being part of an ecosystem. Depending on

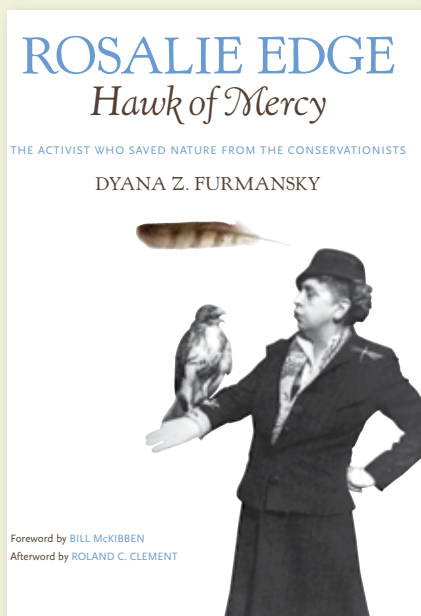
your perspective, it might be the oak that links them together as a host that reaches from ground to canopy. A birder might view the birds as the link, keeping insects in check and dispersing seeds. A soil biologist might view the minerals and soil biota as determining all that grows above. These perspectives are all informed first by observations of nature. Someone took the time to observe the ants and aphids, the woodpeckers and wrens, the contents of the soil. Experimentation has given us greater understanding of the invisible—the process of photosynthesis, the associations between fungi and plants, the causes of pest outbreaks. Natural history and science give depth to the stories, reveal the unknown, and lead us to new questions. 

Join the *Layers of the Forest* series on
October 21 and 28 and November 4 to participate in
some observation and experimentation that will reveal
more forest stories.

From the Bookshelves

By Arboretum Librarian and Maryland Master Gardener Carol Jelich

Rosalie Edge, Hawk of Mercy: The Activist Who Saved Nature from the Conservationists
by Dyana Z. Furmansky. Foreword by Bill McKibben and afterword by Roland C. Clement.
The University of Georgia Press, 2009.



Bird-watching is the fastest-growing recreational activity in the United States. Strict laws protecting migratory birds are generally accepted. Yet until the early part of the twentieth century, it was the custom not to watch songbirds, water birds, and raptors but to shoot them, and the few who protested this practice were dismissed as “sentimentalists.”

How did we get from there to here? Largely through the efforts of a single individual—Rosalie Edge.

Mabel Rosalie Barrow was born in New York City on November 3, 1877. Her parents were New York socialites, and Mabel was her father’s favorite. After his death, her mother was forced to move to more modest accommodations to raise her daughters and son, but the family still traveled in society circles. Though not generally spoken of in society, Rosalie’s father, born in England, was a cousin of Charles Dickens.

Mabel married Charles Noel Edge and began using “Rosalie,” as he preferred it. The couple lived in China and traveled extensively in Asia. Her early correspondence reveals her interests in travel, fine furnishings, jewelry, and clothing, and her distaste for the poverty and grim conditions of the countries she visited. The rising revolution in China sent the Edges back to England, and finally to New York to live. Mrs. Edge bore three children; the first

died as an infant. Rosalie and Charles separated, though they remained married until his death. Mrs. Edge died in 1962.

Mrs. Edge honed her skills in the suffrage movement. She engaged in public speaking and wrote persuasive “essentially but not absolutely true” pamphlets. Her efforts to influence policy by raising public awareness were successful.

In her forties, Mrs. Edge discovered bird-watching. She found that New York’s Central Park was home to many species, and here she also met like-minded “sentimentalists” who were unhappy with the custom of using resources until they were used up, and of killing birds for personal research and especially for millinery. The author notes that as a young child, Mrs. Edge had a hat adorned with stuffed hummingbirds. Yet her efforts were influential in turning public opinion and getting laws passed that prohibited killing birds for adornment.

The book focuses on Mrs. Edge’s adversarial relationship with the National Association of Audubon Societies (NAAS). The Audubon Societies were created to protect birds and other mammals, but in the context of the day, the protection was weak. For example, the ivory-billed woodpecker was going extinct as forests were lost to the timber mills, but since the new habitat was home to quail (a game bird), it was considered a net gain.

The book describes how Mrs. Edge attended annual meetings of the NAAS over the years to raise contentious issues, and gradually prevailed in turning their policy toward true conservation. She went up against not only the NAAS, but the entire establishment of professionals – government bureaucrats, foresters and ornithologists, hunters’ organizations, and academics who, like John James Audubon himself, focused on killing, stuffing, and organizing birds for their collections.

To add weight to her arguments, Mrs. Edge formed the Emergency Conservation Committee. Behind the ECC were Mrs. Edge and a few individuals who helped anonymously with technical drafts so as to preserve their professional standing. As the ECC, she mailed pamphlets nationwide to alert the public about pressing conservation issues. The “conservation emergencies” addressed were both large (creating Olympic National Park; saving the sugar pines at Yosemite) and small (rescue of peregrine falcon chicks from a



Manhattan high rise ledge). With pamphlets that raised public awareness, Congressional testimony, public appearances, and engaging key policymakers, the Committee influenced the preservation of an impressive variety of species and wilderness areas and earned Mrs. Edge a reputation as “the foremost woman conservationist of the twentieth century.”

One of Mrs. Edge’s proudest accomplishments was establishing Hawk Mountain Sanctuary in Pennsylvania. Before she intervened, thousands of raptors were killed or wounded and left to die each year. The story of how she stepped in and reversed the situation, standing up to immense pressure, is one of the best stories in the book. Rachel Carson, better known to the public today, used migration data collected at Hawk Mountain to make her case in *Silent Spring*.

Through the eyes of Rosalie Edge, the reader is privy to an intriguing glimpse of the events and customs of her time. The author includes meticulous notes for each chapter, documenting Mrs. Edge’s activities through letters and personal conversations with colleagues and relatives. Photographs of key people and documents are included in the book. Occasionally the author speculates on Mrs. Edge’s motivation for actions, or thought process, or how she developed in her early life the skills and perseverance that served her so well later in life.

Rosalie Edge, Hawk of Mercy presents lessons for modern-day environmentalists who face opposition from the entrenched powers-that-be. Mrs. Edge demonstrated that an individual who is passionate and determined can successfully battle the establishment. As Roland C. Clement notes in the Afterword, “After a long period of public unawareness about Mrs. Edge’s role in bringing us to where we are today, it is another generation’s turn to be inspired by her example and to continue her valuable work.”

At the age of 85, in 1962, Mrs. Edge attended her final Audubon Society annual meeting. Was she welcomed or spurned? You will find out when you read this book.

Rosalie Edge, Hawk of Mercy is the October 2010 selection of the Adkins Arboretum Book Club. The author, Dyana Furmansky, will speak at the Arboretum on Tuesday, November 2 at 1 p.m.

Support the Arboretum

Healthy, vibrant meadows, woods, and streams are vital to the wildlife and all living things in the Chesapeake Bay region. The Arboretum’s work to promote the conservation and restoration of the Chesapeake Bay’s native landscapes has never been more important.

None of the Arboretum’s work would be possible without its many generous supporters. Every financial commitment to the Arboretum’s conservation efforts in and around the Bay—whether from individuals, businesses, or foundations—is greatly appreciated.

Please consider supporting the Arboretum this year by:

- Using the enclosed Annual Appeal envelope to make a tax-deductible gift.
- Making a donation online by visiting www.adkinsarboretum.org.
- Contacting your company’s human resources department to determine if your company has a matching gift program.
- Adding the Arboretum to your will and making the gift of healthy native landscapes and wildlife habitat your legacy.

For more information about donation opportunities, please contact Kate Rattie, Director of Advancement, at 410-634-2847, ext 33. Any gift is deeply appreciated and is put to immediate use conserving and restoring meadows, marshes, woods, and gardens. Thank you!



The Gift of a Lasting Tribute

The Arboretum’s Gift and Tribute Program offers Arboretum members and friends an opportunity to make a meaningful gift that will stand as an enduring tribute to family or friends. All tribute gifts are tax deductible and support the Arboretum’s mission through its educational, research, and cultural programs.

Donors may choose to honor or memorialize loved ones in the following ways:

Tribute Benches (\$3,000)—Individuals may donate a custom-designed bench crafted by noted Chestertown, MD, furniture maker Robert Ortiz to the Arboretum as a tribute to a loved one. The name of the honored individual will be engraved on a plaque at the base of the bench.

Tribute Books (\$250)—Donations toward a book or books are placed in the library book fund. A commemorative bookplate will be placed inside the book’s cover.

Memorial and Honor Contributions—Friends and family can make a donation to the Arboretum’s education fund to honor or memorialize someone special.

For more information about tribute or memorial gifts, contact Kate Rattie at 410-634-2847, ext. 33 or krattie@adkinsarboretum.org.

Native Plant Lore

The Gift of Nature Journaling

By Michele Wade and Lynn Lang, Arboretum docents

*In spring, hundreds of flowers,
In summer, refreshing breeze.
In autumn, harvest moon,
In winter, snowflakes accompany you.
If useless things do not hang in your mind,
Every season is a good season.*

—Master Mumon (1183–1260)
in Simano and Tani, *Zen World, Zen Calligraphy*



Imagine you are taking time to really see your natural surroundings—taking time to observe subtle seasonal changes and how they differ from the sudden change a storm produces. As you look at the natural world, settle on something that draws your attention. It doesn't really matter what you're drawn to, no mental editing allowed—time for that later. For now, you are just an observer. Change your angle, tilt your head, move your sitting position or stand up and move around, maybe even look over your shoulder at the object or scene you've chosen. At each level of your observation, make a brief record of what you see on a piece of paper or in a small notebook using a single word, a phrase, a quick sketch, or take a photo to insert later. Try to reflect in your notes on how the subject of your observation changes at every level of view. Does this change affect your thinking or feeling about the subject, or yourself?

Now, let's say your eye is drawn to a milkweed plant. This is where your observations start to become really detailed: what shape are the leaves, the pods, and the stems of the plant—no roots, please, we're observing, not disturbing. Where does the plant fit into the community in which it grows? What details about the milkweed would you choose to record or comment on in your notebook? Are there words that would summarize any other thoughts or feelings you have, beyond labeling? Perhaps you're drawn to a wide-view landscape. What is it about this view that catches your attention? Does the big picture change your thoughts or feelings about nature's reality and its impact?

The regular practice of seeking out an experience in nature, trying to really see what's there in front of you, and then recording what you've seen in a notebook or nature journal offers a variety of gifts. As Arboretum docent naturalist Julianna Pax remarked, "A journal can be a record of memories that would otherwise be lost if not written down. It can help you keep an experience alive." She captured the nature journal's essence.

*Nature will teach you to be still,
if you don't impose on it a stream of thought.*

A very deep meaning takes place

When you perceive nature in that way...

—Eckhart Tolle in *Guardians of Being*

Julianna is in the good company of others who've been dedicated to preserving their "seeing" through direct observation of nature—people like ship captains, explorers, scientists, historians, artists—all of whom, through long history, have been attracted by natural phenomena and have chosen to preserve their attraction in writing and sketches. You're already familiar with Meriwether Lewis, William Clark, and Thomas Jefferson, who made notes about our country's vast natural diversity and used these data to develop formal descriptions of their informal observations. But did you also know that Aristotle wrote *Historia Animalia* around A. D. 335, in which he listed more than 300 different kinds of animals with backbones? Even Queen Victoria

kept a nature diary during her reign. In fact, throughout the nineteenth century it was a popular and accepted activity to spend time observing nature up close and personal and then record descriptions and impressions.

So, carrying that popular practice into the twenty-first century, how would you begin? First of all, you need curiosity about the natural world, a willingness to see, and the discipline to stop and watch how something looks, works, or changes under varying conditions. We're assuming you bring all those qualities to the task!

Next, there are a couple of practical things to do in order to organize yourself: before you start, gather your equipment. You need to make a decision about what type of journal or notebook you'll use for your recordings, and also identify the kind of pen, pencil, or markers that are most comfortable for you to use.

Finally, before you make a journal entry, consider entering each observation in a set format so that your observations will be somewhat standardized over time. For example, record your name, the date, the place where you are located, the time of day, the weather, your first impressions of the scene, wind direction if you can figure it out, and perhaps cloud patterns or the extent of cloud cover on the journal page. When this is done, let your discovery of "data" flow, enter your actual observations, and respond to what you see.

No time to walk? Weather an issue? Don't make an excuse! Just pick up an object in nature to bring inside for detailed but leisurely study. From this close observation, create a "Daily Exceptional Image" (see C. L. Walker in *Keeping a Nature Journal*) in which you describe the results of your study and/or make a sketch of the item from nature in your journal. It's interesting to watch how your images change over time if you make a recording every day, especially as nature changes in its seasonal progression.

Now that you're more comfortable with nature journaling, especially out-of-doors, notice whether your senses become heightened or whether your breathing becomes deeper and relaxed during the experience. Could it be the effect of the woods' air magic? Are you more aware of wind, the sun or lack of it, a bird song?

At Adkins Arboretum, you can experience the gifts of nature journaling through Tea in the Trees, happening during the first Saturday guided walks in February, March, April, May, June, September, October, and November at 11 a.m. These walks focus on noticing the details as well as the bigger picture in nature and invite you to write or make sketches about what you've seen outside while enjoying tea and cookies inside following the walk. Carrying your journal along on the walk allows you to record the substance of your observations on the spot. Or, if there's something you see that you'd like to identify or learn more about right away, then use the Arboretum's online resources or the Visitor's Center's reference library to find an answer to your question.

To experience the "journey" of nature journaling, you are cordially invited to immerse yourself in nature at Adkins Arboretum every day, enjoy nature's many and varied intricacies and surprises, and capture your memories in a journal. Perhaps we'll see you on one of the Arboretum's trails, and we can share the images and descriptions we've chosen to make permanent.

Regular immersion in your surroundings helps the earth flourish, as well as yourself.


As you develop your understanding of nature and the earth, you also grow in your ability to speak knowledgeably and passionately for its preservation.

—Clare Walker Leslie in *Keeping a Nature Journal*

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