



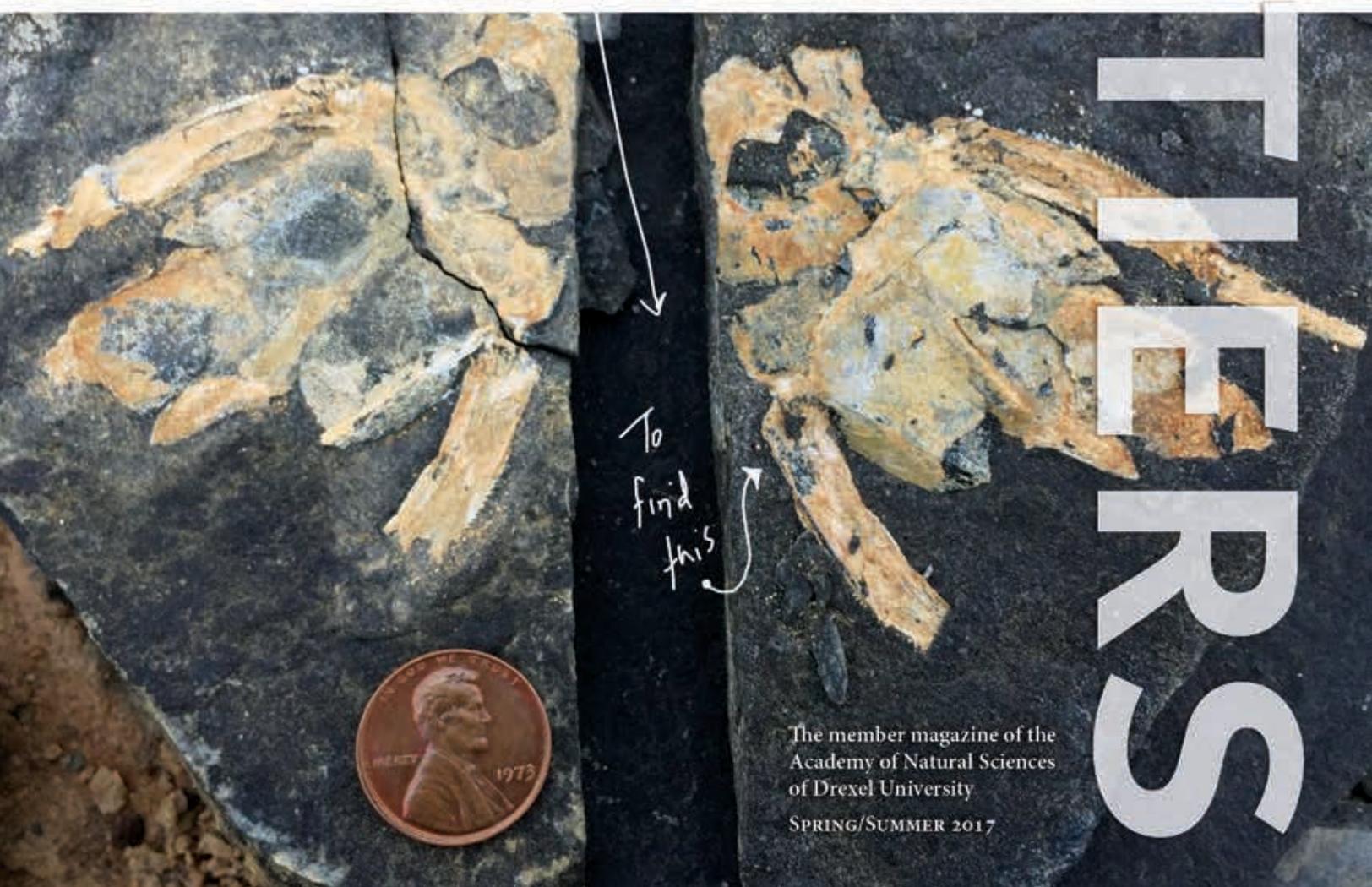
Our paleontologist
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PRESIDENT AND CEO: George W. Gephart, Jr.

DIRECTOR OF MEMBERSHIP AND APPEALS:

Lindsay A. Fiesthumel

DIRECTOR OF COMMUNICATIONS:

Mary Alice Hartsock

SENIOR GRAPHIC DESIGNER: Stephanie Gleit

CONTRIBUTING WRITERS: Robert M. Peck and

Mike Servedio

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ON THE COVER: *Ted Daeschler and a team traveled to Antarctica in December 2016 to find Devonian-age fossils, including this placoderm (*Bothriolepis* sp.). Read more about their journey on pages 8–11. Photos by Ted Daeschler/ANS*



Katie Clark/ANS

Dear Friends,

Over the past seven years, I have truly enjoyed getting to know you. Whether we've chatted at an event or crossed paths during your recent visit, your interest in the Academy and your scientific curiosity have inspired me to do my very best to further the Academy's mission. As my wife and I retire to Charleston, South Carolina, this fall, I will fondly recall the great times we've shared together at the Academy—from the celebrations of our 200th birthday and our affiliation with Drexel University to the amazing Members' Nights where we've learned about our scientists' work.

Speaking of our distinguished scientists, this past winter, vertebrate paleontologist Ted Daeschler and a team traveled to Antarctica to search for Middle Devonian-age fossils (pages 8–11). The team braved frigid temperatures near the southern margins of the McMurdo Dry Valleys, where they explored the deposits of stream systems that flowed 385–390 million years ago. They collected a range of fossils from ancient fish, including the tiny scales of both jawless and bony fish, a wide variety of placoderm plates, primitive shark teeth, early ray-finned fish, and lobe-finned fish. The fossils have just returned to the Academy, and over the coming months our scientists will be unwrapping and studying them closely. Perhaps our team will make some new discoveries!

While it's difficult to leave the Academy when such exciting work is in progress, it is wonderful to depart on a high note. The Academy's future is in great hands, and tremendous discoveries lie ahead. Our institution would not be where it is today without support from you, our loyal members and donors. I am personally grateful for your energetic encouragement, which has sustained me throughout my years of leadership. I trust that you, together with our future president, our motivated staff, our dedicated volunteers, and our Board of Trustees, will continue to guide the Academy into the future.

All the best,

A handwritten signature in black ink, appearing to be 'Gephart'.

George W. Gephart, Jr.
President and CEO

FOUNDED IN 1812, the Academy of Natural Sciences of Drexel University is a leading natural history museum dedicated to advancing research, education, and public engagement in biodiversity and environmental science.

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ACADEMY ABBREVIATED

Paleontologists like Ted Daeschler study sedimentary rocks to reconstruct environments that existed millions of years ago. Here, Daeschler's colleague Adam Maloof of Princeton University documents the sedimentary rock of the Aztec Siltstone, deposited 390 million years ago in what is now Antarctica.

CALENDAR OF EVENTS

ON EXHIBIT

FEBRUARY 4–MAY 14, 2017

Frogs: A Chorus of Colors

SPECIAL EXHIBITS GALLERY

Timothy Weaver for ANS



From radiant blue to fiery red, living frogs around the world offer a glimpse of the vast palette of frog diversity. Frogs are found on nearly every environment on Earth, and they have strange, shocking, and interesting survival strategies. Check out live frogs of many hues, listen to their colorful chorus, and admire the many ways they swim, hop, glide, and soar. Hop into a frog's world as you inspect frog habitats complete with rock ledges, live plants, and waterfalls. See live frogs in action, search for hidden frogs, create a nighttime frog chorus, spin a zoetrope to see how a frog jumps, and conduct a virtual frog dissection.

APRIL

FROGS: A CHORUS OF COLORS IS OPEN!
Now through May 14 **\$***

TINY TOT EXPLORERS
Mondays, 11 a.m.–noon through May 15 **\$** **🕒**

**SCIENCE AFTER HOURS:
PROM WITH NASREEN PHILLIPS**
Friday, April 21, 7–10 p.m.
The Franklin Institute **\$** **🕒**

NEIGHBORHOOD SCIENCE AFTER SCHOOL
Monday, April 24, 3:30–5:30 p.m.
Torresdale Library **M**

**SCIENCE ON TAP UNTAPPED:
SCIENTIFIC MALARKEY**
Monday, April 24, 6–8 p.m.
National Mechanics Bar
22 South 3rd Street, Philadelphia **M**

FAKE OUT! SCIENCE OF DECEPTION
Tuesday, April 25, 6:30–9 p.m.
Chemical Heritage Foundation **\$** **🕒**

**SCIENCE STORY TIME AT
SMITH PLAYGROUND**
Wednesday, April 26,
10:30 a.m.–12:30 p.m. **M**

**PHILADELPHIA SCIENCE CARNIVAL
AT PENN'S LANDING**
Saturday, April 29, 10 a.m.–4 p.m. **M**

MAY

**CHERYL BETH SILVERMAN
MEMORIAL LECTURE**
Wednesday, May 10, 6:30–8 p.m. **M** **🕒**

**AUTISM ACCESS
EARLY MUSEUM OPENING**
Saturday, May 13, 9 a.m. **M** **🕒**

FROG JUMP DAY
Saturday, May 13, 10 a.m.–5 p.m. **M**

**LAST DAY TO SEE
FROGS: A CHORUS OF COLORS**
Sunday, May 14, 10 a.m.–5 p.m. **\$***

JUNE

**BACKYARD ADVENTURES
MEMBER OPENING**
Thursday, June 8, 5:30–9 p.m. **M** **🕒**

**BACKYARD ADVENTURES
OPEN TO THE PUBLIC**
Friday, June 9, 10 a.m.–4:30 p.m. **\$***

**BACKYARD ADVENTURES
OPENING WEEKEND**
Saturday and Sunday,
June 10–11, 10 a.m.–5 p.m. **\$***

**SPECIAL BACKYARD ADVENTURES
ACTIVITIES IN OUTSIDE IN**
Friday through Thursday, June 23–29 **M***

JULY

DINO-MITE SUMMER
Wednesday, July 5–Sunday, August 30 **M**

ACADEMY EXPLORERS CAMP
Weekdays, July 5–September 1 **\$** **🕒**

TEEN ANIMAL HUSBANDRY PROGRAM
Weekdays, July 10–14 (Beginner) and
Weekdays, July 17–21 (Advanced) **\$** **🕒**

**TEEN INVERTEBRATE
HUSBANDRY PROGRAM**
Weekdays, August 14–18 **\$** **🕒**

TINY TOT EXPLORERS
Mondays and Wednesdays,
July 10–August 30 **\$** **🕒**

DINOS AND DONUTS
Saturday, July 15, 9–10 a.m. **M** **🕒**

**AUTISM ACCESS
EARLY MUSEUM OPENING**
Saturday, July 22, 9 a.m. **M** **🕒**

AUGUST

DINOS AND DONUTS
Saturday, August 5, 9–10 a.m. **M** **🕒**

BUG FEST
Saturday and Sunday,
August 12–13, 10 a.m.–5 p.m. **M**

**SPECIAL BUG FEST ACTIVITIES
IN OUTSIDE IN**
Saturday through Friday, August 12–18 **M**

SEPTEMBER

PARKWAY 100TH
ANNIVERSARY CELEBRATION
Friday, September 8, Open Late! **M**

LAST DAY TO SEE
BACKYARD ADVENTURES
Sunday, September 10, 10 a.m.–5 p.m. **\$***

TINY TOT EXPLORERS
Mondays, September 4–October 23 **\$** **CL**

SPECIAL BACK TO SCHOOL ACTIVITIES
IN *OUTSIDE IN*
Monday through Sunday,
September 18–24 **M**

TINY TITANS MEMBER PREVIEW
Thursday, September 28, 5:30–9 p.m. **M**

TINY TITANS OPENING WEEKEND
Saturday and Sunday,
September 30–October 1
10 a.m.–5 p.m. **\$***

ON EXHIBIT

JUNE 9–SEPTEMBER 10, 2017

Backyard Adventures

SPECIAL EXHIBITS GALLERY



Leap into a garden of wonders, where you can experience the magic of a special backyard world. As you ride the bee bike, collect nectar, check out a food web pond, copy critter calls, and even dress up like living creatures, you'll discover surprising details about how organisms live and interact in their environments. You can even become a mechanic or engineer by learning the feats of construction that go into building a shed, solving the paver puzzle, and playing garden mini-golf. Figure out how to turn your own garden into a mini-exhibit—you'll discover more science in your backyard than you could ever imagine! *Backyard Adventures* is designed and produced by SciTech and produced by Imagine Exhibitions.

ON EXHIBIT

SEPTEMBER 30, 2017–JANUARY 15, 2018

Tiny Titans: Dinosaur Eggs and Babies

SPECIAL EXHIBITS GALLERY

Take a rare and exciting look at dinosaurs through their eggs, nests, and embryos. *Tiny Titans: Dinosaur Eggs and Babies* presents an astonishing array of authentic dinosaur eggs and nests collected from around the world, including examples from each of the major plant- and meat-eating dinosaur groups. Visitors can touch dinosaur fossils, play paleontologist and dig for dinosaur eggs, examine real dinosaur embryo skin and eggshells under magnification, get up close to a *Protoceratops* family, and so much more.



OCTOBER

MEMBERS' NIGHT

Friday, October 13, 5–9 p.m. **M** **CL**

- M** Free for members
- \$** Fee
- CL** Registration required



Unless otherwise noted, all events held at the Academy are free with museum admission.

Visit ansp.org for more information or to register.

*\$3 Individual and Family level member fee for *Frogs*, *Backyard Adventures*, and *Tiny Titans*; Family Plus level members and above receive free admission.

Purchase, upgrade, or renew your membership today at ansp.org/membership.

PACKING FOR AN EXPEDITION

WHILE SCIENTISTS LIKE TED DAESCHLER TRAVEL ACROSS THE WORLD TO FIND SPECIMENS TO ADD TO THE ACADEMY'S COLLECTIONS, many (including Daeschler) also make scientific discoveries right here at home. In addition to seeking Devonian fossil fish in Arctic Canada and Antarctica (page 8), Daeschler has uncovered Devonian fossils in the red rocks alongside highway road cuts in north-central Pennsylvania. Our environmental scientists study streams and rivers in the close-by Delaware River Watershed, and Academy entomologist Jon Gelhaus has collected crane flies in Mongolia and in his New Jersey backyard.

What do these scientists have in common? They know exactly what gear and tools will make their research successful and keep them comfortable during their fieldwork.

Like Academy scientists, you can make scientific discoveries just about anywhere, including in your own backyard or local park. What breakthroughs await you?

Write down your research questions and begin packing your naturalist's backpack with the right equipment for your expedition.

Make a list! Here are the four most important types of items you'll need to pack in your naturalist's backpack.

SCIENTIFIC TOOLS: Explorers need maps to guide their travels, so print one or use a smartphone map app. If you have a compass, add that to your bag and make sure you know how to use it. If you're seeking rocks or wildlife, bring along a guidebook from your house or local library. Will you need a shovel for digging? A net to catch insects? Binoculars to spot high-flying birds? A magnifying glass to study algae? A camera to photograph wildlife? Finally, don't forget a notebook to record what you find!

PROTECTION FROM THE ELEMENTS: Check your local weather forecast. If it is sunny, you will need eye and skin protection from the sun's ultraviolet rays. On warm days, wear loose, breathable clothing. On a warm, wet day, consider a raincoat or poncho, a hat, and rain boots. In cold weather, base layers, insulated gloves, and a hat should be added to your winter jacket. If you plan to walk up any hills or over rocks, you will need comfortable, sturdy shoes.

SAFETY GEAR: In addition to sun gear, think about whether you will need protection from biting insects or other hazards. Will it be dark where you are going? If yes, then you need a flashlight. Good scientists are always prepared with emergency supplies such as first-aid kits in case they get any cuts or scrapes. Hand sanitizer is a wise addition to any safety kit.

FOOD AND WATER: How long do you plan to be gone? You will need water to drink and nonperishable food for meals and snacks. Granola bars, dried fruit, and nuts can provide protein and nutrients for energy.



Rocco Avallone for ANS

Some scientists spend days, weeks, or even months planning their expeditions and deciding what supplies to take with them. It's important to be prepared, but you must only take what you need and are able to carry! Even if you don't find what you're looking for, a clear plan, a research question, and a willingness to accept nature's unpredictability will make your expedition successful.

If you find a cool specimen, try to identify it. Take photographs and record where you found your specimen, as well as the date, time, weather, temperature, and other important data. Use your notebook to sketch your findings. Be sure to return your specimen to the exact location where you found it after you complete your investigation. When you return home, share your discovery on a website such as iNaturalist.org, where citizen scientists record and discuss their everyday findings to help create useful data for scientists!

For a chance to win a complimentary membership renewal, let us know what you find! We love getting mail. Send a letter to the Membership Office at 1900 Benjamin Franklin Parkway, Philadelphia, PA 19103. Include your name along with your photos, sketches, or notes and tell us about your adventure.

In our upcoming exhibit *Backyard Adventures*, you'll find out about some of the incredible science happening right under your nose—in your own backyard or local park! Visit ansp.org/backyard-adventures for more information on this adventure-filled exhibit, opening June 9, 2017. ~Mary Alice Hartsock



Julia Knapp

MARIE KURZ: ECO-GEOCHEMIST

MARIE KURZ DIDN'T SET OUT TO BE A GEOCHEMIST.

"Geology is something that sort of pulls people in," she says. "I love the way I can go out into the world and look around me and understand what I'm seeing. I got into geology partially to get out of doing chemistry, but somewhere along the line it backfired and I ended up becoming a geochemist."

Kurz grew up going to museums like the Academy and loved it.

"The idea of being a scientist was probably there from the beginning," Kurz says. "Both of my parents are scientists, a physicist and an astronomer. I remember my dad trying to explain to me what the astronomical red shift was when I was five."

Kurz is the new section leader for biogeochemistry in the Academy's Patrick Center for Environmental Research. She describes herself as an "eco-geochemist," a title she defines as someone who studies water chemistry in the natural world. She adds the prefix "eco" to reflect her interest in studying interactions between ecosystems and chemistry in streams.

The biogeochemistry group that Kurz leads at the Academy is a seven-person team that includes research scientists and lab personnel. The group does most of its work in the lab, but the team also collects samples in the field.

"I like that chemistry gets integrated into a lot of projects, and we work with a lot of departments around the Academy," Kurz says.

Not only does the team work within the Academy's fisheries and wetlands groups, but they also do work relating to the Academy's collections. For example, they are studying isotopic ratios in rainbow lorikeets (a type of parrot found in Australia)

from the Ornithology Collection to verify reports that they can be carnivores.

The group's biggest current project is with the Delaware River Watershed Initiative (DRWI), a multi-year effort of more than 50 environmental nonprofits and numerous public and private partners to monitor, protect, and restore conditions in the streams, rivers, and landscapes in eight targeted regions within the watershed. Through the initiative, the William Penn Foundation has been a lead funder and provided more than \$40 million over three years to the 50 nonprofit organizations, including the Academy, that are working cooperatively to protect high-quality streams and restore portions of damaged watersheds. The watershed provides drinking water to over 15 million people, including the city of Philadelphia.

The chemistry group is collecting and analyzing water chemistry samples from throughout the watershed. Academy scientists use this chemistry data, together with data on stream algae, macroinvertebrates, and other environmental indications, to measure and track improvements in stream health resulting from DRWI activities.

Kurz says she was drawn to the position at the Academy and particularly the work with DRWI because of the immediate interaction with stakeholders.

"We're doing the science but we're also direct liaisons with the organizations doing watershed restoration and protection," she says. "As a scientist, I find it important and satisfying to work not only on solving basic research questions, but also on translating what I learn into tools and concepts that can aid in effective stewardship of water resources and aquatic ecosystems." ~Mike Servedio



ANTARCTICA IN PICTURES

Academy Paleontologist Travels to Earth's End to Find Fossils

Photos by Ted Daeschler

ACADEMY VERTEBRATE PALEONTOLOGIST TED DAESCHLER IS USED TO TRAVELING TO REMOTE REGIONS OF THE EARTH FOR RESEARCH. But he's never traveled quite as far, or seen conditions quite as harsh, as he did last December and January.

His voyage began with a flight from Philadelphia to Los Angeles, and then continued to Christchurch, New Zealand, where he met up with a team of researchers. Together, they boarded a C-130 Hercules cargo plane (interior pictured on cover) for a seven-hour trip to McMurdo Station, Antarctica.

After their plane landed on Antarctica's Ross Ice Shelf, Daeschler and team members Neil Shubin (University of Chicago), Adam Maloof (Princeton University), John Long (Flinders University), and Tim Senden (Australian National University) were required to spend a week packing and training

for their expedition with professional mountaineer Sune Tamm, who accompanied them in the field. They were headed for the McMurdo Dry Valleys within the Transantarctic Range, located in Southern Victoria Land, Antarctica. There, summer temperatures hover around 15 to 20 degrees Fahrenheit and the land is nearly devoid of life, except for microscopic organisms such as bacteria.

Though 98 percent of Antarctica is ice-covered, the McMurdo Dry Valleys are not covered in ice. According to Daeschler (pictured below), the Dry Valleys are among the best places to see Middle Devonian strata, about 390 million years old. This area was farther north and part of the Gondwana super-continent during the Devonian, and life found in the rocks is evidence of the warmer, wetter climate of the past. Today, winds whip through the mountain ranges, glaciers and ice falls (at left) surround the Devonian rocks, and the frozen land is a prime spot for fossil research.

~Mary Alice Hartsock





BELOW: The team spent 12 days at this Mt. Fleming campsite about 100 miles from McMurdo Station. Since water does not run in Antarctica, they cut bricks of snow and heated them in a pot for drinking water. They needed insulated water bottles to keep the water from freezing!

Each day, they worked from about 9 a.m. to 6 p.m., cooked and ate as a group in a designated cook tent, and took time to relax and sleep. With temperatures consistently below 20 degrees Fahrenheit, the researchers' individual sleep tents offered protection from the steady wind. Antarctica receives 24 hours of daylight during the summer months, so sunshine helped to slightly warm the tents' interiors above freezing.

In the background of the campsite below, you can see a strip of snow called a wind tail. Despite the arid climate in the Dry Valleys, the harsh winds carry and deposit snow accumulations, or tails, such as this one in the valleys. Daeschler and the team deliberately pitched their tents on the frozen snow to keep them anchored and secured against the wind.

ABOVE: The team collected fossils of a wide range of Middle Devonian aquatic vertebrates, including the tiny scales of agnathans and acanthodians, a wide variety of placoderm plates, primitive shark teeth, early actinopterygians (ray-finned fish), and sarcopterygians (lobe-finned fish). Many fossils were visible and easy to find due to weathering on the surface of the rocks, but the team did minor excavations to uncover hidden fossils when they discovered fossil-rich zones.

Snow is infrequent in the Dry Valleys, so the rock surface is usually visible. Yet in this photo of a research site above Beacon Valley, Antarctica, you can see that a surprising snowstorm lightly blanketed the rocks, making it especially challenging for the crew to locate fossil layers. They used whisk brooms to clear the surface. Next time, the scientists plan to bring their leaf blowers!





ABOVE: Daeschler and the team plan to return to Antarctica in 2018 to explore more of the Aztec Siltstone. Their future field sites are about 50 miles from the area they explored in 2016 /2017, on a part of the Boomerang Range near Alligator Ridge. Before departing from Antarctica, the team surveyed the Boomerang Range (above) by helicopter to search for accessible rock exposures, potential campsites, and a landing strip for supply flights.

Previewing the field sites also helped the scientists predict safety challenges and determine whether they need specialized equipment to access the rocks. The scientists may require snowmobiles for transportation between research sites, as well as training on crevasse safety to prevent falls into the deep fractures that form in glaciers.

NEW LOCKS FOR AN OLD HAIR COLLECTION

By Robert M. Peck,
Senior Fellow of the Academy





Over the years I have corresponded with a number of historic figures and foreign heads of state, but never with a president of the United States, and never about something as personal as hair.



LAST SUMMER I WROTE TO ALL OF OUR LIVING PRESIDENTS to invite them to visit the Academy of Natural Sciences to see an exhibition of presidential materials from our collections. The show, I explained, would include some of Thomas Jefferson's fossils once kept in the White House, some presidential correspondence relating to natural history, and some hair samples from a collection that includes locks from the first 13 U.S. presidents.

These last artifacts, rarely exhibited, but always a favorite with our visitors when they are, are part of a much larger collection of hair that was assembled in the early 19th century by an Academy member interested in determining the relationship between humans from different parts of the world. The collector, Peter A. Browne, thought that the hair of famous men and women might shed light on the character traits that had led to their success as public figures.

His presidential samples, beautifully mounted in albums, run from George Washington to Millard Fillmore. In my letter to our living presidents, I suggested that if they would like to contribute hair samples to this unusual collection, the Academy would be delighted to accept them and hold them, as we do the others, for posterity.

A few weeks later I received a handwritten reply from President Jimmy Carter in which he explained that, while he could not come to Philadelphia to see our exhibit, he would be willing to contribute something to our collection. The only challenge, he said, would be its length. "I wear my hair very short, and the barber cuts

off pieces that are ¼ to ½ inches long," he wrote. "Any advice?"

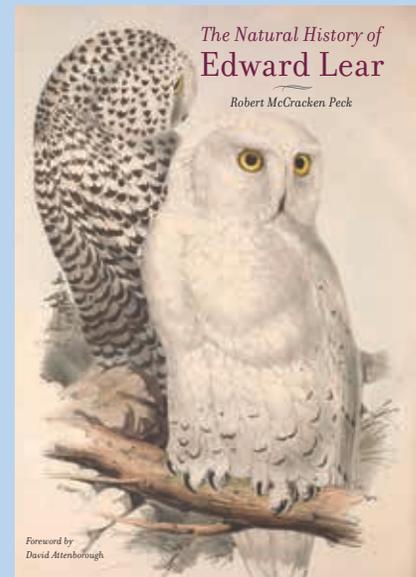
I replied that we would be happy to accept his offering regardless of its length. I also invited him to tell us a little bit about it. When I didn't hear from him for several months, I assumed he had decided against the gift.

But then, one day in September, an envelope from his Atlanta office arrived in the mail. It contained a ziplock bag with a cluster of clippings of the president's hair and a cover letter thoughtfully responding to my request.

"I had a military haircut at the Naval Academy and during my years in submarines," he wrote. "Later, before and during my presidential years, I wore my hair much longer than now. Since returning home from the White House, I have kept it cut quite short, so these pieces are mostly less than one-half inches long. I did not anticipate growing longer locks for display in a museum! Best wishes, Jimmy Carter"

When Peter Browne first began to assemble his collection of presidential hair in the 1840s, he could never have imagined that 175 years later it would still be a subject of public interest. With continuing advances in DNA analysis, his collection is now even more useful in pursuing the scientific inquiries he envisioned, and some he could never have imagined. Thanks to the generosity of our chief executives through time, the Academy holds a collection that may help to shed light on the past, present, and future of our republic and its leaders.

Our invitation to the other presidents for contributions of their hair still stands. 🐾



CELEBRATING BOB PECK

Academy Senior Fellow and Curator of Art and Artifacts Robert M. Peck marked his 40th anniversary with the Academy last fall with the release of his latest book, *The Natural History of Edward Lear*. His work explores the enigmatic career and private personality of Lear, a fine painter of birds, mammals, reptiles, and landscapes. Throughout his Academy career, Peck has traveled the world to document the field research of Academy scientists and to pursue his own studies on a wide range of subjects, such as the lives of nomadic herders in Mongolia and the history of exploration. One of his crowning achievements is the first complete history of the Academy, *A Glorious Enterprise: The Academy of Natural Sciences of Philadelphia and the Making of American Science*, co-authored with Patricia Tyson Stroud. Peck, who spent this spring as a visiting scholar at the American Academy in Rome, was the 1991 recipient of the Academy's Richard Hopper Day Medal in recognition of his work interpreting natural science and making it accessible to the public.

GEORGE AND POOH GEHART: A LEGACY OF LEADERSHIP

GEORGE GEHART SAYS HE MIGHT HAVE FAILED AT RETIREMENT THE FIRST TIME HE TRIED IT. Stepping away from the investment management business at age 52, he was actively serving the nonprofit community as Chair of Main Line Health and Trustee at the Curtis Institute and also Natural Lands Trust. He experimented with cooking, toyed with starting a business, played golf, hiked, kayaked, fly-fished, and sang with the a cappella group, The Tonics.

In short, George was happy. But as his wife, Elizabeth (PooH) Gehart notes, George is a people person, and he missed the daily interaction and collaboration of an office environment. In 2010, he received an intriguing offer—the opportunity to interview for the job of President and CEO of the Academy of Natural Sciences.

PooH, who retired in 2014 as the Dean of Students at the Baldwin School, says it's always “all or nothing” with George. Quite characteristically, he threw himself into his new challenge. He brought to his interview a 1-inch binder with tabbed dividers and documents detailing his plan for the Academy's future. His preparation wowed the search committee, and the roadmap he created for his interview led him out of retirement and guided the Academy into 2017.

Seven years after that initial meeting, George says, “it is hard to imagine another opportunity that would have been as exciting and challenging—and such a perfect fit.” Having served on nonprofit boards and also managed many regional endowments and foundations in the investment management business for most of his career, he already had a great respect for what it takes to be the operating chief of a nonprofit. He quickly learned that being the “new guy” in a 200-year-old organization required the ability to inspire people to recognize the value in taking risks.

“George is very insightful and forward thinking, and he is good at helping people understand that change represents an opportunity,” PooH says.

“If I can imagine a wonderful outcome, I'm anxious to get there,” George says. “By surrounding yourself with talented people and leaning on their expertise, you can do it. We have the best team here, including our volunteers.”

In 2010, George hit the ground running, and over his time at the Academy his leadership transformed the institution. He proposed and saw to fruition the Academy's affiliation with Drexel University, a perfect partner with its science-led, research-driven focus, which strengthened the Academy's mission, identity, assets, governance, and philanthropy. The Drexel combination led to the creation of the Department of Biodiversity, Earth & Environmental Science (BEES) at the University to prepare the next generation of scientists to address critical issues such as climate change. He engaged and empowered the Board of Trustees, leveraged the Academy's foundational role in water quality research, united natural and environmental scientists under the common purpose of broad human impact and public engagement, and helped the institution reach solid financial ground for the first time in modern history.



“Working at the Academy has allowed him to tap into so many of his strengths and passions,” PooH says. “He's obviously excited and proud of the Academy and how much has been done. The Academy has gotten deep into the soul of our family.”

PooH, who grew up in Philadelphia, has been visiting the Academy since her childhood when her mother, Antoinette Starr, served on the Academy's women's committee. She and George brought their own children to the museum many years ago.

George and PooH's three adult daughters, whom along with PooH, George calls “the secret in [his] success,” frequently ask questions about the Academy. They have traveled to attend events and sent friends and relatives to explore the museum.

George and PooH are members of the Academy's Leadership Circles of Giving, and they have made ongoing financial and in-kind contributions for Academy fundraisers. They have generously supported expansions and renovations of the Academy's museum and behind-the-scenes spaces. George has inspired giving within the Academy and its Board of Trustees by investing his own “heart, soul, and wallet” into projects he believes will spark future growth at the Academy. As George steps down this summer and the couple moves to Charleston to enjoy (this time) a permanent retirement, they plan to stay connected with the institution through fund- and friend-raising.

With a slate of new initiatives in progress, including changes to the visitor experience and research spaces, George's legacy at the Academy will continue to unfold under a new president. He is confident that the Academy will identify a trailblazer to guide such a venerable institution into the future.

“I hope that my successor harnesses our momentum and that he or she takes us to an even higher level of achievement,” he says. “I would be so proud to be part of building an organization that gets stronger every day—to be part of the renaissance of the Academy.”
~Mary Alice Hartsock

If you'd like to acknowledge George's incredible leadership of the Academy, please consider making a gift in his honor at ansp.org/give.

DONATING STOCK? THINK STRATEGICALLY.

THINKING OF DONATING STOCK AS A CHARITABLE GIVING OPTION? The best strategy depends on whether the stock has increased or decreased in value since you bought it and whether you've owned it for more than a year. Here are a few things to know about giving stock to a charity, such as the Academy of Natural Sciences of Drexel University, to get the maximum tax break:

- 1. Giving appreciated stock you've held for more than a year is better than giving cash.** If you donate stock that has increased in value since you bought it (more than a year ago), and if you itemize deductions on your income tax return, you can take a charitable deduction for the stock's fair market value on the day you give it away. You'll also avoid capital-gains taxes on the increase in value over time, which you would have had to pay if you sold the stock and gave the charity the cash proceeds. (Keep in mind—if you've held it for less than a year, your deduction is limited to your cost basis (what you paid for the stock)—not the current value.)
- 2. If it's a losing stock, it's better to sell it and give the cash.** If the stock has lost value, it's best to sell the stock first and donate the cash to the charity. You'll still be able to deduct your charitable donation if you itemize, but you'll also be able to take a capital loss when you sell the investment.
- 3. Timing is important.** Ask the charity and your brokerage firm about the procedure and time frame for giving stock.

Most brokerage firms require a letter of authorization to transfer the shares to charity, and a mutual fund company may have a special form. It's a good idea to start the process at least a week before December 31 for gifts of stock, and a few weeks before year-end for mutual funds so the transfer has plenty of time to be completed for that calendar year.

- 4. You can buy extra time with a donor-advised fund.** If you'd like to transfer shares when the value reaches a certain level, consider establishing a Drexel Donor Advised Fund (DAF). You can take an immediate charitable deduction when you give the shares to the DAF, but you have unlimited time to decide which charities to support. In addition to supporting Drexel University's schools and programs, including the Academy, your DAF will allow you to recommend other charities to receive gifts. This is a convenient, cost-effective giving option, particularly when you are donating appreciated assets, which might otherwise be difficult or inconvenient to split between your charities.

Do you have questions about the benefits of donating appreciated securities? Please don't hesitate to contact Andrea Rowe, manager of individual giving, at 215-299-1122 or rowe@ansp.org. She would be happy to assist you with questions or provide the most up-to-date instructions for making gifts of stock. Thank you for your generous support! 🐾

ACADEMY BOARD OF TRUSTEES

This winter, we welcomed two new Trustees to the Academy Board.



Tara Acharya is director of Global Nutrition at the Campbell Soup Company. In her role, she works closely with business partners to help drive science-based opportunities that activate the company's health and wellbeing strategy and enable significant and sustainable growth opportunities aligned with consumer expectations and customer needs. Previously, she served in various positions at PepsiCo, Inc., including as senior director of Global Nutrition.



Latasha Harling is the director of Human Resource Operations & Employee Relations at Inglis Inc., a provider of accessible housing for people with disabilities. She graduated from the Academy's Women In Natural Sciences program in 2000 and was a featured speaker at the Life After WINS alumnae event in 2016. Harling dedicates her free time to working on equity in education in Philadelphia. She advances that work as a Trustee at The Philadelphia School, where she works with the Diversity and Community Engagement Committees. Her experiences in WINS with girls and people of all backgrounds helped shape her future in human resources.

ACADEMY SUPPORT

ON BEHALF OF THE ACADEMY'S BOARD OF TRUSTEES, we wish to recognize and thank those who have contributed new gifts and pledges to the Academy between September 1, 2016 and February 28, 2017. Your generosity helps to fund our many programs of research and education, and we are tremendously grateful for your support.

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Mike Servadio/ANS



BUG FEST

Our annual celebration of insects turns 10 on August 12 and 13, 2017! Enjoy new activities and shows plus revisit some old favorites—back by popular demand. Hundreds of live insects will be on display all over the museum. Talk with real scientists, learn about insects from all over the world, and see specimens from the Academy's behind-the-scenes collections. Eat bugs, get your face painted, and relax as you enjoy a buggy show. Bug Fest is free for members. Find more information on ansp.org this summer.



Jeff Fusco for ANS

SUMMER CAMPS

Each week of summer camp explores an exciting theme and features an off-site field trip! This year our themed weeks for kids ages 5–12 include superhero science, digging dinosaurs, animal antics, extraordinary insects, and outdoor adventures. The Academy also offers teen summer programs on invertebrate and animal husbandry, and these unique opportunities may help your college application stand out! Member discounts are available. Get more information and register at ansp.org/camp.



Mike Servadio/ANS

DINO-BRICK BIRTHDAYS

Throw the perfect party for the brick-obsessed dino expert! Your special day includes a private party room and expert Academy birthday host, giant mega-brick dino room decorations, dino brick free play, a personalized dino brick birthday cake, brick-themed decor, and dinosaur block and bricks party favors. Plus, you and your guests will receive a hands-on exhibits tour and all-day museum access! Members get special birthday party pricing. Visit ansp.org/birthday or call 215-299-1060 for more details and to book.



Bruce Tepper/ANS

WOMEN IN NATURAL SCIENCES RECEIVES AWARD

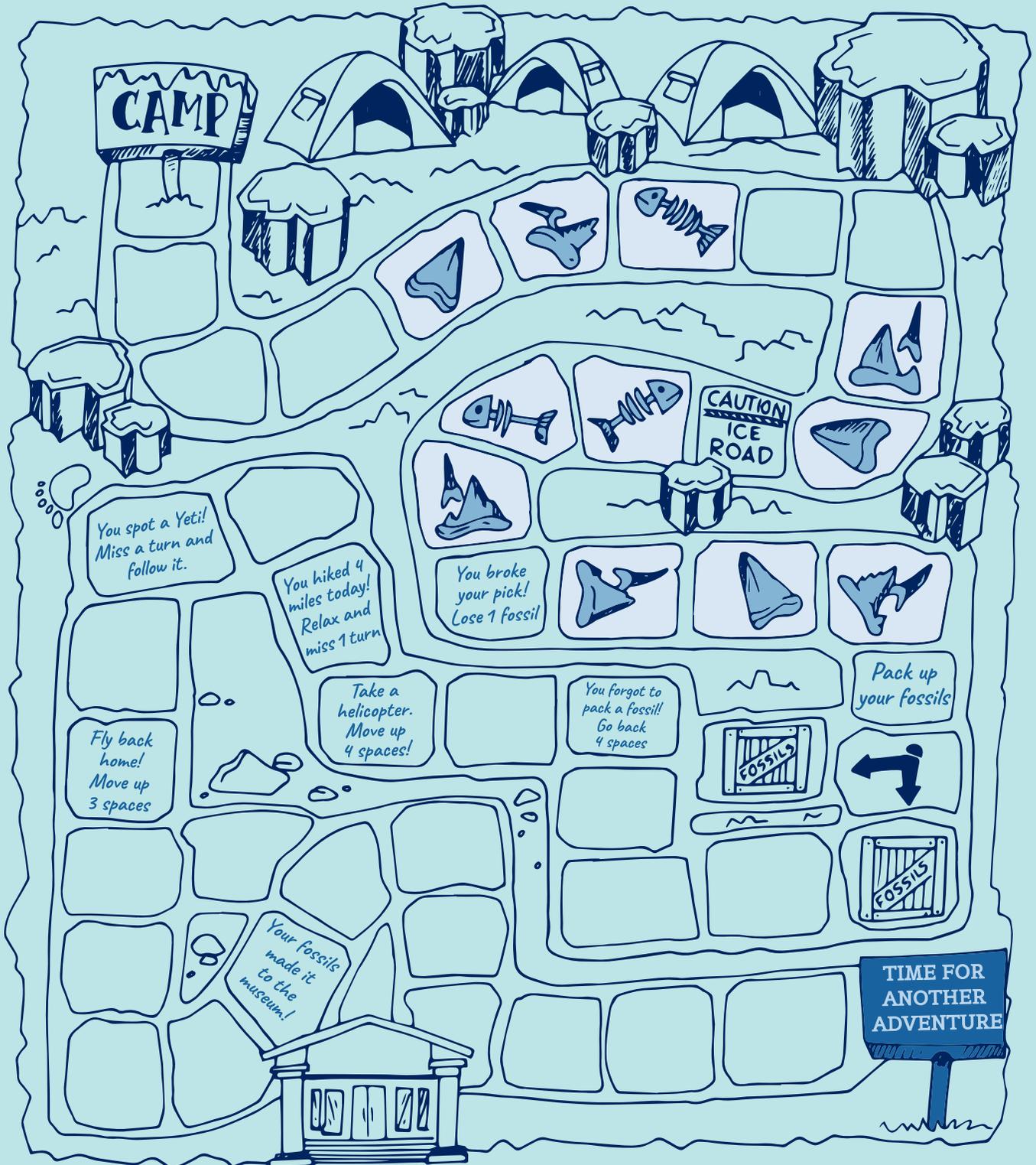
Staff from the Academy's Women In Natural Sciences program received the Drexel University President's Award for Intercultural Engagement and Diversity last fall! Drexel's biennial President's Award honors significant contributions that promote awareness of and respect for diversity, create opportunities for intercultural engagement, and build upon the university's founding principle of inclusion. Building on the Academy's more than 20 years of climate change research in Mongolia, the WINS program brought together teenage girls in Philadelphia and Ulaanbaatar to explore their cultural heritages and climate change in their individual neighborhoods, cities, and countries. The students connected through social media, and five lucky students from each country were selected to travel across the world to meet and experience each other's countries and cultures. The project began with a grant through Museums ConnectSM, an initiative of the U.S. Department of State's Bureau of Educational and Cultural Affairs administered by the American Alliance of Museums.



JUST FOR KIDS

Welcome to the Academy Frontiers page for kids, one of the many great ways you can participate in the Academy's Kids Club!

Antarctica Board Game Travel through Antarctica to collect as many fossils as you can! Gather some pennies and dice from your house. Roll a die and move your penny that number of spaces through Antarctica! Will you make it back to the museum to display your fossils and plan another adventure? Cross the finish line first to win the game!



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SUMMER WAS MADE FOR ADVENTURE

ENVIRONMENTAL SCIENCE LEADERSHIP ACADEMY

July 16–22 and July 30–August 4

Drexel's Environmental Science Leadership Academy prepares rising high school juniors and seniors for college through field experiences in coastal New Jersey and the Poconos! Explore aquatic ecology, environmental science, ornithology, and more alongside Academy and Drexel scientists.

The application deadline will be extended through April 30 for Academy members.



APPLY ONLINE at drexel.edu/bees/summerscience