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THE NATURALIST

THE HISTORIC RIVERS CHAPTER OF VIRGINIA MASTER NATURALISTS



The President's Message

by Connie Reitz

March 1st is the meteorological start of Spring. Why wait until later in the month? Will the month of March start with winds strong enough to fly a kite or gentle enough to caress a newborn lamb? We'll soon find out. What we do know is that March is for HRC celebrating.

The members of Cohort XVI and W&M Cohort 3 will be graduating and joining us in our many Spring and Summer activities. They have worked hard throughout basic training and now we welcome each one as a member of our Chapter. The Graduation Gala and Gathering is scheduled for April 1st at Freedom Park. Jen Harrigan and the hospitality committee will be sharing all the exciting details soon.

Looking for something to do? Join a bluebird monitoring team. Find out about ospreys. Visit the HawkWatch monitors on the Colonial Parkway. Learn about bats by joining the Bat Team. Do a litter pickup activity. Help with garden maintenance. So many options as the weather warms. Contact the activity champion for more information on any activity.

Also, take a walk on the Bassett Trace Nature Trail. A bench has been placed in memory of Glenda White, who was a member of HRC, a friend, and a trail steward. It is located about a quarter mile from the start of the trail at the Griffin Hotel. Thanks to everyone who helped obtain this bench through the soft plastic collection. It is in a place of quiet respite.

I hope each of you has viewed the very recently updated home page of the VMN (<http://www.virginiamasternaturalist.org/>). The new logo for the VMN is on full display for you to view.

On the VMN page there is an overview of the annual reports from all Virginia chapters. Our chapter-specific details will be coming from the state office soon. Continue scrolling to read sections highlighting the litter pickup activities and soft plastic collection done by HRC. In the "Laurels" section you will find a more detailed article about the Capital Trail Volunteer Group of the Year awarded to HRC for activities on "Karen's Mile #6". Another entry in this section shares the talents as an author of Roger Gosden, our risk management co-chair. You'll be intrigued with "The

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Boy Who Could Bee”, the book for young adults about “a boy naturalist who is sent to help a monk striving to breed perfect bees.”

Finally, the VMN “Most Impactful Project Award” (one of two awards given) highlighted the rejuvenated efforts of the HRC Education & Outreach Committee led by Janet Crowther and MJ O’Bryan. Encouraging the community to use technology in observations of nature was engaging for community members of all ages.

Anyone can view the VMN homepage and the HRC activities and volunteers will be noticed. Thanks to all of you for contributing and making our chapter outstanding!

Until next month.

Connie Reitz
HRC President

Dates to Remember

- | | |
|------------|---|
| April 1st | HRC Graduation Gala & Gathering at Freedom Park |
| April 4th | HRC Board meeting (NOTE: Date change to Tuesday) |
| April 12th | HRC General Meeting
Karen Duhring — Topic: Coastal Resilience & Sea Level Rise in Virginia |



The bench placed by our Chapter along Bassett Trace Trail in memory of Glenda White. Photos by Rick Brown.

HRC 2023 Dues Deadline March 31st!

Article IV, Section F. 2. of the Chapter bylaws

“Dues Schedule. Annual dues shall be payable no later than March 31 in each fiscal year. If dues are not paid by March 31, then all privileges afforded a member may be rescinded until dues are paid.”

Book Review — “An Immense World: How Animal Senses Reveal the Hidden Realms Around Us” by Ed Yong

by Tory Gussman

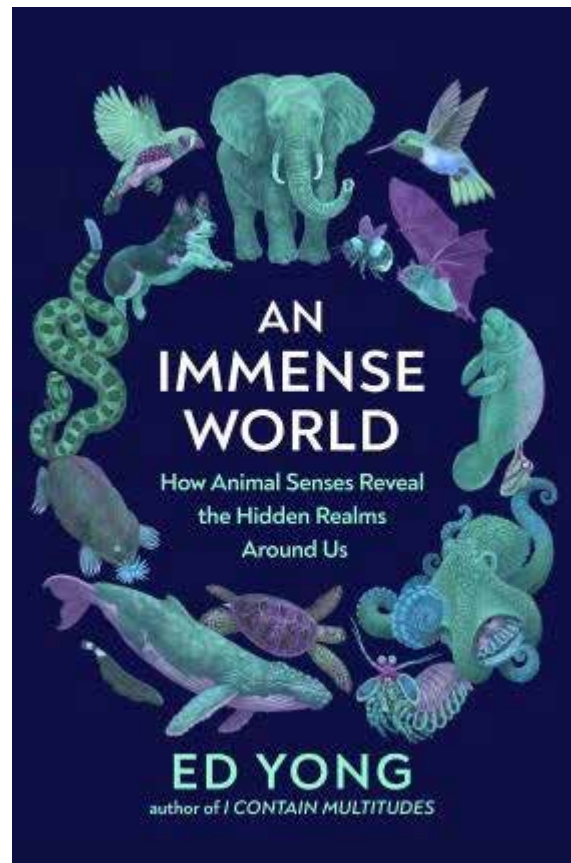
It's not often a book changes the way I think about nature. This book did.

Science journalist Ed Yong writes in a lively style that combines lots of facts with scientific research. He interviewed dozens of scientists about their research on animal senses — not just the five senses we traditionally think of but also vibrations, magnetic fields, electricity and more. He explains in detail remarkable and intriguing aspects of animal senses.

Catfish, for example, have the most extensive sense of taste in nature. “They have taste buds spread all over their scale-free bodies. There's hardly a place you can touch a catfish without brushing thousands of tastebuds.” Octopi have smart arms that act like mini-brains. There's a section on echolocation in bats. Big brown bats, which we've detected on HRC's bat monitoring project, can emit calls at 138 decibels — roughly as loud as a jet engine? The call is ultrasonic so thankfully we can't hear it.

Did you think that male and female mockingbirds look alike? Wrong — at least not to one another. Why do griffon vultures, with acute eyesight, crash into giant wind turbines? What single sense allows barn owls to catch their prey? (Hint: it's not sight). Yong explains that most birds (and many reptiles, insects and freshwater fish) are tetrachromats: they have four types of cone cells (we humans have three). It's not just that these creatures see a fourth color that we humans can't, tetrachromacy “unlocks an entirely new dimension of colors.” And so on...

The key concept this book introduces is *Umwelt* — a creature's unique perception of the world. By the conclusion of the book I finally understood the concept and how difficult it is for us humans (as sight-dominated creatures) to know how the world is experienced by different species. Yong ends with a discussion of sensory pollution, particularly noise and light pollution. “An Immense World” gave me an appreciation for the incredible diversity and complexity of animal senses, and the importance of understanding their *Umwelt*.



William & Mary Wisteria Removal

by Tracy Matthew Melton

Time creeps up on us, and so does wisteria. A couple of years ago, I had noticed a thicket in the ravine across College Terrace from the W&M Alumni House. Last spring, I had noticed wisteria flowering up in the adjacent trees. Last autumn, I explored the area to see what was happening.

Over decades, wisteria has piled up on its itself in the ravine, forming a now remarkable thicket. Wisteria runs up surrounding trees and has been spreading down the tree line, in both directions, curving around Gooch Drive and running down College Terrace to Harrison Avenue and along a dirt driveway behind the houses on the next block of College Terrace, toward Dillard Street.

Dr. Linda Morse and I have been coordinating with Tony Orband who has been W&M's associate director of grounds & gardens since last summer. Tony has a terrific commitment to protecting the natural landscape on the 1250-acre campus, including getting rid of invasive plants.

Linda Morse organized a wisteria removal event on Sunday morning, February 19. W&M VMN students Leo, Emily, and Roseanne, as well as Linda, Keith Navia, and I, worked for more than two hours removing wisteria vines north of the ravine, toward Harrison, and down that dirt driveway to the W&M track team's practice facilities. We removed hundreds of vines, including many 3"-5" in diameter. We also removed Japanese honeysuckle and English ivy. W&M provided tools and picked up the debris, which we left next to the road.

Wisteria has overwhelmed the forested W&M property on the north/east side of Compton Drive, between Brooks Street and Monticello Avenue, especially toward Monticello, where it is effectively a wisteria forest. It had jumped Compton and become

very well established on the south/west side. That is part of the very large and relatively pristine College Woods.

I had removed it for a distance from the Matoaka trailhead toward Monticello. On Friday morning, February 24, Keith Navia, Donna Benson, Maria S. Robertson, Ron Hunt, and I worked for three hours removing it to Monticello. We removed scores of large (3"-6" diameter) vines, many smaller ones, and pulled up much of a network of runners along the drainage ditch and running up the slope to the woods. Follow up will be necessary to crop regrowth, but almost all of the vines have been cut. Hopefully, that will help maintain the health of these valuable woodlands.



Roseanne, Emily, and Dr. Linda Morse | Photo by Tracy Matthew Melton



College Terrace Ravine | Photo by Tracy Matthew Melton

Early Spring / Mid-Winter Flora & Fauna Photo Essay

Article and Photos by Shirley Devan

The calendar says the third week in February, but the thermometer reads 75+ degrees. Nature is getting and giving a whiplash. Overall, this has been a mild winter in the Coastal Plain, and that's why so many folks relocate to this area.

The Master Naturalists are enjoying more outdoor time and their appetites grow hungry for spring. Do we have any right to expect to see butterflies and snakes and toads in February? The warm — dare I say “hot” — temperatures on either side of February 23 get our nature nerd juices flowing and we can't help ourselves.

The photos in this photo essay were taken between February 8 and 23 when we're often gripped in winter's clench. Watch out for March! She's often the lion.



The first is a Dekay's Brownsnake (*Storeria dekayi*) found at Jamestown Island February 23 — a day with a high temperature of about 80. I've included 3 photos here showing the size in relation to my shoe and as the snake in the grass. It was observed in the road at Jamestown, probably sunning itself on the warm pavement.

Per the Virginia Herpetological Society:

A small, secretive snake with average length 9-13 inches. This snake used to be commonly found in cities around abandoned lots and trash piles. The cleanup of these areas and the use of pesticides throughout Virginia (killing this snake's food sources) are thought to have reduced many populations. Recognition as a species of special concern is not justified, but its apparent decline in numbers warrants continued vigil. Management options include the creation of forest litter habitat in city parks and urban areas, and the control of predators, such as domestic cats.



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Some butterfly enthusiasts in the Chapter keep an eye on the weather hoping for a warm day in January or February. When the weather forecast predicts temperatures in the 70's — or even the 60's with sunshine — a Lep Trek (“butterfly walk”) gets added to the calendar and those other “to do” items wait until after dark.



Summer Azure (*Celastrina neglecta*)



A sulphur species



American Snout (*Libytheana carinenta*)

Such was the case this third week in February when temperatures in the 70's coaxed a few butterflies out. The Summer Azure (*Celastrina neglecta*) was photographed at Jamestown Beach Park February 23 near a mud puddle. According to the butterfly experts in our area, we don't have a “winter” azure; we don't even have a “spring” azure. The azures we see are all Summer Azures — even in February. These have been observed from February to November in our area.

The sulphur species photographed February 21 near Warhill High School is likely a Clouded Sulphur (*Colias philodice*) or an Orange Sulphur (*Colias eurytheme*). Both appear in spring, even in February. They almost always land with their wings closed, and it's very difficult to identify them with only this view. Our local entomologist, Ken Lorenzen, who helps our Chapter members with butterfly counts and identifications, says, “The only sure way to know which species -- if it isn't visually obvious -- is to catch them and open their wings. I've caught some very pale Orange Sulphurs that I was calling Clouded Sulphurs until I opened their wings and saw some orange.” For the time being, I've labeled it “Sulphur species.”

The American Snout (*Libytheana carinenta*) was photographed February 8 on the Rockefeller Vista at Bassett Trace Nature Trail. This species overwinters and I've seen several since February 8 — the most recent being February 23 at Jamestown Island. Observers have recorded snouts every month of the year in our area.

Cabbage Whites (*Pieris rapae*) are also out and about but I've not photographed one. By the way, we have to change our identification of this non-native butterfly. It's now called “Small White” and has the same scientific name. Sounds like a coffee order to me!

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Here are 2 of the 5 Spotted Turtles observed at Jamestown Island on February 23 when temperatures were close to 80 degrees. HRC's Wildlife Mappers often see these turtles — Spotted Turtle (*Clemmys guttata*) — in a known spot on the outer loop at Jamestown Island.

Per the Virginia Herpetological Society:

The status of this species is unknown, largely because of the lack of information on the extent of populations in threatened wetlands. The primary cause of population decline and local extirpation is habitat loss from destruction of wetlands. A more-thorough inventory of spotted turtle populations in Virginia needs to be conducted in conjunction with an evaluation of the threats to the wetlands they occupy.



Spotted Turtle (*Clemmys guttata*)



Spotted Wintergreen (*Chimaphila maculate*) seems it should be named Striped Wintergreen.



This stunning Woodland Crocus (*Crocus tommasinianus*) at the woods' edge at Warhill popped out like eye candy on February 21 and begged to have its photo taken. It's a beautiful relief from the browns and beiges of the winter's floor.

Book Review — “The Girl Who Drew Butterflies: How Maria Merian’s Art Changed Science” by Joyce Sidman

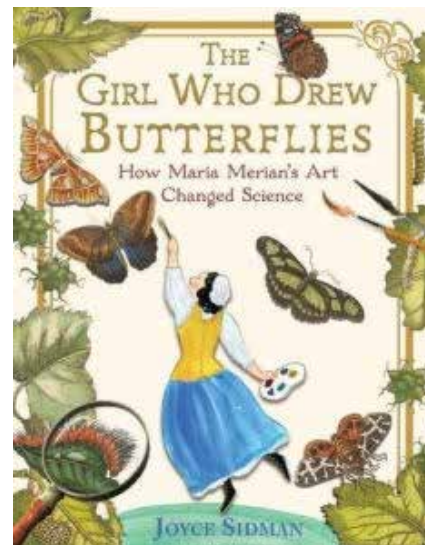
by Marie Schwieterman Robertson

With daughters in 2nd and 5th grade, I spend more time in the Junior and Children’s sections of the Williamsburg Regional Library than in the adult section. On a recent visit, a book with beautiful cover illustrations of butterflies caught my attention: Joyce Sidman’s “The Girl Who Drew Butterflies: How Maria Merian’s Art Changed Science”. Since butterflies and their host plants are what brought me to the Master Naturalist program, I was curious to read about this female artist turned naturalist.

Maria Merian was born into a family of printers and engravers in Frankfurt, Germany in 1647. After her father’s death three years later, Maria’s mother met and married the artist Jacob Marrel, who specialized in painting ornamental flowers (a popular art form of the time). Maria’s stepfather liked to include insects in his works of art, and Maria was sent to collect them from the garden. So began her interest in nature, especially caterpillars and insects.

In 17th century Germany, insects were pests and lumped into one category called “worms”, while all flying creatures (including moths and butterflies) were considered “birds”. Aristotle’s theory of ‘spontaneous generation’ still governed ideas of how the flying creatures came into existence. However, as she spent time in the garden gathering flowers and insects for her step-father, Maria carefully observed the various forms (instars) and characteristics (smooth, hairy, tiny, fat, pale, striped) of the caterpillars. She became determined to learn more, and to find out what happened to the caterpillars after they tucked themselves into their cylinders (chrysalis).

As a girl, Maria was expected to help with the housework and family business, but her step-father also taught her everything he knew about art. She learned to grind powders used to color paint, to fashion brushes from feathers and fur, and how to draw and paint. Maria showed natural talent for drawing, and at the age of 13 when she decided to raise silk worms in an attempt to learn more about the fascinating creatures, she used her artistic skills to document everything that she observed. She took detailed notes and watched the worms weave themselves into a web of silk, and emerge weeks later as moths.



The book covers Maria’s life as she marries, has children, and attempts to pursue her own interests in art and nature. The author includes historical context about women’s roles and responsibilities in 17th century Europe, about working life, religion, science and witch hunts (the consequence for many women exhibiting ‘abnormal behavior’ that was not socially accepted). Beautiful illustrations, many of which are Maria Merian works, adorn the pages of the book.

To me, one of the most amazing aspects of Maria’s story is the meticulous nature with which she observed and recorded caterpillar behavior, as well as the depth of her research. Although she had never trained as a scientist, Maria noted the plants on which

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butterflies and moths laid their eggs, which flowers they preferred to feast on for nectar and the timing of each phase of their metamorphosis. She compiled the information in a book on caterpillars and their flowers, featuring one or two caterpillars on each page, perched on their host plant, and clearly showing every stage of their development, from egg to their adult form. Thus, Maria showed eggs as the source of every caterpillar, a theory that was bold and innovative for her time.

Although written for adolescents, this fascinating biography of Maria Merian is worth your time, and is a story that speaks to lovers of art, nature, history and unconventional women.



Merian illustration showing all stages of the emperor moth (Saturnia pavonia) on a cherry branch:

The Naturalist is the monthly newsletter of the Historic Rivers Chapter of Virginia Master Naturalists. It is a membership benefit for current members of HRC.

Newsletter contributions are due by the 15th of the month for inclusion in the issue distributed to the HRC Google Group by the end of the month. Send your ready-to-publish photos, notices, stories, or reports to The Naturalist's newsletter editor at:

HRCnewsletter@gmail.com

Make sure your work is formatted and labeled properly. Please make sure your copy is error-free. We are happy to help you if you have questions!

HRC-VMN Board of Directors

Chapter Advisor	John Gresham	VMN Appointed September 2018*
Chapter Advisor	Meagan Thomas	VMN Appointed August 2020*
Officers/Executive Committee		
President	Connie Reitz	Elected March 2022
Vice Pres./Programs	Shirley Devan	Elected March 2022
Secretary	Barbara Neis	Elected March 2022
	Bob Thomas	Elected March 2022
Treasurer	Adrienne Frank	Elected March 2022
Additional Board Members		
Immediate Past President	Rick Brown	Effective March 2022
Historian/Publicity/Media	Deborah Humphries	Elected March 2022
Chairs of Standing Committees		
Basic Training	Karen Hines	Elected March 2020**
Membership	Judy Jones	Elected March 2022
Volunteer Service Projects	Jennifer Trevino	Elected March 2022
Continuing Education	Barbara Creel	Elected March 2022
Newsletter	Adam Ferguson	Elected March 2021
Education & Outreach	Janet Crowther	Elected October 2021
	MJ O'Bryan	Elected March 2022
Hospitality	Jennifer Harrigan	Elected March 2022
Field Trips	Sherry Brubaker	Elected March 2022
At-Large Members		
	Suzanne Stern	Elected March 2021
	Nancy Barnhart	Elected March 2022
	Shan Gill	Elected March 2022
	Bill Harper	Elected March 2022
Appointed Committees & Teams		
Risk Management	Roger Gosden	Appointed March 2019
	Patty Maloney	Appointed March 2019
Collections & Resources	Jennifer Trevino	Appointed
Webmaster	Jeanette Navia	Appointed
Williamsburg Landing Liaison	Joe Beene	Appointed
Basic Training (W&M Coll of the Wild)	Linda Morse	VMN approved 2019
Better Impact Contact	Shirley Devan	Appointed January 2021
Diversity, Equity, & Inclusion	Adrienne Frank	Appointed October 2021

* Ex-officio

** Elected for a two (2) year term and serving one (1) additional year