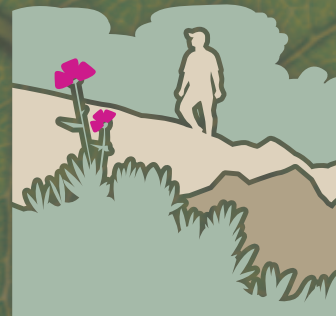


# Keeping Natural Areas Relevant and Resilient



## 39th Annual Natural Areas Conference

Norfolk, Virginia | Oct. 9-12, 2012





About Us

# The Natural Areas Association

The Natural Areas Association (NAA) has, for over 30 years, provided support and vital resources to individuals and agencies concerned with the protection and stewardship of natural areas.

As defined by NAA's founder, George B. Fell, natural areas are “areas of land which have scientific, educational and esthetic value by reason of distinctive natural features.”

NAA provides natural areas “defenders” with the tools and information they need to be successful, whether they are natural areas managers, educators, researchers, program staff or volunteers.

To support those who are committed to natural areas conservation, the NAA:

- ❖ Publishes the Natural Areas Journal.
- ❖ Hosts the annual Natural Areas Conference.
- ❖ Allows members to stay informed and connected via our new interactive website.
- ❖ Develops special reports such as “The Status of State Natural Area Programs.”
- ❖ Facilitates special programs and working groups such as the State and Federal Natural Areas Roundtables.
- ❖ Provides education and outreach to the land trust community.
- ❖ Sponsors student chapters, and works to inspire and support those interested in conservation careers.
- ❖ Serves as a portal to natural areas information and resources.

The NAA is a professional association and a 501(c)(3) non-profit organization.

To become a member, donate or to learn more about the Natural Areas Association, visit [www.naturalarea.org](http://www.naturalarea.org).

Cover photos courtesy of Gary Fleming, Virginia Department of Conservation and Recreation

Host –



Supporting Nature's Caretakers.  
Providing Tools. Sharing Knowledge.

Co-Hosts –



## Sponsors – Thank you to all of our sponsors who make the Natural Areas Conference possible!

### Ecosystem Conservators



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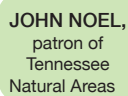
### Natural Community Conservators



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#### Poster Presentations and Student Competition

Jason Bulluck

#### Graphic Design

Cheri Craft

# Welcome to Virginia!

The Virginia conference planning team is pleased to serve as your state host for the 39th Annual Natural Areas Conference. We extend a sincere welcome to all new and returning conference goers and to our out-of-state guests. Remarkably, this is the first conference of the Natural Areas Association in the mid-Atlantic region. For those of you who arrived early for the pre-conference field trips or to attend the Eastern Shore Birding and Wildlife Festival, you have already seen some of the remarkable natural areas of Virginia.

Our conference theme – Keeping Natural Areas Relevant and Resilient – was selected in recognition of the new and recurring challenges that we as natural area professionals and the natural systems we work with are facing every day. We have invited a great set of speakers for the Tuesday plenary session who will inspire us, make us think about doing our work better, and will remind us how critical our work is to this generation and the generations that follow.

The Natural Areas Association is very aware that training a new generation to follow those of us who have been working in this field for decades is critical to the longevity of our programs and our mission. With that we extend a special welcome to the students who are here this week. We have organized a session we are calling “Speed Networking with Professionals” offered at the end of the plenary session for students or recent graduates to break the ice through brief one-on-one exchanges with a series of natural area professionals. Wednesday afternoon we are offering a session titled, “Keys to Conservation Careers,” as an aid to help the younger generation launch their careers.

We applaud our presenters who have submitted over 120 papers and posters on a diversity of topics from rare species conservation, invasive species, and restoration to historic resources conservation on natural areas, working with volunteers and engaging the public with social marketing.

Finally, we would like to thank members of the conference planning team from the Virginia Department of Conservation and Recreation, the Virginia Coastal Zone Management Program, The Nature Conservancy and the Natural Areas Association staff and board, who have worked tirelessly to make this conference both socially and professionally rewarding.

Have a great time!

Natural Areas Conference Planning Committee 2012

## Information

### Questions

Staff working the conference registration desk will be glad to help answer any question you might have. This is also the “lost and found” location. A message board will be stationed near the registration desk or in the exhibit area.

### Name Badges

Please wear your name badge to all conference events. It is your ticket to access sessions, workshops, breaks and socials.

### Cell Phones

Please silence cell phones during sessions as a courtesy to presenters and other participants.

### Meals

Full conference registration fee includes: coffee breaks, hors d'oeuvres at the opening night reception and exhibitor and poster session, field trip box lunch (pick up Thursday morning before departing), and, if you confirmed ahead of time, the Wednesday NAA membership luncheon and Thursday evening awards dinner and auction.

### Auction

Want to bring home a Virginia souvenir from the 39th annual conference and help the NAA continue its work? Stop by the auction display

in the Hampton Roads Ballroom. You'll find T-shirts, note cards, artwork, pottery and local foods up for bid at the silent auction. Want something more substantial? Check out the live auction items. Either way, there will be something for everyone! Bid a little, bid a lot, but bid often to make it yours! An annual tradition at the auction will be the live and spirited bidding to win the Prairie Fire Kit. The winning team will have bragging rights for a year and have their name and final bid amount engraved on the drip torch.

Auction items will be on display throughout the conference. Silent auction bids are welcome anytime. The live auction will be held during the awards dinner. The silent auction will close shortly afterwards.

Cash and credit cards are accepted for payment. All proceeds benefit the NAA.

If you would like to donate an item for the auctions, please drop it off at the “Auction” table, located in the registration area, between 8 am and noon on Tuesday.

### Exhibitors

The Hampton Roads Foyer will be open from Tuesday morning through Friday noon to provide participants time to meet exhibitors and browse their displays.

### Field Trips

Full conference and Thursday daily registrants who pre-registered for a field trip will have their field trip choice printed on the backs of their name badges. If you have questions regarding your scheduled trip, visit the conference registration desk. Changing field trips is discouraged, but changes must be made by Wednesday at 2 pm.

### Student Awards

We want to thank those students who entered the student awards presentation. A team of judges has been assembled to judge student posters and oral presentations. Monetary awards and certificates will be awarded to the top student presenters on Thursday night at the awards dinner.

### Conference T-Shirts

Official 39th Annual Natural Areas Conference T-Shirts are available at the NAA exhibit booth. These 100% organic cotton shirts are printed with water-based ink and reflect our social and environmental values. They make great gifts or souvenirs!



# 2012 Conference Schedule-at-a-Glance

Tuesday, October 9, 7:30 am – Registration opens at the Norfolk Waterside Marriott.

Registration is located on the hotel’s third floor, in the Presidential Foyer.



| Tuesday, October 9 |  |                                 |
|--------------------|--|---------------------------------|
| Time               | Session/Event  | Room                            |
| 7:30 am            | Registration opens   | Presidential Foyer              |
| 9:00 am-5:00 pm    | The Nature Conservancy Volunteer Coordinator Staff Meeting | Franklin / ShangriLa / Yorktown |
| 9:00 am            | State Natural Areas Roundtable                             | Hampton Roads I                 |
| 9:00 am            | Federal Natural Areas Roundtable                           | Hampton Roads III               |
| 9:00 am            | Natural Areas Journal Editorial Board Meeting              | Hampton Roads VI                |
| 9:00 am            | NA-EPPC Board Meeting                                      | Jefferson Boardroom             |
| 1:00-5:00 pm       | Plenary addresses  | Hampton Roads Ballroom          |
| 5:00-6:30 pm       | Student-to-Professional Speed Networking                   | Hampton Roads VII               |
| 5:30-7:30 pm       | Opening Night Reception                                    | Nauticus                        |

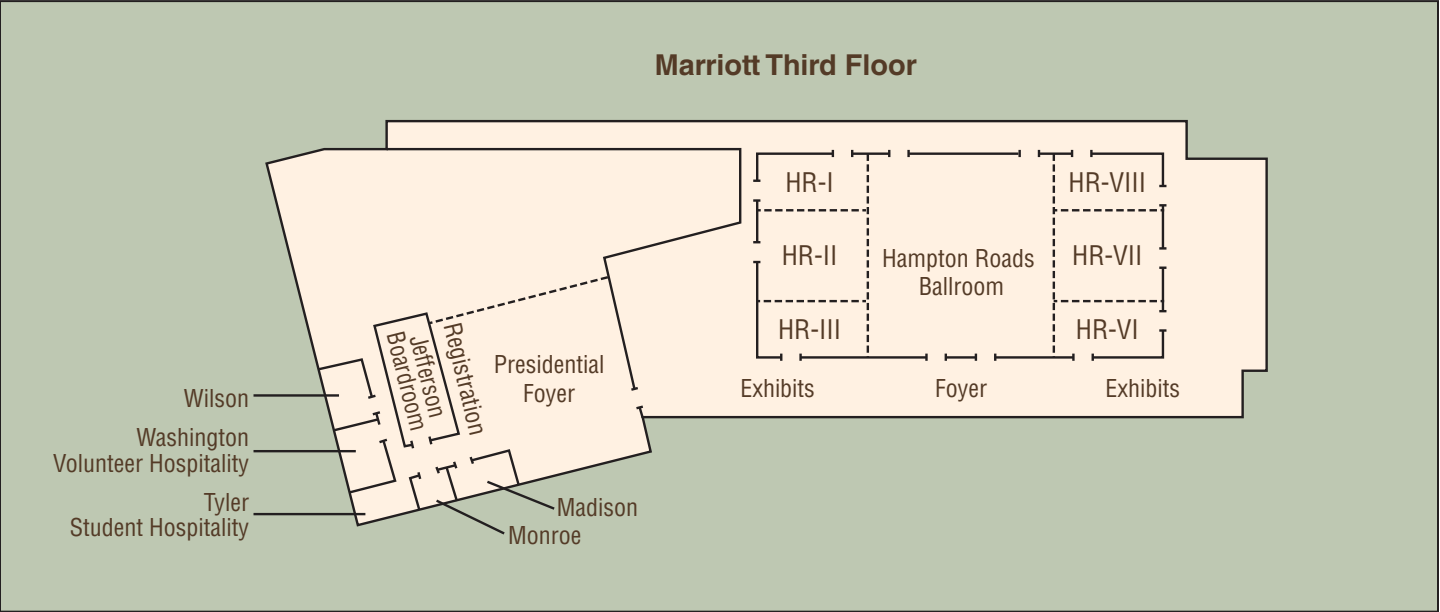
| Wednesday, October 10 |  |   |
|-----------------------|--|---|
| Time                  | Session/Event                              | Room  |
| 7:30 am               | Registration opens                         | Presidential Foyer                          |
| 8:30-10:00 am         | Concurrent Sessions                        | Hampton Roads I-III and VI-VIII             |
| 10:00-10:30 am        | Mid-morning break                          |   |
| 10:30 am-noon         | Concurrent Sessions                        | Hampton Roads I-III and VI-VIII             |
| Noon-1:30 pm          | NAA Annual Membership Meeting and Luncheon | Hampton Roads Ballroom or lunch on your own |
| 1:30-5:00 pm          | Concurrent Sessions                        | Hampton Roads I-III and VI-VIII             |
| 5:00-7:30 pm          | Poster Session and Reception               | Hampton Roads Ballroom                      |



| Thursday, October 11 |   |                                    |
|----------------------|---|------------------------------------|
| Time                 | Session/Event   | Room                               |
| 7:30 am              | Registration opens  | Presidential Foyer                 |
| 7:30 am-4:30 pm      | Field Trips — Departure times vary. Check page 10 for field trip information. | Marriott East Main Street Entrance |
| 8:30 am-4:00 pm      | Phragmites Symposium  | Hampton Roads III                  |
| 6:00-10:00 pm        | NAA Awards Dinner and Auction (cash-bar social begins at 6:00 pm)             | Hampton Roads Ballroom             |

| Friday, October 12 |                                      |                                 |
|--------------------|--------------------------------------|---------------------------------|
| Time               | Session/Event                        | Room                            |
| 7:30 am            | Registration opens                   | Presidential Foyer              |
| 8:30 am - noon     | Concurrent Sessions                  | Hampton Roads I-III and VI-VIII |
| Noon               | Sessions end and conference adjourns |                                 |

## Norfolk Waterside Marriott





# Highlights

## Opening Plenary Session Hampton Roads Ballroom

1:00-1:10 pm  
Welcome  
NAA President Lisa Smith

1:10-1:20 pm  
Virginia Natural Heritage Program  
Director Tom Smith  
Virginia Secretary of Natural  
Resources Doug Domenech

1:20-1:45 pm  
A Famous Virginian's Take on the  
Natural World  
Bill Barker

1:45-2:30 pm  
The Ecological Regions and Natural  
Communities of Virginia  
Gary Fleming

2:30-3:15 pm  
Dr. Art Evans  
Communicating the Relevance of  
Natural Areas – One Entomologist's  
Perspective

3:15-3:30 pm  
Break

3:30-4:15 pm  
Dr. Peter Smallwood  
Protecting Natural Areas In  
Afghanistan – Conservation in a  
Conflict Zone

4:15-5:00 pm  
Dr. Hilary Swain  
The Wisdom of Nature and  
The Nature of Wisdom

## Special Meetings and Events

9:00 am  
State Natural Areas Roundtable  
Hampton Roads I

9:00 am  
The Nature Conservancy Volunteer  
Coordinator Staff Meeting  
Franklin/Shangri-La/Yorktown  
Room, second floor

9:00 am  
Federal Natural Areas Roundtable  
Hampton Roads III

9:00 am  
Natural Areas Journal Editorial  
Board Meeting  
Hampton Roads VI

9:00 am  
NA-EPPC Board Meeting  
Jefferson Boardroom

5:00-6:30 pm  
Student to Professional Speed  
Networking  
Hampton Roads VII

# Tuesday, October 9, 2012 Plenary Speakers



## Dr. Hilary Swain The Wisdom of Nature and The Nature of Wisdom

Since 1995, Hilary Swain has served as the Executive Director of Archbold Biological Station, an independent nonprofit research facility, which conducts extensive ecological research on its 8,840-acre scrub preserve on the Lake Wales Ridge and at its 10,500-acre working cattle ranch, the MacArthur Agro-ecology Research Center (MAERC). She oversees a staff of 50 involved in long-term research, environmental monitoring, science education for K-12, undergraduate and graduate students and the public, as well as land management and conservation programs. Hilary's research interests are: preserve design, land management, and planning for natural communities and endangered species. She plays a key role in extensive liaison with local, state and federal agencies, and private landowners statewide, building a bridge to the environmental communities of Florida.

Prior to coming to Archbold, she was associate professor in the biology department at Florida Institute of Technology in Melbourne, Florida. Before that, she worked for the government conservation agency in the United Kingdom. She earned her PhD. in zoology in 1987 from University of Newcastle Upon Tyne.

Hilary is a fellow of the American Association for the Advancement of Science and is past president of the Organization of Biological Field Stations (OBFS). Among other appointments, she currently serves as: board member for the National Ecological Observation Network, Inc. (NEON); board member for NatureServe; chairperson of the Babcock Ranch, Inc. Board of Directors; and a member of the Natural Resources Advisory Commission (NRAC) for Highlands County, Florida.



## Dr. Peter Smallwood Protecting Natural Areas In Afghanistan – Conservation in a Conflict Zone

Peter Smallwood is an associate professor of biology at the University of Richmond. Trained as an ecologist, his publications include studies of spider foraging and mating behaviors, breeding strategies in the American Kestrel, and studies on the interactions between squirrels and oaks. In 2003, Smallwood co-led a class project to draft the Invasive Species Act for Virginia and lobbied for its passage. It was passed and signed into law, creating the Virginia Invasive Species Council. In 2003-04, he served as a Congressional Science Fellow for the American Association for the Advancement of Science, working for the U.S. Senate on conservation and other science issues. In 2004-05, he worked at the U.S. Embassy in Baghdad, running a project for the Department of State to help Iraqi scientists.

In 2006 he helped set up the Wildlife Conservation Society's project in Afghanistan. While focused on biodiversity conservation, the project is integrated with efforts to develop economic opportunities and civil society in Afghanistan, winning funding from the United States Agency for International Development, Global Environment Facility and other donor organizations. He returned to Kabul in 2008 to serve as director of the project (January 2008 to July 2009), helping Afghans establish the legal framework for conservation, protected areas in Afghanistan, and establish their first national park.

Peter's recent publications can be found in Biological Conservation, BioScience and in the book, *Greening in the Red Zone: Disaster, Resilience and Community Greening*.



## Dr. Arthur V. Evans Communicating the Relevance of Natural Areas – One Entomologist's Perspective

Art Evans is an author, lecturer, photographer and broadcaster. He studied at the California State University at Long Beach where he received his bachelor's degree (1981) in entomology and master's degree (1984) in biology. Art then attended the University of Pretoria, South Africa where he earned his doctoral degree (1988) in entomology. He is a research associate at the Smithsonian Institution, Virginia Natural History Museum and Virginia Commonwealth University. He is also an adjunct professor at Virginia Commonwealth University, the University of Richmond and Randolph-Macon College.

Art lectures widely on insect biology and natural history. He has published 40 scientific papers on the systematics, biology and identification of scarab beetles and other insects, as well as more than 100 popular articles and books on insects and spiders. His latest books include the *National Wildlife Foundation Field Guide to Insects and Spiders of North America* (2007) and *What's Bugging You? A Fond Look at Animals We Love to Hate* (2008). The last book is a collection of his first 50 columns that appeared in the Richmond Times-Dispatch. He also has a blog <http://arthurevans.wordpress.com/> and weekly radio program <http://ideastations.org/radio/archive/people/dr-art-evans>.

Art is currently working on two more books, *Introduction to Insects of Virginia and the Carolinas* (University of Virginia Press) and *Field Guide to Beetles of Eastern North America* (Princeton University Press). He lives in Richmond, Va.



## Gary P. Fleming The Ecological Regions and Natural Communities of Virginia

Gary Fleming is a senior vegetation ecologist with the Virginia Department of Conservation and Recreation – Natural Heritage Program. Gary has more than 35 years of experience in botanical and ecological inventory of natural areas in the mid-Atlantic region. During the 1980s, he worked as a contract biologist for The Nature Conservancy in Virginia and West Virginia, the Virginia Department of Conservation and Recreation and various private companies. Since joining the Virginia Natural Heritage Program in 1992, Gary and his colleagues have been responsible for field inventory of natural communities in all regions of Virginia; the development of a statewide vegetation classification based on quantitative data from more than 4,500 plot samples; landscape-level ecology studies for the U.S. Forest Service, National Park Service, Department of Defense, Environmental Protection Agency, and others; and analysis and classification of regional vegetation data for multistate mapping projects such as the Appalachian Trail and National Capital Region Parks.

Gary's work has been published in Castanea, Banisteria, the Virginia Journal of Science and other scientific journals. In 2011, he and two collaborators described a new species of hedgenettle (*Stachys, Lamiaceae*) endemic to southern Virginia and North Carolina (J. Bot. Res. Inst. Texas 5:9-18). He is current president of the Virginia Botanical Associates and a co-author of that group's Atlas of the Virginia Flora III (1992) and current online Digital Atlas of the Virginia Flora ([http://www.biol.vt.edu/digital\\_atlas/](http://www.biol.vt.edu/digital_atlas/)).



## Bill Barker A Famous Virginian's Take on the Natural World

Bill Barker has portrayed Thomas Jefferson in a variety of settings for nearly 30 years. He came to Colonial Williamsburg in 1993 to portray Jefferson in a film and continues to assist in the development of Jefferson programs for the Colonial Williamsburg Foundation.

Born and reared in Philadelphia, Bill received a Bachelor of Arts in history from Villanova University and attended the University of Pennsylvania for a brief time before entering the theatre. Attracted to the stage at an early age, he became a professional actor, director and producer. He was cast as Jefferson in many different venues, including the musical, 1776.

Over the years, Bill evolved a repertoire of Jefferson presentations. He performed as Jefferson at Monticello, the White House, FBI headquarters, the Palace of Versailles, and throughout the United States, Great Britain and France. He has received commendations from the Hellenic Ideals Foundation, the U.S. Department of Defense and the Jefferson Legacy Foundation, as well as other awards.

## Student-to-Professional Speed Networking

### Hampton Roads VII • 5:00-6:30 pm

Students and recent grads, take advantage of this unique opportunity to make connections with professionals in your desired field! You'll be able to share your background and career aspirations with potential employers and professionals. Speed networking is a fast-paced activity consisting of 10 rotations in which students will speak to a professional for four minutes before moving to the next person. Everyone should come ready to ask – and answer – questions.

## Opening Night Reception at Nauticus • 5:30-7:30 pm

Join your colleagues at Nauticus for a cash bar and hors d'oeuvres. Nauticus is an exciting science and technology center located just a five-minute walk from the Norfolk Waterside Marriott. Simply exit the hotel on East Main Street, turn left and walk approximately three blocks (physical address is One Waterside Drive, Norfolk, VA). We look forward to celebrating with you!



Wednesday, October 10, 2012

| Room           | Hampton Roads I   | Hampton Roads II  | Hampton Roads III   |
|----------------|---|---|---|
| Topic          | Fire Management, Ecology and Education  | Volunteer Management Workshop Hosted by The Nature Conservancy                      | Invasive Species Management and Ecology   |
| Time           | Moderator: Rebecca Wilson   | Coordinator: Jennifer Dalke   | Moderator: Brian van Eerden   |
| 8:30 am        | Fire in Florida’s Ecosystems: A Curriculum on the Ecological Role of Fire. Pete Colverson   | Creating a Pro-Volunteer Culture (all morning session). Martin J Cowling            | To Control or Not to Control? That is the Question: An Invasive Plant Management Decision Analysis Tool. Chris Zimmerman  |
| 9:00 am        | Habitat Improvement and Restoration in Virginia through Fire Management Partnerships. Tim Craig   |    | Applying The Nature Conservancy’s Invasive Plant Management Decision Analysis Tool Retrospectively to a Seven-year Phragmites australis Control Project. Karen Lombard            |
| 9:30 am        | Long-term Data on a Foundation Plant and Relevance for Fire Management. Eric Menges   |   | A Landscape-scale Initiative to Improve Forest Health Through Invasive Plant Management, Workforce Development and Public Outreach: The Forest Health Works Project. James Barnes |
| 10:00 am       | Mid-morning Break   |   |   |
|                | Moderator: Rebecca Wilson   | Coordinator: Jennifer Dalke   | Moderator: Brian Bowen  |
| 10:30 am       | Restoring Fire-maintained Piedmont Communities in Virginia: Effects of Prescribed Fire on Community Structure at Difficult Creek Natural Area Preserve. Ryan Klopff | Creating a Pro-Volunteer Culture (continued). Martin J Cowling                      | Impacts of the Establishment of Two Exotic Coccinellid Species on the Historical Native Lady Beetle Community in Missouri. Lauren Diepenbrock                                     |
| 11:00 am       | An Opportunity to Practice what we Preach About Resiliency: The National Cohesive Wildland Fire Management Strategy. Mike Zupko                                     |    | Niche Requirements and Competitive Effects of a New Forest Invader, Oplismenus hirtellus spp. undulatifolius (Wavyleaf Basketgrass). Vanessa Beauchamp                            |
| 11:30 am       | The AmeriCorps National Civilian Community Corps Wild Land Fire Fighting Program. Sam McKenzie  |   | Biological Control of Chinese Tallow: Results from Foreign Exploration and Host Testing. Greg Wheeler   |
| 12:00 pm       | NAA Membership Meeting and Luncheon (Hampton Roads Ballroom)  |   |   |
|                | Cave and Karst Resources  | Volunteer Management Workshop Hosted by The Nature Conservancy (continued)          | Special Session: Pesticide Recertification Workshop (* attendance required to receive recertification credits)  |
|                | Moderator: Wil Orndorff   | Coordinator: Jennifer Dalke   | Facilitator: Kevin Heffernan  |
| 1:30 pm        | Speleology Education at Missouri Western State University: Taking Higher Education to Lower Levels. David Ashley  | Social Media and Volunteerism: What You Need to Know. Martin J Cowling              | * Efficient Control of Honeysuckle, Wintercreeper, Callery Pear and Lesser Celendine. Tom Borgman   |
| 2:00 pm        | Ogdens Cave: From Appalachian Farm to State Natural Area Preserve. Wil Orndorff   |  | * Individual Plant Treatment: Methods and Herbicides for Controlling Invasive Woody Plants. Pat Burch   |
| 2:30 pm        | Ecosystem Scale Conservation of Foushee Cave, Arkansas. Jennifer Akin   |   | * Native Forb and Grass Tolerance to and Establishment after Aminopyralid Applications. Mary Halstvedt  |
| 3:00 pm        | Mid-afternoon Break   |   |   |
|                | Cave and Karst Resources (continued)  | Volunteer Management Workshop Hosted by The Nature Conservancy (continued)          | Special Session: Pesticide Recertification Workshop (continued)   |
|                | Moderator: Wil Orndorff   | Coordinator: Jennifer Dalke   | Facilitator: Kevin Heffernan  |
| 3:30 pm        | Powell Mountain Karst Preserve: Strategies for the Permanent Protection of Omega Cave and Related Karst and Surface Resources. Joey Fagan                           | Targeting Generation X: Engaging a More Diverse Audience. Martin J Cowling          | * An Integrated Approach to Invasive Weed Management. Mary Halstvedt  |
| 4:00 pm        | A Tale of Two Isopods: Ecological and Habitat Comparison of Antrolana lira and Lirceus usdagalun (Madison and Lee County Cave Isopods). Wil Orndorff                |  | * Remember the Basics: Your Pesticide Stewardship and Safety Efforts. Carol Somody  |
| 4:30 pm        | An Overview of Missouri’s Cave and Karst Resources and Their Conservation. David Ashley   |   | * Legal and Safety Considerations. Anton Goodwyn  |
| 5:00 pm        | All Sessions Adjourn  |   |   |
| 5:00 - 7:30 pm | Poster Session - Hampton Roads Ballroom   |   |   |

Wednesday, October 10, 2012 (continued)

| Hampton Roads VI   | Hampton Roads VII   | Hampton Roads VIII   |
|--|---|--|
| Land Conservation  | Natural Areas Program Relevancy and Resiliency  | Restoration  |
| <i>Moderator: Sarah Richardson</i>   | <i>Moderator: Tom Smith</i>   | <i>Moderator: Ron Hiebert</i>  |
| The Development and Management of New York Protected Areas Database (NYPAD), New York State's Conservation Lands and Open Space Database. <b>Brent Kinal</b>                                     | “Selling” Natural Areas: Key Considerations to Engage Supporters and Sustain Programs. <b>Karen Smith</b>                               | Prioritizing Disturbed Sites for Restoration on Santa Rosa Island, Channel Islands National Park, California. <b>Ron Hiebert</b>               |
| Greening the Crossroads: Implementing a Conservation Plan that Pieces Together a Fragmented Landscape. <b>Cliff Chapman</b>  | Maintaining Relevance: The Flora of Virginia Project <b>Chris Ludwig</b>  | Soil Seed Bank in Nantucket's Early Successional Communities: Implications for Management and Restoration. <b>Kelly Omand</b>                  |
| Social Effects of the Designation of Conservation Units in the U.S. Bureau of Land Management's National Landscape Conservation System. <b>Matt Preston</b>                                      | The Virginia Outdoors Plan: Attaining Goals, Merging Ideas and Meeting Public Expectations. <b>Janit Allen</b>                          | Ecological Assessment Methods for Determining Restoration of the Allapattah Flats, Martin County, Florida. <b>Anne Cox</b>                     |
| Mid-morning Break  |   |  |
| <i>Moderator: Sarah Richardson</i>   | <i>Moderator: Tom Smith</i>   | <i>Moderator: Ron Hiebert</i>  |
| The Evolution of Transferable Income Tax Credits in Virginia. <b>Nikki Rovner</b>  | Mobile Geospatial Tools: Mobile Tools for Natural Resource Management and Public Outreach. <b>Lowell Ballard</b>                        | Using Hydrologic Controls to Restore a Nationally Significant Estuary and Maintain Cypress-Tupelo Forests. <b>Will Smith</b>                   |
| Valuing Forest Conservation Programs to Protect Water Quality. <b>Melissa Kreye</b>  | An Ecosystem Services Framework to Inform Management of Natural Areas. <b>Amy Villimagna</b>  | Restoration of the Black Oak Savanna at Erie Bluffs State Park, Erie County, Pennsylvania. <b>Ephraim Zimmerman</b>                            |
| Saving Pleasure House Point: A Success Story in Urban Land Conservation. <b>Chris Moore</b>  | Mapping Recreational Capacity and Delivery in Natural Areas: Freshwater Fishing in the Albemarle-Pamlico Basin. <b>Beatriz Mogollon</b> | Restoration of a Longleaf Pine / Pitcher Plant Bog Community in Virginia. <b>Phil Sheridan</b>   |
| Lunch  |   |  |
| Rare Species Conservation  | Special Session: Keys to Conservation Careers Workshop  | Restoration (continued)  |
| <i>Moderator: Chris Ludwig</i>   | <i>Moderator: Lisa Smith</i>  | <i>Moderator: Jason Bulluck</i>  |
| Colorado Rare Plant Conservation Initiative. <b>Susan Spackman Panjabi</b>   | Federal reps. <b>Mary Long (USDAFS); Matt Preston (BLM); Cindy Schultz (USFWS)</b>  | Shrub Honeysuckle, Its Management and Climate Extremes: Effects on Soil Processes and Erosion in Deciduous Woodlands. <b>Margaret Carreiro</b> |
| Natural Resource Conservation in a Cultural Park: Evaluating the Importance of Big Hole National Battlefield to the Endemic Lemhi Penstemon ( <i>Penstemon lemhiensis</i> ). <b>Lisa Garrett</b> | Federal and State reps. <b>Carolyn Davis and Kristen Allen (NPS); Mike Leahy (Missouri Dept. of Conservation)</b>                       | Opportunities for Livestock Production and Conservation: Managed Goat Grazing in Open Oak Systems. <b>Katie Baumann</b>                        |
| Cooperative Management of an Endangered Urban Viper: The Story of the Canebrake Rattlesnake ( <i>Crotalus horridus</i> ) Coastal Plain Population in Virginia. <b>J.D. Kloepper</b>              | State and Private sector reps. <b>Tom Smith (VDCR); Brian Van Eerden (TNC); Renee Kivikko (Land Trust Alliance)</b>                     | Tick Populations: What do Natural Areas Mean for Tick-borne Disease Risk? <b>Robyn Nadolny</b>   |
| Mid-afternoon Break  |   |  |
| Rare Species Conservation (continued)  | Special Session: Keys to Conservation Careers Workshop (continued)  | Cultural Resource Conservation for Land Managers   |
| <i>Moderator: Chris Ludwig</i>   | <i>Facilitator: Lisa Smith</i>  | <i>Moderator: Larry Smith</i>  |
| Puttyroot Orchid in Hougham Woods Biological Field Station in Central Indiana. <b>Megan Smithr</b>   | Private sector reps. <b>Lowell Ballard (Timmons Group); Pete Colverson (Normandeau Associates)</b>                                      | An Invisible Resource: The Conservation and Management of Archaeological Sites. <b>Mike Barber</b>   |
| First Repatriation of a Red-cockaded Woodpecker Population West of the Mississippi River. <b>Bill Holimon</b>  | Panel Discussion / Q&A  | An Introduction to Historic Preservation Law for Land Managers. <b>Roger Kirchen</b>   |
| Red-cockaded Woodpecker Management and Recovery at the Piney Grove Preserve, Sussex County, Virginia. <b>Mike Wilson</b>   | Panel Discussion / Q&A  | An Introduction to the Identification and Treatment of Historic Cemeteries and Burials. <b>Joanna Wilson Green</b>                             |
| All Sessions Adjourn   |   |  |
| Poster Session - Hampton Roads Ballroom  |   |  |



# Wednesday, October 10, 2012

## Workshop Descriptions – Drop in or stay all day for these workshops.

**Annual Fireline Safety Refresher**  
8:30 am-5:00 pm, Morning Session in Hampton Roads I; Afternoon session on second floor, Franklin/ShangriLa/Yorktown Room  
*Presenters: Virginia Department of Conservation and Recreation, The Nature Conservancy and U.S. Fish and Wildlife Service staff*

Morning session presentations will cover fire management, ecology and education, and will be open and available to all conference attendees with an interest in fire-related topics. The afternoon portion is intended for conference attendees who already hold an Incident Qualification Card. This session will fulfill the mandatory requirements of an Annual Fireline Safety Refresher (RT-130) training. This training is required for all positions identified in the *Wildland Fire Qualifications System Guide* (NWCG 310-1) and will focus on the mandatory core content topics: avoiding entrapments, current issues, fire shelter, and other hazards and safety issues. Conference attendees seeking to receive a certificate of completion for their Annual Fireline Safety Refresher (RT-130) must attend both the morning and afternoon sessions. A Work Capacity Test will not be offered at this conference.

**Invasive Species/Pesticide Recertification Workshop**  
8:30 am-5:00 pm, Hampton Roads III  
*Presenters: Tom Borgman of Hamilton County (Ohio) Park District, Pat Burch and Mary Halstvedt of Dow AgroSciences, Carol Somody of Syngenta, Anton Goodwyn of the Virginia Department of Agriculture and Consumer Services and others*

Morning presentations will include invasive species biology and management topics, while afternoon sessions will include legal considerations, product and formulation reviews, and personal safety aspects of pesticide application. Pesticide recertification requirements for Virginia and other states are being incorporated into this full-day session.

**Keys to Conservation Careers**  
1:30-5:00 pm, Hampton Roads VII  
*Presenters: U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service, Missouri Natural Areas Program, Virginia Natural Heritage Program, The Nature Conservancy, National Park, Land Trust Alliance, Timmons Group, Normandeau Associates*

College students, recent grads and others looking to enhance their chances of landing a job in a conservation field will get a first-hand look at available career opportunities. Employees from federal and state agencies, non-government conservation groups and private firms will give brief presentations about how they got started in their professional careers and the kind of knowledge, skills and abilities they look for when hiring new staff. The format will be a panel discussion with plenty of time for questions and answers near the end.



# Volunteer Management Workshop

## Hosted by The Nature Conservancy

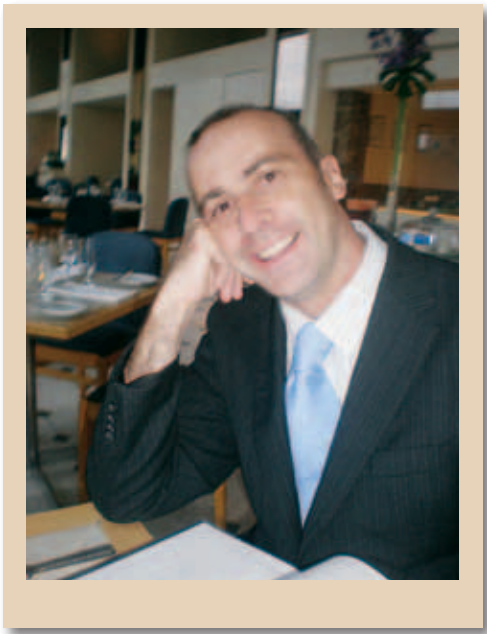
8:30 am-5:00 • Hampton Roads II  
*Featured Presenter: Martin J Cowling*

Learn how to build and manage an effective volunteer program to better your organization while sharing ideas in this interactive workshop facilitated by The Nature Conservancy.

8:30 - noon  
“Creating a Pro-Volunteer Culture”

1:30-3:00 pm  
“Social Media and Volunteerism: What You Need To Know”

3:30-5:00 pm  
“Targeting Generation X: Engaging a More Diverse Audience”



Martin J Cowling is a leading consultant on not-for-profit and volunteer management. He has worked with commercial and not-for-profit organizations for over 20 years. Currently CEO of People First – Total Solutions, Martin works regularly with individuals and organizations internationally on areas related to not-for-profit management, organizational culture, motivation, effective volunteer management, constructive personal development and financial disadvantage.

Martin’s presentations are informative, thought-provoking and beneficial. He is regarded in Australia and internationally as an entertaining, practical and helpful speaker. He is founder and a faculty member of the Australian Retreat for Advanced Volunteer Management.

Martin has published articles in journals nationally and internationally and is currently authoring a text on volunteer management. His qualifications include: Bachelor of Arts in psychology (Macquarie University, Sydney, Australia), Graduate Diploma in adult education and training (University of Melbourne, Melbourne, Australia), Graduate Diploma in human resources and industrial relations management (Victoria University, Melbourne, Australia), Diploma in volunteer management and Certification IV in training and assessment.

He is a volunteer with the Red Cross Telecross Program and a member of the education sub-committee of Volunteering Victoria. Martin also was a volunteer for Chicago’s bid to host the 2016 Olympics.

# NAA Annual Membership Meeting and Luncheon

## Wednesday, Noon - 1:15 pm Hampton Roads Ballroom

All NAA members are invited and encouraged to attend their annual meeting. The meeting agenda will include: election of board members, a special preview of NAA’s new website, NAA bylaws changes to be approved by the members, lunch for those who pre-registered and the opportunity to network with other NAA members and share your ideas.

*Please join us!*







# Poster Presentations

Join us for a Poster Session Reception in the Hampton Roads Ballroom from 5:00 to 7:30 pm on Wednesday, October 10. Meet the poster authors while enjoying appetizers, libations, socializing and entertainment by Virginia guitarists Claiborne Woodall and Rick Myers. Cash bar available.

Note: (#) refers to the poster presentation's assigned reference number.

**Monitoring Missouri Populations of the Prairie Fringed Orchids (*Platanthera praeclara* and *Platanthera leucophaea*).**

David Ashley, Steve Buback, Paul McKenzie, and Tom Nagel (1)

**Effects of Wet Prairie Restoration Methods on Native Plant Species and Transplant Survival.**

Callie Bernier and Amanda Little (2)

**Red-cockaded Woodpecker Recovery at Piney Grove Preserve, Virginia.**

Robert Clontz and Brian van Eerden (3)

**Vegetation and Tick Populations in the Hampton Roads Area of Virginia.**

David Cutherell and Holly Gaff (4)

**Developing a Multilayered Forest at Franklin College in Central Indiana.**

Alice Long Heikens (5)

**Strategic Management of Priority Invasive Plants: Coordinated Control through the Southern Illinois Invasive Species Strike Team.**

Bruce Henry and Tony Romano (6)

**Enhancing Tick Field Collection Methods to Attract *Ixodes scapularis*, *Ixodes affinis* and *Amblyomma maculatum*.**

Amy Johnson, Joseph Brown, Daniel Sonenshine and Holly Gaff (7)

**Assessing a Variety of Methods to Restore Meadows within Urban Natural Areas.**

Martin Kastner (8)

**Reducing the Risk of Ehrlichiosis in an Urban Nature Preserve.**

Yong Suk Ko, John Warfle, and Holly Gaff (9)

**Extreme Climate Change Effects on Fictitious Islands in the South Pacific Region: A Case Study through International Experience.**

Sidney Kouri, Walter Mallory, Amy Canon, Pamela Stampul, Kelly Pelz-Butler, Alexis Jackson, and Shobha Sriharan (10)

**Managing and Sharing Invasive Species Data with iMapInvasives.**

Heidi Krahling, Brent Kinal, Jennifer Dean, and Meg Wilkinson (11)

**Pollinator Community and Flowering Plant Responses to Variable Approaches to Oak Savanna Restoration.**

Mitchell Lettow, Lars Brudvig, and Doug Landis (12)

**Assessment of Natural Resource Conditions: Petersburg National Battlefield Park.**

Justin Madron, Brianna Miller, and Todd Lookingbill (13)

**Cut Stump Treatment: Stump Height Implications on Herbicide Effectiveness.**

Nathan May (14)

**Virginia Coast Reserve Long-term Ecological Research Program (VCR-LTER): 25 Years of Coastal Research and Education in the Mid-Atlantic Region.**

Karen McGlathery, Arthur Schwarzschild, Patricia Wiberg, Matt Reidenbach, and John Porter (15)

**Supplementing a Population of *Ptilagrostis porteri*: Saving the Local Genotype of a Rare Grass.**

Steven Olson and David Anderson (16)

**Determining the Distribution of Endemic Plant Species in the Spring Mountains National Recreation Area, Humboldt-Toiyabe National Forest, Nevada.**

Burton Pendleton, Stephen Solem, Marc Coles-Ritchie, Jeri Ledbetter, Kevin McKelvey, Jim Menlove, and Rosemary Pendleton (17)

**Germination Patterns of Semi-arid Grassland Forbs at the Sevilleta National Wildlife Refuge, New Mexico.**

Rosemary Pendleton and Burton Pendleton (18)

**Occurrence of the Amphibian Chytrid Fungus (*Batrachochytrium dendrobatidis*) in Ozark Caves, Missouri.**

Rhonda Rimer and Jeffrey Briggler (19)



**Status and Trends in Forests of the Great Dismal Swamp National Wildlife Refuge in Virginia, 2001-2011.**

Anita Rose and James Rosson, Jr. (20)

**Identifying Hosts of Invading Tick Species.**

Caitlin Sciulli, Robyn Nadolny, and Holly Gaff (21)

**Post-herbicide Seed Viability of Garlic Mustard.**

Nick Seaton (22)

**Impact of *Pedicularis canadensis* on Species Diversity in a Grass-dominated Prairie.**

Austen Slone (23)

**Five Years of Monitoring Forest Structure and Composition for a Landscape-scale Controlled Burning Project in the Allegheny Highlands of Virginia.**

Marek Smith, Nikole Swaney, David Fox, and Daniel Buckler (24)

**A Pollination Study of Rocky Shoals Spider-lily (*Hymenocallis coronaria*) in the Catawba River, South Carolina.**

Amanda Starring, Gerald Smith, and Joshua Campbell (25)

**Using Maxent Species Distribution Models to Evaluate Rare Plant Habitat on the Tongass National Forest, Alaska.**

Rick Turner and Barbara Schrader (26)

**Influence of Land Use Characteristics on Flora at the Urban-Forest Interface: A Southern Ontario Example.**

William Van Hemessen (27)

**Measuring Effectiveness of Tick Control Species that Exhibit Predator-prey Role Reversal.**

Alexis White and Holly Gaff (28)

**Utility Infrastructure Challenges in the Urban Forest: Making a Difference Now.**

Daren Williams, Christina Uperti, and Susan French (29)

**Recreational Durability of Geothermal Areas: Case Study in The Valley of Geysers, Kronotsky State Natural Biosphere Preserve, Kamchatka, Russia.**

Anya Zavadskaya and Vasily Yablokov (30)

**What's Killing Our Bats? White Nose Syndrome and the Decline of North American Cave Bats**

Wil Orndorff, Carol Zokaite and Chris Hobson (31)



# Thursday, October 11, 2012

## Conference Field Trips

Your field trip selection is printed on the back of your conference name badge. If you have questions regarding your scheduled trip, visit the registration table between Tuesday at 7:30 am and Wednesday at 2:00 pm. **No changes can be made after Wednesday at 2:00 pm.**

Prepared lunches will be available beginning at 6:30 am on tables in the third-floor conference registration area. Please pick up a lunch on your way to your field trip. This year’s lunches are provided in a reusable 2012 Natural Areas Conference lunch bag for you to keep.

Bring appropriate outdoor gear and we suggest you bring an extra bottle of water for the field trip. Vehicles will be parked at the front of the hotel on Main Street. Please arrive at least 15 minutes before your scheduled departure. Vehicles will depart promptly at the scheduled departure time.

**The vehicles can only stay in front of the hotel a few minutes and must depart at the allotted time, so please do not be late.**

| Number | Title  | Departure | Return  |
|--------|--|-----------|---------|
| FT-01  | The Natural History of False Cape State Park and Natural Area Preserve                 | 8:30 am   | 4:00 pm |
| FT-02  | Balancing Act: Walking on the Edge of a Fragile Environment                            | 8:00 am   | 3:30 pm |
| FT-03  | Goodwin Island Kayak Trip  | 8:30 am   | 3:00 pm |
| FT-04  | Exploring the Grafton Ponds Natural Area Preserve                                      | 8:30 am   | 4:30 pm |
| FT-05  | Restoration of Red-cockaded Woodpecker Habitat at Piney Grove Preserve                 | 8:00 am   | 3:00 pm |
| FT-06  | Important Bird Areas and Natural Areas of the Southern Tip of Virginia’s Eastern Shore | 7:30 am   | 4:00 pm |
| FT-07  | The Long and Winding Road to Eastern Shore Habitat Protection                          | 7:30 am   | 4:00 pm |
| FT-08  | On the Trail of Fernald — Rare Plants of Virginia's Upper Coastal Plain                | 8:00 am   | 4:30 pm |
| FT-09  | Longleaf Pine Restoration at its Northern Range Limit                                  | 9:00 am   | 4:00 pm |
| FT-10  | Great Dismal Swamp National Wildlife Refuge Tour and Paddling Trip                     | 9:00 am   | 3:00 pm |
| FT-11  | Ancient Giants of Cypress Bridge Swamp Natural Area Preserve                           | 9:00 am   | 4:30 pm |



## NAA Awards Dinner and Auction

6:00 pm • Hampton Roads Ballroom

The awards dinner kicks off at 6:00 pm with a cash-bar social. Mingle with friends and colleagues, and bid on an array of silent auction items! A catered dinner will be served at 6:45 pm. Full-conference attendees and those who pre-registered for the awards dinner will have dinner tickets in their name badges. The NAA will honor recipients of the Carl N. Becker Stewardship Award and the George B. Fell Award. Please join us in acknowledging these very deserving individuals. Also plan to participate in the exciting live auction and attempt to win the Prairie Fire Kit for your team! All auction proceeds benefit NAA programs.



## Phragmites Symposium – Science, Management and Questions

8:30 a.m.-4:00 p.m., Hampton Roads III  
Moderator: Kevin Heffernan, Virginia Department of Conservation and Recreation

The introduced invasive form of *Phragmites* has transformed tens of thousands of wetlands into virtual green deserts, with low diversity, reduced wildlife habitat and altered ecosystem services. Or has it? In this symposium, we will hear from

researchers and land managers about the latest views on *Phragmites australis*. Presentations will address challenges to management, responses to climate change, genetic identification and hybridization and best management practices. A panel of researchers and land managers will dive into issues concerning the future of Phragmites management by examining positive and negative ecosystem services.

|          |  |
|----------|--|
| 8:30 am  | Introduction — Kevin Heffernan   |
| 9:00 am  | Current challenges in the science and management of <i>Phragmites australis</i> — Randy Chambers   |
| 9:30 am  | <i>Phragmites</i> response to climate change – Tom Mozdzer   |
| 10:00 am | Mid-morning break  |
| 10:30 am | Reeds on the run: Inferring invasion dynamics of <i>Phragmites</i> using population genetics — Carrie Wu and Laura Murray                                    |
| 11:00 am | <i>Phragmites</i> impacts on biodiversity  |
| 11:30 am | Using Marsh Masters to control Phragmites in high-use public areas — Tom Schwartz  |
| Noon     | Lunch  |
| 1:30 pm  | <i>Phragmites</i> and ecosystem services   |
| 2:00 pm  | Panel Discussion: <i>Phragmites</i> : Where do we go from here? – Randy Chambers, David Bishop, Tom Mozdzer and Tom Schwartz, with moderator Kevin Heffernan |
| 4:00 pm  | Wrap-up  |



Friday, October 12, 2012

| Room     | Hampton Roads I  | Hampton Roads II   | Hampton Roads III  |
|----------|--|--|--|
| Topic    | Monitoring and Managing for Resilient Natural Areas  | Volunteers and Natural Areas Stewardship   | Invasive Species Management and Ecology  |
| Time     | Moderator: Rick Myers  | Moderator: Peggy Booth   | Moderator: Mark Frey   |
| 8:30 am  | Climate Sensitivity of White Spruce Growth in Boreal Alaska Research Natural Areas Suggests a Biome Shift. <b>Glenn Juday</b>  | Engaging Volunteers to Support Minnesota Natural Areas. <b>Peggy Booth</b>   | Standardizing Invasive Species Treatment and Monitoring Data Across Local and State Scales. <b>Jennifer Dean</b>   |
| 9:00 am  | Changes in Distribution and Physiology of Scrub Oaks Along a Hydrologic Gradient. <b>Tammy Foster</b>  | Overview of the Virginia Master Naturalist Program. <b>Lou Verner</b>  | Deer as a Facilitator of Exotic Species Invasion of a Mature Forest Site in Virginia. <b>Bill McShea</b>   |
| 9:30 am  | Using a Probability-based Sample from a Broad-scale Forest Survey to Identify the Occurrence and Distribution of Older Forest Stands on the Western Highland Rim, USA. <b>James Rosson</b> | Virginia Master Naturalists of the Eastern Shore: A Volunteer's Perspective. <b>Frank Renshaw</b>  | Another Cautionary Tale: The Adventive Biocontrol Weevil, <i>Larinus planus</i> , a New Threat to the Great Lakes Endemic, Pitcher's Thistle, <i>Cirsium pitcheri</i> . <b>Claudia Jolls</b> |
| 10:00 am | Mid-morning Break  |  |  |
|          | Monitoring and Managing for Resilient Natural Areas (continued)  | Volunteers and Natural Areas Stewardship (continued)   | Invasive Species Management and Ecology (continued)  |
|          | Moderator: Rick Myers  | Moderator: Peggy Booth   | Moderator: Mark Frey   |
| 10:30 am | Growing Prairiegrass for Bioenergy and Wildlife. <b>Tom Schwartz</b>   | Reaping Rewards: How does Significant Growth in Volunteer Capacity Impact Volunteer Engagement, Natural Areas Management, Staff Oversight and Planning? <b>Kurt Dreisilker</b> | Valuing the Ecosystem Service Benefits of Non-native Invasive Plant Control: Spatial Economic Methods and Software Tool. <b>Lisa Wainger</b>   |
| 11:00 am | Synthesis and discussion. <b>All Speakers</b>  | Using Future Work Force to Create a Difference to a Watershed. <b>Kimberley Knox</b>   | Coordination and Facilitation of a Statewide Invasive Species Campaign through the Illinois Wildlife Action Plan. <b>Chris Evans</b>   |
| 11:30 am |  | Synthesis and discussion. <b>All Speakers</b>  | Evaluating Plants for Use in Cultural Landscapes in National Parks. <b>Mark Frey</b>   |
| 12:00 pm | Conference Adjourns  |  |  |

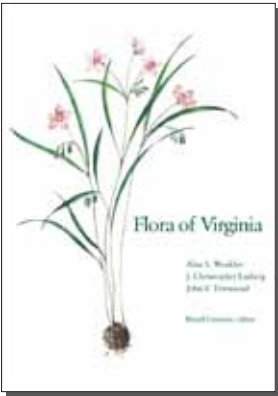
Friday, October 12, 2012 (continued)

| Hampton Roads VI  | Hampton Roads VII  | Hampton Roads VIII  |
|---|--|---|
| Rare Species Conservation   | Engaging the Public and Youth with Social Marketing and Communications   | Coastal and Marine Resources  |
| Moderator: Pete Colverson   | Moderator: Julie Buchanan  | Moderator: Laura McKay  |
| Conservation of the Federally Threatened Eastern Prairie Fringed Orchid ( <i>Platanthera leucophaea</i> ) in the Vicinity of Saginaw Bay, Michigan. <b>Brad Slaughter</b> | Saving the Chesapeake Bay with Social Marketing. <b>Julie Buchanan</b>   | Managing for Coastal Rare and Endangered Species in a Highly Utilized Public Park and a Highly Regulated Environment: Issues in Changing Conservation Strategies and Engaging Public Participation. <b>Ken Thoman</b> |
| Orchid Decline in the Catoctin Mountains, Frederick County, Maryland as Documented by a Long-term Year Dataset. <b>Wesley Knapp</b>                                       | Sowing the Seeds of Change: Using Community-based Social Marketing to Engage Citizens in Restoring Native Vegetation and Helping Protect the Ecological Integrity of Virginia's Eastern Shore. <b>Virgina Witmer</b> | It Takes an Effective Partnership to Conserve Rare Avian Species on Virginia's Barrier Islands. <b>Ruth Boettcher</b>   |
| The Significance of Cliff and Talus Communities as Habitats for Rare Plant Species in the Interior Highlands of Arkansas. <b>Theo Witsell</b>                             | Communicating with Land Managers and Visitors about Natural Communities. <b>Judy Teague</b>  | Marine Restoration, Ecosystem State Changes and Resiliency in the Coastal Bays of Virginia. <b>Barry Truitt</b>   |
| Mid-morning Break   |  |   |
| Rare Species Conservation (continued)   | Engaging the Public and Youth with Social Marketing and Communications (continued)   | Coastal and Marine Resources (continued)  |
| Moderator: Brian Bowen  | Moderator: Julie Buchanan  | Moderator: Laura McKay  |
| The Sustainability of Harvest of Osha, <i>Ligusticum porteri</i> , an Important Medicinal Plant of the Southwest U.S. <b>Kelly Kindscher</b>                              | Old Growth Meets New Technology: Using Bilingual Audio Guides and Smartphones to Reach New Audiences. <b>Troy Weldy</b>  | Vulnerability Assessment of Emergent Wetlands to Sea Level Rise: A Focus on the York River Estuary. <b>Scott Lerberg</b>  |
| Black Rail Imperilment on the Atlantic Coast. <b>Mike Wilson</b>  | Engaging Undergraduates and Youth in the Geographic Location of Plants and Animals on National Wildlife Refuges of Southeast Virginia. <b>Shobha Sriharan</b>  | Where Water Meets the Land: A Beetle's Tale. <b>Dot Field</b>   |
| Schau's Swallowtail Butterfly ( <i>Heraclides aristodemus ponceanus</i> ) Habitat Enhancement in Biscayne National Park. <b>Tony Pernas</b>                               | Synthesis and discussion. <b>All Speakers</b>  | Coastal Bay Ecology: Bridging the Gaps Between Science, Education and Art through the Virginia Coast Reserve Long-term Ecological Research Program. <b>Art Schwarzschild</b>  |
| Conference Adjourns   |  |   |

A NEW FLORA FOR THE OLD DOMINION

Virginia's first flora since 1762's *Flora Virginica* will be published in December. Reserve yours today, for just \$79.99 plus \$6.50 shipping. Click the button on our home page [floraofvirginia.org](http://floraofvirginia.org) to order directly from the publisher.

- Featuring
- Description, status, and habitat information for 3,164 taxa



- 1,400 original illustrations
- Unique key to the families, with tips on using the book's keys
- Chapters on botanical exploration in Virginia, a physiographic look at our plant communities, and a guide to 50 hot spots for botanizing in Virginia
- Large index, including synonyms
- Almost 1,600 pages

—AND NOT A CENTURY TOO SOON!



Exhibitors

The NAA thanks the many exhibitors that have joined us this year. Exhibitors play a key role in helping the NAA underwrite the cost of the Natural Areas Conference. Be sure to stop by the exhibits area in the Hampton Roads Foyer.

Arkansas Natural Heritage Commission  
Bureau of Land Management  
Cave Conservancy Foundation (CCF)  
Cave Conservancy of the Virginias (CCV)  
Chesapeake Bay National Estuarine Research Reserve  
Dow AgroSciences  
Flora of Virginia Project  
Natural Areas Association  
National Association of Exotic Pest Plant Councils  
National Natural Landmarks Program  
NatureServe  
Syngenta

Timmons Group  
The Nature Conservancy  
Truax Company, Inc.  
USDA Forest Service  
Vanasse Hangen Brustlin, Inc.  
Virginia Coastal Zone Management Program  
Virginia Department of Conservation and Recreation - Natural Heritage Program  
Virginia Department of Conservation and Recreation - Virginia State Parks





# The Natural Areas Association Launches New Website Platform

The NAA, the premier organization for natural areas professionals, is launching a ‘brand’ new website this month. The new website features a dynamic new look, with improved content, tools and features to better serve its members and give them the resources they need to reach their professional goals.

The new website, [www.naturalarea.org](http://www.naturalarea.org), is completely redesigned from the bottom up by a design team based in New Zealand, and carries our updated branding as well as new features and functionality. The extremely dedicated (volunteer) NAA Website Committee has been working for months on this major project, and the results speak for themselves. NAA board members are confident that the new website will boost the organization’s efforts to better serve our members and to reach new audiences.

NAA members include professionals from students to late-career researchers, academics, educators and policy-makers, so we wanted to provide an online resource that meets their needs for mentoring, networking and sharing information and best practices.

The interactive site navigation includes sections that allow members to access the content that is most relevant to their needs and interests, including feeds from social networking sites. Regular updates to the site will include RSS feeds on conservation news, organization events, product launches and updates on new content. The new website will include “Stories from the Field”--member-contributed material including case studies and photos, as well as a rich store of resources drawn from the NAA’s more than 30 years of meeting the needs of the natural areas professionals community.

In addition, current individual NAA members will be able to log in to access the e-Journal as well as a membership directory and other special features. The site’s upgraded functionality also includes vastly improved online membership renewals and job postings, along with a more user-friendly interface.

We invite all of our members, and non-members, to visit our new website for a test drive of all of our improvements. We hope that you will feel as we do, that our new website is a phenomenal go-to resource for natural areas professionals and the greater conservation community. We welcome your comments and feedback so that we can continue to make improvements and serve your needs.

## About the Natural Areas Association ~

Founded in 1978, the Natural Areas Association is the leading organization for natural areas professionals. The NAA’s vision is broader and better protection of our natural world through the expansion of existing protected areas, the creation of new natural areas, and increased recognition and appreciation for the beauty and value of nature, with conservation priorities backed by sound science. The NAA’s mission is to support the community of natural areas professionals. Our network gives our members the resources to reach their professional goals. We work with our members to raise awareness about the need for natural areas conservation, and about the need for conservation research, education and advocacy.

**For more information, or to help sponsor this new website, please contact:**  
**Deb Kraus, Director, at 541-317-0199 or [dkraus@naturalarea.org](mailto:dkraus@naturalarea.org)**

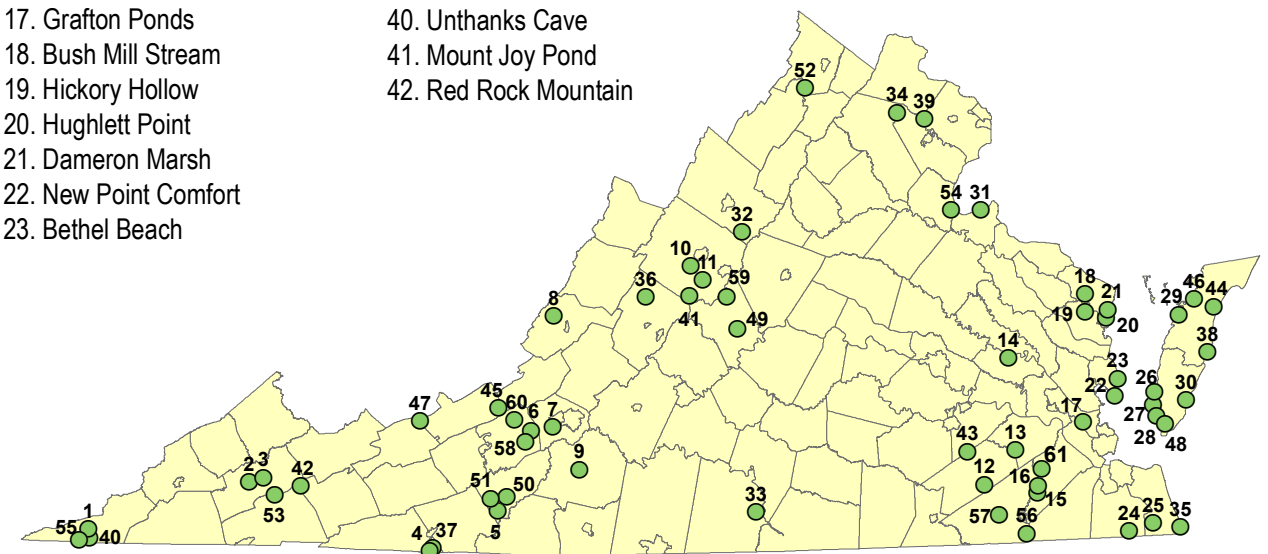


## Virginia Department of Conservation and Recreation

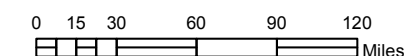
State Natural Area Preserves - 51,678 Acres

### ● NATURAL AREA PRESERVES

- |                                    |                         |                             |                          |
|------------------------------------|-------------------------|-----------------------------|--------------------------|
| 1. The Cedars                      | 24. Northwest River     | 43. Cherry Orchard Bog      | 55. Fletcher Ford        |
| 2. Cleveland Barrens               | 25. North Landing River | 44. Mutton Hunk Fen         | 56. South Quay Sandhill  |
| 3. Pinnacle                        | 26. Savage Neck Dunes   | 45. Clover Hollow           | 57. Cypress Bridge Swamp |
| 4. Big Spring Bog                  | 27. Cape Charles        | 46. Marks and Jacks Islands | 58. Sweet Springs        |
| 5. Buffalo Mountain                | 28. Pickett's Harbor    | 47. Chestnut Ridge          | 59. Crawford's Knob      |
| 6. Pedlar Hills                    | 29. Parkers Marsh       | 48. Magothy Bay             | 60. Mill Creek Springs   |
| 7. Poor Mountain                   | 30. Wreck Island        | 49. Naked Mountain          | 61. Blackwater Sandhills |
| 8. Johnsons Creek                  | 31. Chotank Creek       | 50. Chestnut Creek Wetland  |                          |
| 9. Grassy Hill                     | 32. Deep Run Ponds      | 51. Camp Branch Wetlands    |                          |
| 10. Folly Mills Fen                | 33. Difficult Creek     | 52. Ogdens Cave             |                          |
| 11. Cowbane Wet Prairie            | 34. Bull Run Mountains  | 53. The Channels            |                          |
| 12. Chub Sandhill                  | 35. False Cape          | 54. Crow's Nest             |                          |
| 13. Dendron Swamp                  | 36. Goshen Pass         |                             |                          |
| 14. Cumberland Marsh               | 37. Grayson Glades      |                             |                          |
| 15. Blackwater Ecological Preserve | 38. Parramore Island    |                             |                          |
| 16. Antioch Pines                  | 39. Elklick Woodlands   |                             |                          |
| 17. Grafton Ponds                  | 40. Unthanks Cave       |                             |                          |
| 18. Bush Mill Stream               | 41. Mount Joy Pond      |                             |                          |
| 19. Hickory Hollow                 | 42. Red Rock Mountain   |                             |                          |
| 20. Hughlett Point                 |                         |                             |                          |
| 21. Dameron Marsh                  |                         |                             |                          |
| 22. New Point Comfort              |                         |                             |                          |
| 23. Bethel Beach                   |                         |                             |                          |



Map Date: 9/13/12





# Mark Your Calendar



## *40th Anniversary* **Natural Areas Conference**

**Chicago, Illinois • October 2013**

Hosted by the ***Natural Areas Association***,  
with co-host ***Chicago Wilderness***.

Stay tuned to the NAA website

***[www.naturalarea.org](http://www.naturalarea.org)***  
for exact dates, location and future updates.



Supporting Nature's Caretakers.  
Providing Tools. Sharing Knowledge.