



Kestrel Educational Adventures Annual Report

2017-2018

*Inspiring wonder, understanding and connection to the natural world
through playful, outdoor, scientific inquiry.*



9 May Street, Beverly, MA • www.kestreleducation.org

From the Founder -

As the children arrived to Being Animals Camp one July day last summer, they were magically transformed into American Beavers. Around the room, they found pretend riverbeds (containers), building materials, and a "river" testing station with a tube pumping out a steady stream of water.



Instructors challenged them to build a dam that would stop the river water from flowing across their containers. They quickly formed small teams and got to work layering the clay, popsicle sticks, and other materials. Once they had a design completed, a team would visit the river test station and try out their dam. The children were riveted, watching the movement of the water as it slowed and pooled, and its eventual and inevitable breach of the dam. Undaunted, they grabbed their models and ran back to their spots on the floor, where they argued and negotiated. Some groups completely ripped up their models and started over. No one completed a perfect dam, but everyone improved their designs. By the time we gathered for story time to read about beavers, all the campers felt a little like they were beavers themselves. Their imaginations were activated and they were ready to create and explore. When we hiked out to the swamp boardwalk to visit some real beaver habitat, one child was so convinced he was a beaver that he grabbed leaves off an alder tree to pretend to eat. At the end of the day, one camper even remarked that since no one had transformed him back into a child, he was thinking about eating his furniture, as any beaver might do!

At Kestrel, we encompass the same philosophy among our staff that we do in our classroom; that the system we inhabit is dynamic and we need to always be ready to respond and adapt thoughtfully and creatively. This year, we have experienced many changes in our available resources and our community need. I've been part of countless vibrant discussions on how best to respond to each. We have shifted more of our program efforts towards series - based programs; those for which we work with students over time, exploring a concept in depth together. We have after school clubs three days a week, and some of our school groups work with us 6-8 times during the year. While we are saddened at the closing of our Get Outside Center, we are celebrating our ability to devote more resources directly to programming.

Just as we ask our students to activate all their senses, be present to their surroundings, and think analytically about how to answer questions and solve problems, our staff and board teams have moved ever more into an inquiry mode to run the organization. We look forward to the coming year in our new location in Beverly, and all the new partnerships we will forge.

- Jessica Kagle
Founder and Program Director

ABOUT US

Based on the North Shore of Massachusetts, Kestrel Educational Adventures is a 501(c)(3) nonprofit charitable organization specializing in nature-based science education.

We serve the communities of Rockport, Gloucester, Manchester, Essex, Beverly, Salem, and Reading, among others. Founded to support natural science learning at the Gloucester Public Schools, Kestrel has grown dramatically since it was conceived as an all-volunteer project in 2002. Today we work with dozens of schools representing thousands of students in communities across Eastern Essex County.

Our instructors are well-trained, practiced, professional educators who understand how to guide students to overcome misconceptions, forge deep understanding, think critically and analytically, and create original work. In addition to our work with schools, we offer a menu of youth programs, including after school, homeschool and summer programs, and we also offer professional development for educators. Through 2018, Kestrel also supported The Get Outside Center (GOC), a space for people to find resources, guidance and equipment for connecting with the many splendid wild spaces of Eastern Essex County.

MODEL OF EDUCATION: REAL SCIENCE IN THE HANDS OF THE LEARNER

Constructivism We rely heavily on the Constructivist Theory of Learning to conduct transformative education. We think - and research shows - real authentic learning occurs only when students are encouraged to construct complex ideas for themselves in ways that are deeply and uniquely personal. The result is a kind of tailor-made educational experience that creates real and lasting growth through a focus on sensory awareness, imagination, and systems thinking that is transferable between content areas.

Storytelling Story is the oldest and most powerful form of education because it embeds universal principles in particular events, and because it gives shape to the chaos of our imaginations. We have adapted the mechanics of storytelling - narrative, setting, character, conflict, resolution - to help teachers and students alike make sense of complicated ideas rooted in firsthand real world experiences. The creation of ecosystem maps, nature films and field guides are a few examples of the stories our students tell to make the world more comprehensible.

Adventure The hallmark of a great adventure is that you have no idea what is going to happen next. Though our instructors take great pride in thoroughly preparing for each program, we never plan the outcome, which we believe should happen naturally and spontaneously, drawing on the unique qualities of the landscape and the particular interests, questions, and experiences of the students who participate.

Place The study of place is by definition interdisciplinary. It takes as its subject the entire landscape and everything in it. Practitioners of place-based education embrace connections and interdisciplinary learning. At Kestrel we think this is the right approach, not only because we prefer an interdisciplinary approach, but because in an increasingly digitized and globalized world, we think it is increasingly important to study places close at hand before studying places far away.

Inquiry At Kestrel we think questions are more important than answers. Our instructors are not afraid to explore what they do not yet know, and, as a result, they work hard to create a space in the world where students feel comfortable to ask truly original questions as a springboard to make truly original discoveries.

Kestrel Staff



Jessica Kagle, Program Director Jessica holds a master's degree from Harvard Graduate School of Education, and has a lifelong passion for playing in the woods and along the shorelines. She has 19 years of experience as a professional naturalist and educator, and a great love for the wildlife and lands of New England. She spent five years as a middle school science teacher, with an emphasis on designing semester long service learning projects with her students. Jessica teaches primarily through asking children to design creations based on real experiences, and by encouraging them to be adventurous and muddy. She loves nothing more than educating people through relationships with wildlife. Jessica founded Kestrel 17 years ago, and specializes in curriculum design for project based learning.



Curtis Sarkin, Instructor Curtis Sarkin received a bachelor's degree in Natural History from UMass Amherst. Before working for Kestrel, he taught hands-on marine science, conducted whale and turtle research, and explored the rainforests and reefs of Central America and Australia. He has been educating the public about local wildlife for over ten years, and enjoys nothing more than when children ask him challenging and thought-provoking nature questions. Curtis served for two years as the Kestrel science program and nature cabin instructor at the YMCA's Camp Spindrift, and also taught school and after school programs during the rest of the year.



Emily Johnson, Instructor

Emily received a degree in Ocean Studies and Marine Affairs from the University of New England in 2016. Before Kestrel she spent her summers sailing aboard the schooner Lady Maryland, teaching students about whales and the ocean environment while sailing along the New England coast. Emily has a deep love for the ocean and terrestrial environments and their interconnectedness and loves helping others come to realize how cool nature really is. She enjoys SCUBA diving, walks in the woods with her dog, and exploring every tide pool she can find. Emily served as an instructor for in school and after school programs throughout the fall and winter.



Amber Espar, Instructor

Amber has worked as an environmental educator and community organizer for over 18 years. She has taught programs for ages preschool through high school with Kestrel, Groundwork Somerville, Mass Audubon, the Palo Alto Junior Museum & Zoo, and the Cambridge School of Weston. Amber is part of the True Story Theater company, performing improvisation that celebrates human connection and promotes healing of divides. She has worked for Kestrel as an instructor on and off for over ten years, and especially enjoys bringing improvisation and storytelling into our science programs.

Kestrel Staff



Elizabeth MacDougal, Instructor

Elizabeth received a bachelor's degree in Geology-Biology from Brown. She is passionate about making natural science accessible and intriguing to every audience. In her spare time, she enjoys rock climbing, hiking, identifying fungi, and deciphering what rocks can tell us about a region's history. As a child, the time she spent investigating tide pools and peeking under stones in the woods helped shape her values and personal connection with ecological concepts. As an instructor with Kestrel, she is happy to support students' exploration of local, natural environments, seeing them use their newfound knowledge to create models, maps, and inventions of their own.



Elizabeth Stephens, Instructor

Elizabeth graduated from the University of Massachusetts Amherst in 2017 with a Bachelor of Science in Sustainable Food & Farming, as well as a major in English. This is her first season teaching with Kestrel, however she is no stranger to the organization having attended Kestrel's Conservation Club from 6th grade until High School. Besides this, she has worked with other non-profits such as The Backyard Growers, done tall ship sailing/ acidification research off the coast of New Zealand, spent a winter in Alaska taking care of sled dogs and baby goats, and has done extensive traveling throughout North America.



Amanda Pollock, Program & Office Assistant

Amanda has been an essential part of Kestrel as she assisted with office support and administrative tasks over the last year. When she is not assisting Kestrel, Amanda is a Girl Scout troop leader and involved in her daughter's school PTO. She is a lifelong Cape Ann resident and a mother of three children. Amanda is happiest when surrounded by the ocean, taking in the salty sea air and listening to her children giggle in the sand.



Tracy Bowen, Bookkeeper

Tracy is grateful to have grown up in a place and a time where she was free to roam unsupervised in the Great Sippewissett Marsh and play with the animals at neighboring Sacconnesset Farm on Cape Cod. She's a great believer in giving kids time to explore nature and in Kestrel's mission; she's hopelessly drawn to working in non-profits. Tracy keeps our finances organized and manages our payroll.

Program Highlights

We worked with 17 schools and programs, 7 towns and over 2,400 students in programs this year. Read about some of our program highlights!

Rockport Middle School Turtle Head Start

Our partnership with Rockport Middle School reached new depths this year as the 7th graders teamed up with Kestrel to raise rare freshwater turtles as part of their science classes. In cooperation with Grassroots Wildlife Conservation, Kestrel and the Rockport 7th graders participated in the "Head Start" of two young Blanding's turtles, a very rare local turtle in need of protection.



The 7th graders monitored the turtles' growth, and along the way, learned about food webs, energy, population dynamics, and human impact on the landscape. Kestrel instructors visited the school with the two turtles each month, and in May, the turtles were released back to the wild with tracking antennas. We also continued our 6th and 8th grade field science programs at Rockport Middle School.

Glen Urquhart School Partner Programs, Beverly



Our many partner programs at Glen Urquhart School (GUS) are popular with our students, and the school's enchanting woodland trails and swamp are a perfect setting. This year, we ran a Nature Adventures club afterschool through all seasons, a preschool nature awareness club on winter mornings, school vacation adventures, and our Being Animals camp also moved to GUS.



The Nature Adventures club members learn self reliance and naturalist skills, and end each meeting with a primitive fire and s'mores. The preschoolers focused on stories and a different animal sense each day as they explored. Our school vacation and summer camps took us beyond the immediate campus out to all the trails to hone our naturalist skills and create some of our own stories and works of art.

Ayers 4th Grade Waterways Trackers, Beverly



Our long-term partnership with the Ayers Ryalside School in Beverly expanded this year to include the fourth graders for the first time.

All fourth grades ventured down to the Bass River and followed it through parts of its journey, testing it for saltiness, animal life, water speed, and more. The students used a storytelling model to learn more about the river that runs right behind their school, and ended with multi media - posters telling the story of the area from the river's perspective. Their work was proudly displayed at our annual Student Work Showcase in June.

Kestrel Summer Adventures

This year for the first time, our Being Animals camp was held at the Glen Urquhart School (GUS), as a part of Summer@GUS. The camp was full for both sessions, and we had many fantastic adventures. Each day, instructors magically transformed the campers into a local form of wildlife. Week one was about land and air animals, such as dragonflies and raccoons, and during Week two we turned everyone into water-loving creatures including turtles and beavers. Each day, students ventured outdoors to make discoveries and craft inventions. One day, we made all kinds of wind-riding shapes and tested them, played a high action game we invented on the spot, called "buteos, accipiters, and falcons," and then went into a big field to watch for flying hawks. Each week brought children with a variety of interests, and they had space to pursue these. We had an aspiring bug expert who spent most of the week catching and identifying insects, quite a few brilliant nature artists, and some very determined kite flyers.



This year in Survival Rockport camp we focused on ensuring that our shelters were truly weatherproof, and on teaching primitive fire building skills. We didn't use a single match to start a fire all summer. Our weeks in the woods included three themes: The stranded crew of an imaginary documentary show called Creature Quest, a shipwrecked team of explorers, and "My Side of the Island," a storyline about intentionally venturing into the wild to build a permanent woodland community. One group designed an entire small survival village, complete with food

storage cellars, while others were often found climbing trees and honed their arial skills.

Special thanks to Essex County Greenbelt Association for permitting us to use Gott Lane Woods in Rockport as our summer classroom, and thanks to Rockport Elementary School for being our extreme-weather shelter!

The Get Outside Center and Internships



This was the fourth and final year of the Get Outside Center's time on Main Street in Gloucester. We were fortunate to have interns throughout the year who welcomed visitors, helped with events, and cared for animals. The addition of the Head Start Blanding's turtles this year was a big draw for visitors, who loved to drop by and watch feedings or check on growth. We had two year-round volunteers who specialized in Head Start turtle care and maintained displays about turtles and their recovery efforts.



The Get Outside Center hosted community partners from NOAA for meetings, our annual Student Work Showcase, and local camps for our annual Summer Programs Fair. Visitors to our Get Outside Center dropped in throughout the year and picked up trail maps, asked for hiking advice, or borrowed gear. We look forward to being able to offer some of these same resources in our new space.



Accomplishments

Goal from last year: Continue to expand grade-levels of programs in partner schools and reach community members outside our historic age ranges, including teenagers, preschoolers and adults.

Our middle and high school Conservation Club was successfully re-established, connecting youth with adult mentors in conservation fields. We added programming for preschooler age children at Glen Urquhart School both during the school year and the summer. Throughout the year, we conducted meetings and hikes for adults through our Cape Ann Area Naturalist Meetup group.



Goal from last year: Provide professional support and development for staff on social emotional learning and environmental behavior impact.

Our Program Director attended a “train the trainer” training presented by Our Salem, Our Kids on healthy youth mentoring. Ideas and concepts were permanently incorporated into our seasonal instructor training. Our instructors are now trained every season to be strong mentors, and to be aware of how to support a variety of socioemotional needs and relational styles. We have incorporated ongoing discussion on these topics into our daily instructor debrief meetings as well.

Goal from last year: Draw on expertise of partner organizations and individuals to train staff in documentation and assessment of student work and learning.

We have worked assessment of student learning into our daily debriefs, and use observations of learning process and of completed work to figure out what is truly being learned. However, we are still awaiting funding to hire a consulting group to develop and use in depth assessment tools.

Goal from last year: Increase public support for and visibility of the Get Outside Center through expanded internships, Open Houses, Sponsorships, and Student Work Showcases.

Two interns from local schools staffed the Get Outside Center and helped with programs, including welcoming the entire second grade from West Parish School in Gloucester, and caring for our “Head Start” turtles. The Student Work Showcase had the best attendance yet, with students presenting work and bringing family members from at least four area towns.

Students and Schools

Beverly

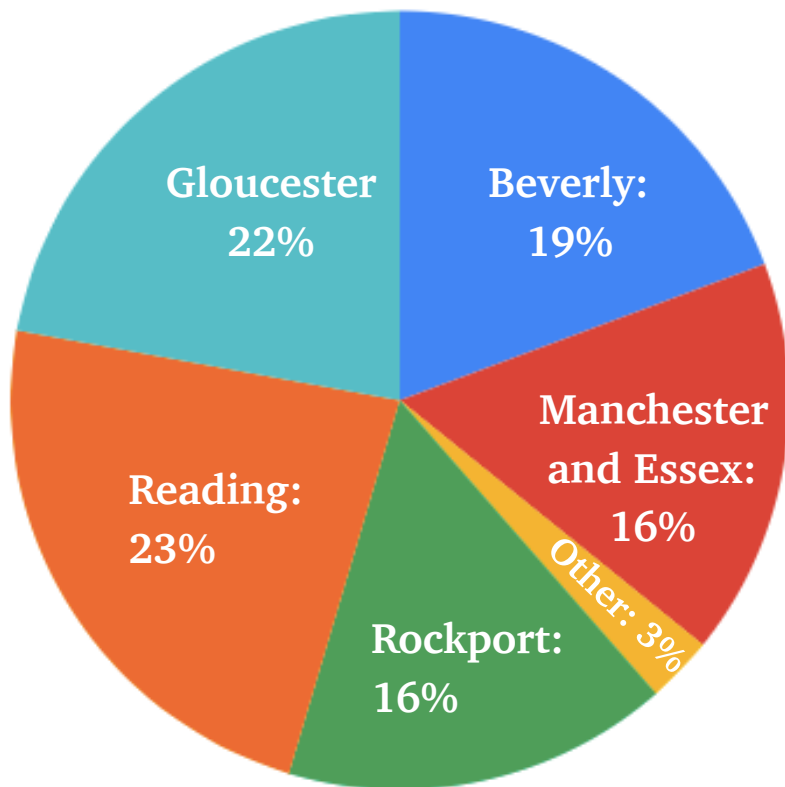
Ayers Ryal Side Elementary School
 Cove Elementary School
 Glen Urquhart School
 North Shore Nursery School

Gloucester

Camp Spindrift
 Gloucester High School
 Pathways for Children

Manchester/Essex

Brookwood School
 Essex Elementary School
 Magic Years Preschool
 Manchester Memorial School



Reading

Reading Public Schools Extended Day
 Wood End Elementary

Rockport

Rockport Middle School
 Rockport High School

Other

McCaulay Honors College, Brooklyn, NY
 Joppa Flats Audubon, Newburyport
 STEM Magnet Program @ Nathaniel Bowditch School

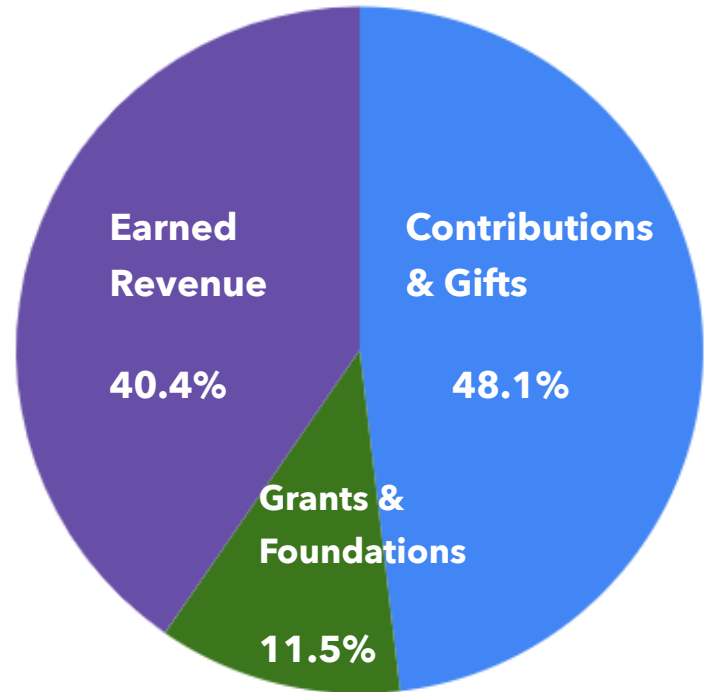
We also provide programming to homeschooled children from a variety of other towns.

Financials

9/1/17 - 8/31/18

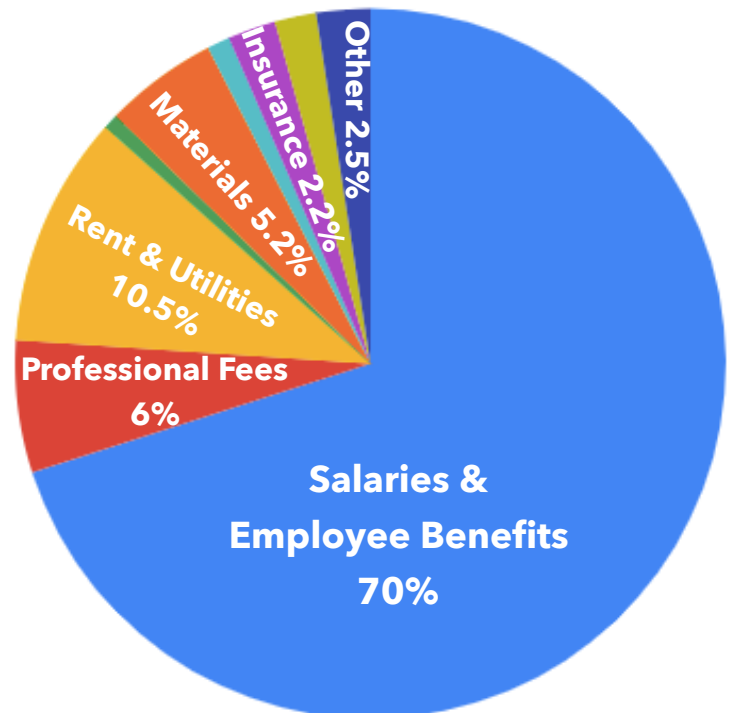
Income	
Contributions and Gifts	\$65,833
Grants and Foundations	\$15,700
Earned Revenue	\$55,281
TOTAL INCOME	\$136,814

INCOME



Expenses	
Salaries, employee benefits	\$95,380
Professional & Contractual Fees	\$8,195
Rent, Utilities and Maintenance	\$14,355
Fundraising	\$919
Program and Office Materials	\$7,035
Marketing and Promotion	\$1,415
Insurance	\$2,965
Program Travel Expenses	\$2,571
Other	\$3,338
TOTAL EXPENSES	\$136,173
Net for the year	\$641

EXPENSES



Goals for 2018 - 2019

- Remove barriers to participation: Kestrel strives to be inclusive and to serve the needs of all in our service area. Participants' ability get to our meeting sites, ability to pay, and physical ability and socioemotional skills all limit access to our programs. Our goal this year is to clearly identify barriers and begin to take steps to remove them.



- Build partnerships with Beverly-area organizations to broaden nature connection offerings, strengthen community, and advocate for experiential learning during and outside of the school-day.
- Increase and deepen long term partnerships with schools, by including students and school staff in planning and implementation.



Supporters

Grants, Foundations, and Corporate Donations

Name	Amount	Program/Use
Brace Cove Foundation	\$23,400.00	To hire a part-time development/ marketing associate
Brace Cove Foundation	\$1,600.00	Strategic Planning
New England BioLabs Foundation	\$4,000.00	Fall 2018 Conservation Club
Dusky Foundation	\$4,300	General organizational support
Main Street Rockport/Institution for Savings	\$2,700.00	Rockport Middle School 7th grade, Ayers Ryalside 4th grade
New England BioLabs Corporate	\$3,000.00	Essex County programs
Manchester-Essex Conservation Trust	\$2,000.00	MERSD programs



Get Outside Center Supporters for 2017 - 2018

\$1,000 +

Anonymous Donor

Anna DiPerna

Jean Nichols

Janet and Graham Walker



Up to \$999

Ann Banks

Theresa and William Byrne

Laura Hallowell

Hazel Hewitt

Sharon Kunkel

Candace Martinez

Bruce Miller



Individual Donors

We could not do our work without the support of Individual Donors. Thank you!

\$2,000 +

Deirdre Mulligan

Jean Nichols

Andrew Withers

Anonymous

\$1,000 - \$1,999

Helen Featherstone

Ronnie and Kenneth Kagle

Charlotte Lord

William Taylor

\$500 - \$999

Susan Evans

\$200 - \$499

Tracy Bowen

Diane Faissler

Benjamin Flemer

Victoria Shen

Adine Storer



Individual Donors (cont.)

\$100 - \$199

Arthur and Camilla Blackman	Michael & Karen Gorton	Lauran McAllister <i>in honor of Aine's 9th birthday</i>
Elizabeth Caruso	John-David Herlihy	Nancy & Gabriel Petino <i>in honor of Aine's 9th birthday</i>
Fred Cowan	Melissa Herron	Barnaby Prendergast
Garry Dow	Ralph Kagle	Pauliina Swartz
Kimberly Edelman	Noel Mann	

Up to \$99

Judi Adler	Maria & Paul DiPerna	Sharon Lowe
Torey Adler	Val Doyon	Kara McAllister
Casey Breton	W. Earle	Rachael O'Neil Abell
Philip & Alice Brickner	Bethany Ericson	Nancy Olson
Maureen Brothers	Tracie Gabry Lee	Vivian Port
Martin & Alice Cooper	Nancy Goodman	David Summergrad
Tom Cromwell	Nancy Hatfield	James Tarantino
Noel Crowley <i>in honor of Aine's 9th birthday</i>	Eric Hutchins	Monica Ter-Minassian
Elizabeth Erin Cyr <i>in honor of Aine's 9th birthday</i>	Devin Jones	Nancy Tharler
Robert Diamond	Jeanne Kagle	Andrea Usanga
Carrie Dichter <i>in honor of Aine's 9th birthday</i>	Brandy King	Christina Wilkes
	Gitama Anne Kinigstein	Kathryn Withers
	Melanie Lovell	Amberly Wood

Special Thanks

Volunteers and In-kind Donations:

Thank you Torey Adler, Bank Gloucester, Tracy Bowen, Rick Doucette, Emily Flaherty, Benjamin Flemer, Jim's Bagel and Bake Shoppe, Clayton Kern, Beth and Andy Knox, Maritime Gloucester, the McAllister Family, Adam Riquier, Rick Roth and The Cape Ann Vernal Pond Team, Jim's Bagel Shop, William Taylor, Christine Kaye, Danielle Demetri, the Sands family, Brian Windmiller and Emilie Schuler, Susan Stendahl, Pauliina Swartz, and many others too numerous to mention, who provided advice, support, and inspiration this fiscal year.

Board of Directors

Caitlin Featherstone (Chair)

Anna DiPerna (Treasurer)

Emily Denoncour (Clerk)

Jeff Denoncour

Deirdre Mulligan

Amanda Pollock

Rick Roth

An extra special thank you to our indispensable Get Outside Center Volunteers:

Emily Craig

Maggie Johnson

Alex Kleros

Nicole Vasopoli

Peter Warny

Katherine Withers



Our Favorite Places Online Auction

Our online auction continued to be a great success this year, focusing on our favorite local businesses, artists, places, and people. We'd like to give a huge thank you to our donors, and the many enthusiastic bidders. Please continue to support our favorite places - we know you'll love them!

Businesses

7 Seas Whale Watch	Evviva Cucina	Rebecca Carson (Mary Kay)
Animal Krackers	Folkmanis Puppets	Refind Boutiques
Bit Bar	Gloucester Stage Company	Shea's Riverside Restaurant
Boston Red Sox	Gloucester Uechi Karate	Siam Delight
Cala's Food and Spirits	Goodlinens	The Cabot
Cape Ann Cinema and Stage	Grace Murdoch (Flowers & Stars)	The Castle Board Game Cafe
Cape Ann Olive Oil	Jalapeños Restaurant	The Catered Canine
Cape Ann Power Yoga	Jodi Bee Bakes	The Discovery Museums
Cha Cha La Mer	Kaihlanen Gallery	The Emerson Inn
Chapman's Greenhouses & Gardens	Landmark School	The Monarch Gardener
CinemaSalem	Latitude 43	The Pewter Shop
Coffee Time Bake Shop	Manchester By The Book	Todd's Auto Repair
Common Crow	Maritime Gloucester	True North Ale Company
Coveted Yarn	Nor'east Cleaners	Trustees of Reservations
Deborah Coull Salon	Organic Garden Cafe	Village Silversmith
Doggie Depot	Pamplemousse	Turtle Alley Chocolates
Edible Arrangements	Passports Restaurant	Wild Oats Health Food

Individuals

Andrew Gregory & Emily Linehan	Eileen Mahoney	Lopardo Family
Ben Flemer	Freddi Triback	Meg Arnio
Betty Fuller	Jean Nichols	Susan Hedman
Deborah Blanchard	Jimmy Tarantino	Warren Rhodes
Deirdre Mulligan	Linda Sylvester	