

watermark

PUBLISHED BY LAUDHOLM TRUST IN SUPPORT OF WELLS NATIONAL ESTUARINE RESEARCH RESERVE

FALL 2022

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BACK COVER PHOTO: MICHAEL HALEY

Nik's Notebook

changing of the guard

I look at their smiling faces on the pages of this newsletter, or I watch them excitedly streaming off school buses on field trip days here. I listen to them deliver, as twentysomethings, their first scientific poster presentations at a national conference, or give an impromptu lecture on the need for more activism, and I immediately feel one thing: the kids nowadays (who I'm beginning to define as "anyone younger than me") are incredible. They're sharp, they're engaged, and they're nearly ready to take up the burden of this world we're bequeathing them.

My wife is a teacher. I'm on a school board in Portland. We have two teenaged boys at home. I jumped into the environmental movement 15 years ago because of their arrival. Clearly, I have a bias towards working on behalf of young people. I care very deeply about their future, even though there are some days when I feel only a gnawing dread about it.

Whenever I need to feel better about where things are going, I ignore the so-called adults—in Congress, in the media, in business—and listen to the kids. They know what needs to be done, because they naturally know how to "keep it simple, silly." It's an honor to work at a place, and within a national system of research reserves, that understands the necessity and inevitability of change, that knows how crucial educating and preparing and assisting the next generation is, and that stewards the Earth for them until they can take up that work.

With that goal in mind, the changing of the guard, or our elected officials, doesn't seem so dire. The children coming up are going to fix the messes we've handed them, especially if we do everything we can to help them.



Nik Charov
President, Laudholm Trust
Chairman, Wells Reserve Management Authority





summer campers



Wells Reserve summer camps promise so much fun, dates fill fast. If your child or grandchild loves nature, help them experience hands-on science, outdoor exploration, and focused creativity. Our **2023 camps** should be set by Groundhog Day and Amanda will be back as camp coordinator. Email camps@wellsnerr.org to be notified when registration begins.

volunteer spotlight: ed bellegarde

BY LYNNE BENOIT-VACHON

Ed Bellegarde can tell a story. Five minutes turns into an hour listening to his warm baritone. Ed is here on an overcast October day to support the Bird Seed Sale, checking orders with fellow volunteer Carol Heller, a task they have done together for several years. A month ago he reprised his role signing in volunteers at the Laudholm Nature Crafts Festival. These tasks are the iceberg-tip of his service to this place. Like many volunteers, once Ed discovered the reserve, it became a part of who he is.

Twenty years ago, Ed moved to Wells from Chelmsford, Massachusetts, with his wife Jane. It was a mutual decision to embark on their retirement in a place they had vacationed and visited frequently, and knew they loved.

About 3 or 4 years later, I discovered Laudholm. I was all by myself the first time I visited. It was fall, and very quiet. I didn't go to the water or the beach. I just walked around. It was toward sunset and I was afraid the gates would close. But I wanted to stay here.

Ed became a regular visitor, then one day came into the Visitor Center to ask a question. He met Nancy Viehmann, director of volunteers at the time, and chuckles at the deftness with which she recruited him.

Nancy said, "Ok, sit down." By the time I left, I was a signed-up volunteer.

That was over 15 years ago.

After that, Ed supported events and fundraisers. For a long time he greeted visitors to the farmhouse Visitor Center.

It got to a point where, little by little, I was getting more and more involved. I just loved every minute of it.

Except for the admissions booth (welcome hut), to which Ed said a firm "No."

The booth reminds me of a penalty box at a hockey game. That's the one thing I haven't done here. I think I have done just about everything else!

Ed calls himself a history buff. He reads and researches. He enjoys digging into the past. In the early years of Ed's volunteering, Charles Lord resided on the property as Facilities Manager and Caretaker. Charles' stories of Lord



ED BELLEGARDE ACCEPTS A VOLUNTEER EXTRAORDINAIRE AWARD FROM NIK CHAROV, LAUDHOLM PRESIDENT, IN 2014. PAUL DEST AND NANCY VIEHMANN LOOK ON.

family life—of tomato fights and rides in the manure cart, kite flying and swims in the water tower—caught Ed's attention. Ed learned about the farmhouse, and how it functioned as the Lord residence back in the day. He shared his newfound knowledge with visitors.

I'd greet them with, "Hi, I'm Ed. Do you like history? How much time do you have?" I would take them in the house. I started giving talks and walking tours. I did those for quite a while.

When Charles left his caretaker role and moved abroad in 2012, his departure left an opening. The reserve hired Ed as caretaker, to check and lock buildings at sunset, close gates daily, and open up some mornings. The caretaker role involves being responsible for an irreplaceable place. Ed felt that responsibility, even when off duty.

I live near the Reserve, about 1½ miles away. When I heard fire trucks down Route 9 and the noise stopped, I couldn't stay home. I'd be on my way out the door and my wife Jane says, "Where are you going?" and I'd say, "I have to go over and make sure Laudholm is all right!"

As caretaker, Ed could be at the Reserve during two of his favorite times—sunrise and sunset. It was quiet and peaceful. Endless variations of sunlight and cloud marked the sky.

When I opened the gates in the morning, I would come here as early as 5 o'clock and just watch, just listen. I would do the same at night.

[continued on next page](#) ▶

2022-2024 davidson fellow: helen cheng

Helen Cheng, a Ph.D. candidate at Northeastern University, is the reserve's second Margaret A. Davidson Graduate Fellow. She is an interdisciplinary scientist with more than 15 years of experience in marine, coastal, and estuarine ecology, and has a background in fisheries and coastal policy and management. Her research focuses on the ecological and socio-economic impacts of range-expanding species (blue crab and black sea bass) on the American lobster fishery.

Helen previously worked at the NOAA National Sea Grant Office, where she was involved in marine policy, and at New York Sea Grant and the Science and Resilience Institute at Jamaica Bay, where she was a coastal resilience extension specialist.

"Having witnessed people's diverse relationships with the coast, I want to understand the effects of climate change on coastal ecosystems, then to communicate the information effectively while listening to communities' perspectives, needs, and concerns as they prepare for the future," Helen said.



recognized: jessica brunacini, lee pollock

At the 2022 NERRS/NERRA Annual Meeting in Seattle, graduate fellow Jessica Brunacini was honored with the inaugural Margaret A. Davidson Fellowship Award. Jessica was recognized for cultivating national relationships among the first cohort of Davidson fellows and the reserve system, developing a network among state agencies and organizations, and building close relationships with people living in coastal communities highly vulnerable



PAUL DEST, JESSICA BRUNACINI, AND CHRIS FEURT IN SEATTLE.

to flooding and sea level rise. Jessica's Photovoice project (summer 2022 *Watermark*) represented one aspect of her work over the past 2 years.

And in July, research volunteer Dr. Leland (Lee) Pollock received a Visionary Award from the Gulf of Maine Council on the Marine Environment. The council cited Lee's research expertise, immense curiosity, and commitment to making a difference. Lee has been pivotal to expanding knowledge about changes occurring in the Gulf of Maine's zooplankton community. He and his wife, Sylvia, have been sorting and identifying plankton from Wells Harbor for nearly 5 years, whether in our research lab or, during the pandemic and since moving further afield, from their makeshift home-based lab.

ed bellegarde, continued

Sometimes a cold snap and frozen pipes made things interesting.

I came over here one night; it was snowing like crazy and getting dark. I walked in to the public restroom and heard, "Whooooosh!" Water seemed to be flowing out of everywhere. Paul Dest [reserve director] was still in his office, so I ran to get him. It was so cold, we were getting desperate. Finally, we found

the shutoff behind a panel. The water stopped. It's such a funny memory, the two of us running around. Paul was a fantastic person to work for.

Ed enjoyed his years as caretaker. He left that position in 2017 with the promise that he would be at the reserve in a flash if needed. He kept his key, and the reserve's trust. The

pandemic disrupted Ed's ability to volunteer, as it did for many, but it did not disrupt his desire to give back in the form of volunteering.

I like the people. If you stay as a volunteer long enough, it's almost like a love affair with this place. That's where I was. That's where I am. When you leave here, you don't really leave here.

which way the wind blows



BY SCOTT RICHARDSON

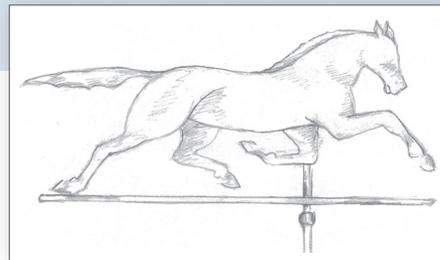
In the days leading up to the first in-person NERR System conference since before the pandemic, our staff's destination city, Seattle, had the worst air quality in the world. The "very unhealthy" condition was mainly driven by forest fires in the nearby Cascade Range, the result of climate-forced drought and an arduous stretch of unusually dry, hot weather. Just in time, though, the persistent ridge of high pressure released its grip on Puget Sound. The wind shifted, the rains came, and our Maine contingent (and their colleagues from across the country) got to breathe easy.

A simple wind shift can make all the difference. Here in Wells, summer's hottest days can cool like clockwork

when, sometime midday, the wind starts coming in off the water.

Now we're well into autumn and approaching winter, typically the time when an active jet stream and mid-latitude storm systems bump up the average wind speeds and maximum gusts recorded by our weather station. Not only will those breezes add chill to the air, they will be adding churn to coastal waters.

Turbulence in the nearshore water column will suspend sediments and mix cooler waters into warm, signaling to lobsters (and maybe blue crabs, too—we're looking into it) that it's time to move offshore. The crustaceans choose to winter in relative warmth at depth, away from the cold waters roiling at the surface and swirling in estuaries.



DECADES AGO, THIS PENCIL SKETCH WAS TUCKED INTO A FILE FOLDER LABELED "ILLUSTRATIONS." THE ORIGINAL ART CARRIES NO SIGNATURE OR OTHER IDENTIFYING MARK. DO YOU KNOW WHO MADE IT?

This issue of *Watermark* goes to press before Election Day and reaches your mailbox after the votes have been cast. Here, too, we'll be watching which way the wind blows.

Fifty years ago, in passing the Coastal Zone Management Act (legislation that made the Wells Reserve possible), the Senate was unanimous and the House nearly so. It's a real wonder: Would the votes to protect the nation's coasts be there today?

climate ready coast

The reserve's Coastal Training Program is leading outreach for a 3-year effort to develop a regional coastal resilience plan addressing 10 coastal communities from Kittery to Scarborough.

The cities and towns have a history of collaborating around climate change adaptation; representatives started meeting at the reserve in 2015 for a series of "Better Safe Than Sorry" workshops where they could learn from each other's approaches and experiences.

This October, the Climate Ready Coast working group, composed of municipalities, land trusts, conservation groups, and state and federal natural resource agencies, met in Mather Auditorium to discuss regional resilience themes and to prioritize vulnerability hot spots. They met their goal—to select 15 priority sites, out of more than 50 candidates, representing the different types of vulnerability found in our region. These will be highlighted in the final plan.

The regional coastal resilience plan, to be released in 2023, will include transferable adaptation strategies and site-specific visual renderings of the selected projects. Each is meant to build community and coastal habitat resilience while reducing impacts of flooding and sea level rise. The projects will promote nature-based solutions where possible.

This work is being led by the Southern Maine Planning and Development Commission and funded by a grant made to SMPDC by the National Fish and Wildlife Foundation's National Coastal Resilience Fund.

crab 'hemo hues'



EMMA SPIES, RESEARCH ASSISTANT, DRAWS A BLOOD SAMPLE FROM A GREEN CRAB IN THE RESEARCH LABORATORY.

In summer 2021, reserve researchers began looking for a link between green crab blood color, hemolymph protein, and molt. Last winter, they collected and photographed blood samples from about 100 green crabs to create a standard color scale based on the range of hues found in those images.

This summer, researchers regularly monitored blood protein and calcium levels, blood color, and molt in a test group of crabs living in Wells Harbor. A first look at the data suggests a correlation: Crabs with orange (protein-rich) blood appear to be closer to their molt.

For a limited time, freshly molted crabs have a gelatinous shell that makes them more marketable to the food and restaurant industries. If the trend seen in early analysis stays true, blood sampling could become a valuable predictor for when soft-shell crabs are just about ready for market.

This research is funded by a grant from the NOAA Fisheries Saltonstall-Kennedy Competitive Grants Program.

Wells NERR Crab Blood Color Scale



garages get a makeover



SPRUCING UP OLD OUTBUILDINGS

The Laudholm campus's two garages, sitting side by side, both date to the early 20th century. The smaller one was built in 1907 for the Lord family's new Thomas Forty automobile. The 5-bay garage was added in the 1920s.

A century later, these buildings have gained fresh attention. Each has been rewired to exploit our newest photovoltaic panels; their outlets and LED lighting are now powered by the Sun. And their 14 deteriorating doors, each weighing about 150 pounds, are being methodically rebuilt—sashes are refurbished and set into historically accurate reconstructions.

The determined crew of volunteers putting scores of hours into the project so far include Peter Anthony, Carolyn Broad, John Hake, Dave Harrison, Frank Heller, Peter McKenzie, and Howard Wineberg. Nice work, all!

BELOW: IS IT TRUE? VOLUNTEER PETER ANTHONY (ON LADDER) ASSISTS FACILITIES DIRECTOR BRIAN GREENWOOD WITH PRECISE AND ACCURATE POSITIONING OF A TRIM BOARD AFTER THE FIRST REPLACEMENT DOOR WAS HUNG ON THE FIVE-BAY GARAGE. BELOW LEFT: FRANK HELLER AND DAVE HARRISON MEASURE AND MARK A DOOR UNDER CONSTRUCTION AS BRIAN PREPARES TO DRILL.



flotsam

LOOKING BACK

This year, we hosted 15 weddings, 1 retirement gathering, 1 birthday gathering, 1 prom, and several cross-country meets—plus 3 of our own special events. It's no secret: the Laudholm campus of the Wells Reserve is **a place to celebrate**. Contact Tracy Kay with questions about your event.

FOLLOWING UP

From the Summer 2022 Watermark...

Our public entry road and parking lot **paving project**, as well as the planned campus stormwater drainage improvements, are now planned for 2023.

The launch of **Maine's first CubeSat** is tentatively scheduled for late December, though delays are not unusual. Watch our social outlets for news.

The third year of **blue crab monitoring**, the most focused effort yet, started slowly but proceeded apace with trapping, acoustic tagging, and environmental DNA analysis.

The reserve has welcomed a new **director of finance**, Judy Plouffe, who has more than 30 years of experience in accounting and a penchant for working at environmental organizations.

From the Spring 2021 Watermark...

A more spacious and capable **welcome booth** has been on the drawing board for a while now. When it comes to fruition next spring (fingers crossed), it won't have that penalty box feel (see page 4).

Past issues of Watermark are available at wellsreserve.org/watermark.

AN ANNIVERSARY

The 92nd U.S. Congress (1971-1972) desired "to establish a national policy and develop a national program for the management, beneficial use, protection, and development of the land and water resources of the Nation's coastal zones..." Concern for responsible action along our coasts was so widespread that the Senate passed its version of the bill 68-0 and the House passed its version 376-6. The **Coastal Zone Management Act** became law on October 27, 1972. Section 312 of the CZMA authorized estuarine sanctuaries, laying the foundation for today's National Estuarine Research Reserve System. Simply put: No CZMA, no Wells Reserve. Happy anniversary, CZMA!



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National Oceanic and Atmospheric Administration

The Wells National
Estuarine Research
Reserve is one of 30
reserve sites throughout



the country. All reserves require local funding to match federal grants from the National Oceanic and Atmospheric Administration. The Wells Reserve is the only reserve that receives its match from a 501(c)(3) nonprofit organization. Each year, Laudholm Trust contributes private funds and in-kind services to support Wells Reserve operations and capital improvements.

fy 2022 financial report (draft)

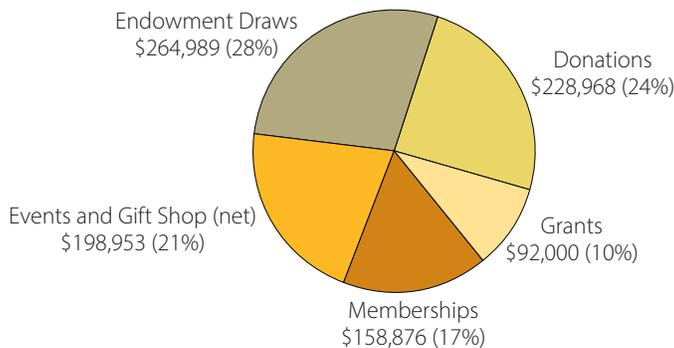
July 1, 2021 – June 30, 2022

This condensed information has been derived from draft financial statements. Upon completion, reviewed financial statements for the Wells Reserve and Laudholm Trust will be available online and in our offices.

laudholmtrust

Revenues

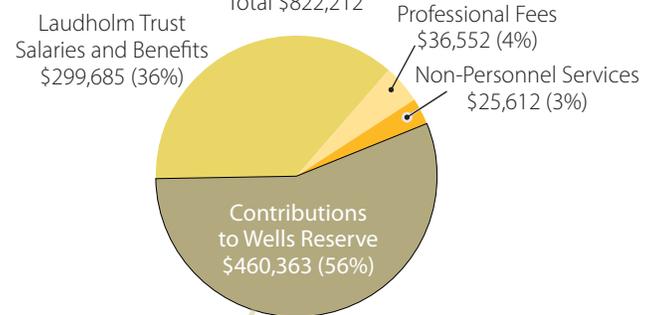
Total* \$943,786



* excludes gains on investments

Expenses

Total \$822,212

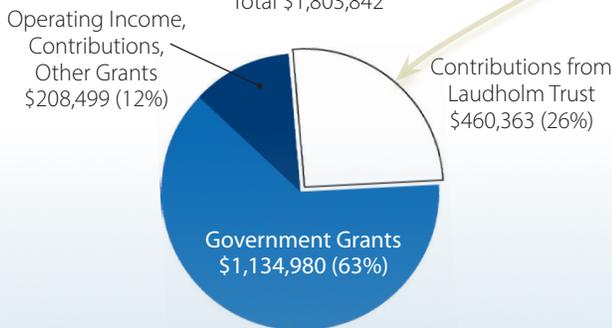


These contributions include cash funding for volunteer and facilities management, research activities, education programs, and capital projects, plus donations of Laudholm Trust staff time for communications and coordination.

wellsreserve

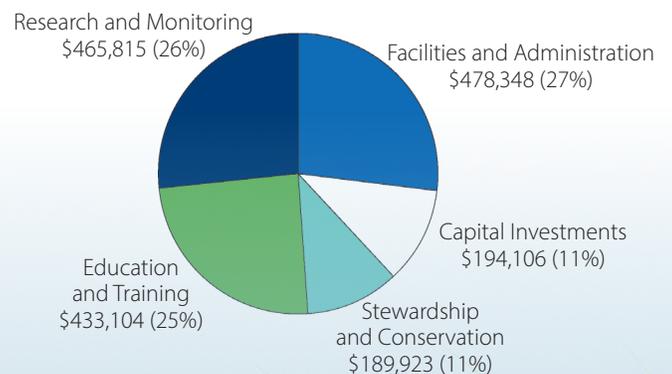
Revenues

Total \$1,803,842



Expenses

Total* \$1,761,296



*excludes depreciation

to our donors **thank you**

In honor of

Mary Jo Cassidy
Max Charov
Karen Stathoplos
Elisabeth Sweet

In memory of

Kacy Burdett
Jesse Evangelou
John Fortune
Patricia Frost
Diana Little
Barbara Joy Pouliot
Becky Richardson
Anthony Stathoplos
Aristides Stathoplos
Juliette Stathoplos
Sybil Stathoplos
Eleanor Marie Stenson

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Jane Adams
Arthur & Leona Anderson
Ed Andresen
Robert Arnold
& Lisa Gatti-Arnold
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Fay Montelione & Gary Walker
Mary Anne Wasileski
Susan Wellhofer
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John Wiley
Jessica Wolfe
Cathy Zadoretzky

New organization member

Caring Unlimited, Inc.

wells reserve mission

To understand, protect, and restore coastal ecosystems of the Gulf of Maine through integrated research, stewardship, environmental learning, and community partnerships.

laudholm trust mission

To raise financial and community support for the Wells Reserve at Laudholm and Maine's coastal environment.

a permanent perch?

David Allen's PORTAL has stood strong for 6 years now, on loan and on sale by the artist. It is the Laudholm Trust's intent to purchase the piece in 2023 and add it as a permanent installation to the grounds.

In addition, Wells author and therapist Elizabeth Straka is partnering with David Allen and the Wells Reserve to develop facilitated walks and self-guided tours around the sculpture—and how it depicts loss, grief, and compassion. As Straka has written, "Portal stands in a field with bold strength and tenderness.

Its stones resonate with the importance of interconnectedness. They depend on each other to ensure stability and sustainability."

Members and friends of the Wells Reserve at Laudholm will be hearing more about this project, and its funding needs, this winter.