

THE NATURALIST

The monthly newsletter of the Historic Rivers Chapter Virginia Master Naturalist Program

http://historicrivers.org

A MONTHLY NEWSLETTER					Volume 4 No. 12 December 2010	
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Message from the president

BIODIVERSITY IN OUR ECOSYSTEM

Professor Doug Tallamy spoke on his book, *Bringing Nature Home*, in Chesterfield, VA on November 1, 2010. I attended the lecture and thought his message worthwhile, therefore; I will devote this column to his presentation and book. Trained as an entomologist, his main message is that "unless we restore native plants to our suburban ecosystems, the future of biodiversity in the U.S. is dim." He indicated further that restoring native plants to most human-dominated landscapes is relatively easy to do.

Professor Tallamy is a Department Chairman at the University of Delaware where he combines entomology and wildlife ecology disciplines. The focus of his lecture was on biodiversity losses as they are caused by humans. He proposes using landscaping to save biodiversity of an area. And most importantly, biodiversity can make landscapes sustainable.

He defines biodiversity as all life forms on the planet with each species having a specific role in an ecosystem. Importantly, there is much redundancy in a healthy ecosystem. Biodiversity runs our ecosystem with plants and animals being the rivets that sustain us. Humans cannot live without wild things.

Biodiversity is crucial to our sustainability and mere existence. Biodiversity cleans our water, prevents flooding, recycles garbage, pollinates plants and sequesters carbon dioxide. Biodiversity is necessary for human health, especially our children who are the future stewards of the planet.

Animal diversity comes from plants with plants providing food and shelter for animals. Plants provide the carrying capacity of the ecosystem. As humans, we need to determine what we have done to the carrying capacity of the U.S. In New York City, the carrying capacity of Central Park is zero. At this time, man has developed his environment with some 129 million homes and 4 million miles of paved roads in the U.S. The surface area of paved roads is 5 times the size of the State of NJ.

In the U.S. today, a dominant feature in suburbia is the 62,500 square miles of land that is in lawns. This means only 5 % of the U.S. qualifies as pristine environment. Some 41 % of U.S. land is in agricultural uses; 54 % is in cities and suburbs. Man and his development activities have converted our natural world into cities and suburbs. Parks and preserves aren't working to provide biodiversity. The challenge is to raise the carrying

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capacity of suburbia. Development of Because so many animals depend suburbs has resulted in shrinking habitat and the loss of niche space for animals, birds, and insects. Hence, only tiny populations can exist in tiny habitat areas. The remaining natural areas are not large enough to sustain nature.

Suburbia today supports very little biodiversity. Plants are added to support a food web for animals. Nonnative plants support fewer insects. Insects will not eat non-native plants that are from a different biome. The foliage of non-native plants is defended by distasteful chemicals. Plants and insects share an evolutionary history for the insects to be able to develop and reproduce. Spiders eat insects; birds eat insects; 23 % of a black bear's diet is insects: 96 % of birds rely on insects for their food.

partially or entirely on insect protein for food, a land without insects is a land without most forms of higher life.

Using plants from somewhere else (a different biome than the eastern deciduous biome) is promoted by the horticulture industry. Plants need to be functional; ecologically, there is no food web for insects and animals when plants are non-native and from a different biome. Hence, there is a huge downside when landscapers use plants that originate from somewhere else. In fact, some 85 % of the invasive woodsy plants have escaped from our gardens.

When doing land use planning and development there is a critical need to create corridors to connect isolated

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End-of-Year Party!

Theme: The Five Senses

Food - Games - Prizes - Good Company

When: Wednesday, December 08 from 06:00 PM to 9:30

Where: Windsor Forest Clubhouse 108 Wyndham Way Williamsburg, VA 23185

Please remember to bring a potluck dish, your own plate and utensils, and a beverage of choice. For questions, please email inavia@gmail.com

Notes from the Board

All meetings of the Board of Directors are open to members

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Basic Training for Cohort V By Shirley Devan, Training Committee

Members who attend Basic Training classes get Advanced Training hours.

Upcoming Basic Training Events: Multipurpose Room, Human Services Building, 5249 Olde Towne Road Time: 6 - 9 pm (except Saturday field trips and Annual Meeting).

All HRC members are invited and encouraged to attend and participate. Folks who are not members of Cohort V can record Advanced Training for attending these sessions. See you there!

December 7, 2010: Entomology, by Dr. Barbara Abraham, Associate Professor of Biology and SEEDS Ecology Chapter Advisor, Hampton University, Hampton, VA

January 4, 2011: Herpetology, by Tim Christensen, Certified VA Master Naturalist and Historic Rivers Chapter Member (Cohort I). He is Wildlife Biologist (among other duties) at US Army's Fort Eustis, VA site. Tim is also active in the VA Herpetological Society and participates in Herp research projects in Ecuador.

January 15: Field Trip to New Kent Forestry Center. This is a Saturday morning event, 9 am - ~1pm. Lisa Deaton and Billy Apperson of the Department of Forestry will share with us Center's research on longleaf pine and American chestnut plus more. More logistical details will follow after January 1.

January 18, 2011: Ornithology, by Bill Williams, Director of Education, Center for Conservation Biology, W&M and VCU, a founder of the Williamsburg Land Conservancy, a founder of the Williamsburg Bird Club, and frequent leader of Bird Club walks (at New Quarter Park) and Bird Club field trips.

February 1, 2011: Fishes of Virginia, by Bob Greenlee, Fisheries Biologist, VA Dept of Game and Inland Fisheries.

February 12, 2011: Freshwater Ecology and Winter Botany. This is a Saturday event 9 am - 4 pm at Jamestown High School. Presenters will be Hugh Beard and Charlie Dubay. More details will come in January.

February 15, 2011: Mammalogy, by Bo Baker, VA Living Museum.

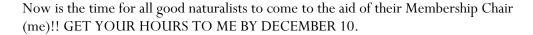
March 1, 2011: Ecology Concepts, by Steve Living, Wildlife Biologist, VA Dept of Game and Inland Fisheries.

March 9, 2011: Graduation for Cohort V and Annual Meeting, 6 - 9 pm. Speaker will be Bruce Wielicki, Climate and Atmospheric Scientist, NASA Langley Research Center. Tentative topic is "Climate and Climate Change." Location is TBD.

Shirley Devan, Training Committee Historic Rivers Chapter Virginia Master Naturalist

SUBMITYOUR HOURS!!

by Shirley Devan





The Membership Chair and the Board need your Volunteer Service Hours and your Advanced Training Hours NOW. Several reasons why this is important:

- 1. Our Chapter's Annual Report is due to the state January 10, 2011. We have to submit the total number of volunteer service hours, the number of projects we've worked on, and the number of Advanced Training hours we've earned. Michelle Prysby rolls our Chapter's hours into grand totals with other Chapters' Hours to let the Commonwealth of VA know how much we're contributing to the State's stewardship, education, and citizen science efforts. The more we do for the State, the more support the state-wide Master Naturalist program will receive and the more successful our Chapters across the State will be. Plus, Chapters receive awards for the most volunteer service hours, and our HRC Chapter has won the award the past two years. We want to make that three years in a row.
- 2. You need to submit your hours so that we can know when you're "certified" for the first time and when you're "re-certified." New Certifications and Re-certifications will be announced at the March 9, 2010 Annual Meeting.

REFRESHER: To be re-certified, you need 8 hours of Advanced Training and 40 hours of Volunteer Service. To become certified for the first time, you need to complete Basic Training, take 8 hours of Advanced Training, and complete 40 hours of Volunteer Service.

Ideally, you should enter your hours in the online "VMN Volunteer Management System": https://virginiamn.volunteersystem.org If you have not yet logged on and set your password, let me know and I'll trigger the system to send you an email with a temporary password. I'll also send out the "Getting Started" document so you can see how easy it is to enter your hours.

If the online database is not your thing, send me your hours and I'll enter them. It's that easy! Send them by email, snail mail (106 Winter East, Wmbg 23188), or hand delivery before December 10. Several of us will be working on the Annual Report over the holidays to meet Michelle Prysby's "drop dead" date.

I'm willing to make HOUSE CALLS. If you want one-on-one help to get started using the system, I'll be glad to help you out at your computer. (It will be our secret -- no one has to know!) This is really important.

The key is to GET YOUR HOURS TO ME by December 10 however you wish. You'll probably get a phone call from me if I don't get your hours in the next week. Thanks so much! I'm confident we can win the award for the third consecutive year!

Christmas Bird Count is December 19th

The 34th Annual Williamsburg Christmas Bird Count will be on Sunday, December 19, 2010. If you wish to participate, you will be part of a team in a sector. The sector leader will be an experienced birder and knows the route and protocol. Extra eyes and ears are always welcome. You can spend a full day in the field or a half day -- just coordinate it with your sector leader. Cost is \$5.00 and it goes to National Audubon Society to cover the expenses of compiling and publishing the count results every year. Bill Williams is the coordinator for our 9 sectors. Please contact Bill Williams jwwil2@wm.edu if you can help out. He will assign you to a sector if you did not participate last year or if you want to be in different sector.









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Master Gardeners Learn About Habitat Kathi Mestayer

Susan Powell and Stephen LIving (DGIF Watchable WIldlife Person) conducted their second (annual?) Habitat Workshop for the JCC Master Gardeners on November 3. It was another sell-out (in attendance terms), with 24 people around a big open horseshoe table at the JCC Community Center, so that there was a lot of interaction, good questions, and sharing of experiences. Susan and Stephen talked about ecosystems, ecotones, biomes, energy and the food web, habitat fragmentation, the importance of native plants for habitat, habitat components, nonnative invasives, and lots more. We also had a hands-on exercise that consisted of the MGs taking leaf litter samples and poking through them for critters. Even as late as November, there was still plenty to see, with a few enterprising bugs skittering across the table and heading for the door. And Susan had a new toy; a microscope that could be connected to the projector, so that everyone could see the tiniest invertebrates squiggling about.

Thanks to Carol Fryer, MG, for planning and promoting the event, and getting the logistics all straightened out. It is a great way to share (both ways) with the Master Gardener Community.

Nature Camp Scholarships Available for Local Youth Shirley Devan

Two of our Chapter's partners are offering scholarships to Nature Camp in Vesuvius, VA for summer 2011 sessions. Each session is two weeks. Scholarships are for students in grades 5 - 12 in Williamsburg, James City County, and York County.

The John Clayton Chapter of the VA Native Plant Society is accepting applications until December 30, 2010. Applications are available online: www.claytonvnps.org or 220-2310.

The Williamsburg Bird Club is accepting applications until January 15, 2011. Applications are available online at Bird Club web site: www.williamsburgbirdclub.org or 813-1322









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Wildlife Mapping on the Greenspring Trail

By Jeff and Linda Miller

Jeff and I did not get out at all in October but we made up for it in November. Remember this adorable photo of this year's fawns from July. Well they have grown quite a bit and you can now see that we have a boy and a girl with the proud mother looking on!

We also came upon a determined and hungry Pileated Woodpecker!





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Naturalist Biography – Libbie Henrietta Hyman

Libbie Henrietta Hyman was born on December 6, 1888 in Des Moines, Iowa, to Jewish immigrant parents, Joseph and Sabina (Neumann) Hyman. Her father was an unsuccessful clothing retailer who moved to Sioux Falls, South Dakota, and then to Fort Dodge, Iowa, with his wife and children (two older sons, Libbie, and a younger son).

Despite the family poverty and her mother's expectation that a woman's place was hard at work in the home, Hyman enjoyed a happy childhood, fascinated by flora and fauna she encountered walking in the woods, learning the scientific names from borrowing her brother's botany text and making a collection of butterflies and moths. Valedictorian and the youngest member of her high school class of 1905 in Fort Dodge with an outstanding scholastic record, she had no expectation to attend college but, with her high school offered a year of post-high school courses, Hyman took all the offered science courses and worked in a factory at minimum wage pasting labels.

In 1906, a chance encounter with a former high school teacher enabled her to enroll in the University of Chicago on a scholarship earning room and board by working as a cashier. The annually renewable scholarship allowed her to earn her B.A. in Zoology with Honors in 1910 and a Ph.D. in 1915 without ever paying tuition.

At the University of Chicago she studied botany, then chemistry (which she felt to be "lifeless"), and finally zoology under Dr. Charles Manning Child who encouraged her to pursue studies in that area. She was his first doctoral student and after receiving her Ph.D., she worked with Dr. Child, one of the top zoologists of his time, for the next sixteen years, first as a lab assistant then as a research assistant, publishing more than forty research articles instrumental in establishing the field of invertebrate biology. Initially, she knew little about invertebrates but soon became the foremost taxonomist of non-parasitic worms. Assisted by her knowledge of chemistry, she studied the regeneration and metabolism of adjacent tissues of worms. During her time with Dr. Child, she embarked on the kind of research that made her the leading invertebrate zoologist of North America. Papers on techniques for studying protozoans, flatworms, and coelenterates appeared in the 1920s. Her papers on the genus *Hydra* initiated the modern period in the study of soft-bodied, freshwater invertebrates in America. While working on worms, Hyman also wrote two laboratory manuals that positively impacted the path of her career. The *Laboratory Manual for Elementary Zoology* was published in 1919 and revised in 1929, while the *Laboratory Manual for Comparative Vertebrate Anatomy* also went through two editions (1922 and 1942). The textbooks were quickly adopted by the majority of premedical schools and the writing style admired by vertebrate zoology instructors.

She resigned from the University of Chicago in 1931 when Dr. Child reached retirement. Not wishing to teach and unable to support herself on her book royalties, she decided to write on the morphology, physiology, embryology, and biology of invertebrates (no advanced treatise on invertebrates had been written in English). Offered assistance by the University of Chicago to write there, she declined and, after traveling in Europe for 15 months, decided to start fresh by moving to New York City to use the library at the American Museum of Natural History for her study and research. In 1937, she became an honorary research associate at the museum, an unpaid position that provided office and laboratory space. There, between 1940 and 1967, Hyman published the six-volume work *The Invertebrates*, and between 1914 and 1967 about 150 papers on invertebrates.

Hyman was quoted as saying: "I don't like vertebrates. It's hard to explain but I just can't get excited about them, never cared. I like invertebrates. I don't mean worms, particularly, although a worm can be almost anything, including the larva of a beautiful butterfly. But I do like the soft, delicate ones, the jelly fishes and corals and the beautiful microscopic organisms." (Winsor 1980)

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Fluent in several languages, she never had a secretary, assistant or illustrator (all illustrations in the six volume work are her own); from the start, her work was recognized as outstanding. Hyman was greatly respected, not reclusive despite living alone, and maintained extensive correspondence with scientists around the world. She modestly wrote, "The treatise on the invertebrates has brought me much fame and many honors, but has given the zoological public an exaggerated idea of my ability." (1969) Warm, gentle and philanthropic, Hyman was the person whom professional zoologists from around the work wished to meet when visiting the museum. She lived to enjoy the appreciation of the scientific community, receiving honorary Sc.Ds. from the University of Chicago (1941), Goucher College (1958), and Coe College (1959). She received an honorary LL.D from Uppsala (1963) and was the first woman awarded the Daniel Giraud Elliot Medal of the National Academy of Sciences for Zoology and Paleontology (1955) and received the Gold Medal of Linnaean Society of London (1960). Four months before her death, she received the Gold Medal for Distinguished Achievement in Science by the American Museum of Natural History at its centennial celebration (1969). She was a member of the National Academy of Sciences, the American Academy of Zoologists, Phi Beta Kappa plus many other organizations, and President of the Society of Systematic Zoology from 1959 to 1963.

In 1961, Hyman underwent a surgery that greatly impaired her health and, despite suffering from Parkinson's disease since the 1950s, she had continued to work long days, completing her sixth volume of *The Invertebrates* while in a wheelchair, under the care of a nurse. She died in her New York apartment on August 3, 1969.

Libbie Henrietta Hyman was a major contributor to the field of zoology. Her publications have continued to be cited and used with *The Invertebrates* still considered a monumental book, a masterly source. Her views of evolution in the phylum and its taxonomy are still relevant.

Sources:

American Women in Science, A Bibliographic Dictionary, Martha J. Bailey, 1994.

Jewish Women's Archive, Jewish Women: A Comprehensive Historical Encyclopedia, Libbie Henrietta Hyman, by Adele Hast. http://jwa.org/encyclopedia/article/hyman-libbie-henrietta

Libbie Henrietta Hyman: life and contributions, American Museum novitates; no3277

National Academy of Sciences, BIOGRAPHICAL MEMOIRS, Vol. 60, National Academy Press, Washington, DC, 1991, pp103-114, http://hdl.handle.net/2246/3013

Women in the biological sciences: a biobibliographic sourcebook, Louise S. Grinstein, Carol A. Biermann, Rose K. Rose: Libbie Henrietta Hyman by Soraya Ghayourmanesh-Svoronos, p 253-258, University of Chicago Press, 1997.

Prepared by Lois Ullman

Historic Rivers Chapter, Virginia Master Naturalists, Cohort IV

December 2009



Botanicals from Linda Miller

This is my first juried botanical art exhibition, a piece that I started in January.

This painting will be on exhibit at the Brookside Gardens from December 5 through February 6, 2011.

"The gardenia fruit is from my yard. Last fall it had three fruits. Fruits which no one that I know has seen before - and including two master gardeners in one of workshops that I attended. Funny thing ...I planted a smaller gardenia shrub last year and that bush has three fruits right now. The larger shrub which bore fruit last year has none.

I have searched and searched to learn more about its pollinator and all I have learned is that it is either a hawk or sphinx moth. I have yet to find a source with a species specific pollinator for the gardenia.

Obviously someone likes my yard! I guess I will have to camp out one night or I am hoping that one of my fellow Master Naturalists will help me solve the mystery!



Courtesy of Linda Miller

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A "little rain" didn't stop the crew from planting a variety of natives along the New Quarter Park teaching trail November 4, 2010. Crew members include: Sara Lewis, Lois Ulman, Linda Miller, Nancy Norton and Patty Maloney.





The Friday Frolics "demolition crew" hard at work removing decking boards and posts from a closed trail at York River State Park. Demolition crew includes: Lois Ulman, Felice Bond, Sharon Plocher, Jennifer Trevino, Les Lawrence, and Patty Maloney.

All photos courtesy of Patty Maloney







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natural areas for habitat for insects, birds, and animals. In some cases, Professor Tallamy recommends that lawn areas be reduced in size and transitioned to native ornamental plantings from nonnative ornamental plantings.

Tallamy was clear that it's best to build a balanced community by planting native plants from the biome in which one lives. Collectively this suggests biodiversity is essential to the stability and the existence of most ecosystems. Native plants provide a grass roots approach to conservation and put nature back in the lives of our children. After all, they are the future generation and are in need of developing an emotional relationship with nature for their awareness\appreciation, conservation, and stewardship.

Message from the President,

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Professor Tallamy is convincing at the societal level and at an individual yard/lawn/ornamental plantings level. The third printing of *Bringing Nature Home* was updated and expanded in 2009. It's an easy read and well illustrated. His approach to biodiversity is sound and supported with empirical data.

Bruce Hill, PhD, President

Historic Rivers Chapter

Virginia Master Naturalists

STATUS OF HRC STRATEGIC PLAN

This is an update for all HRC members: the Strategic Plan that was beginning to take shape with the characteristics of the current Chapter and mission and goals statements of where the HRC would take its program in the next five years. At the November Board of Directors (BD) meeting, the BD concluded that discussion and debate on the plan would come to closure at its January 2011 meeting. However, it being a Strategic Plan has been overcome by events. Subsequent discussions with many HRC members indicate the HRC is not ready to focus its volunteer public service efforts on a few major projects for an improved impact in our community. Many do not understand that their individual projects were continue along with selected Chapter projects that would be emphasized.

A different approach is being advanced that would provide administrative support as volunteer service opportunities to the following natural resource entities in 2011: York River State Park, New Quarter Park, New Kent Forestry Center, Waller Mill Park, and James City County Parks & Recreation. The latter organization includes Freedom Park, Greensprings Greenway, Little Creek Reservoir Park, and Chickahominy Riverfront Park. The new approach would name liaison committees for each park/center.

At the January 2011 BD meeting, a single path forward will be determined. If there are questions, please let me know at euplotes@msn.com. I apologize for the confusion.

Bruce Hill. President

HRC Chapter

Virginia Master Naturalists

ADVANCED TRAINING OPPORTUNITIES FROM THE VIRGINIA LIVING MUSEUM

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January 4, 2010

TUESDAY EVENING SEMINAR SERIES - Tundra, Deserts and Jungles - OH MY!

Take an armchair trip to some of the world's most interesting terrestrial biomes. While we compare and contrast the climates, geography and soils of deserts rainforests, deciduous forests and tundra we'll also discover fascinating and unusual adaptations that plants and animals have evolved that allow them to thrive in these diverse and often challenging habitats.

Ages 18+

Time: 6 - 7:30 p.m.

Cost: \$5 Members \$7 Non-Members. Active volunteers are free.



February 1, 2011

TUESDAY EVENING SEMINAR SERIES -Martian Geology

How much can you learn about a planet without actually going there? Actually....quite a lot! In this session VLM staff astronomer John Wright will discuss the history of Mars, likely places to explore and how hard or easy it might be to find life on another world. In fact, we might already have...or not!

Ages 18+

Time: 6 - 7:30 p.m.

Cost: \$5 Members; \$7 Non-Members. Active volunteers are free.



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Water Conservation in a Drought-ridden Continent **By Shirley Devan**

No, I'm not talking about North America – yet! Australia, heavily invested in the infrastructure to collect and conwhere I visited in October and November, is familiar with drought and the residents are experts at water conservation.

Australia's vast "red" interior – outback desert – was lush and green when we visited. Where's the drought, I thought. We quickly learned that many places in Australia had experienced record rainfall throughout 2010 after 10 years of drought.

We spent several days in the Northern Territory in and around Alice Springs, including nearby Uluru (Ayers Rock) and The Olgas, all of which sit in the middle of the desert. When we visited the desert was green and blooming! Not much "red desert" to be seen this year. Everyone exclaimed over the "green" desert we were enjoying and how different it looked from years past. Botanists and native plant enthusiasts were rejoicing in plants that had not put in an appearance for years. Some plants could not even be identified – that's how long the drought had lasted!

Many towns and cities we visited, including the coastal cities as well as the interior cities like Alice Springs, are serve rainwater. Most residences have one or more large round metal cisterns – much larger than our familiar plastic rain barrels. Their roof gutters form a complex route around the house to ensure that every drop that rolls down the corrugated metal roofs ends up in the cistern.

On Kangaroo Island, off the coast of Adelaide in the southern part of Australia, we visited Flinders Chase National Park and I was able to take some photos of the infrastructure in the national park to collect rainwater. At the rest room, the outdoor hand-washing faucet was attached to a metal barrel of rainwater (see photo below on right). At the picnic area, each shelter's roof was designed to collect and store rainwater (see the inverted roof design in the photo below on left).

By no means was I able to see all the water conservation techniques around Australian cities and the outback. But the few instances I observed convinced me that Australians have water conservation ingrained in their everyday lives and integrated in many of their public spaces. How far down this path is North America in water conservation?





News from VIMS

Marine spatial planning and ocean zoning: harnessing science for better public policy

Starts: December 10, 2010 at 3:30 PM

Location: McHugh Auditorium, Watermen's Hall

Contact: Rochelle Seitz, 804-684-7698, seitz@vims.edu

Summary

Science lecture by Dr. Tundi Agardy of Sound Seas in Washington DC.

Full Description

Title

Marine spatial planning and ocean zoning: harnessing science for better public policy

Background

Dr. Tundi Agardy is Executive Director of Sound Seas in Washington DC

A "pollution diet" for Chesapeake Bay: fad or fitness?

Starts: January 27, 2011 at 7:00 PM

Location: McHugh Auditorium, Waterman's Hall

Event URL: http://www.vims.edu/public/register/index.php

Contact: 804-684-7846, programs@vims.edu

Summary

VIMS professor Carl Hershner explores the issues surrounding the "total maximum daily loads" being developed by the U.S. Environmental Protection Agency as part of the Chesapeake Bay Agreement.

Full Description

A recent series of public meetings throughout Virginia and other Bay states allowed for comments on the "total maximum daily loads" being developed the U.S. Environmental Protection Agency as part of the Chesapeake Bay Agreement. Join VIMS professor Carl Hershner as he explains the scientific basis for this so-called "pollution diet," and explores how reducing the input of nitrogen, phosphorous, and sediments can help restore Bay health. Hershner will discuss the accuracy of the computer model used to help develop the TMDLs, the need for regulation instead of voluntary action, the costs associated with storm-water management, and the need for agricultural best management practices. In each case, he will strive to find the facts within the rhetoric. Hershner is director of the Center for Coastal Resources Management at VIMS and a member of the Chesapeake Bay Program Scientific and Technical Advisory Committee.

Reservations to this free public lecture series are required due to limited space. Please register online or call 804-684-7846 for further information



Winter hours! Fri. 10 a.m.-Dusk Sat. & Sun. 8 a.m.-Dusk

November 2010

- 16 EVMA Night Ride, 6-8 p.m.
- 23 EVMA Night Ride, 6-8 p.m.
- 25 Thanksgiving
- 27 WBC Bird Walk, Bill Williams,
- 30 EVMA Night Ride, 6-8 p.m.

December 2010

4 - Walk & Talk OPEN HOUSE: Natural Holiday Decorations, Arlene Williams, Morrison's Flowers & Gifts, Note: Time change! Attend the Williamsburg Christmas Parade at 9 a.m.,

then come to the park for our OPEN HOUSE!

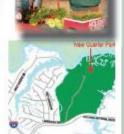
Have a cup of hot cider and make a decoration. Noon-2 p.m.

11 - WBC Bird Walk, 8-10 a.m.

25 - Christmas Day - Park Closed

- · Exit Col Pkwy at Queen's Lake, turn right. Turn on Lakeshead Dr. (Look for sign.)
- · From Peninsula: Exit I-64 at Rt. 199 toward Jamestown. Exit Rt. 143W. Right on Penniman Rd., left on Hubbard Ln. Right on Lakeshead Rd., follow to Park.





About Winter Hours

During winter hours, our staff is available to assist with information and picnic shelter rentals. Restrooms are open and park visitors can purchase disc golf equipment,



pay fees, and buy snacks in the office. On weekdays, when the front gate is locked, a porta-john is available near the restrooms for those who walk, bike, or ski in. Weekday programs may be arranged by contacting Molly Nealer at York County Parks & Rec (890-3513 or nealerm@yorkcounty.gov).

Stocking Stuffer Suggestion!

Gift certificates for disc golf merchandise make great stocking stuffers! Call 757-890-3513 for infor-

mation or stop by the park office on Friday, Saturday, or Sunday to buy one.





Reserve Shelter & Fire Circle: \$50 & \$25; Call 890-3513 Disc Golf: Daily \$3, Annual \$25; Sales & Rentals

More Information at www.yorkcounty.gov, go to Parks and Recreation Quarter Park, 1000 Lakeshead Dr., 757-890-5840 (Friday-Sunday). York Co Parks & Rec, 757-890-3500 (Monday-Friday)