

OUR MISSION:

to understand the consequences of environmental change and to engage people in the science and solutions.

THE IMPACT OF YOUR GENEROSITY:

from our Board Chair and President

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The extraordinary challenges of the current global health crisis underscore the indispensable need for systematic science, clear communication, and critical thinking - the very focus of our work at Schoodic Institute.

Our researchers and educators are immersed in the science of environmental change and the ongoing and projected future changes that impact parks, people, and the planet. We work with people who manage and protect land and water. as well as people who rely on the land and water for their livelihoods, to understand the breadth of potential future conditions and responses to these changes. To imagine how much conditions are changing and how different the future may look, we use tools such as computer model simulations, scenario planning, and citizen science to help grasp the

enormity of the coming changes, the challenges that will be faced, and the opportunities to create a better future.

Scientific analysis, data literacy, and communication are essential skills that apply far beyond the responses to environmental changes and are needed for society's response to every major challenge on a planet of 8 billion people and millions of species. Our work at Schoodic fosters skills that apply far beyond the boundary of Acadia National Park, the intertidal zone along the Gulf of Maine, or the forests of eastern North America.

Schoodic Institute is located in one of the most beautiful and inspiring settings on the planet. We tap into this power of place to inspire and foster a better future. Dive in and enjoy our favorite highlights across every month of 2019 with the many people, initiatives, and ways we advance our mission.

Thank you for supporting our work, and for being with us every step of the way.



David Ellwood Board Chair

> Nicholas Fisichelli, PhD President & CEO



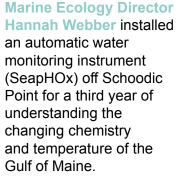
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Christmas Bird Count took place on a stormy New Year's Day, as we celebrated the 50th anniversary of the volunteer citizen science effort to document birds at Schoodic Point. → The fifth annual Acadia Winter Festival brought music, art, science, nature, and people together on the Schoodic Institute campus.

FEBRUARY



"Sea-Beach at Ebb Tide," an article by Catherine Schmitt on tidepooling scientists in Acadia in honor of Women's History Month, featured Augusta Foote Arnold, Catherine Matassa, and Hannah Webber.











And if we can, what's the right way to do it?

Sierra Magazine featured our forest

ecology research that is helping

parks adapt to climate change.

Can We Help Our Forests Prepare for Climate Change?

We began the process for hiring our summer seasonal technicians who assisted with studies of forest, bird, and marine ecology and Earthwatch citizen science teams.

Bill Zoellick, Schoodic Institute's Education Research Director,

supported Sumner Memorial High School students as they presented their research and analysis on the clam flats to the Gouldsboro shellfish committee, after months of data collection and field work.

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TOTAL LIFETIME GIVING OVER \$100,000

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4 (* deceased)



Second Century
Stewardship awarded
three new fellowships for
research in Acadia National
Park, bringing the total fellows
named since 2016 to nine.





Seth Benz, Bird Ecology Director, and volunteers documented the arrival of migratory warblers and other colorful songbirds at Frazer Point.

The National Park Service and local partners came for a workshop on understanding and managing healthy intertidal zones led by Hannah Webber.



School groups arrived for their Schoodic Education Adventure (SEA), a program in partnership with Acadia National Park and Friends of Acadia. Our Future Forests of
Coastal Maine project
kicked off with volunteers
and partners (Coastal
Mountains Land Trust,
Blue Hill Heritage
Trust, and Maine Coast
Heritage Trust), planting
tree seedlings at sites
from Belfast to the
Schoodic Peninsula.





The first installment of "The Understory", a six-part series on the future forest of Acadia, is published on our website.

On Cadillac Mountain we led the National Park Service and the Native Plant Trust to continue a study of how best to restore summit vegetation.

The first Earthwatch citizen science team arrived to monitor coastal biodiversity and phenology of migratory bird habitat.

Maik Werning and Tarek
Neubert, graduate students
from Georg August
Universität, Göttingen,
Germany, arrived to measure
forest structure and complexity.





Forest Ecology
Director Nick
Fisichelli and
technicians began
monitoring trees in
national parks from
Maine to Virginia.

Field technicians, interns, and visiting researchers started their seasonal

research at Schoodic.

Our Marine Ecology Program received foundation funding for

citizen science rockweed monitoring and building a field station network around the Gulf of Maine.

2019 CONTRIBUTORS:

\$100K+

Edith R. Dixon

\$20K-\$99,999

John and Dolly Fisher Friends of Acadia Alan and Vicki Goldstein Ellin and Bruce Miller Onion Foundation Roxanne Quimby

\$5K-\$19,999

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"Schoodic Institute's partnership in the Frenchman Bay Alliance would be reason enough to support it. Its role in the community, from the early days of the Sculpture Festival to its ecosystem-based programming now, gives me real enthusiasm."

SUMMER

Schoodic by Sea: Bar Harbor Whale Watch Company hosted Schoodic staff, friends, family, and supporters on an afternoon nature cruise around the peninsula, including science commentary on marine observations, forest updates, and bird sightings.



Led by Seth Benz, Puffin Tours of Petit Manan Island provided visitors with a chance to see puffins up-close while contributing to our bird ecology research.



National Parks
Traveler highlighted
our marine ecology
research program
and studies of





Catherine Schmitt, our Science Communication Specialist, led a communication training for Second Century Stewardship Fellows, Acadia National Park staff and teacher fellows, and Schoodic Institute staff and technicians. Second Century
Stewardship fellow
Jennifer Smetzer
hosted a workshop
on climate change
refugia for national and
state park and wildlife
managers, conservation
organizations, and
partners.

Education Director
Emeritus Bill
Zoellick received the
Acadia Partnership
Award for his work
building a nationally
renowned education
research program
serving local
communities.

Visiting researcher and Earthwatch partner John Cigliano led a team of volunteers out to the intertidal zone for Shell Day, a one-day water sampling blitz to monitor ocean conditions with the Northeast Coastal Acidification Network.





In Celebration of Open Space, a Schoodic Institute film by Tate Yoder, premiered at the Wild and Scenic Film Festival. We celebrated our many citizen science volunteers who collect and record essential observations of our changing environment with an evening of words, imagery, and music by the Halcyon String Quartet.





Our Bird Ecology Program led Sea Watch at Schoodic Point and Hawk Watch at Cadillac Mountain with staff and volunteers. As part of the
Northeast Coastal
Stations Alliance
coastwide
monitoring, Hannah
Webber led a team
out into the "ribbon of
mystery," the intertidal
zone, to assess
status and trends of
the Gulf of Maine.



Education Specialist
Sarah Hooper expanded
our community-andschools work to middle
school students and
science teachers, training
"crab ambassadors" from
four schools to survey
invasive green crabs and
analyze data.

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A YEAR IN REVIEW

FALL

Middle school students in the **Schoodic Education Adventure (SEA)** program discovered the invasive Asian shore crab on the Schoodic Peninsula.

The annual Acadia Science Symposium welcomed 120 researchers, students, educators, and partners to our campus. Some 80 scientists held permits for research in Acadia in 2019. As part of our Science Information & Communication Program, we uploaded 117 reports and 31 peer-reviewed articles on research in Acadia to the park's online archive (irma.nps.gov).



OCTOBER

Hannah Webber, one of three non-**Federal advisors** in the effort to standardize citizen science professional development across multiple federal agencies, joined national leaders in a workshop in Shepherdstown, West Virginia.



We delivered a Second **Century Stewardship** science communication workshop in Monterey, California with five western parks in partnership with the National Park Service Pacific Region.

NOVEMBER

The 25th year of Cadillac Mountain Hawk Watch concluded after 51 days, with a total of 2,838 hawks (and 2,550 human visitors) documented during 274 hours of observation (10.3 hawks per hour). Data from Acadia and 400 other sites in North America show changes in the migration of raptors over time.

For 3 months, Sea Watch monitor Hallie Daly conducted 59 daily bird counts totaling over 300 hours of observing 75,958 individual migrant waterbirds of 47 different species, for an average of 249 birds per hour.





President and CEO Nick Fisichelli traveled to South Korea with NPS International Affairs, sharing our partnership approach to park science, education, and conservation solutions.



Hannah Webber and crew installed the last of 23 rockweed field research sites from Cobscook to Casco Bay, nearly the entire length of Maine's coast.

Earthwatch participants reflected on their experiences going Downeast for climate research in the blog post "Salt,

Water, and Science... a 10 Day adventure in Acadia."





Middle school crab ambassadors and Sumner **Memorial High School Pathways** mentors gathered to collect and record data on the green crabs they caught in October.

The season ended for our field ecology technicians. who moved on to pursue careers in science, education, and conservation.

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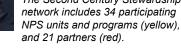
IN-KIND CONTRIBUTIONS

Crooked Porch Coffee Roasters **Dennis Paper** L.L. Bean Maine Coast Sea Vegetables

Performance Foodservice -Northcenter Prospect Harbor Soap Company Pugnuts Ice Cream Shop Rooster Brother Stanley Subaru









President and CEO Nick Fisichelli, SCS Founder David Shaw and Acadia National Park Superintendent Kevin Schneider

2019 HIGHLIGHTS INCLUDE:

- Science communication training in California, with Sequoia and Kings Canyon National Parks and the Pacific Region.
- Workshops at the Ecological Society of America meeting in Louisville, Kentucky.
- Convening 2018 and 2019 Fellows at Acadia National Park in July.
- New project communicating the impact of coastal storms on Northeast parks.

"Second Century Stewardship advances our service-wide priority of science access and engagement. It serves the critical needs of individual parks and provides a template that can be replicated across the National Park System."

- Raymond Sauvajot, Associate Director, National Resource Stewardship and Science, NPS

Read more about the impact of Second Century Stewardship at: www.scsparkscience.com Twitter @ SCSParkScience

THE 2019 FELLOWSHIPS FOR RESEARCH IN ACADIA NATIONAL PARK:



STEPHANIE SPERA
Shifts in the fall foliage season and related visitation to Acadia.



CAITLIN MCDONOUGH MACKENZIE

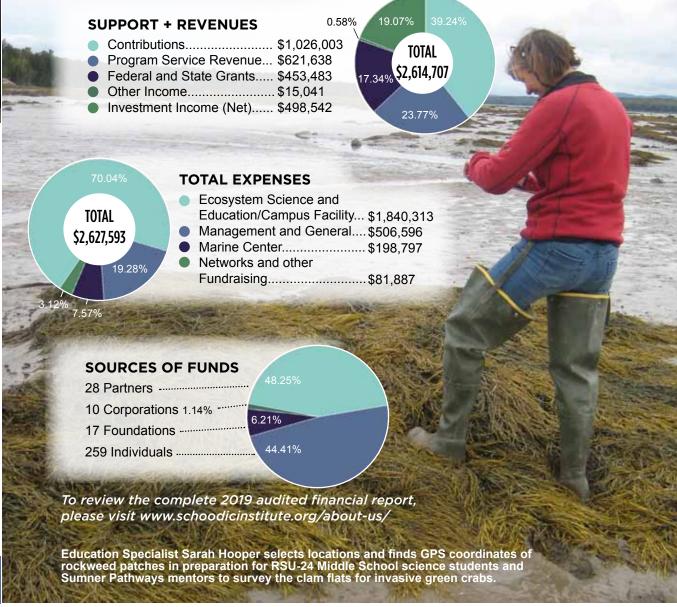
Ecological history of sub-alpine plant communities in Acadia.



KATE RUSKIN

An evaluation of human values of Acadia's freshwater resources.

FINANCIAL IMPACT AT A GLANCE





"Schoodic Institute deepens our research capacity at Acadia National Park and leads in communicating science to broader audiences. Thanks to our close partnership with Schoodic, we better understand the rapid environmental change confronting Acadia, informing our management responses to better prepare for the future."

Kevin Schneider,
 Superintendent of Acadia National Park

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Above, left to right: Paola Vazquez-Gomez, Henry Hurt, Andrew Zachman, Cas Carroll, Madeleine Bunnenberg-Ross, Jackie Florman

TECHS & INTERNS

By working on projects in Acadia with our scientists, our 2019 field ecology technicians and interns gained valuable experience in their nascent science and education careers. Chosen from nearly 100 applications, they arrived from places as diverse as Oregon, Los Angeles, Virginia, Connecticut, North Carolina and Florida. With their help (5,000+ hours!) and 94 Earthwatch volunteers (ages 14 to 81), we conducted cross system ("sea to trees") research and documented biodiversity at 1.4 million points.

Phyllis Coelho

Jacquie Colburn

Schoodic Institute was founded in 2004 to strengthen research and education within Acadia National Park. This former high security Navy base is today dedicated to engaging people in the science and solutions of environmental change.

As we approach our 20th anniversary, please consider making a gift to Schoodic Institute in your legacy planning now. Planned gifts ensure that we foster critical thinking and

data literacy for generations to come. Join us. Become a part of the Schoodic Point Society.

With your support we will address how environmental challenges impact Maine lives and livelihoods, far into the future.



Diane Naydan & Craig

Cornell

Network for Good

Judy Newenham

To explore planning options contact Kim Kettler. **Director of Development** kkettler@schoodicinstitute.org 207.288.1360

Karen Svenson

\$1K-\$4,999

Acadia Birding Festival Susan Bruce & Frederick Hauck

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"We are applying the Second Century Stewardship approach in Seguoia and Kings Canvon National Parks and are excited to work with the SCS team to expand the approach throughout western parks."

- Christy Brigham, Chief of Resources Management, Seguoia and Kings Canyon National Parks

Madeleine Bunnenberg-Ross MIchael & Barbara Campbell Ted & Sue Clayton

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"It is a privilege to work with Schoodic researchers... I value the collaborative work ethic in the field and Schoodic's ability to effectively engage a diversity of stakeholders in our work." -Jessica Muhlin, Associate Professor of Marine Biology; Chair,

Chen

Snider

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SCHOODIC EDUCATION ADVENTURE (SEA) Program

Middle school students become citizen scientists in this multi-day residential program.



Led by National Park Service Educators, visiting students learn, and sometimes contribute to, scientific research taking place in Acadia. They stay on the Schoodic Institute campus, visiting the shoreline, wetland, and forest ecosystems. They get excited about their environment.

In 2019, 19 school groups brought 528 eager students, some seeing the ocean for the first time.



The SEA Program is a partnership of Acadia National Park, Friends of Acadia, and Schoodic Institute.

"If we are to protect life on the planet for the rising generations, it is imperative to support the work done at Schoodic Institute. Scientific research and evidence-informed decisions urgently need our endorsement."

- Kristin Onuf, Portland

FOLLOW US:









On the cover: From sea to trees, low tide reveals abundant rockweeds in the cove between Little Moose Island and Schoodic Point.

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