

Northern Neck Master Naturalists

Spring 2019



Pam Narney's indoor cat "Ki-Ki" participating in the Back Yard Bird Count

As has been done in the past, we are dusting off the NNMN Newsletter as a vehicle to introduce the latest Basic Training Class to the chapter. The newsletter also includes items of interest to the chapter that have been submitted by the membership. The newsletter depends on this input from you all. As the editor, a job that is available for anyone who wants to take it on, I solicit your items for future issues. Please let me hear from you at nmnemail@gmail.com, subject line newsletter.

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MEET THE CLASS OF 2019

The 2019 Northern Neck Master Naturalist Basic Training Class is underway. Classes started on February 28 and will continue through the final wrap up on May 23. In an attempt to make the program available to a wider group of students, classes are being held in the evening with field work done on Saturdays. Class coordinators, Pat McMurray and Liz Worsham, have laid out a challenging schedule for the students. Class and field trip venues are spread throughout the Northern Neck. Following up on the success of the 2016 class project at Bush Mill Stream Natural Area Preserve, the 2019 class will be doing a project at Chilton Woods State Forest. This class's final exam will be a hands-on, in the field Bio-Blitz at an undisclosed location. Although chapter members may attend classes either as a refresher or just to meet the new students, space is severely restricted in the classroom venues so members wanting to attend should contact Pat McMurray, patunia46@aol.com, to determine if space is available. Members are welcome to assist on field trips. Class schedule is attached.

The nineteen members of the class are:



Dana Smook - I relocated to this area from West Virginia in 2017 to become Director at Essex Public Library. Since moving here, I've been amazed by the many bird

species that live or visit our area, and I've become more serious about birding. The birds in my backyard and beyond have inspired me to learn more about local ecology and help with conservation efforts. Some of my other hobbies include gardening, photography, yoga, and hunting for antiques. My husband and I are also renovating an old farmhouse, which keeps us

busy. I'm excited to learn from other naturalists, and I am especially eager to improve my field journaling techniques.



Art Gilbert - I grew up in Northern Virginia and spent my career in corporate finance, working mainly in Baltimore. We built a weekend house in the Northern Neck in 1988 and moved here full time

in 2014.

Many of my interests take me outdoors. I enjoy biking, sailing, kayaking (two friends and I decided to kayak to all of the Virginia barrier islands, which we did over a 10-year period), and am an amateur astronomer. But even as these activities let me see plenty of nature in all its splendor, I have long suspected that I was missing out on so much of the experience. The Master Naturalist program seems like exactly what I have been looking for to broaden my knowledge and then let me give something back.

Eric Hentges – I was born and raised in Gainesville, Florida. I am married to Susan Borra and together we have three grown children. I attended college at Oklahoma State (BS), Auburn (MS), and Iowa State University (PhD). My professional career has been in research and education within the food and agriculture arena. This has included employment in academia, government and non-profit institutions.



My wife and I have owned homes on the Northern Neck for 15 years, with current homes in Kinsale and Lottsburg. We are still spending time between residences in Northern Virginia and the NNK until we are both retired. One of

our NNK hobbies has been “oyster gardening” for the past ten years. I have been involved in outdoors activities all my life and I am enthusiastic about combining this passion with a life-long learning opportunity within the Virginia Master Naturalist Program.

Alice Stieve - I was born and raised in Rochester NY. After college I moved to the deep south living, working, and studying in Georgia and South Carolina. After many years my husband and I became “half-backs” to Maryland living and working in the DC area. My husband and I are now retired to the Northern Neck for about two years.



My undergraduate degree was obtained in biology, but while in graduate school I “converted” eventually getting my PhD in geology. Early in my career I investigated fault capability questions and groundwater modeling in the Coastal Plain of South Carolina at Savannah River Site. Later I evaluated natural hazard phenomena (young faulting, earthquakes and limestone dissolution) for the Nuclear Regulatory Commission in Rockville MD. I have been a nature lover since my childhood and everywhere I have lived or traveled I have made it a point to learn about the local natural environment. I retired to the NN of VA primarily because of my desire to live in a more naturalistic environment.

I am excited about the prospects that the Master Naturalist training program provides to continue my lifelong education now with a focus on Tidewater Virginia. I look forward to the unique opportunity to form friendships with folks who are similarly focused.

Debby Tupper - Born and raised in New England, I have lived in the Mid-Atlantic for most of my adult life; my husband and I are currently transitioning from Baltimore, MD to the Northern Neck. Whether a rainstorm,



puddle, pond, lake, stream, river, bay or ocean, I have always loved the water and all that surrounds it or is in it. I had ongoing experiences in nature with my parents, hiking and learning to

identify birds and wildflowers especially. I am excited to have this opportunity to further my knowledge in order to be a good steward of our amazing and critically important natural world. Although retired from teaching early childhood special education, my passion for working with young children remains strong. I hope to combine this and my interest in nature to provide educational opportunities for young children and those who may not have easy access to all the natural world provides.

Susan Bossie - Hello! My name is Susan Bossie. When our last child left the nest last, year my husband, Glenn, and I moved from the Fredericksburg/Stafford area to Westmoreland County. I am thrilled to now have the time to participate in the Northern Neck chapter of the Virginia Master Naturalist Program. The education offered ticks that box of being a life long learner and the opportunity to contribute to the preservation of the natural landscape and Chesapeake Bay Watershed is a joy.



Lee Anne Arslan – I am a proud New England native, yet became a Northern Virginia transplant in my late 20's. After successfully raising my son, I happened to visit the Northern Neck in 2006 and fell in love with the area. I purchased land here in 2006, built a home in 2007 (long story due to Ernesto) and was a weekender until 2016 when I retired from Federal government. I now call the Northern Neck my home. It's now my time to be a grandmother of 2 fabulous young boys and pursue my personal interests.

I am a life-long lover of all animals and nature. This is what brought me to the Master Naturalist program. Specifically, I am most interested in gaining experience and detailed knowledge about aquatic life and its related 'ologies'.

A new chapter of my life is just beginning! I look forward with anticipation to see what exciting experiences my Master Naturalist future holds.



Anne Atkins - When I was 10 years old, my parents moved to the suburbs. Suburbs back then were still surrounded by large tracts of woods. No one had to tell me that the woods were a marvelous playground. I spent hours exploring, climbing trees, and swinging on vines. I had a small book on wildflowers which I used to identify the plants I came across. I still remember a large patch of May apples which I thought were absolutely magical. As I grew older, I intended to major in biology or botany. But back in the day, decent grades in a foreign language were required to get into a science major. My performance in Latin and French was abysmal. So, I took business courses. I was little better at business than I was in foreign languages and salvaged my college education by changing my major to English. My career, thanks to my English major and later a master's in public administration, led me to a career in public relations in state government. But, the woods, rivers, swamps remain magical for me. Now that I have retired, I have come full circle. This time my exploration will be guided by the Master Naturalist program and, hopefully, I can eventually share the magic of nature with others.



Camile Grabb - This is my first year of retirement following a 37-year teaching career. I've taught pre-school through 8th grade, and ended my career with 18 years as a Reading Specialist at a Grade 2-8 gifted public school in Virginia Beach.



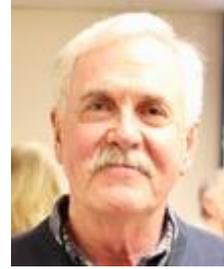
We have 3 grown and married children and 9 grandchildren!

I've been a "come-here" to the Northern Neck for 60 years. My aunt (by marriage) grew up at East Gascony at the mouth of Mill Creek. As a child, my family came often to her family home, and I can recall falling in love with the Bay, vast expanses of planted fields, the abundance of wildlife, and the quiet the very first time we visited. My family was able to rent a small house here through my teen years, so we could spend every summer week-end and several additional weeks on Mill Creek; skiing, fishing, crabbing, sailing, exploring, etc. When one of my cousins decided to sell several acres, my husband and I jumped at the chance. We built our detached garage apartment when he retired 8 years ago, and now we're in the process of building our home! I still enjoy water-skiing (and all of the grandkids except the 2-year-old ski!) and also like to oyster garden, kayak, fish, walk daily, read, and photograph nature and sunrises and sunsets. Looking forward to continuing my learning through the Master Naturalist program!

Buz (Robert) Cox - Since childhood I've been fascinated with the outdoors, wildlife, and all aspects of the natural world. Growing up, I loved exploring the fields, woods and creeks of the outer Richmond suburbs of the 1950's and 60's, the rural Dinwiddie County farmland of my maternal grandparents, and the James River near Smithfield where my father was raised. Since the 1970's my parents have had a weekend home in Middlesex County on the Piankitank River, and it was there over several

decades that I came to love and appreciate the natural beauty and resources of this area.

After professional careers in City government in Charlottesville, my wife and I realized a long-standing dream when we retired in 2010 to live full-time on the waterfront in the Northern Neck. When I learned of the Master Naturalists, it seemed a perfect opportunity for deeper knowledge in areas of lifelong interest, and to put some of my substantial available time to productive use in helping to conserve, develop, and manage the natural resources of the Northern Neck.



Leslie Newman - I grew up on the Northern



Neck and had the opportunity in childhood to explore the creeks, rivers, beaches, marshes, and forests. Since, my teaching career and experience as a Peace Corps Volunteer have

taken me abroad and out to Tucson, Arizona. There, I took the Arizona Master Naturalist course and was so impressed with the professionalism and the intentional effort to build a cadre of grassroots naturalists. Shortly after completing the course, I returned to live on the Northern Neck. I have always been a writer and started keeping nature journals about four years ago. Currently, I am the International Program Director at St. Margaret's in Tappahannock, and I live in Heathsville with my husband, Casey.

Karen Williams - I'm a

retired cartographer who has always cherished being outdoors, whether gardening, hiking or simply observing. Post retirement I enjoyed fostering puppies and volunteering at a therapeutic horseback riding program but a favorite activity was exploring woods and capturing the beauty of what I saw in photography. My husband and I relocated to 4 acres on Mill Creek last summer and this program is the perfect opportunity to learn and explore ways I can share my passion with like minded people and promote engagement and stewardship of the natural world to a wider audience. Nature has given me so much and I look forward to giving back by learning how to protect and possibly enrich the Northern Neck environment.



Roger Gruben - I grew up in north Texas on the

edge of an expanding suburb. We rode our bikes to the literal end of the road and walked along wooded creeks through farms and ranches before the pavement caught up with us. In the summers, we visited our father's parents in west Texas and roamed their farm. I was stung by fire ants, punctured by mesquite and prickly pear, mystified by armadillos and horny toads, and hypnotized by the enormous sky. And now I live in the Northern Neck. Late one night while motoring past the mouth of Indian Creek we saw spiders ballooning over the water. Later, I read that they are propelled by the electrostatic charge of their gossamers. I am happy to live in another place that can mystify.



Ellen Crist - I came from a military family at a time when it was customary to transfer families every two to three years. My parents prudently purchased a VW camper. We crossed from coast to coast three times, camping in just about every state we drove through. My love of nature and being outdoors was born. I settled in Virginia permanently after my tour in the Air Force. Kayaking with friends in Matthews connected me to the Northern Neck. I live in Lively now and I am very happy to become a part of the Virginia Master Naturalists.



Jerry Fairman - I grew up in central



Pennsylvania along the Susquehanna River near Williamsport, Pa. I spent a lot of my youth in the woods and exploring the streams and river. After high school I was studying biology at Penn State University until I got a

draft notice in 1967. I ran off and joined the Navy and was trained as an electronic technician. During my tour in the Navy I worked on a satellite system that was built by the Naval Center of Space Technology at the Naval Research Laboratory. Because I worked on that system, I got hired by NRL as a government employee to continue that work. I spent the 37 years building, designing, and installing the ground stations around the world to operate the satellite systems they continued to build. I became a Computer Specialist and became the manager of two of the NRL remote sites and Director of the Constellation Calibration Services. I retired from the Lab in 2010. My wife and I bought our house in Stratford Harbor in 1995, and weekendend until 2012. My desire with the Naturalist Program is to get out of space and back to earth enjoying the things I did in my youth.



Jeanette Holman - As a child growing up in 1960s Arlington, Virginia, I spent hours enjoying the parks and trails, especially Four Mile Run. This is a very long waterway through the County, emptying into the Potomac River. Now, as a

fortunate retiree, I live on one of the many creeks off that same river!

The spark that lit my energy to work towards a sustainable environment began when living in Greenbelt, Maryland. Programs through the University of Maryland and City of Greenbelt helped me understand how very delicate our natural environment truly is in the 21st century.

Being an avid native plant gardener, I look forward to learning more and contributing to a healthier environment in the Northern Neck and beyond.

Anne Clewell - Originally from Florida, I settled in Baltimore after graduate school. Our young family began coming to the Northern Neck more than 30 years ago when we acquired and built a log home on 2 ½ acres on Yankee Point, along Myer Creek.



I am a life-long wonderer who loves to wander (walk), listen and be surprised by the beauty of what is around me.

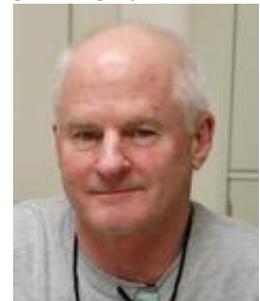
A few years ago a friend gave me a most wonderful book: *From Laurel Hill to Siler's Bog* by John Terres. Terres introduced me to the ecosystem at Mason Farm and the joys and practices of observation, field notes and journaling. He inspired me to think about and begin to map the ecosystem and lifecycle around the cabin. My own attempts at this have been intermittent but quite informative.

After years of weekends and holiday visiting we are now living here on Myer Creek about 90% of the time. Bill is fully retired from 2 careers and I design publications for clients in education and nonprofits. Last year I walked

480 miles of the Camino Frances across Northern Spain. By myself. My goal was to walk in a relaxed manner, to observe, to listen. To breathe. Belle Isle was my main training ground. Searching for additional nearby trails revealed so much more of the NN landscape to me and the work of others who came before me. I am grateful.

I look forward to sharing what I learn and experience through the MN program and to helping encourage others to walk and wonder and find what captures their attention. Beginning, perhaps, in their own backyard.

Mason Washington - I've always loved spending time outdoors. When I was growing up, I enjoyed boating on the Rappahannock with my family, exploring the family farm on the Dragon, hiking and camping the Appalachian Trail with the Boy Scouts. I have always loved spending time on the Bay and the surrounding areas. My wife and I moved to the Northern Neck full time several years ago and love the nature and pace of life here. With retirement I find myself having more time to devote to my passions and want to get more involved in protecting and promoting this natural environment that has been such a large part of my life. I enjoy learning and expect that the education I will receive from the Master Naturalist program will help me to be more effective in achieving my goals.



Eliot Levinson - After a long career in the education industry, both public, university, and corporate, I retired in 2018. We have lived in the Northern Neck full time since 2012. We began as weekenders in 2000.



I have always had an interest in the ecology and cultures of the environments where I have lived as an adult: the hills of Vermont, the sierras and coast of California, the altiplano of Peru, and now the Northern Neck. I am particularly interested in geology and land forms

We raise service dogs for Canine Companions for Independence and I am active in the YMCA, NAPS, and friends of the library..

I am joining the Virginia Master Naturalists to gain a better understanding of the Northern Neck ecology and an opportunity to do citizen science.

My wife is a Virginia Master Naturalist and is highly stimulated by the organization.

2019 Class Course Material. The Basic Training Manual that was provided to the 2019 students on flash drives is available for download from DropBox. Here is the link to get to it:

<https://www.dropbox.com/sh/s8d9seih484m7g/AACHsrn9oJ3hb7xO0JTtohLFa?dl=0>

BELLE ISLE STATE PARK

Happy Spring fellow Northern Neck Master Naturalists! The frogs are singing, the grass is growing and Belle Isle State Park is gearing up for another busy year as we keep our fingers crossed for nice weather. We have all kinds of fun and educational activities planned for this year. If you would like to keep track of what we have going on, please check out our events calendar here:

www.virginiastatepark.gov/events. You'll find programs for all ages as well as some volunteer opportunities. If those opportunities don't work within your schedule, I encourage you to reach out to discuss a self-scheduling volunteer activity. We are looking for folks to help with light trail maintenance, invasive plant removal, native plant garden up-keep and light yard-work around the historic Belle Isle house. If you enjoy sharing your knowledge of the flora and fauna of the Northern Neck, we are also looking for program assistants and volunteers to work in our newly opened visitor center.

The park is also pleased to be working with the NNMN chapter to plan a day of activities led by Master Naturalists to help educate our guests and promote the work of the chapter. Look for



NNMN Volunteers at Belle Isle State Park

an email with more information on this soon.

Most of these activities will help you earn volunteer hours toward your yearly Master Naturalist certification; however, there are a few requirements that must be met prior to volunteering. For any opportunities in which you will be interacting with children, you are required to complete a background check through the Virginia Master Naturalist program. If you would like to volunteer regularly at the park, you will also need to register as a volunteer through Virginia State Parks. Once registered, you will begin earning hours toward volunteer benefits including camping and cabin stays at a state park of your choice.

If you are interested in volunteering or have any questions about the requirements, please feel free to email me at

Katherine.shepard@dcr.virginia.gov. I hope to see you all at the park soon!

VOLUNTEER OPPORTUNITIES

Bluebird Monitoring at Belle Isle State Park

Paula Boundy is looking for bluebird monitors for the bluebird trail at Belle Isle. Bluebird monitoring is a very rewarding project. If you

are interested contact Paula, paula.boundy@va.metrocast.net for details.



Baby Bluebirds at Stratford Hall Plantation

Bluebird Monitoring at Stratford Hall

John Narney is looking for four or five volunteers to monitor bluebird nesting boxes for Trail 1 at Stratford Hall Plantation. If you are interested contact John at jnarney@verizon.net for details.

2019 Basic Training Class Project at Chilton Woods

Three new projects have been created to support the 2019 BTC Class Project. These cover stewardship (S4r), citizen science (C9e) and educational activities (E5q) at Chilton Woods. Although created for the class project, these can be used by any member doing work at Chilton Woods. Contact Marty Hill mhill2510@gmail.com for details on how you can assist with the class project.

Virginia Birding and Wildlife Trail Monitoring

The VBWT became a class project in June, 2016. The NN chapter was the first to sign up at that time and won a VMN state award in 2017. I am the coordinator and I collect quarterly reports, due in March, June, September and December, from members who monitor the Northern Neck area in the Coastal Region. As you know, the NN chapter covers a very large area. My compiled reports are sent to the coordinator at the Virginia Department of Game and Inland Fisheries for review.



Virginia Birding and wildlife Trail Sign

You may have noticed brown and white Virginia Department of Highways signs along highways in this state. These are the VBWT signs. The VBWT began in 2004 and the Coastal Region was the first one developed. A book was published as a driving guide from site to site. Since that time and with the advent of cell phones and Internet use, the book was quickly out of date, so part of what we do is provide updated information that would be obsolete in book form in today's world. Although each area has a webpage, there is also a separate VBWT information page that is separated into each loop; that is what we update. Also we are responsible for reporting conditions such as flooding, downed trees, dangerous conditions on trails, overgrowth of poison ivy or invasive plants like phragmites. Three page checklists are used as a guide as to what information to collect and act on; the checklist is found on the VMN homepage under Volunteer Opportunities, under the VBWT.

A webinar was broadcast in 2016, and the Power Point is a good way to familiarize anyone who is interested in volunteering. The VBWT webpage is <https://www.deif.virginia.gov/vbwt>. It has a breakdown of all the areas. On the VMN webpage, click on Documents and Resources, then click on Volunteer Opportunities. You will see the VBWT project. "How to Get Involved" shows the Check List Phase I Updated 9/25/17. There are instructions for iNaturalist, and the training slides. Bird sightings are reported on eBird.

If you are interested, please contact me at alison.sowar@gmail.com . Thank you!

Wetlands 101 Project ESI Deactivated

The Wetlands 101 Program has been terminated and NNMN project ESI which supported it has been removed from the VMS active project list.

INSECTS AREN'T EXPENDABLE

Two articles on the plight of insects

Where Have All the Insects Gone? From

Jane Henley

Diminishing numbers of Monarch Butterflies have gotten the public's attention in recent years, as have bees and birds, with counts going



Monarch Drying Its Wings After Leaving Chrysalis

on all over the country. However, it's the huge loss of all insects which is currently alarming the scientific world, calling the decline in recent years of 30 to 40 percent of many insects an *insect apocalypse*. Michael S. Engel wrote an article on the opinion page of THE WASHINGTON POST, March 6, 2019, that the Trump administration's plan to build a border wall would effectively destroy the National Butterfly Center in Mission, Texas, taking away not only the butterflies, but also thousands of other species, and countless insects.

"Ecosystems are much like the game of Jenga: You pull too many blocks from the tower and it collapses."

The December 2 New York Times Magazine's cover story was entitled "The Insect Apocalypse Is Here" by Brooke Jarvis. She notes how little data we have on our bugs and beetles, ants, and other species of the myriad of insects that keep us alive by pollinating our plants, feeding our birds, and fish and mammals, and humanity at large. When was the the last time we cleaned our car's windshield when driving in the summer months? Volunteer entomologists in Krefield, Germany have been watching, collecting, and supplying insect data for the world through the Krefied Society since 1905. They moved their precious records and collections to an underground bunker to save them from bombs during WWII. These citizen scientists found through various collection devices in 2013 that the insect count was down 80% from the same site in 1989. They collaborate with Radbound University in the Netherlands. The final study looked at 63 nature preserves representing 17,000 sampling days and found consistent declines in each habitat.

Paul R. Ehrlich, May 23, 2017 contributed results of a study he and other scientist in Mexico and at Stanford University conducted for The National Academy of Scientists, documenting population extinctions between 1900 and 2015 of 177 mammal species, finding that loss of terrestrial vertebrate is extremely high and described the situation as "biological annihilation." They concluded that the Earth is experiencing an ongoing sixth major extinction event.

An article in BIOLOGICAL CONSERVATION, April, 2019 by scientists from Australia, Vietnam, and China gives four reasons for the decline, in order of importance: 1. habitat loss and conversion to intensive agriculture and urbanization; 2. pollution, mainly by synthetic pesticides and fertilizers; 3. biological factors, including pathogens and introduced species; 4. climate change.

What can we do to turn this situation around? Support efforts by government and private organizations to rethink our current agricultural practices, in particular a need for reduction in pesticide usage substituting sustainable, ecologically-based practices.

Monarchs: Are We at a Tipping Point for Their Survival from Jeff Wright



Gazing at the Northern Neck Master Naturalist baseball cap logo of the Eastern Tiger Swallowtail, I am saddened and scared for the plight of butterflies and other insects. They

are in decline. Particularly troubling is the status of the nation's most prominent butterfly - the Monarch - *Danaus plexippus*. It is a "star" species that is in trouble. But equally important is the supporting cast of our less well-known insects, plants, birds, and mammals that are likewise in precipitous decline. The Monarch's numbers have tumbled and 2019 is clearly the year where actions must be taken to save the species as well as the less well-known members of the supporting cast from the natural world.

By June 2019 the U.S. Fish and Wildlife Service (USFWS) must decide on the protection status of the species. This deadline is a result of a legal settlement in 2018 requiring USFWS to finally reply to a petition filed in 2014 by a coalition of conservation organizations to protect the Monarchs as "threatened" under the Endangered Species Act. At the end of 2018, USFWS determined - and it was announced - that protection may be warranted. It will be a significant challenge to apply, manage, and enforce the Endangered Species Act for a species so geographically dispersed. But any application of the Endangered Species

Act must not be just symbolic it needs to have measurable actions and outcomes.

Short of gaining Federal protection, the best hope for saving the species is the conservation plan for the



Monarch coordinated among numerous organizations. To learn more about both Monarchs and species specific conservation plans I recommend the Monarch Joint Venture <https://monarchjointventure.org>

and the link to the conservation plan <https://monarchjointventure.org/our-work/2017-monarch-conservation-implementation-plan>.

The nation is about four months away from the decision that is arguably the tipping point for the survival or the eventual extinction of this species that once numbered in the billions in North America. The death of the last Passenger Pigeon about 105 years ago serves as a stark reminder that extinction is not out of the realm of possibilities for the Monarchs. This remarkable bird species became extinct in 1914 with the death of Martha (named after the first First Lady, Martha Washington) at the Cincinnati Zoo. According to Smithsonian studies "It is believed that this species once constituted 25 to 40 per cent of the total bird population of the United States. It is estimated that there were **3 billion to 5 billion passenger pigeons** at the time Europeans discovered America."

Since approximately the start of this century the population of Monarch Butterflies has fallen from estimates of over a billion to about 50 million now. Clearly actions are needed to reverse this startling decline. The Monarch is in

a sense a “Canary in a Coal Mine” – providing us warning of danger ahead. The monarch is on the same steep path to demise as what caused extinction for the passenger pigeon. You can argue the causes but probably not the results. In the case of the monarch we will have societal and environmental decisions ahead that will determine not only the fate of this butterfly but of other species as well, possibly our own.

2018 was a mixed bag for Monarch populations. The numbers wintering in Mexico increased by an estimated 144% - the highest in a decade. But the numbers of Western Monarchs overwintering in California were down 86%. The upward blip in an overall downward trend is fueling arguments that the Monarch should not be listed as endangered. Such arguments are focused on a year not on the plummeting numbers over nearly two decades. One explanation for the 2018 uptick was that it was a perfect year and even a Goldilocks year – neither too hot nor too cold for the butterflies.

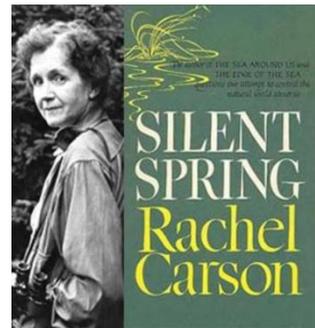
The NNMN has long championed the plight of pollinators including bees and butterflies. The 2019 NNMN Basic Training Course (BTC) has readings on the status of insects, and in particular what is referred to as the Insect Apocalypse. I urge all of us in the NNMN Chapter to be familiar with the arguments, findings, and recommendations of the readings that discuss food webs and insects in particular. Here is a link to one of the readings: ***The Insect Apocalypse is Here*** by Brooke Jarvis, New York Times Magazine, 27 Nov 2018:



<https://www.nytimes.com/2018/11/27/magazine/insect-apocalypse.html>

Entomology, unfortunately, has become the study of the disappearing. Insect numbers have dropped precipitously and over 40% are threatened with extinction. Researchers estimate numbers are falling by 2.5% each year. As a recent *sky news* article by Emily Mess summarizing recent scientific findings “*scientists have warned of a catastrophic collapse of nature’s ecosystems if numbers continue to decline, as insects are key to many of the world’s natural systems and wildlife chains.*” Different estimates project a third of all insect species are endangered, and many of them face extinction in this century.

As we enter the new spring I harken back to a seminal book on science published in 1962. In ***Silent Spring*** Rachel Carson’s arguments and findings galvanized actions in many areas. She is credited with saving raptors and in particular the Bald Eagle and Osprey. Rachel Carson is also credited with sparking the environmental movement. If you have never read the book, it is a must. If you read the book 50 years ago, re-read it - ***Silent Spring*** by Rachel Carson, Houghton Mifflin, 50th anniversary edition published in 2002. Also available as an audio book or via other media forms.



In addition to reading (or re-reading) her book, I also recommend these two overviews of her life and her work. They shed light on how arguments on both sides of the issues she raised became prominent in a national dialogue to avoid a silent spring.

<https://www.youtube.com/watch?v=ekDeG-BJYnE> 3 minutes and

<https://www.youtube.com/watch?v=lpbc-6lvMQI> 11 minutes

With the U.S. Fish and Wildlife Service (USFWS) having to make a determination on the protection of the Monarch Butterfly by June 2019, it is imperative that it should not be a Silent Spring, and that the “Noisy Summer” must be loud with actions to slow and reverse the insect apocalypse.

The poem “After Silence” written by Neil Gaiman for Rachel Carson is included as an attachment to this newsletter.

THIS AND THAT

Birds of Prey Teach at 2019 Basic Training Class
from Jeff Wright

Helping with the class room portion of the ornithology class for the 2019 BTC were five eminently qualified instructors – a Red-tailed Hawk, a Kestrel, a Great Horned Owl, a Barred Owl, and an Eastern Screech-Owl.

The birds - through their handler and interpreter Tommy White from the Altons Keep Wildbird Rescue & Rehabilitation Center in Sussex – provided valuable insights about their



Tommy White of Altons Keep Wildbird Rescue & Rehabilitation Center

habitats and threats to their species. Tommy is a Certified Wildlife Rehabilitator certified by the US Fish and Wildlife Service and Virginia Department of Game and Inland Fisheries. Of note, he is federally certified to rehabilitate

eagles. He also has as part of his certifications authority to use birds that are unable to be re-released into the wild for educational classes.

The class learned about, discussed and had a Q&A on the processes of wildlife rehabilitation, roles of hawks and owls in an ecosystem, threats to these birds from chemicals, poisons, collisions with vehicles, loss of habitat, and the compelling stories of each of the five birds. The birds clearly “owned” the audience and added to a good day of learning at Belle Isle State Park on March 22nd. The birds were riveting. The same goes for Tommy.

Supporting Tommy for the presentation was Diane O’Conner and members of the staff from the Wild Bunch Wildlife Rehabilitation Refuge in Warsaw. Following the class, we arranged through Ranger and NNMN Katie Shepard at BISP for Tommy to take a few of the birds into the BISP Visitors Center for some of the visitors to the state park to see.



Diane O’Connor of Wild Bunch Rehabilitation Refuge

Photos of the five Birds of Prey “Tsgili” – Great Horned Owl, “Little Star” – Kestrel, “Asquanigohisdi” – Red-Tailed Hawk, “Dixie” - Barred Owl, and “Rosie” Eastern Screech-Owl are included in attachment “Birds of Prey”. Photos are by Kyle Langford and Jeff Wright.

Eastern Hercules Beetle from Ted Munns

This picture is of 'Dinastes tityus' or Eastern Hercules Beetle that Ted Munns found on the sidewalk at the Lancaster Courthouse, Lancaster County Virginia. These huge insects live only about 1/2 year or so and are quite intimidating looking. It is rather docile, however, but its size makes it one of largest beetles found on the East Coast. I thought you Master Naturalists would like to see a specimen of a giant invertebrate with a tough exoskeleton.



Eastern Hercules Beetle

Photo by Denise Munns. The insect is about 2 1/2 inches long and is resting on Ted's hand.

The American Beaver from Katharina Bergdoll

Until moving to the Northern Neck, I had had no experience of seeing beavers and knew little about them. In the ten years since I had have land on Newton's Pond in Westmoreland, I have had the happy opportunity of studying these wonderful creatures.

Beavers are equipped with several unique features that allow for easy navigation in water. Webbed hind feet assist in swimming; dense fur acts as insulation in cold water; ear and nose openings are designed to close when

submerged; and a broad, flat tail functions in swimming, dam building, and communication. Beavers are nocturnal social animals that live in family groups and mate for life. Females give birth in the spring, usually to one to four kits, depending on whether there is abundant food supply--they self-limit population. Both parents, as well as year-old siblings, care for the newborns. At the age of two, offspring leave the family unit in search of their own breeding territory. The lifespan of a wild beaver is approximately 10 years.



American Beaver, photo by K/ Bergdoll

They are what is called a "Keystone Species". This, because their activities in taking up residence in a given area provides habitat for a great many other species, from Flora to Insects, fish, ducks and other birds, as well as crustaceans like the crayfish. River otters often use abandoned dens for their own. There are many other pluses to having beavers on the land: beavers build dams and create wetlands upon which many species depend. *In fact, almost half of all endangered and threatened species in North America rely on wetlands to survive, and eighty- five percent of all North American wild animal species depend on wetlands.* Too, they help control invasive species: I have seen many large Privet and Autumn Olive bushes almost leveled! The beavers seem to love their tender bark.

Beavers help purify and control water by filtering silt from the water bodies in which they live. This increases water purity and decreases

the need for filtration systems. Beaver dams can also slow flood waters. Higher water tables, less erosion, and cleaner water result from beaver dams.

Beavers can serve as “ecological indicators.” Their presence in an area lets us know the ecosystem is healthy.

They are Herbivores, eating the leaves, roots, cambium, and bark of trees such as aspen, willow, and cottonwood. They also eat clover, apples, corn, grasses, water lilies, and other aquatic vegetation. A beaver’s teeth will grow throughout its lifetime; gnawing on trees keeps them from overgrowing.

Beavers have many natural predators, including: wolves, coyotes, bears, mink, lynx, bobcats, cougars, raptors (which kill juveniles), and humans. Humans are, in fact, one of the biggest threats to beavers. Trapping, water pollution, and habitat loss through drainage of wetlands, are common occurrences that negatively affect beaver populations.

In North America, beavers once numbered greater than 60 million, but now number 10 million. After trapping for fur, and killing for other reasons, they were driven to extinction in many parts of the country. They have made a comeback, but still number far fewer than historically. One additional reason why beavers are killed is to prevent their alteration of the landscape that people think interferes with other land uses. They have been in North America for a long time, and there historically



was even a giant beaver, now extinct, that weighed as much as 300 pounds and was larger than 7 feet in size. Imagine the impacts that creature could have on a landscape.

NNMN Helping Check on the Salamanders and Wood Frogs from Bryna Brennan

Warsaw, VA—Several Northern Neck Master Naturalists are participating in a study to monitor the status of wood frog and spotted salamander populations in the Northern Neck.

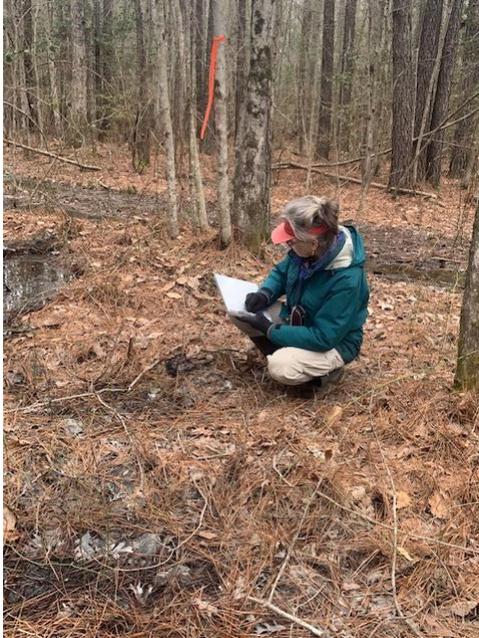
Working alongside our partner, Lauren Cruz, Wildlife Biologist at the Eastern Virginia Rivers National Wildlife Refuge Complex, NNMN are dipping, counting egg masses, checking temps and seeking information about the wood frog and salamander egg masses.

“So far we have seen some salamander egg masses in the Wilna refuge area,” said Master Naturalist Bryna Brennan. “No wood frogs yet.” Salamanders and wood frogs breed in vernal pools, seasonal pools that are critical to amphibians that mate in the water, breed and return to land.



Spotted Salamander Egg Sack photo by B. Brennan

Katharina Bergdoll and Brennan are among the volunteers who are traipsing through the pools, seeking the data and noting the results as part of a regional study.



Katharina Bergdoll Recording Amphibian Monitoring Data

Salamanders control pests by eating insects such as mosquitos and by becoming food for larger animals. Their moist, permeable skin makes salamanders **vulnerable** to drought and toxic substances, so they are exceptional indicators of ecosystem health. The health of important ecosystems, including forests and **wetlands**, contributes billions of dollars to the economy by supporting the fishing and timber industries and recreation.

“If we lose salamanders, we lose an important part of what keeps many of our forests and aquatic ecosystems vital, along with the benefits those ecosystems provide for the American people,” said Jason Goldberg, a U.S. Fish and Wildlife Service (USFWS) biologist.

Friend and Colleague Donates Books:

Stay Tuned from Bryna Brennan
Ellis Squires, a noted botanist, photographer and long-time Master Naturalist, is leaving his hand-built home on the Northern Neck and moving south to Florida. He has graciously donated his stash of naturalist and gardening books to Ye Olde Book Store in Heathsville, an arm of the Northumberland Public Library. You won't want to miss this.



Ellis Squires

Squires has led numerous field walks and identified rare orchids in our area. The books should be on sale for a mere pittance in early April. The NNMN will send an email to confirm the date.

For more information, contact: brynabrennan@yahoo.com

Notes from Central Massachusetts from Lise Maring

I thought I would adjust a little quicker to my new environment. After all, I grew up here. I should be imprinted on this land where the loblolly pines have given way to the white pines, where it looks like some giants dropped their rock collections everywhere and didn't bother to pick them up, and where farmers long ago valiantly tried to clear the land of the rocks and created low stone walls everywhere throughout the landscape. Probably it's because it's still winter here, although not by much. Every day the weather folks on TV do the countdown: so many days to spring on March 20, which also promises a full moon as a bonus.

Despite the fact that Massachusetts is densely populated, it also has a great number of parks and conservation areas. The Midstate Trail, for example, is within walking distance of my new home. Rarely do I pass a conservation area that there isn't at least one car there waiting for its owners to come back from a hike, or cross-country skiing, or snowshoeing.

I didn't think about putting up bird feeders on the deck right outside my kitchen until around the end of February. It was just as well. Trying to find bird feeders and shepherd's crooks at that time of the year was like trying to find lawn chairs in early fall. Forget about it! But, after going to several stores, I finally found some

basics--enough to get started. I set up two bird feeders and also scattered some seed on the deck itself. My bird feeding station, also known as kitty TV, was open for business.

It took a while for the locals to notice, about a week or so. My first customer (that I know of. I'm not known for being an early bird.) was a female cardinal. After that, others began to come: the male cardinal, white-breasted nuthatches, black-capped chickadees, tufted titmice, LBJs (Little Brown Jobbies, aka chipping sparrows and song sparrows), and either a pair of downy woodpeckers or hairy woodpeckers. The suet was a big hit.

As I looked out today, I realized I had some new customers at my feeding station: red-winged blackbirds from the pond below my new home. I looked out over the dried vegetation in the freshwater marsh and began to see black specks here and there, fairly evenly spaced. I have to think the males have begun to stake out their territories. I have not noticed any females yet but may have thought they were members of the LBJs noted above. Other birds I've noticed in the trees and brush along the banking: juncos and bluebirds. I guess I should start looking into bluebird houses.



Of course, there are other critters. When I first moved here, I had the great thrill of seeing a bald eagle flying over the pond. I knew I had found the right place. I don't know if it is a resident or not--time will tell. There are rafters of wild turkeys that seem to think this is their

neighborhood and wander into yards and across the road at will. Before the cold weather hit, there were plenty of chipmunks (they just love those rock walls), gray squirrels, and chickarees (aka the American red squirrel). I have seen hawks here as well, of course. I can't tell you what species yet. My identification skills need honing in that area.

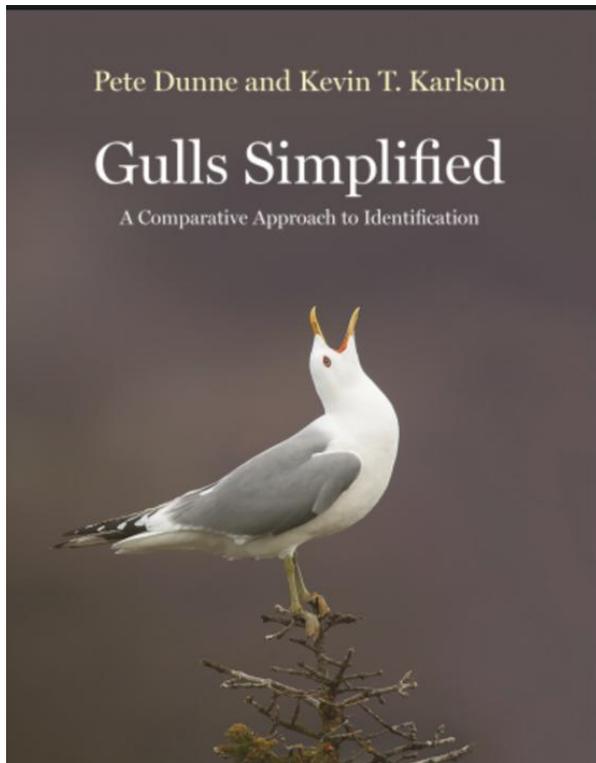
I certainly don't want to give the impression that I might have made a mistake in moving here. I am happy with my choice. But, you don't make a major move like this without some regrets. At this time of year, I'd be checking every day out the windows of my old home to see if the barn swallow scouts had arrived. Then I'd be waiting to see the rest of the flock. I hope the new owners will appreciate them as much as I have over the last few years.

I will also miss being a part of the Northern Neck Master Naturalists. Sadly, there is no such organization here in Massachusetts that I've been able to find so far. It looks like they tried to form a chapter several years ago (2012) but it doesn't appear to have been successful. There are certainly other organizations, of course. Massachusetts Audubon is most likely where I'll be spending a considerable amount of time. The ice is beginning to melt on the pond now. The dull white surface is giving way to a steely color that is reflecting the cloudy sky and shoreline features. Hopefully, the snow will be gone soon and I, too, will be out there on those hiking trails! Yeah--no. Not ready to go out and buy a pair of snowshoes--yet! Maybe next winter!

Lise Maring

BOOK REVIEW

Gulls Simplified – A Comparative Approach to Identification by Pete Dunne and Kevin T Karlson (Princeton University Press, 2018) review by Jeff Wright



There is a new book in 2019 aimed at banishing from the vocabulary of birders and naturalists the term Sea Gull. The term Sea Gull does not exist in the scientific world! So now that we can finally name a few sparrows and warblers it is time for us to be able to name at least five but hopefully more than 10 gulls. Without question gull identification is probably the hardest grouping of birds to identify. Many systems have been devised over the years to try to get us through the tricky identification process where the gulls are all basically similar and have different looks, plumages and molts linked to age and seasons.

This year at one of the Christmas Bird Counts I led the sector that had the King George Landfill where there are more gulls numerically at the dump than there are citizens in the county. But how can you figure out the males, females, immatures, and pizza crust and french fry eating varieties of gulls? Peter Dunne and Kevin Karlson may have found the answer to help us identify these exceptional birds that are found around the globe and often in every zip code of the Northern Neck. And they have great names that go before the word gull such as Laughing,

Herring, Bonaparte, Great Black Backed, Ivory, Glaucous, and my favorite the Slatty-backed.

I recommend the book as it is a great collection of over 300 high quality photos, a basic approach and methodology to detect gulls, size and sex guidelines for gulls, detailed descriptions of birds especially those that ply the bay and coastal areas, range maps and distribution information, and 35 photo based quiz questions to help reinforce ones ID skills.

It is more of a reference guide than a field guide. It is useful in helping to identify a gull from a photo I took and to learn more about the breeding, feeding, and distribution. There are other approaches to gull identification but to date few birders get past the beginner's phase. But hopefully the accessibility of the text and photography in **Gulls Simplified** will help many of us learn to reliably ID gulls in all four of the seasons. I am determined to dog ear more than a few pages of the books 208 pages before I return to the King George Landfill in December in the pursuit of bird IDs for a Christmas Bird Count.

PRESIDENT'S COMMENTS

I am the incoming President of our Northern Neck Chapter of the Virginia Master Naturalists I know many of you but some I do not but hope all of you will join other members in the workshops, field studies and programs we are lining up this year. The year is well underway and our first general meeting on Vernal Pools was well attended and we had a wonderful field trip to a nearby private property where everyone got to see spotted salamander eggs among other things. I am very lucky to have great people serving on the Board with me and together we will make 2019 a great year of exploration and learning to include learning, citizen science and outreach.

One goal of mine is to try to be inclusive of all members and all interests so if any of you have

any suggestion or directions in which you would like to see the Chapter go, please let me know (phone and email below). While I am somewhat new to the Master Naturalist Program (class of 2017), I am not new to the discipline of natural history. Please contact me with any ideas – I have plenty but this is your Chapter – what would you like to see or do.

We will be keeping everyone informed of other environment and natural history events going on in the region. We hope to be combining activities with other similar groups as I believe the sum of working together is greater than the sum of us working separately. That includes learning.

The 2019 Basic Training Class is well underway with 19 wonderful and engaged students. The curriculum has been changed somewhat this year along with some new instructors. If anyone is interested in joining the class for a particular subject talk or field adventure, please let me know. Space is nearly always available, and I can send you a schedule if you are interested.

One major change in the Class is that we are now using different evaluation methods so that we do not have final take home exam as we have had in past years. Instead, we will be having a BioBlitz Learning Adventure. This has been used as an evaluation tool in another Chapter (where we got the idea) and the Curriculum Committee felt this was a better, more fun and realistic task than a take home test. It will be held on Saturday, May 18, 2019 at a location yet to be announced. But we need to have Certified Master Naturalists to join us to help *and* learn. A BioBlitz is a critical and necessary citizen science project but it is also a fantastic learning tool for all who participate. All of us can learn from each other so the Curriculum Committee wants to put this into action. Please let me know if you, as a Master Naturalist, would like to come along and learn and help. If you are a newbie or an expert, you are welcome. It will be in a level and easily accessible location and a location where a

BioBlitz will be put to good use. Please let me know if you are interested. We know the location but want to keep it a surprise for the trainees.

Lastly, the Program and Outreach Committee has lined up some wonderful events. Remember to reserve the afternoon of the second Tuesday of each month for Master Naturalist Programs, Workshops and Field Studies. Please see the TENTATIVE SCHEDULE in this newsletter.

Looking forward to a fun year.

Kevin Howe, President
juniper@erols.com
571-232-4592

COMING EVENTS

NNMN Programs and Outreach/Continuing Ed Tentative 2019 Schedule is included as Attachment 4.

See the below listed Master Naturalist web sites for more coming events calendars:

Our Northern Neck site:
northernneckmasternaturalists.squarespace.com/

State site:
<http://www.virginiamasternaturalist.org/>

Thanks to Paula Boundy, Katharina Bergdoll, Ted Munns, Jane Henley, Jeff Wright, Bryna Brennan, Lise Maring, Betsy Washington and Kevin Howe for their work on this issue. Special thanks to Pat McMurray and the Class of 2019.

Please send items of interest, continuing education opportunities, news and pictures about your projects, and other newsletter items to [nnmemail@gmail.com](mailto:nmnemail@gmail.com).

Attachment 1

Northern Neck 2019 Basic Training Class Schedule

Class # Date & Time	Classroom Location	Speaker	Class Topic	Fieldtrip Location, Leader	Fieldtrip Objective	Notes...
Class 1 Thurs 2/28 6:00-9:00 pm	NN District Planning Office 457 Main St. Warsaw 22572	Patricia McMurray Liz Worsham Stu Ashton, NNMN Jeff Wright	Meet & Greet Intro to MN Program Mentors How to Dress for the Field	N/A		
Class 2 Thurs 3/7 6:00-8:30 pm	NN Tech Center 13946 History Land Hwy Warsaw 22572	Michelle Prysby Program Director VA Master Naturalists Tara Brent Unit Coordinator, VA Cooperative Ext	Ecological Concepts Risk Management and Civil Rights	N/A		
Class 3 Sat 3/16 9:00am -3:00 pm	Belle Isle State Park (BISP) <i>Environmental Education Center</i> 1632 Belle Isle Rd, Lancaster, VA 22503	Jeff Wright, NNMN Kevin Howe Nancy Joel, NNMN Marty Hill, NNMN	Citizen Science and Research Tools Ornithology Taxonomy American Naturalists Intro to Class Project	Belle Isle State Park <i>Jeff Wright</i>	<i>Ornithology</i> <i>Practice using field guides and phone apps</i>	Assnmt #1 given for field journal
Class 4 Thurs 3/21 6:00-8:45 pm	NN District Planning Office 457 Main St. Warsaw 22572	Sarah Nuss, VIMS Liz Worsham/ Marty Hill	Climate and Weather Project Highlight	N/A		<i>Turn in Field Journal for Review of Assnmt #1</i>

Class # Date & Time	Classroom Location	Speaker	Class Topic	Fieldtrip Location, Leader	Fieldtrip Objective	Notes...
Class 5 <u>Sat 3/30</u> 9:00am-3:30pm	Belle Isle State Park (BISP) 1632 Belle Isle Rd, Lancaster 22503 Chilton Woods State Forest Lancaster 22503	Laura Maxey-Nay VA Cooperative Ext David Milby, VDOF	Entomology Forest Management	Belle Isle State Park Laura Maxey-Nay Chilton Woods David Milby <i>Marty Hill</i>	Entomology Forest Mgmt Class Project	Assnmt #2 for field journal
Class 6 Thurs 4/4 6:00-9:00 pm	NN District Planning Office 457 Main St. Warsaw 22572	Katie Shepard Chief Ranger, Belle Isle State Park Kevin Howe, NNMN Marty Hill	Interpretation and Speaking Skills Aquatic Ecology and Management Class Project	N/A		Field Journal Review - Assnmt #2
Class 7 <u>Sat 4/13</u> 9:00am-3:00pm	Lancaster "Old Courthouse" <i>Courtroom</i> 8311 Mary Ball Rd, Lancaster 22503 Hickory Hollow Regina Rd, Lancaster 22503	Kevin Howe/Betsy Washington, NNMN Betsy Washington, NNMN Joan Maloof, Old Growth Forest Ntwk	Taxonomy Botany Forest Ecology	Hickory Hollow Betsy Washington <i>Joan Maloof</i>	Botany Using Field Guides and Keying Forest Ecology	Assnmt #3 for field journal
Class 8 Thurs 4/18 6:00-9:00 pm	NN District Planning Office 457 Main St. Warsaw 22572	Temple Moore, NNMN Marty Hill	Herpetology Virginia Biogeography Student Presentations Class Project	N/A		Field Journal Review - Assnmt #3
Class 9 <u>Sat 4/27</u> 9:00am-3:00pm	Rhappahannock Westminster- Canterbury (RWC) 132 Lancaster Dr. Irvington 22480	Bill Portlock, Chesapeake Bay Foundation Kevin Howe	Wetlands Ecology and Management	Irvington – Boat ride Bill Portlock/ Harry Wells RWC Irvington Kevin Howe	Water quality testing Aquatic & Wetlands Ecology	Assnmt #4 for field journal

Class # Date & Time	Classroom Location	Speaker	Class Topic	Fieldtrip Location, Leader	Fieldtrip Objective	Notes...
Class 10 <u>Sat 5/4</u> 9:00am-3:00pm	Stratford Hall Council House 728 Great House Rd, Stratford VA 22558	Scott Bruce, VA DEQ Jon Bachman, Stratford Hall	Virginia Hydrogeology Local Paleontology	Stratford Mill / Potomac River <i>Jon Bachman</i>	<i>Geology/ Paleontology</i>	<i>Field Journal Review - Assnmt #4</i>
Class 11 <u>Sat 5/11</u> 9:00 am-3:30pm	VIMS Gloucester Point, VA 23062 <i>(see provided driving directions)</i>	Karen Duhring, VIMS Kevin Howe	Estuarine and Coastal Ecology and Mgmt Ichthyology	VIMS <i>Karen Duhring</i> <i>Kevin Howe</i>	<i>Estuarine and Coastal Ecology Sampling Technqs, Aquatic Life ID Ichthyology</i>	<i>Field Journal Assnmt #5</i>
Class 12 Thurs 5/16 6:00-9:00 pm	NN District Planning Office 457 Main St. Warsaw 22572	Kevin Howe Marty Hill Kevin Howe	Mammalogy, Urban and Developed Systems, Class Project Intro to Bioblitz	N/A		<i>Field Journal Review - Assnmt #5</i>
Class 13 <u>Sat 5/18</u> 9am-2pm	"A Surprise"	Kevin Howe	"Final Exam" - BioBlitz	<i>Kevin Howe</i>	<i>Bioblitz</i>	<i>Field Journal Assnmt #6</i>
Class 14 Thurs 5/23 6:00-8:30 pm	NN District Planning Office 457 Main St. Warsaw 22572	Students	Class Wrap-Up Review Journals Class Presentations	N/A		<i>Field Journal Review - Assnmt #6</i>
Graduation	TBD	NNMN Members & Students	Graduation	N/A		

Attachment 2

Birds of Prey



"Tsgili" – Great Horned Owl



"Little Star" – Kestrel



“Asquanigohisdi” – Red-Tailed Hawk



, “Dixie” - Barred Owl



“Rosie” Eastern Screech-Owl

Raptors from Alton’s Keep Wildbird Rescue & Rehabilitation Center in Sussex, Virginia
Photos are by Kyle Langford and Jeff Wright.

Attachment 3

AFTER SILENCE

for Rachel Carson

Poem by Neil Gaiman

Seasons on seasons. The spring is signaled by birdsong
coyotes screech and yammer in the moonlight
and the first flowers open. I saw two owls today
in the daylight, on silent wings.
They landed as one and watched me sleepily.
Oh who? they called. *Or how, or how who?*
Then they leaned into the trunk
into the sun that shone through the tight-curved buds,
and vanished into dappled shadows
never waiting for an answer.

Like the sapling that buckles the sidewalk
and grows until it has reached its height
all of us begin in darkness. Some of us reach maturity. A few
become old: we went over time's waterfall and lived,
Time barely cares. We are a pool of knowledge and advice
the wisdom of the tribe, but we have stumbled,
fallen face-first into our new uncomfortable roles.
Remembering, as if it happened to someone else,
the race to breed,
or to succeed, the aching need that drove our thoughts
and shaped each deed,
those days are through.
We do not need to grow, we're done,
we grew.

Who speaks? And why?

She was killed by her breasts, by tumours in them:
A clump of cells that would not listen to orders to disband
no chemical suggestions that they were big enough
that, sometimes, it's a fine thing just to die, were heeded.
And the trees are leafless and black against the sky
and the bats in fatal whiteface sleep and rot
and the jellyfish drift and pulse through the warming waters
and everything changes. And some things are truly lost.

Wild in the weeds, the breeze scatters the seeds,
and it lifts the wings of the pine processionary moth,

and bears the green glint of the emerald borer,
Now the elms go the way of the chestnut trees.
Becoming memories and dusty furniture.
The ash trees go the way of the elms.
And somebody has to say that we
never need to grow forever. That
we, like the trees, can reach our full growth,
and mature, in wisdom and in time,
that we can be enough of us. That there
can be room for other breeds and kinds and lives.
Who'll whisper it:
that tumours kill their hosts,
and then themselves?
We're done. We grew. Enough.

All the gods on the hilltops
and all the gods on the waves
the gods that became seals
the voices on the winds
the quiet places, where if we are silent
we can listen, we can learn.
Who speaks? And why?

Someone could ask the questions, too.
Like *who?*
Who knew? What's true?
And how? Or who?
How could it work?
What happens then?
Are consequences consequent?
The answers come from the world itself
The songs are silent,
and the spring is long in coming.

There's a voice that rumbles beneath us
and after the end the voice still reaches us
Like a bird that cries in hunger
or a song that pleads for a different future.
Because all of us dream of a different future.
And somebody needs to listen.
To pause. To hold.
To inhale, and find the moment
before the exhale, when everything is in balance
and nothing moves. In balance: here's life, here's death,
and this is eternity holding its breath.

After the world has ended
After the silent spring
Into the waiting silence
another song begins.

Nothing is ever over
life breathes life in its turn
Sometimes the people listen
Sometimes the people learn

Who speaks? And why?

Attachment 4

NNMN Programs and Outreach/ Continuing Ed Tentative Schedule 2019 Schedule

Master Naturalists: Conserving Nature in Northern Neck

The Outreach Chair, the Program Chair, the Vice President and the President have met several times to set out a tentative schedule for the coming year. The emphasis will be on getting out and enjoying field studies combined with continuing education in our beautiful Natural Areas and other venues that protect our natural resources.

The Chapter has plans to attend the following four public events and we need Master Naturalists to occupy and engage at these events. Please contact Kevin Howe if you wish to help. Without help, we will not participate in these events.

Watch your email and future Newsletters for continuing announcements.

PUBLIC EVENTS

April 13 – Osprey Festival sponsored by the town of Colonial Beach – Saturday

April 20 - Earth Day sponsored by NAPS in Heathsville - Saturday

May 5 – Go Wild sponsored by Friends of Rappahannock River Valley NWR - Sunday

September 28 – Boots & BBQ sponsored by Northern Neck Land Conservancy - Saturday

PROGRAMS, WORKSHOPS, FIELD STUDIES

April 9 – Tuesday – Members' workshop on the use of **botanical keys** with special emphasis on the use of the smart phone app "Flora of Virginia" - Basic Plant ID/ Keying, Flora of VA App - *Betsy Washington and Kyle Langford*

April 13 – Saturday - Botany and Forest Ecology –*Betsy Washington and Dr. Joan Maloof*, Basic Training Class field trip to Hickory Hollow with dedication of Hickory Hollow NAP to Old Growth Forest Network – Space is limited – contact Kevin Howe for more information

Late April-Early May – Date TBD: Continuing Ed – *Betsy Washington, Zach Bradford, and Kyle Langford*. **Field Trip** to Hickory Hollow or Chilton Woods to view and continue identifying plants using VA Flora App – Our goal is to see orchids, spring ephemerals and trees leafing out.

May 14 – Tuesday Program/Field studies – walk in **Hickory Hollow** to Cabin Swamp to see orchids, False Hellebores, and other rare basic swamp plants and spring ephemerals.

June 11: Tentative- Workshop – Conservation & Easements: How Do We Protect Land and Habitat in Northern Neck? Roundtable discussion with several conservation groups.

July 9: Field Studies/Continuing Ed. – Meadows and Wildlife: A Visit to the Wellford's Property in Essex County to learn about their meadows, pollinator/wildlife support, grassland birds restoration, and maybe rare marsh plants. This is a look at conservation strategies and

NNMN Programs and Outreach/ Continuing Ed Tentative Schedule 2019 Schedule

Master Naturalists: Conserving Nature in Northern Neck

successes on private land. Private Property so NNMN members only! Time and exact details to be determined. Watch for details.

Summer: Outreach – (Date & details to be arranged) - Kids Nature Day at Belle Isle SP, Ornithology, Decomposition and decaying log, Native Plants and Pollinators and Butterflies, Scavenger Hunt using GPS.

Aug. Date TBD: Field Studies/Continuing Ed – The Nature Conservancy’s Voorhees Preserve, Freshwater Tidal Wetland Plants and Bottomland Plant Communities by Betsy Washington and Kyle Langford; Decomposition and Insects by Kevin Howe and Porter Washington, Ornithology with Jeff Wright. (This will involve hiking some moderately steep and natural trails).

Sept. TBD: Field Studies/Continuing Ed. – Crow’s Nest Natural Area Preserve, warbler migration, interpretation by Park Naturalist and Jeff Wright (2,942 acres, Old Growth Forests, 815 acres of tidal and nontidal wetlands, 2 rare forest communities). This will be a full day trip to provide continuing ed. in many areas from botany, to forest ecology, wetland ecology and wildlife.

Oct. 8: Field Studies/Continuing Ed – Kati Rubis, Botanist with the Nature Conservancy will give a program/field study trip to Dameron Marsh to showcase the TNC restoration of formerly degraded farm field into a thriving marsh and natural area.

Nov. Program: To be Announced – (We have a couple of great programs in the wings and awaiting final confirmation)

Further possible programs include: workshops, field studies on native bees, pollinators, how to support and ecology, resources available for citizen science, conservation landscaping and creating habitat on your property, stewardship and workshops in the field at Natural Area Preserves, Belle Isle State Park, Rappahannock River Valley National Wildlife Refuge in the Northern Neck and beyond. Stay tuned! We are waiting to hear back from several invited speakers...