



## THE NATURALIST

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

<http://historicrivers.org>

A MONTHLY NEWSLETTER

Volume 5 No. 1 January 2011

Basic Training	Vernal Pool Project	Virginia Bluebird Society	Biography James Lovelock	News from The Virginia Living Museum	SAVE THE DATE!!	News from VIMS
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### Message from the president

#### HEALTHY ECOSYSTEM SERVICES: A TOPIC WE SHOULD NOT IGNORE

I looked to the National Academy of Sciences for a balanced discussion of where we are in our understanding of how sustainable our current ecosystems are. In September 2009, the National Research Council hosted a workshop on Transitioning to Sustainability: the Challenge of Developing Sustainable Urban Systems. The column that follows is excerpted and adapted from the summary report of that workshop. The report, *Pathways to Urban Sustainability*, was published, September 2010, by the National Academies Press, Washington, DC.

**Unsustainable Urbanization:** Half of the world's people live in cities; in the U.S., 80 percent of the population lives in cities. Urbanization is a primary cause of many problems; urbanization spurs economic development and allows for an efficient use of resources. Cities consume resources at prodigious rates, in concentrated areas. This has raised serious concerns about their environmental impacts.

The trend is toward increased urbanization. We often fail to recognize urban areas are systems. Current institutions and individuals are not accustomed to exploring human-environmental interactions, particularly at an urban scale. These issues involve

complex interactions, many of which are not fully understood. The challenge is how can we develop sustainable urban systems that provide healthy, safe, and affordable environments for those living in cities and their surrounding metropolitan areas?

U.S. cities have been growing in an unsustainable fashion for the last 50 years. This trend cannot continue. Sprawl – the way we continue to spread over the land, the amount of pollution we create, the inefficiencies we support, how we have allowed development to occur -- doesn't make sense any more.

Will we leave future generations a planet and a country that will support human growth and development and sustain our democracy? We should start looking at how we are going to grow our country – it's time to begin a dialogue on how we plan to live in a more sustainable fashion. For ecological aspects, much of the Nation's wealth is derived from its natural capital and its ability to efficiently conserve, sustain, and use ecosystem services.

We haven't built our cities in a sustainable way. We can no longer afford to wait to change our ways. There is a need for a systems approach. When problems are inter-related as they are to-

Continued on next page

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*Adrienne Frank, and Gary Driscole*

day, solving them one at a time likely means not solving them. We have failed to account for the value of ecological services. We have exploited these services as if they were free and would last forever.

How we get from here to there – maximize the benefits of cities’ economies of scale while minimizing the environmental impacts – will be major challenges in transitioning to urban sustainability. Efforts to enhance urban sustainability will require place-based solutions because every city is different in its makeup and the problems it faces.

What quality of life or way of living is being obtained or preserved? What may be sustainable over the short term and at the micro-level may not be so over the long term and at the macro-level. There is a need to reverse the unsustainable patterns of growth that America’s cities have experienced over the last 50 years.

What incentives can be created to encourage sustainable behavior? There is no clear cut strategy for addressing these competing problems. Science can help address this dilemma, but it simply cannot begin to resolve problems of choice, circumstance, and lifestyle. The challenges involving temporal and spatial aspects of sustainability are ultimately political and social issues, and not scientific ones.

We continue making the same mis-

takes. We need to focus on reducing vulnerability and enhancing resilience. We have seen powerful economic interests win, especially at the local level because land use and local economic development issues are what drive the economy.

It is difficult to determine where urban areas end and suburban or rural areas begin. The American landscape has become a single entity – borderless, yet often sharply separated, an amalgam of people and places. Sustainability problems are multi-dimensional and will require multi-dimensional responses that draw on a variety of disciplines and skills. Ultimately the urban sustainability agenda will need more than scientific knowledge and research to be successful.

Hampton Roads is among the 50 percent of America that lives within 50 miles of an ocean coastline. Hence, coastal areas are home to half of the nation’s population. Between 1950 and 2000, coastal areas in the U.S. grew in population by over 100 percent while the rest of the country grew by 75 percent. Coastal areas have experienced enormous increases in housing and infrastructure. We have developed in places where we should not have and we have paid a steep price. We need to make urban communities more resilient.

### Notes from the Board

All meetings of the Board of Directors are open to members.

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Virginia Master Naturalist programs and employment are open to all, regardless of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, or marital or family status. An equal opportunity/affirmative action employer.

## 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!

**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



Cohort IV's trip to the New Kent Forestry Center in 2010

## New Project

by **Patty and Larry Riddick**

Members of Historic Rivers Chapter joined with Riverine and Pocahontas Chapters in training for a new vernal pool project sponsored by VCU and supported by DGIF and W&M. The program was hosted at the Rice Center by Anne Wright, VCU's Coordinator, Life Sciences Outreach Education, and Assistant Professor of Biology. Three separate training sessions were offered in December and the project will officially begin in January and run through March or April. On the day we attended, Anne was joined by Lou Verner from DGIF (best known to our chapter for his administration of the VA Wildlife Mapping Program), Matthias Leu from W&M (Assistant Professor of Biology), Holly Houtz from VCU (Assistant to Anne Wright), and Dr. Joy Ware from VCU (Director of the Conservation Medicine Program). Michelle Prysby, VMN State Coordinator, was instrumental in getting this project started but could not attend this session; therefore, Susan Powell of HRC gave opening remarks on her behalf.

The roots of this project, "Vernal Pools and the Human Footprint", began with a naturalist named Charlie Blem who in the 1980's drove throughout much of eastern Virginia looking for vernal pools. He left notes describing where he found 216 vernal pools. VCU's mission - and our job - is to locate, document, sample, and record as many of these pools as possible. It is estimated that we Master Naturalist volunteers should be able to locate 168 of the 216. We will be divided into teams by our project leaders, Felice Bond and Dean Shostak, and given packets with a list of pools.

This project is divided into three phases. Phase 1: Locate the pools using maps, internet, or GPS systems. Phase 2: Determine ownership of the land and make contact with the landowner to gain access to the pool. Phase 3: Visit the actual site for sampling and collecting data.

This promises to be a challenging but interesting and rewarding citizen science project. Our findings should provide the ammunition to help protect these vital natural resources and the wildlife they support.



Photo courtesy of  
**Patty & Larry  
Riddick**

**Lunch Break at the Rice Center**



Left and left below  
Photos courtesy of Patty & Larry Riddick

Holly Houtz gives Larry Riddick GPS settings



Cherie Auckland, Seig Kopinitz and Felice Bond at the Rice Center Vernal Pools training.

Group Photo  
Courtesy of Felice Bond



# HISTORIC RIVERS CHAPTER

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## Advanced Training Opportunities—2011

By Dave Youker

Date	Title	Location	Time	Remarks/Contact
<b>January</b>				
1 Jan	WBC Walk	Greensprings Trail	1300-1500	Shirley Devan
2 Jan	HRBC Walk	Newport News Park	0700-1000	Jane Frigo
8 Jan	WBC Walk	New Qtr Park	0800-1000	Shirley Devan
15 Jan	WBC Field Trip	CBBT	0800-1300	Geoff Giles
15 Jan	HRBC Field Trip	CBBT	0800-1200	Dave Youker
16 Jan	HRBC Walk	Newport News Park	0700-1000	Jane Frigo
22 Jan	WBC Walk	New Qtr Park	0700-0900	Shirley Devan
26 Jan	WOW! The Wonders of Wetlands	Ernie Morgan Center, Norfolk	0900-1600	Contact Katelin at teachwetlands@wetland.org, 410-745-9620
27 Jan	A "pollution diet" for Chesapeake Bay: fad or fitness?	VIMS	1900	Contact 804-684-7846 programs@vims.edu
28-30 Jan	Winter Wildlife Festival	Various Virginia Beach locations	Various times	<a href="mailto:outdoors@vbgov.com">outdoors@vbgov.com</a>
<b>February</b>				
6 Feb	HRBC Walk	Newport News Park	0700-1000	Jane Frigo
12 Feb	WBC Walk	New Qtr Park	0800-1000	Shirley Devan
19 Feb	WBC Field Trip	TBD	0800-1300	Shirley Devan
19 Feb	HRBC Field Trip	Mathews County	0800-1200	Dave Youker
20 Feb	HRBC Walk	Newport News Park	0700-1000	Jane Frigo
26 Feb	WBC Walk	New Qtr Park	0700-0900	Shirley Devan
<b>April</b>				
12 Apr	<a href="#">Wetland Plants: Know 'em &amp; Grow 'em</a>	Ernie Morgan Center, Norfolk	0900-1600	Contact Katelin at teachwetlands@wetland.org, 410-745-9620

Plan to attend the January Chapter Meeting when Ann Little of the Virginia Bluebird Society will be our guest. She will talk about bluebirds, of course, attracting them to your house, maintaining an area for them, and participating in maintenance and data collection on Williamsburg area trails.

Anne travels around the state, offering a presentation entitled "Bluebird Basics - attracting and keeping bluebirds in your yard." She will show you how to attract these beautiful birds to your yard; give hints on how to provide a safe habitat and will provide information of plantings that provide food that will sustain them. She will also talk about other native cavity nesting birds in Virginia and how you can help increase their chances for survival. Ann will tell us about the Society's efforts to preserve and increase Virginia's bluebird population and give us advice on maintaining the three Williamsburg area trails.

Before and after her program, Historic Rivers Chapter members will have a chance to sign up for weeks to collect data from our area trails this spring and summer, from April through August. The data we collect becomes part of the Virginia Bluebird Society database.

Plan to stay afterward to talk to Anne and purchase a VBS bluebird house from her (see VBS flyer). Donations for the houses are a source of fundraising support to the club, which also applied for grants. Anne is an avid bluebirder who has lived in Virginia for almost 25 years. She has been President of VBS for the past four years and just received the Bluebird Heritage Award from VBS. She was also one of the founding members of the Virginia Bluebird Society in 1996. Along with her husband Carl, she has been instrumental in setting up hundreds of bluebird trails throughout Virginia, in public parks and schools. Anne and her husband Carl are recipients of the 1996 Walter Mess Award for their work in Northern Virginia Parks with bluebird trails and education.

Anne lives in Fredericksburg and is Chair of the Tri-County/ City Soil and Water District Board in Fredericksburg. She is also Chair of the City of Fredericksburg Clean & Green Commission, founder of Tree Fredericksburg and involved in many other organizations including; The Sierra Club, Friends of the Rappahannock, American Forests and Alliance for Community Trees.

- Sara Lewis

### Sustainability Issues Group to Meet January 20

As we face an uncertain future due to climate change, the end of cheap oil, and economic disparity, the environmental movement paradigm is shifting. Our consumer culture is unsustainable. The modern vision of economic growth is incompatible with the reality of ecological systems. Many see a fragile world on the brink of crisis.

What's a Master Naturalist to do? Learn more. And learn how to incorporate the message of sustainability (rather than environmental decline) in everything we do so that society will be more resilient when challenged. In essays in the Worldwatch Institute's **2010 State of the World**, leaders suggest changing the message, skills, policy, and activities we promote in all sectors – education, religion, business, government, media, society, family – toward ones that cultivate sustainability.

Not sure what sustainability is all about? Join us to learn more on Thursday, January 20, from 7:00 to 9:00 p.m. in Room C at the Williamsburg Regional Library when your fellow Master Naturalists with expertise in business, education, public policy, government, and more share their thoughts on the essays presented in the **2010 State of the World**. It's sure to shift your vision of the future.

Due to the size of the room, the Sustainability Group meeting will be limited to the first 15 people to sign up. Nine people are already on the list. To sign up or to check to be sure your name is on the list, contact Sara Lewis at [saraelewis@cox.net](mailto:saraelewis@cox.net), 220-2042, or 784-0344. Please bring a suggestion for a next book, film, or article for review by the group, as well as your opinion on whether this group should meet bimonthly or quarterly in the future.

Sara Lewis



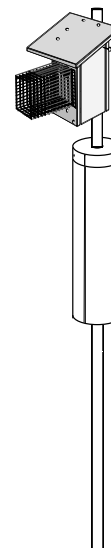
## Virginia Bluebird Society

726 William Street

Fredericksburg, Virginia 22401

### Bluebird Nest Boxes For Sale

- Cedar Bluebird nest boxes - \$60 (taxes included)
- Mounted on 1 inch steel pole
- Screwed together (not nailed) for durability
- Includes both snake guard and Noel guard  
(Noel guard helps deter squirrels, raccoon, cats, large birds like blue jays and red bellied woodpeckers)
- Carl Little design which gives you ease of monitoring and clean out.



These nest boxes were assembled by volunteers and the proceeds are used to fund our grants to scouts and also grants to our members who want to refurbish their existing bluebird trail or want to build a new blue bird trail.

There is a limited supply available. Late fall is the best time to install a nest box. Bluebirds are already looking for territory.

To order please call 540 207-4298

or email to [vbs@virginiabluebirds.org](mailto:vbs@virginiabluebirds.org)

These nest boxes are available to buy from members of our VBS Board of Directors who live throughout the state. Contact us if you are interested in buying a nest box and we will try to get one to you.

Payment can be made when you get your nest box

From Sara E. Lewis



*Rare Bird*  
by Maria Mudd Ruth

**An almost book review by Clyde Marsteller**

What is a Marbled Murrelet (Mur-lit) aka: Fog Lark, Dip Chick, Buzz Bomb, Australian Hummingbird, Kiss-My-Ass Bird, Little Hell Diver and a baked potato that flies 100 miles per hour ?

Why did it take International Naturalists & Scientists and finally an American logger 185 years to find it's nesting site?

What did Audubon have to do with confusing the mystery?

Why is it on the endangered species list when its population is estimated at 947,000?

What kind of intrigue does this "Rare Bird" have that made a Virginia Housewife and author of children's books convince her husband to sell their home and relocate their family to California because of a "connection" with a bird she had never seen and whose name she couldn't even pronounce?

Mrs Mudd Ruth became something she vowed she would never become- an ardent "Birder" albeit a single species one.

Pick up a copy of "Rare Bird" and discover the answers and in the process read a thoroughly delightful and engrossing story by a wonderful lady who turned into an "accidental naturalist".

After you have read her adventures let me know what thought about the book.

Ramblin Clyde

## News from John Clayton Chapter of the VA Native Plant Society

In case you missed Doug Tallamy when he was in Richmond in November, here is a chance to hear him again in Charlottesville:

**28th Annual Central Virginia Landscape Management Seminar**

**Thursday, Feb 10, 2011: 8:45 am–5:00 pm**

**Location: The Paramount Theater, 215 East Main Street, Charlottesville, Virginia**

Program:

**Douglas Tallamy**, Professor of Entomology and Wildlife Ecology, University of Delaware: "Bringing Nature Home"

**Michael Dirr**, Professor of Horticulture, University of Georgia: "In Praise of Noble Trees" and "New Shrubs.... Breeding, Marketing and Introduction"

**Mark Weathington**, Assistant Curator, JC Raulston Arboretum: "Going Global in Search of Plants"

For registration information, please see: [www.piedmont-landscape.org](http://www.piedmont-landscape.org)

This event is co-sponsored by The Jefferson Chapter of the Virginia Native Plant Society and the Piedmont Landscape Association.

Shirley Devan

## Naturalist Biography – James Lovelock

### The Gaia Hypothesis – Scientific Theory or Useful Fiction

James Lovelock (b. 1919) is an independent scientist, inventor, and environmentalist. He was born and educated in England, obtained a PhD in tropical medicine in London, worked in the Institute for Medical Research in London, at NASA in the United States and now works independently out of the County of Cornwall at the southwestern tip of England.

In 1957 Lovelock gained renown as the inventor of the electron capture detector, and with this instrument he was the first to detect the widespread presence of chlorofluorocarbons (CFCs) in the atmosphere, but did not realize the damage that the presence of CFCs could cause to the ozone layer. Following up on the results of Lovelock's experiments, Frank Rowland and Mario Molina embarked on research which led them to suggest a link between stratospheric CFCs and ozone depletion for which they shared the Nobel Prize in Chemistry in 1995.

While engaged in developing scientific instruments for NASA, Lovelock became interested in the composition of the Martian atmosphere, whether it would support life, and whether life on Mars would, in turn, affect the Martian atmosphere. However, when NASA's Viking program visited Mars in the late 1970s, its probes were unable to detect life on the planet.

Following up on his work involving the atmosphere of Mars, in the late 1960s and in the 1970s Lovelock formulated the Gaia Hypothesis, an ecological hypothesis which proposes that living things and the part of the earth and its atmosphere in which living things exist (the biosphere) are integrated into a complex interacting system that maintains the climate and chemistry of the biosphere in a comfortable state for life. He initially published the *Gaia Hypothesis* in journal articles in the early 1970s followed by a 1979 book *Gaia: A new look at life on Earth*. The hypothesis is frequently described as viewing the Earth as a single organism. The three initial arguments supporting this hypothesis were that the global surface temperature of the Earth has remained constant despite an increase in the energy provided by the sun, the atmospheric composition has remained constant even though it should be unstable, and ocean salinity has remained constant over eons of time.

This theory explained the fact that combinations of chemicals including oxygen and methane persist in stable concentrations in the atmosphere of the Earth, and detection of such combinations of gases in the atmospheres of other planets would enable scientists to determine whether life existed on those planets.

The Gaia Hypothesis was embraced by many environmentalists who felt that the Earth's homeostasis was becoming unbalance as a result of anthropogenic activities such as agriculture, mining, construction, and industrialization, all of which resulted in deleterious environmental externalities that were produced as by-products of otherwise beneficial human activities.

However, many members of the scientific community have criticized the Gaia Hypothesis, questioning how natural selection in individual organisms could lead to planetary-scale homeostasis, how individual organisms could act in concert to stabilize the biosphere, or how individual organisms could provide the feedback mechanisms that the Gaia Hypothesis proposed. Richard Dawkins, in particular, has been scathing in his criticism of the Gaia Hypothesis summing up what he calls a "poetic notion" and ridiculing it by stating that "All living creatures are Gaia's body parts and they work together as a well-adjusted thermostat, reacting to perturbations so as to preserve all life....The problem with this is that individual bacteria are asked to be nicer than natural selection can explain. The bacteria are supposed to produce methane beyond their own needs. They are expected to produce enough methane to benefit the planet in general." In response to this latter criticism Lovelock has since worked to remove the taint of teleological thinking from his hypothesis, but has never been able to demonstrate or explain the mechanism by which such homeostasis was regulated. Steven Jay Gould sees the Gaia Hypothesis as merely a metaphorical description of how earth processes and how the biota and its environment affect each other and not as a testable scientific theory.

Continued on next page

James Kirchner has suggested a division of Gaia into “Weak or Influential Gaia” and “Strong Gaia”. Weak or Influential Gaia is a position that many scientists could accept, that is, that biota minimally influence certain aspects of the abiotic world, such as temperature and the distribution of atmospheric gases. At the other end of the spectrum is Strong Gaia that asserts that biota manipulate their physical environment for the purpose of creating biologically favorable or optimal conditions for themselves and other life on Earth and that it is unlikely that chance alone accounts for the fact that temperature, pH, and the presence of compounds of nutrient elements have been, for immense periods, optimal for the maintenance and flourishing of life..

Naturalists, ecologists, and even a few economists have been warning humanity for many decades about the harmful effects of certain anthropogenic activities on the Earth. As early as 1974 Robert Heilbroner, one of the few economists who does not embrace the fantasy of infinite economic growth on a finite planet, warned of the dangers of rapid population growth, the presence of obliterative weapons, and dwindling resources to the continuation of human life on Earth. Lovelock has an even darker view of the human prospect and believes that overpopulation, damage to rainforests reducing planetary biodiversity, and the addition of greenhouse gases in the atmosphere leading to global warming of the air and the oceans will make most of the earth uninhabitable for humans and other living things in the relatively near future.

Despite the divergence of views on the Gaia Hypothesis and whether it is a useful fiction, an illuminating metaphor, or a scientific theory ultimately testable and capable of proof, it has had a significant and beneficial effect on how many people view the state of the world and the human prospect and what, if anything, can be done to ensure survival of humanity and other life on Earth.

*Prepared by Bruce Stewart*

*Historic Rivers Chapter, Virginia Master Naturalists, Cohort IV*

*January 2010*

## **The Williamsburg Bird Club is sponsoring a boat trip to Chesapeake Bay Bridge Tunnel Islands Saturday, January 15.**

The Club's Field Trip Coordinator, Geoff Giles, has chartered a large comfortable boat for this eye-level look at the bay ducks and other wonderful species around the tunnel islands. Photo opportunities should be very good from the boat. The boat will stay around the CBBT tunnel islands and pilings and will likely go as far as Fisherman Island near the Eastern Shore. The CBBT area tends to have smoother water than ocean trips with many of the same exciting views of birds. It will be possible to do some birding from the warm, dry cabin, but the best views and photos will be from outside on deck, so clothing that protects against wind and dampness is recommended.

We will have a rare opportunity to observe sea ducks, shorebirds, raptors and more from a large, comfortable boat with ample heated cabin space, rest rooms, tables and indoor seating. CVWO President and Bird Club member Brian Taber will be the leader and help us identify the birds.

Fee is \$25 per person. Your check is your reservation.

We will depart from Lynnhaven Inlet in Virginia Beach Saturday, January 15, at 9 am and return to the dock at about 1 pm. There is a very good seafood restaurant dockside for those inclined to have lunch on return. If the trip gets weathered out, we'll return your check, of course.

Sign up early so we can be sure to have enough people for the trip to go -- we need 25. Reservations will be taken on a first come, first served basis until the trip is filled.

For additional info contact Geoff Giles at [WBCactivities11@aol.com](mailto:WBCactivities11@aol.com) or (757) 645-8716. More info at Bird Club web site: <http://williamsburgbirdclub.org/>

Please make checks (\$25.00 per person) payable to “Williamsburg Bird Club” and mail to Geoff Giles, PO Box 133, Lightfoot, VA. Include your email address and phone # so Geoff can get back to you to confirm and let you know the final details.

-Shirley Devan

**Define Sustainability** -- A working definition for sustainability refers to a goal of meeting current human needs while conserving natural life support systems for future generations (NRC, 1999). We need to explore how urban sustainability can move beyond analyses devoted to single disciplines and sectors to systems-level thinking. How can we best complement and leverage the efforts of other key stakeholders.

It is easier to define sustainability as an intellectual concept (despite its vagueness) than as an operational concept. We know that urban sustainability at the local level may differ substantially from urban sustainability at national and international levels. Perceptions of sustainability are infused with values and expectations that vary from one society and culture to another. And, perceptions vary among different economic and social groups within a society.

**Goal Statement:** Help the public better understand and assess the tradeoffs by identifying a more complete set of long-term drivers of sustainability outcomes, clarifying the stakes, and assessing the policy choices. (Workshop Keynote Address: Xavier de Souza Briggs, Associate Director, Office of Management and Budget).

**25-Year-Old Experiment in Sustainability in the Chesapeake Bay:** As a possible model for others to use, the discussions were framed on questions of ecosystem services: The Bay's ability to provide recreation, seafood, commerce, and biodiversity to area residents and on what would be lost if they allowed the Bay to continue to be exploited beyond the ecosystem's limits of resiliency and recovery. Ecosystem services have aided discussions of sustainability by providing a way for people to talk about tradeoffs.

For the Bay, recreating a pristine environment was not possible, but developing a strategy based on tradeoffs and short-term sacrifices to attain long-term benefits was. Today, discussions are focused on the level of resources that must remain in place to ensure a healthy ecosystem into the future – the “eco-supply side” of the equation.

For all of its detailed analyses, broad-based discussions and comprehensive policy actions involved in the Chesapeake Bay, a change in mindset may have been its greatest achievement. That is, its success was in transforming the drivers of policy from one based on unlimited resources to one based on a firm conviction that we live in a region of limited resources. We cannot have it all now, but instead; we must think in terms of tradeoffs and what ought to be protected and conserved for the future. We should find a correct balance for managing competition between land, water, and biodiversity. Scientists should focus on what is the science that will change decision making. The research agenda should be framed around questions that are posed by non-scientists so the research is “demand driven.” This is how scientists studying the Chesapeake Bay have worked for the past several decades with encouraging results. (Denice Wardrop, Assistant Director, Institute of Energy and Environment, Pennsylvania State University).

The health of ecosystem services and their future are subjects that we as Master Naturalists should be addressing. Our peninsula has developed rapidly in the last 50 years. As we move forward, this rate of development cannot be sustained. We as naturalists should become knowledgeable to participate in the policy deliberations on tradeoffs involving limited natural resources. Because we live on the peninsula, it is our responsibility to our communities to help in this effort.

Bruce F. Hill, PhD, President  
 Historic Rivers Chapter  
 Virginia Master Naturalists

### **January 4, 2010**

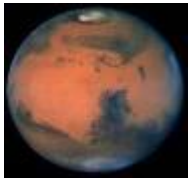
TUESDAY EVENING SEMINAR SERIES - Tundra, Deserts and Jungles - OH MY!

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.

## **SAVE THE DATE—VIRGINIA MASTER NATURALISTS ANNUAL CONFERENCE**

Hello VMN Chapters--

Please save the date for our 2011 Virginia Master Naturalist Statewide Volunteer Conference and Training, and ask your chapter members to do the same! Thank you to everyone who responded on our survey; the results were very helpful.

**Conference dates: Friday, September 23-Sunday, September 25, 2011**

Location: Camp Friendship, Palmyra, VA (in Fluvanna County, about 15 minutes south of Zion Crossroads at I-64)

Host Chapter: Rivanna

Registration details will be available in the spring.

Thanks!

Michelle Prysby

## News from Virginia Institute of Marine Science (VIMS)

### 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](mailto: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

## Planting Wild – Healthier Plants, Critters and People

Guest speaker Lance Gardener, a Ph.D. student at the Virginia Institute of Marine Science (VIMS) and a Gloucester Master Gardener, will discuss the benefits of planting native, not only for critters, but for families, too during the January 20<sup>th</sup> meeting of the John Clayton Chapter of the Virginia Native Plant Society. Learn about low-maintenance gardening that attracts wildlife and benefits people by cutting down the need for pesticide/herbicide applications, irrigation, lawn mowing, and other costly, time consuming, hazardous maintenance. There will be a limited section on how to deter unwanted critters, as well. Meeting starts at 6:45 pm at the York County Library on U.S. Rt. 17 at Battle Road, Yorktown. Free and open to the public. For info visit [www.claytonvnps.org](http://www.claytonvnps.org) or call (757)564-4494.

# HISTORIC RIVERS CHAPTER

Letters to the Editors by Kathi Mestayer

The article in the *New York Times'* The Week In Review, "A Diet for an Invaded Planet," has several interesting points. I, too, would like to see people eat Asian lionfish with Japanese knotweed aioli.

At the end of the piece, the author talks about how, by broadening "the definition of invasives to include the things that invade the average suburbanites' yard and golf course, a world of possibilities opens up -- deer, raccoons, opossums, squirrels, skunks, rabbits and woodchucks." I'm not sure if the author was joking, but that's a little too broad for me. Although several of those species are edible (not sure about the skunks), they are not invasive. They are inconvenient, and sometimes annoying, but they all play a part in our environment, food web, and biodiversity (which is, after all, the basis of the planet's carrying capacity for our species). Besides that, there are laws that govern hunting or even capturing them in many states (Virginia included).

The distinction can seem like a gray area, but it's important. Food is present in lots of places that we don't commonly think of, but it's not everywhere at all times, and for some very good reasons.

On the whole, a very interesting article -- and I'd love to hear a good use for Japanese stiltgrass.

Kathi Mestayer

Sir:

I am writing regarding the article on page 154 of the December 18, 2010 issue of *The Economist* ("Wet, wet, wet").

The final paragraph refers to the range of reasons to protect wetlands in terms of "...from their pragmatic role providing clean water and flood protection to the sentimental one of providing homes for wildlife...". Sentimental? The role of wetlands in providing habitat for wildlife is not so that it can be a backdrop for "The Wind in the Willows." It is a key ecosystem in terms of preserving the biodiversity, and thus the human carrying capacity, of our planet. Hardly a sentimental role.

Kathi Mestayer



Pictured are the "Honey Bees": Larry Riddick, Barbara Boyer, Sheila Kerr –Jones, Susan Powell, Patty Riddick, Gary Hammer, and J.R. Jones. With superior teamwork by these "bees" they were the winners (with bragging rights) of the musical game at our end of the year party.

CONGRATULATIONS !!!





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

## January 2011

8 - WBC Bird Walk, 8-10 a.m., led by Hugh Beard

22 - WBC Bird Walk, 7-9 a.m., led by Bill Williams

23 - Bird Walk led by Bill Williams, Chesapeake Bay Sierra Club Outing & Book Club Meetup Group, 8 a.m. For more information, go to [www.meetup.com/CbSierraClub](http://www.meetup.com/CbSierraClub)

29 - Disc Golf Ice Bowl Tournament, contact John Roy at [rottown@cox.net](mailto:rottown@cox.net) or 220-0959



## February 2011

5 - Walk & Talk, Oysters & the Chesapeake Bay, 10 a.m.-noon

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

14 - Happy Valentine's Day

26 - WBC Bird Walk, 7-9 a.m., led by Bill Williams



### Directions

- 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.



## March 2011

5 - Walk & Talk, 10 a.m.-noon, Wildlife Watching with Steve Living, Watchable Wildlife Biologist, VDG&IF

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

26 - WBC Bird Walk, 7-9 a.m.

27 - Cabin Fever Sunday

## What's Your New Year's Resolution?

If your 2011 goal is to live a healthier lifestyle, resolve to come to New Quarter Park more often. Come to Bird Walks and Walk & Talk programs or get together with friends on the disc golf course. Plan to

set aside the third Saturday of the month, April through October, to kayak. Throw someone a surprise birthday party at one of our picnic shelters. Explore, fish, or ride bikes. Dust off your guitar and come sing with us during Moonlight and Music nights. Resolve to get outdoors more often.

### Happy New Year!

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



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