

# Virginia

Naturally!



Newsletter  
of the  
Virginia  
Museum of  
Natural  
History

Winter 2012

## Rocks to Racing

featuring

Life in the Ordovician

### Exhibit opening March 24

Much of what is now North America, including Virginia, was a tropical ocean during the Ordovician period, around 450 million years ago. Life was dominated by aquatic animals that had hard bodies and shells rich in calcium carbonate, the same material that makes hard water. As these life forms (corals, crinoids, trilobites, shelled squid, star fish, brachiopods, etc.) died, their bodies built up on the ocean floor and over millions of years were compressed into layers of what is now limestone.

The fossils found in the limestone layers represent a tremendous diversity from ancient shallow coral reefs. The reefs were highly productive ecosystems and

exploring limestone layers today yields numerous fossils. The *Rocks to Racing* exhibit will include animals of the Ordovician in their fossil form from rocks collected in Indiana, Illinois, Kentucky, and Virginia.

What is so special to our society about these limestone layers? Limestone is harvested for rock and gravel. But the finest, iron-free spring waters emanate from limestone. In Kentucky, this water is used to distill one of the world's most popular spirits in the form of bourbon whiskey. The *Rocks to Racing* exhibit will discuss why the water works so well for distillation as well

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### Jefferson Awards in Richmond February 9



The 25th Annual VMNH Foundation Thomas Jefferson Awards will be held at the Library of Virginia in Richmond on Thursday, February 9. This statewide event honors Virginia businesses, groups and individuals for their contributions to and support for natural science.

- **The Thomas Jefferson Medal for Outstanding Contributions to Natural Science** is presented to an individual who has consistently made outstanding contributions to natural history.
- **The Thomas Jefferson Medal for Outstanding Contributions to Natural Science Education** is presented to a Virginia educator who has made significant contributions to natural history or natural science education at any academic level.
- **The William Barton Rogers Corporate Award** is given to a corporation that has shown significant support for the natural sciences in Virginia, through contributions to research, science education, or other relevant programs of the Virginia Museum of Natural History.
- **The Thomas Jefferson Award for Conservation** is given by the VMNH Foundation for outstanding contributions to conservation in Virginia.

Don't miss the  
*Rocks to Racing* festival  
on opening day of the  
exhibit, March 24.

## Director's Message



Science is relevant to the day-to-day lives of people, but often in ways that are not obvious. The Code of Virginia states that VMNH must foster an understanding and appreciation for how man and the earth have evolved. For this reason it is imperative that the museum keeps its activities and initiatives in front of citizens and policy makers. Two upcoming events that will heavily promote our mission and achievement

stand out for me. On February 9, the VMNH Foundation will hold the 25th annual Thomas Jefferson Awards Ceremony at the Library of Virginia in Richmond. We are bringing our talent and state-wide benefit to the legislators! We want to inform newly elected officials and engage those already familiar with us about what VMNH means to the Commonwealth. This event will be free and open to all. We will also celebrate our presence in Richmond with education programs for children and visits to legislators' offices and bring a sense of excitement from southern Virginia to our capitol.

In March, we will open *Rocks to Racing*, an innovative new exhibit featuring a creative connection between fossil life of the Ordovician period, limestone, and groundwater to the cultural aspects of southern Virginia life including distillation and NASCAR! Working with colleagues, we will not only provide a wonderful exhibit for our regional visitors and supporters, but we will remind the throngs of fans who descend on our area for race weekends that our favorite pastimes start with good science.

While we enjoy our daily activities, we must remember that an understanding of our natural resources and cultural heritage is what gives us opportunities to work, play, and celebrate in a unique state that is our Commonwealth.

Joe B. Keiper, Ph.D.  
Executive Director

## Virginia Natural History Day

In celebration of the Thomas Jefferson Awards, February 9, 2012 is Virginia Natural History Day. The museum will have an exhibit on display at the General Assembly Building February 6–10 providing information about the museum and its statewide and global research and education programs. Along with the events in Richmond, the museum will also offer FREE admission on February 9 in honor of Virginia Natural History Day. Visitors will be able to enjoy the museum's award-winning exhibits free of charge.

## Radford museum now VMNH Affiliate

The Museum of the Earth Sciences (MES) at Radford University is now an affiliate of VMNH, providing both institutions with a variety of partnership benefits and collaborative opportunities.

As the state museum of natural history for Virginia, VMNH serves all citizens of the Commonwealth through exhibits, education programs, scientific research and collections, and partnerships with other institutions. The VMNH affiliation program further advances the museum's statewide mission.

"Each institution is like-minded in its desire to make science readily accessible to students and the general public," said Dr. Joe B. Keiper, executive director of VMNH. "By partnering in this way we can promote each other, and support each other in providing quality exhibit experiences for our audiences."

Officials with both VMNH and Radford University recently formalized the affiliation agreement that provides the Museum of the Earth Sciences at Radford with a variety of affiliate benefits, including discounts on VMNH traveling exhibits, collections advice and assistance, and free or discounted programs and lectures by VMNH curators and other staff members.

"It is an honor for Radford University's Museum of the Earth Sciences (MES) to be recognized as an Affiliate of the Virginia Museum of Natural History," said Dr. Orion Rogers, Dean of RU's College of Science and Technology. "This affiliation acknowledges the scientific and instructional quality of the MES by association with VMNH and provides enhanced opportunities for publicity and joint outreach programs as well as collaborative research projects and internships for RU students."

## VMNH COLLECTIONS QUICK FACTS

- ★ The Virginia Museum of Natural History has over 10 million cataloged specimens in its collections.
- ★ The VMNH collections include specimens in the areas of Archaeology, Bryozoans, Earth Science, Amphibians and Reptiles, Recent Invertebrates, Invertebrate Fossils, Birds, Mammals, Frozen Tissues, Plant Fossils, and Vertebrate Fossils.
- ★ The VMNH collections include 173 type specimens.
- ★ VMNH staff are directly responsible for the naming of 520 species new to science.
- ★ At just 27 years old, VMNH is a relatively new institution, so these already impressive statistics will only grow over time.

# Curators' Corner

To learn more about scientific research and collections, visit [www.vmnh.net](http://www.vmnh.net).

## BEARD SERVING 2-YEAR TERM WITH NSF

Dr. James S. Beard, director of research and collections, was selected to serve as program manager with the National Science Foundation, based in Arlington, Virginia. During his two-year term, which began in December 2011, Beard will be responsible for examining funding proposals from scientists from across the country, as well as working with them to build and develop strategies and new ideas for research.

NSF is an independent federal agency and is the largest provider of federal funding toward the scientific research of museums, science centers, universities and non-profit organizations. The foundation provides grants for a variety of scientific and engineering fields, as well as science, technology, engineering and mathematics education. The staff is comprised mainly of scientists and many roles are based on temporary service to keep a "fresh perspective on science," according to Beard.

"Being selected to serve at NSF is an honor," said Beard. "NSF plays a critical role in helping advance science, with relatively few scientists being asked to provide their services. To be recognized for my work as a scientist for nearly three decades is truly an honor."

The appointment also demonstrates the quality of research and scientific contributions of the Virginia Museum of Natural History, an affiliate of the Smithsonian Institution.

"Having one of our curators selected to serve for an organization such as NSF speaks volumes not only for Dr. Beard's personal achievements, but the respected contributions of our research program here at the museum, one that consists of 5 full-time curators, and two curator emeriti, all of whom are well-known throughout the nation's scientific community," said Dr. Joe B. Keiper, executive director of VMNH.

## VMNH PARTNERS WITH STUDENTS FOR ARCHAEOLOGICAL DIG

Sometimes the best way to learn something new is to dive straight in and get a little muddy. That's precisely what the junior class of the Piedmont Governor's School for Mathematics, Science, and Technology in Martinsville is doing throughout this school year as part of a hands-on archaeological project co-led by Dr. Elizabeth Moore, curator of archaeology.

Nearly 30 students recently began excavating the site of a previously razed house on Mulberry Road next to the First Baptist Church. The former house, circa 1895, could yield clues to what life was like for residents of Martinsville at the turn of the 20th century.

"Excavating the property is exciting for everyone involved," Moore said. "While the students are learning the basic steps of excavation, they are also beginning to find artifacts that have the potential to shed new light and provide additional evidence as to how life was like for people in Martinsville over a century ago."

After only a few days of excavating, students had already found pieces of painted wooden siding, brick and glass. As more items are found, the students will be able to use the artifacts to help piece together another time period.

"The excavation is just the first step of a year-long project that these students are participating in as part of the school's junior research class," Moore said. "After excavating the property, the students will then use those artifacts later on as the students move on to other phases of the research process."

The museum has taken an active role in supporting local, state, and out-of-state students, providing opportunities to take part in real-life, practical experiences at the museum and through off-site scientific research. Through internships and work-study programs, as well as assisting local schools in providing curriculum, the museum is able to offer students a unique learning opportunity that is often unavailable elsewhere.

"The museum is dedicated to inspiring students to choose higher education trajectories in science, technology, engineering, and math," said Dr. Joe B. Keiper, executive director at VMNH. "Virginia needs motivated people with skill sets in these areas. Spending field time mapping a dig and conducting an excavation with a museum curator is a great way to accomplish this."

## CURATOR ATTENDS SVP MEETING

Dr. Alton Dooley, associate curator of paleontology, attended the Society of Vertebrate Paleontology meeting in Las Vegas in November. He presented a poster titled "Characteristics of the Carmel Church Bonebed, a Marine Vertebrate Deposit from the Miocene of Virginia" that described some of the unique characteristics of the fossil deposits at the Carmel Church Quarry near Richmond, Virginia.

## ABOUT VMNH SCIENTIFIC COLLECTIONS

The Virginia Museum of Natural History is a prestigious research and collections-based scientific institution with wide-ranging research programs and over 10 million specimens in its collections.

"Natural History collections are very important to our understanding of the world around us," said Haley Cartmell, collections manager at VMNH. "When specimens are well cared for and well documented, they can provide a wealth of information to researchers in such areas as climate change, biodiversity, evolution, etc. The most important parts of a natural history collection are its type specimens, which are those specimens that were used to describe and name a species and are considered to be the standard representation of that species. When researchers find what they believe to be new species, they can compare them to the type specimens of similar species to ensure that the find is truly something that hasn't been described before."

*Rocks to Racing* continued from page 1

as how distillation works.

What does this mean for the culture of western Virginia? Virginia's cultural heritage is one where local citizens brewed the world's finest moonshine, starting off with iron-free spring water that seeps from hillsides. But looking closely, geologists find little to no limestone in much of the countryside. Granite is present due to ancient volcanic activity that predated the Ordovician period. So how can we also have this great spring water with which to concoct white lightning? The *Rocks to Racing* exhibit explores southwestern Virginia's geology and describes how the water is so perfect for distillation. The exhibit will feature a variety of information and artifacts, including moonshine stills and equipment.

While bootlegging is not an industry anymore, its impact is still felt in modern culture. When bootleggers ran their moonshine, they souped up average, everyday automobiles in an effort to outrun the law. On weekends, bootleggers raced their high octane vehicles. What was the outcome of this activity? NASCAR! This exhibit will outline the connection between geology, distillation, and one of America's most popular sports.

"When you hunt for a fossil in Ordovician rocks, your mind might conjure up a scene of a tropical coral reef from 450 million years ago," said Dr. Joe B. Keiper, executive director of VMNH. "Or, you might be reminded of the origins of bourbon or corn liquor. Or, you might anticipate the next NASCAR race in Martinsville, Virginia."



# Exhibit Spotlight



## Living off the Land

Now Open through February 25, 2012, Temporary Exhibit Hall

This exhibit, developed by VMNH staff, highlights the many ways humans depend on nature for a wealth of resources, including economic, recreational, and aesthetic benefits. The exhibit includes information about Virginia wildlife, modern and ancient hunting and fishing methods, and the evolution of hunting firearms.

Sponsored by: The Rotary Club of Martinsville, Virginia, Sam's Club, Trout Unlimited.  
Supported by: Orvis, Ducks Unlimited, the Ward Burton Wildlife Foundation.

Presented by



dex



## Rocks to Racing: *Life in the Ordovician*

Opening March 24, 2012, Temporary Exhibit Hall

Visit [www.vmnh.net](http://www.vmnh.net) or

e-mail [information@vmnh.virginia.gov](mailto:information@vmnh.virginia.gov)

to learn more.

DOCUMENTING

Diversity

## Documenting Diversity

Now open

Harvest Foundation of the Piedmont Great Hall

Biodiversity is the variation of life forms on Earth and within ecosystems.

*Documenting Diversity* explores how scientists document and study issues related to Earth's biodiversity and shows why such research is important and how it is applied in various disciplines. This exhibit also focuses on the importance of diversity on a global and local scale.

# Education

Education programs are \$5 per participant (unless otherwise noted). Pre-registration is required one week prior to each program by contacting the museum at 276-634-4185 or [discover@vmnh.virginia.gov](mailto:discover@vmnh.virginia.gov). Programs are subject to cancellation if minimum numbers are not met.



## Doodle Bugs!

VMNH offers children ages 3 to 5 the opportunity to experience natural history first-hand with the *Doodle Bugs!* program. The hour-long programs include imaginative stories, fun activities, games and crafts that spark creativity and curiosity. Programs are held at 10 a.m. and repeated at 3 p.m. Children must be accompanied by an adult.

January 25

### Land and Sea

Attention land lubbers and sea seafarers! Come explore what lies under the sea and on land and the unusual creatures that live there.

February 29

### Fizzle, Float, Pop!

Become scientists and discover what happens when common household products are used in exciting experiments.

March 28

### Let's Get Physical

Why do some things move and others do not? Why are some things hard and others soft? Investigate the physical properties of objects through fun interactive activities.

### Homeschool Wednesdays

Homeschool Wednesdays brings homeschool students together on the second Wednesday of the month for a program in which the education staff provide hands-on learning activities. Students are divided into two groups, one for ages 6 to 9 years and another for ages 10 to 15 years. Programs are from 10 to 11:15 a.m.

January 11 – Earth Materials and Processes

February 8 – Matter

March 14 – Energy

Two enrichment sessions are scheduled to offer students additional classroom exploration time. Enrichment sessions are held from 3 – 4 p.m.

January 25 – Earth and Human Activities

March 28 – Physical Sciences in  
Everyday Life

Homeschool parents may attend programs with their child or spend time in the Teacher Resource Center. To pre-register or for more information, call 276-634-4185 or email [discover@vmnh.virginia.gov](mailto:discover@vmnh.virginia.gov).



A daughter and mother share a craft moment during a *Doodle Bugs!* session.

## Piedmont Kite Festival

### Third Annual Piedmont Kite Festival set for March 17

Come out on March 17 to the third annual Piedmont Kite Festival to be held at Jack Dalton Park. Enjoy “make your own kite” and “helicopter” stations with fun activities about flight, birds and aviation, face painting, and live music.



### Youth Volunteers

Do you know any youth ages 13 – 17 interested in volunteering at VMNH? Students learn valuable life skills as they assist with educational programs, festivals, summer camps, and special events. The volunteers meet monthly and can sign up for opportunities throughout the year.

For more information, contact Robin at [robin.jensen@vmnh.virginia.gov](mailto:robin.jensen@vmnh.virginia.gov) or 276-634-4188.

# Virginia Museum of NATURAL HISTORY Sleepovers

## Museum Sleepovers

Imagine groups of children with flashlights on a scavenger hunt, digging for fossils, and making crafts after museum hours, then rolling out their sleeping bags under an *Allosaurus* for a good night's sleep. VMNH sleepovers provide Boy and Girl Scouts with activities to earn badges. Other groups can also discover the excitement of nighttime adventures at the museum. Call 276-634-4185 for date availability and pricing.



**Looking for a fun location  
for your next birthday?**

Book your child's birthday party at the museum this year! You and your guests can enjoy a themed birthday party, a hands-on activity, and tours of the exhibits during your celebration.

Visit [www.vmnh.net](http://www.vmnh.net) to get your party planning started.



## MEMBERSHIPS

Are you a VMNH Member? Join today to support the museum while receiving special member's only benefits, including free unlimited admission, invitations to receptions and events, discounts in the VMNH Museum Store and PALEO Cafe, and free reciprocal admission to hundreds of museums and science centers nationwide. Your support is our future—discovering the past is your reward.

*NEW! Special Student Memberships are now available!*

## ANNUAL FUND SPONSORSHIP OPPORTUNITIES

The VMNH Foundation's Annual Fund is unrestricted money used to support the mission of VMNH. Your Annual Fund gift provides vital support of research, education, exhibits and the Jefferson Awards. Annual Funds are the only funds available for these important endeavors.

The museum offers an exciting line-up of family festivals, special events and exhibits that inspire and intrigue thanks to our program underwriters that help sponsor our outreach. Sponsorships honor both the budget and intent of the sponsoring organization, creating opportunities to maximize marketing dollars and reach desirable markets while promoting science, technology, engineering and math education programs.

## LEGACY ENDOWMENT

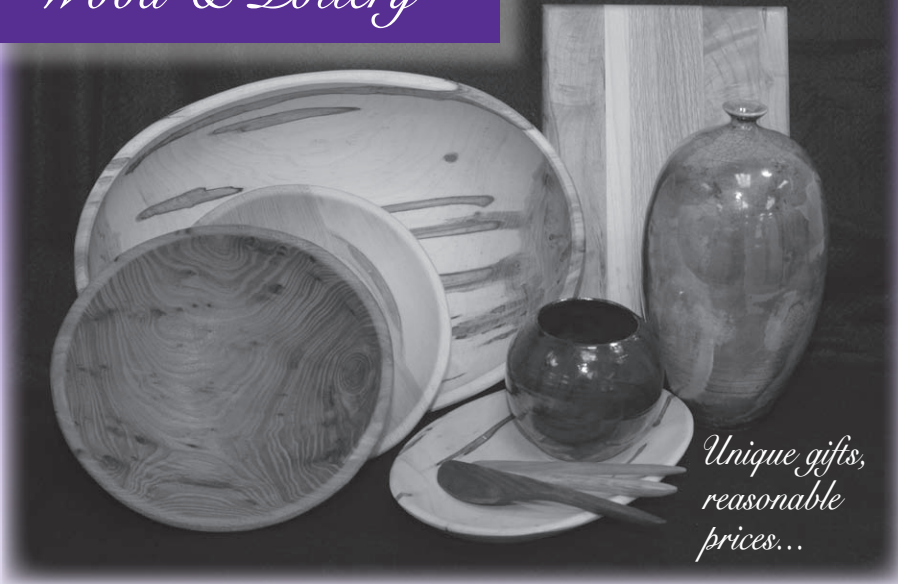
The goal of the VMNH Foundation's Legacy campaign is to raise an initial \$1 million in support of the museum's endowment. Your support of the VMNHF Legacy Endowment will provide vital support to the museum and its groundbreaking scientific research and collections, innovative educational programs for all ages, and spectacular exhibits. The VMNHF Legacy Endowment will ensure that all Virginians have the opportunity to experience the museum for generations to come.

To learn more about how you can support the Virginia Museum of Natural History and its local, statewide, regional, national, and international programs, please contact Director of Development Garth Mills at 276-634-4161 or [garth.mills@vmnh.virginia.gov](mailto:garth.mills@vmnh.virginia.gov) today.

*Remember the Virginia Museum of Natural History Foundation in your will (tax ID 521356848).*

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# Members' Night held December 1

The museum hosted its first Family Discovery Night for VMNH Members on Thursday, December 1 from 5:30 to 8 p.m. This event enabled VMNH Members to visit the museum after-hours and experience the museum's newest exhibits, including the one-of-a-kind exhibit *Living off the Land*, now open through February 25. Family Discovery Night also included samples and specials in the Museum Store and PALEO Café, fun educational programs conducted by the museum's educators, and special behind-the-scenes access to selected scientific labs and collections areas. This was a unique opportunity for VMNH Members to engage the museum's scientists and educators first-hand to learn more about the ground-breaking scientific research and innovative educational programs conducted at VMNH.



The Virginia Museum of Natural History at 21 Starling Avenue, Martinsville, VA is the state museum of natural history for Virginia, seeking to preserve, study and interpret the wealth of Virginia's natural heritage. The museum promotes research, education, exhibits, publications and programs in natural history.

**VMNH ADMISSION**

Visit [www.vmnh.net](http://www.vmnh.net) for current admission rates. Children under 3 and VMNH members are always free with membership card. Group rates are available.

**VMNH HOURS**

Monday through Saturday from 9 a.m. to 5 p.m. The museum is closed on Sundays as well as Thanksgiving Day, Christmas Day and New Year's Day. Please call ahead for current hours of operation.

The museum is within easy driving distance of the Blue Ridge Parkway and Roanoke, Lynchburg, Danville and Greensboro, NC. For more information about membership, museum exhibits, group tours, or special events, please visit our Web site at [www.vmnh.net](http://www.vmnh.net) or call 276-634-4141.

**Newsletter Production**

**Editor**

Ryan L. Barber

**Art Director**

Melody Cartwright

**Managing Editor**

Jessica Davenport

**Copy Editor**

Zachary S. Ryder

**Executive Staff**

**Executive Director**

Joe B. Keiper, Ph.D.

**Director of Administration and Services**

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## Virginia Museum of NATURAL HISTORY

IN ASSOCIATION WITH THE SMITHSONIAN INSTITUTION

The Virginia Museum of Natural History is accredited by the American Association of Museums and is a member of the Association of Science-Technology Centers, Southeastern Museums Conference, Natural Science Collections Alliance, Virginia Association of Museums, and Museum Store Association.

VMNH is an agency of the Secretary of Natural Resources for the Commonwealth of Virginia. The VMNH Foundation is a 501 (c) 3 nonprofit organization.



Virginia Museum of  
**NATURAL HISTORY**

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## Volunteers of the Month

November: Nancy Baker

December: Thad Magnum

January: Ashley Courtney

As part of VMNH's Green Initiative, the newsletter is printed on recycled paper. In addition, it is printed with vegetable-based ink.



# Make plans to attend the May 19 Gala.

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## Corporate Members and Sponsors

AEP, Bank of America, Bassett Office Supply, BB&T, Blue Ridge Packaging Corp., Building Supply Company, Inc., Carter Bank & Trust, Charity League of M-HC, Chick-Fil-A of Liberty Fair Mall, Department of Game and Inland Fisheries, Hooker Furniture Corporation, M-HC Economic Development Corporation, Marjorie Sutton Memorial Fdn., Martinsville First Savings Bank, National Wild Turkey Federation, Quality Catering, Quality Inn/Dutch Inn, Ratatouille Catering LLC, Rising Sun Breads LLC, Rotary Club of Martinsville, S & K Office Products, Inc., SunTrust Bank, T. R. Properties, Inc., Tacoma, Inc., Trout Unlimited, Virginia Lottery, Virginia Tourism, Wal-Mart

## Upcoming Events

February 9 – VMNH Foundation Thomas Jefferson Awards in Richmond; Virginia Natural History Day.

February 25 – The special exhibit *Living off the Land* closes at VMNH.

March 24 – The special exhibit *Rocks to Racing* opens at VMNH with opening day festival.

May 19 – VMNH Foundation Gala

