UW FRIDAY HARBOR LABORATORIES

Intertidal Tidings

AUTUMN 2024 volume 45

FHL POSTDOC ROLES

by Becca Maher

As the FHL Marine Genomics Postdoc, I use cutting-edge DNA sequencing technology to understand the dynamics of eelgrass wasting disease. The FHL Postdoctoral Fellowship is integral to supporting this research, as it affords me unprecedented, year-round access to my field system: intertidal eelgrass meadows.

When the San Juan Islands experienced a heat anomaly (up to 80°F) in May 2024, I was able to mobilize with a few lab members and eager volunteers from the island community to sample and collect eelgrass leaves before and after the heat stress. I swabbed the surface of the eelgrass leaves to sample the plant microbiome, the microbes living on the eelgrass. This is the first dataset of its kind!

My postdoctoral work specifically focuses on the role that microbiome plays in eelgrass wasting disease. Eelgrass wasting disease outcomes depend on eelgrass susceptibility, environmental conditions, and pathogen dynamics. I've been sampling the microbiome of healthy and diseased eelgrass monthly for the past year, to understand microbiome seasonal dynamics and uncover whether bacteria on the plant surface facilitate or inhibit pathogen infection. With the molecular tools in the newly renovated Lab 2 Marine Genomics Center, I have also been able to sequence the genomes of two local strains of the wasting disease pathogen. This will help us understand the arsenal of genes that allow these pathogens to infect and degrade eelgrass tissue.

The FHL Postdoctoral Fellowship has provided the funding to allow me to answer these research questions that not only fascinate me but are integral to the persistence of our local ecosystems. As an FHL postdoc, I also get to contribute to community building at the Labs by hosting a booth at the FHL Open House, organizing the seminar series, serving as a mentor for a summer undergraduate research student, and serving on the Diversity, Equity, and Inclusion committee. I've also been setting up the new Marine Genomics Center, which has already hosted a summer course and numerous genomics researchers from around the world. I look forward to continuing the history of scientific excellence and community engagement at FHL over the coming years with support from the FHL Postdoctoral Fellowship. ▪

Above: *Becca Maher surveying a rich eelgrass meadow at low tide.*
Right: *Eelgrass blades exhibit signs of stress.*

FHL Adopt-a-Student Program

In Summer 2024 alone, FHL awarded more than $212,000 in scholarships from endowments and current-use funds, with over 70% of students receiving support. These awards provide access to countless transformative experiences at the Friday Harbor Labs.

One of the largest sources we draw from is our Adopt-a-Student Fund, which comes entirely from donors who are investing in the future of marine science. This is also one of our most flexible resources, as we can use it to support undergraduate or grad students to defray the cost of tuition, room, board and travel.

Here's what some of our scholarship recipients had to say about what it meant to receive this funding:

"*I had the opportunity to take the Ecological Biomechanics course this summer, which helped bridge the gap for me between two fields in my research – ecology and biomechanics. I was really able to gain a foundation in subjects like hydrodynamics that are critical for me to understand, as they play a large role in my research. I also got to meet other students from other fields and backgrounds, which is so important, as a lot of my fellow classmates will most likely continue in their fields and could be potential collaborators in the future. Thank you so much for your support. Without it, grad students like me would not be able to take courses offered at FHL.*" -4th Year PhD Student

"*Thank you so much for your generosity and for assisting with the funding for my environmental science education! The research tools and education that I have gained at FHL will allow me to have prior knowledge to conduct future research on marine species.*" -UW Senior

As you consider your year-end philanthropic plans, please consider a gift to the Adopt-a-Student Fund and open the door to a world of possibilities for the next generation. ▪

You can help us support future students by giving to the Adopt-a-Student Fund or Endowment at fhl.uw.edu/about/community/

Images: *Spring 2024 ZooBot students on R/V* Kittiwake.

Young Investigators

This year FHL's Science Outreach Program had the unique opportunity to award Young Investigator Prizes to three highly accomplished students in our local schools. Megan Mellinger, Oliver Oswald, and Melinda Larson were provided with paid, immersive research experiences here at Friday Harbor Labs.

Megan Mellinger, a junior at Friday Harbor High School, spent the summer working in Dr. Emily Carrington's lab. As a leader of her school's Technology Student Association, she helped develop a successful proposal to the NASA Techrise Competition, designing an experimental payload for the High Altitude Balloon Project. As a YIP intern, she focused on a series of experiments to determine how size and shape of oysters influence their temperature distribution, utilizing a variety of advanced equipment. Megan worked on an Arduino data logger to help her and future researchers log data from multiple thermocouples more efficiently. She also performed educational outreach at the Westcott Bay Shellfish Company, while leading an experiment comparing the effectiveness of two different oyster farming methods.

Megan Mellinger

Oliver Oswald

Oliver Oswald and Melinda Larson, juniors at Spring Street International School, worked with Dr. Adam Summers in his biomechanics lab. Oliver is passionate about engineering and computer science, and has taken several challenging AP courses. Outside of school, he has worked as a lighting designer for the community theater and is captain of the sailing club. Melinda is also passionate about engineering, and has pursued academically challenging AP courses while at Spring Street. Both Oliver and Melinda spent time volunteering at FHL even before becoming YIP winners. They immersed themselves in the biomechanics lab, gaining experience with the 3D printers, electron microscopes, and CT scanners. This past summer they assisted the students in UW's 2024 Functional Morphology and Ecology of Marine Fishes course, developing engineering and computer science skills that will prepare them for advanced work in college.

Melinda Larson

All of these 2024 Young Investigator Prize winners are incredibly talented and driven students, and we were honored to give them an opportunity to collaborate and assist researchers here at the Friday Harbor Labs. ▪

2025 COURSES

<u>Spring Quarter</u> (March 30 - June 7)

The ZOO-BOT PROGRAM
Students participate in all 3:

1. Marine Invertebrate Zoology
2. Marine Botany
3. Research in Marine Biology

SPRING MARINE STUDIES
Students select a combo of courses for a minimum of 12 credits:

1. Marine Mammals of the Salish Sea
2. Restoration Ecology
3. Novel Marine Ecosystems
4. Integrative Portfolio Development

Blinks – NSF Research Internship Program for Undergraduates
(mid June - early Aug)

Summer training workshops (3-4, not for credit) offered sequentially starting June 11

<u>Summer Session A</u> (June 15 - July 18)

- Marine Botany
- Marine Invertebrate Zoology

<u>Summer Session B</u> (July 20 - August 22)

- Fish Swimming
- Ecology & Conservation of Marine Birds & Mammals

<u>Early Autumn</u> (2-3 weeks in Sept)

- Marine Biology in the Field

<u>Autumn Quarter</u> (Sept 25 - Dec 6)

AUTUMN MARINE STUDIES
Students participate in all 3:

1. Comparative Anatomy & Physiology
2. Behavioral Invertebrate Zoology
3. Research in Marine Biology

RESEARCH APPRENTICESHIP

- Pelagic Ecosystem Function in the San Juan Archipelago

Please check for updated listings at
fhl.uw.edu/courses/course-descriptions/ ▪

Teaching Faculty

An Introduction to Marjorie (Mar) Wonham, Associate Teaching Professor, FHL and UW School of Aquatic & Fishery Sciences

"Study nature, not books" is a mandate attributed to Louis Agassiz. "What did you learn today?" is what my PhD advisor Bob Paine used to ask us when we returned, hungry for lunch, after an early-morning low tide of exploration and experiments. In other words, what did the organisms and the environment teach you today?

I first truly encountered this approach to teaching and learning as an undergraduate at FHL in the Three-Seas program. Collecting creatures by day and by nightlight, running a grazing experiment with isopods (which refused to graze), learning to use the SEM under the watchful eye of Scott Schwinge, carving pumpkins underwater – I was hooked! It was here too that I began my teaching career, first TA'ing Marine Invertebrate Zoology for Megan Dethier and for Alan Kohn, and later teaching those and other courses at FHL and other marine stations. I then joined the newly-launched Quest University Canada to help build their individualized, interdisciplinary, self-designed major in a heady environment of intellectual and pedagogical creativity and freedom.

I was delighted to bring that experience back to FHL this year to help grow the relatively young Marine Biology major (a SAFS-Oceanography-FHL collaboration), and to help expand its signature Integrative Field Experience (IFE). Through the IFE – an immersive, integrative research experience at, on, or in the ocean – students confront in person the tremendous diversity and variability of the marine environment and organisms. The surprises of fieldwork and the multi-sensory experiences – sights, sounds, smells, tastes, sensations – give our graduates a profound lived experience of the marine-ness of marine biology that they will never forget. In developing this place-based marine experience, I look forward to learning more about and from the Coast Salish peoples for whom these lands and waters are home, and I am excited to be part of the team designing IFE opportunities that are accessible to all students. ▪

K-12 Program

by Michelle Herko

FHL's Science Outreach Program brings hands-on, inquiry-based science to all San Juan Island students at every grade level during the academic year. Our projects and field trips offer students from all backgrounds the opportunity to explore our local marine habitats. These trips often involve parent helpers, partner organizations and expert volunteers who learn along with the students, often with as many questions and as much enthusiasm. Parents and volunteers frequently share how much they are looking forward to the next field trip or how much they learned from the last one. This kind of excitement for science is precisely what we want student scientists to take away from our program!

This year we will enhance the Invasive Mussel Project that we teach at the high schools. It's a high-tech molecular biology unit that asks the ecological question, "Are the farmed mussel species that come from the Mediterranean invading our native mussel population?" In order to answer this question, the students not only engage in an intensive two-week biotech unit, they also generate data relevant to the community and the local shellfish farm regarding our marine ecosystem. To see these data visit our website: **tinyurl.com/FHLinvasivemussel**.

Recently a former student excitedly shared with us that his success in a college genetics lab was because of the biotech he learned doing the Invasive Mussel Project. We are grateful for the generous support from our donors and community partners, as well as the Stocker Foundation and Dean Witter Foundation.

You can help support the FHL Science Outreach Program by donating online at **tinyurl.com/FHLSOP** or by contacting Shannon Koller at **koller@uw.edu**. ▪

THE Whiteley Center

The Whiteley Center, as always, hosted diverse scholars over the course of the year, ranging from poets and visual artists to mathematicians and theoretical economists. Using donor funds, we were able to defray housing costs for a series of scholar-fellows, who enormously appreciated the support to make their visits possible. In addition, three different Artists in Residence used the Macfarlane art studio and were supported by Artist fellowships; they contributed to the FHL community with artwork, drawing lessons, and other ways to "give back." ▪

2024 Whiteley Fellowship Recipients

Jill Currie. Memoir: Failure to Protect (or No One is Coming to Rescue Us).

Christine Dehlendorf & **Rachel Logan**, UC San Francisco; and **Sonya Borrero**, University of Pittsburgh. Rethinking 'Family Planning': Centering People's Agency and Autonomy.

Lori Flores, Stony Brook University. Awaiting Their Feast: The Many Hungers of Latinx Food Workers.

Danielle Holland, UW. A String of Apologies: Feminist explorations of embodied experience and radical imaginings.

Anne Kellor. ATTACHMENTS: A Memoir of Inheritance, Marriage, and Learning to Love.

Jennifer Ladino, University of Idaho. Choosing Peace Over War: Emotions, Environment, and Justice at San Juan Island National Historical Park.

Jason Morse, UW. Patchy Fog: Cloudy Memories of Life in the Atlantic Northeast and the Pacific Northwest.

Briana Royster, University of Alabama. Of Our Stock and Blood: Black Missionaries, the Guianas, and Global Racial Progress. ▪

Macfarlane Artists in Residence

Becs Epstein. Studio Art: Bookmaking/Performance/ Ceramics.

Alison Shields, University of Victoria. Capturing the movement of seaweed in paintings, and the significance of seaweed within our ecosystem.

Aly Stuart, UW Seattle. Digital Illustration – Creating images for an educational card game called Benthos. ▪

Poster designed by Aly Stuart for FHL.

To learn more about the Whiteley Center and the Macfarlane Art Studio please visit **fhl.uw.edu/whiteley-center/**

Research Funding

Carrington, Emily, PI; Co-PI: Steven Roberts, Washington Sea Grant. A collaborative partnership to address mass mortalities in oyster aquaculture through improved field monitoring, husbandry practices, and workforce development. 2023-2025.

Carrington, Emily, PI; Co-PIs: Matt Reidenbach, Mike Nishizaki, NSF, Biological Oceanography. Collaborative Research: Microscale interactions of foundation species with their fluid environment: biological feedbacks alter ecological interactions of mussels. 2021-2025.

Carrington, Emily, PI; Co-PI: Steven Roberts, 2021 PSMFC/NOAA Marine Aquaculture Pilot Competition. Development of genomic markers for environmental resilience in mussels. 2021-2025.

Cohen, Karly, Save Our Seas. Seeking ghost shark secrets. 2024-2025.

Dethier, Megan, and other Co-PIs, WA Dept of Fish and Wildlife. Identifying factors associated with patterns in floating kelp loss and resilience through coordinated monitoring and research. 2023-2026.

Dethier, Megan, WA State. Proviso: Puget Sound Kelp Conservation and Recovery. 2023-2025.

Dethier, Megan, PI; Co-PIs: Adam Summers, Billie Swalla, NSF FSML. Genomics at the Shoreline. 2022-2024.

Eisaman, Matthew, PI; Co-PIs: Chinmayee Subban, Emily Carrington, Sohail Nawaz, DOE FECM. Optimizing the integration of aquaculture and ocean alkalinity enhancement for low-cost carbon removal and maximum ecosystem benefit. 2023-2024.

Foe, Victoria, The Seaver Institute. FHLTEM. 2022-2024.

Greene, Charles, CO_2 Foundation. Marine heatwaves training workshop. 2024.

Harvell, Drew, PI; Co-PIs: Maya Groner, Colleen Burge, Eileen Hofmann, NSF, EEID. Transmission Pathways of Seagrass Wasting Disease in Coastal Meadows. 2022-2025.

Harvell, Drew, The Nature Conservancy. *Pycnopodia* Epidemiology. 2021-2025.

Hodin, Jason, NSF EDGE program. Community tools for sea urchins. 2024-2028.

Hodin, Jason, Nature Conservancy. Star release. 2024-2025.

Murat, Maga, PI; Co-PIs: Adam Summers, and many, NSF. MorphoCloud: A Cloud Powered, Open-Source Platform For Research, Teaching & Collaboration In 3d Digital Morphology & Beyond. 2024-2026.

Summers, Adam, Seaver Institute. CT scanner and stingray locomotion. 2024-2025.

Summers, Adam, Maxwell Hanrahan Foundation. Support an artist/illustrator in training. 2024.

Summers, Adam, Lyman B. Brainerd Family Foundation. New CT scanner. 2024.

Summers, Adam, Drollinger Family Charitable Trust. New CT Scanner. 2024.

Summers, Adam, Washington Research Foundation, Jim and Camille Uhlir-directed donation. 2024.

Summers, Adam, NSF. Research Experience for Undergraduates. 2022-2024.

Summers, Adam, University of Oslo. Fossil Temporal Dynamics of Phenotypic Selection & Life History Evolution. 2022-2024.

Swalla, Billie, Evolution and Development of Marine Invertebrates. Funds Swalla Lab Research. 2022-2025.

Truman, Jim, PI; Co-PI: Lynn Riddiford, Howard Hughes Medical Institute. Crustacean Neurobiology. 2016-2025.

Wyllie-Echeverria, Sandy, Paul Andersson Co-PIs, Habitat Strategic Initiative Lead (HSIL). Eelgrass Restoration Through Large Scale Seeding. 2023-2026.

Wyllie-Echeverria, Sandy, Seacology. Plant Eelgrass Seeds in Shallow Bay, Sucia Island in collaboration with Coast Salish Steward Youth Corps. 2023-2024. ▪

New FHL Faces & Roles

MEGAN CONNELLY

Dining Hall Manager

MAYA DANIELSEN

Dining Hall Cook Lead

JOEY GRAY

Business Manager

LAURA GREENAN

Custodian

JORDAN HEATH

Dining Hall Cook Lead

MAIA KREIS

Academic Services Manager

BEN MAYFIELD

Maintenance

ALEX MORENO

Maintenance

KATIE SMITH

Custodian

JODI VANDERYACHT

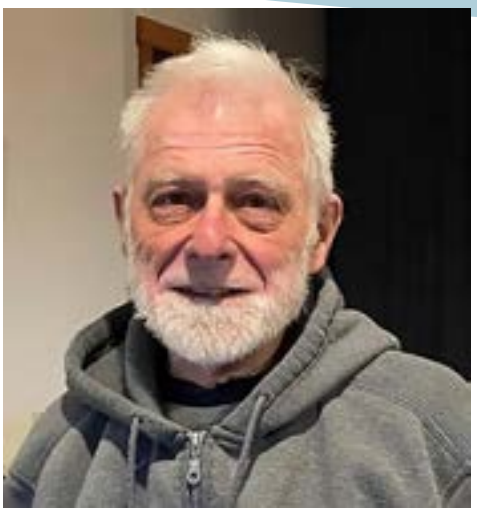
Office Coordinator

MAR WONHAM

Assoc. Teaching Professor

All staff photos by Kathleen Ballard

In Memoriam



Colin Hermans

by Dr. Richard Strathmann

Colin Hermans received master's and doctoral degrees from UW for research done at FHL on the development of marine annelid worms. His PhD advisor was FHL Director Bob Fernald. Colin's research included evolution of egg sizes, stages of development at first mobility, and life histories. His later research included studies of photoreceptors, meiofauna, unusual fish-like swimming by an annelid, behavior of a swimming snail that eats other swimming snails, and animals' paired secretory glands for attachment and detachment.

After retiring from teaching, primarily at Sonoma State University, Colin moved to San Juan Island. He enjoyed his boat, a Sea Pearl, which was propelled by sail if windy, by tiny outboard if not, or oars if no fuel – noting that, as with many compromises, the Sea Pearl was not optimal for any of these. Colin twice entered the around-Shaw rowing race with a temporarily dismasted and de-keeled Sea Pearl and three inexperienced friends from FHL as crew. Each year, the Sea Pearl was first in its class and last in the race.

Colin is remembered for his whimsical and kind humanity, and for surprising observations and insights generated by his original mind and diverse interests. A field site on FHL's biological preserve, Colin's Cove, bears his name. ■

Joann Otto

by Dr. M. Trish Morse

Our FHL Advancement Board member and longtime "Labbie" Dr. Joann J. Otto died suddenly in March 2024. Joann was a graduate of Mt Holyoke College and earned her PhD from the University of California, Irvine. Much of her PhD research was done at FHL in close association with Professors Bob Fernald and Paul Illg. Research during subsequent years at FHL was on proteins, such as actin and myosin, and their role in cytoskeletal rearrangements in sea urchin eggs and starfish oocytes. Joann developed innovative immunoblotting and immunoprecipitation techniques.

She joined the faculty at Purdue University but continued to spend time on San Juan Island in the summers continuing her research here and building a "retirement" cabin. Joann's love of the region led her to accept a position as Chair of the Department of Biology at Western Washington University in 2004, a position she held until she retired in 2016. Her time at WWU is beautifully described by John Thompson: **https://news.wwu.edu/in-memoriam-joann-otto**. She was nationally recognized for her multiple accomplishments in PULSE (Partnership for Undergraduate Life Sciences), spearheading change for inclusive and high-quality teaching in Northwest colleges.

Joann joined the FHL Advancement Board in 2006 and after retirement, was very engaged with the San Juan Preservation Trust, reveling in the field trips. Her energy, thoughtfulness and realistic approach to problems was notable for both organizations.

We are so pleased that a memorial stone bench will be installed at FHL. Future science leaders may meet there, peacefully contemplate the wonder of the ocean, and perhaps Joann's contributions will help guide their future innovations. ■

Evolving Graduate Education

by Chuck Greene

Since 1903, enrollment in summer courses at FHL had been dominated by graduate students. In recent years, courses have had far more undergraduates, in part because many graduate students consider the five-week courses too long in duration and too expensive. In addition, grad students are now under more pressure to spend summers carrying out research or building essential skills to do so.

In response, FHL conducted an experiment during the summer of 2024, offering a two-week training workshop on Marine Heatwaves (MHWs) that was designed to expose students to leaders in this field and teach them the latest methodologies. The workshop was not for credit, and a grant from the CO2 Foundation greatly reduced the costs for participants. The workshop attracted 50 applications from graduate students and postdocs from ten countries; applicants were so outstanding that FHL decided to offer a hybrid format, with 15 in-person and 35 remote attendees. The workshop received glowing reviews from instructors and participants. Even the hybrid format was viewed as a success, as well as a model for increasing the broader impacts of such training workshops. Recorded presentations from the training workshop can be viewed on FHL's YouTube Channel: tinyurl.com/FHL2024MHW

In 2025, FHL will be offering several more of these training workshops. ▪

FUNDS & ENDOWMENTS

Adopt-A-Student Program **Endowed** Fund
Adopt-A-Student Program Fund
Rachel Pitinga **Anderson** Endowed FHL Student Support Fund
Comparative **Biomechanics** Fund
Anne Hof **Blinks** Fellowship in Marine Biology
Bloom, Shimek, and Raymore Endowed Fellowship
Beatrice Crosby **Booth** Endowed Scholarship
Calvin Postdoc Term Fellowship
Emily **Carrington** Endowed Student Travel Support Fund
FHL **Cycles** of Ocean Life Fund
FHL **Diversity, Equity and Inclusion** Initiatives Fund
FHL **Discretionary** Fund for Excellence
Ellie **Dorsey** Memorial Fund
Patricia L. **Dudley** Endowment
Janet L. **Fahey** & Richard R. Vance Endowed Graduate Fellowship in Marine Ecology
Robert L. **Fernald** Endowment Fellowship
Alexander **Fodor** Graduate Student Endowed Fellowship
David and Debra **Galloway** FHL Term Scholarship
FHL Ph.D. **Graduate** Support & TA Fellowship
Graubard Ph.D. Term Fellowship
Harvell/Greene Endowed Scholarship
Paul **Illg** Distinguished Lectureship
Paul L. **Illg** Scholarship Fund
Dynamic **Imaging** Maintenance Fund
K-12 Science Outreach Program Fund
FHL Science Outreach Program **K-12 Endowed** Fund
Alan J. **Kohn** Endowed Fellowship
Eugene N. **Kozloff** Endowed Scholarship
Charles **Lambert** Memorial Endowment
Karel F. **Liem Fish Biology** Endowment
Macfarlane Art Studio Artist Award
Macfarlane Art Studio Endowment
Marine Life Endowed Faculty Fellowship
Marine Life Endowment
Marine Science Fund
William & Florence **McAlary-McFarland** Family Endowment for Student Support
Larry **McEdward** Memorial Fund
Mellon Research Training Faculty Scholarship
Trish **Morse** Endowed Scholarship – Japan / U.S. Exchange
Edward Sylvester **Morse Institute**
Frederic H. and Kirstin C. **Nichols** Endowed Graduate Fellowship
Nuts and Bolts Endowed Fund
Brooks and Suzanne **Ragen** Endowed **Scholarship**
Brooks and Suzanne **Ragen** FHL Endowed **Program Support** Fund
Christopher G. **Reed** Endowed Fund
Research Apprenticeship Program Endowment
Graduate **Research Fellowship** Endowment
FHL **Research Support** Fund
Mary E. **Rice** Endowment at FHL
FHL Ellis B. **Ridgway** Fellowship Fund
Riddiford/Truman Endowed Professorship
Gordon and Helen **Robilliard** Marine Field Equipment Endowment
Pamela **Roe** Graduate Student Endowed Fund
Kenneth P. **Sebens** Endowed Student Support Fund
Richard R. and Megumi F. **Strathmann** Endowed Fellowship
Turn Point Endowed Faculty Fellowship
FHL Research **Vessel** Fund
Stephen and Ruth **Wainwright** Endowed Fellowship
Helen Riaboff **Whiteley Center** Endowment Fund
Arthur and Helen **Whiteley Distinguished Fellow** Endowment
Arthur H. **Whiteley Memorial** Fund
Dennis **Willows** Director's Endowed Professorship ▪

Please help support our efforts at
fhl.uw.edu/about/community/

Thank you FOR YOUR SUPPORT

We wish to acknowledge our many contributors for their kind and generous support of students and programs at FHL.

Sea Star Society

A. F. Schance Family LLC
Barry & Karen Ache
Gregory Anderson & Patsy Dickinson
James Barnes
E. Sanford Branscomb
Glen & Debra Bruels
Cathryn Campbell
Jon & B. Joan Christoffersen
John & Judy Clark
CO2 Foundation
Chad Coffey
Thomas Daniel
Jody Deming & John Baross
Paul DeRoos
Megan Dethier & David Duggins
Christopher Dungan
Douglas & Leann Eernisse
L. Jay Field & Deborah Dwyer
Charles & Melissa Froland
Michael & Carolyn Hadfield
Katherine Graubard & William Calvin
Drew Harvell & Chuck Greene
Carolyn Haugen
Chris Haynes
Richard & Margaret Hudson
Marc Islam
Mary Johanson
Alan Kabat
Susan Kidwell
Terance & Lisette Kordash
Shirley Kronheim & Orlay Johnson
Gretchen Lambert
Susanne Lawrenz-Miller & Alan Miller
Jeffrey Levinton & Joan Miyazaki
Laura & Samuel Long
Jane Lubchenco & Bruce Menge
Lyman B. Brainerd Jr. Family Foundation
Robert & Janet Macfarlane Jr.
Susan Mahoney
Maxwell Hanrahan Foundation
Jeffrey & Nancy May
Florence McAlary
Donald McCoy Jr.
McDaniel Family
Leslie Miller & Bruce Weertman
Douglas & Maureen Miller
M. Patricia Morse
George & Pauline Mulligan
Frederic & Kirstin Nichols
Lesley & Kenneth Nilsson
Chanel O'Neill
Patricia Otto
Dianna Padilla
Rita Pampanin
Leonard Passano & Elizabeth Howe
James Perry & Bethany Econopouly
Anthony & Wendy Pires
Rebecca & Robert Pohlad
Michael Racy
The Brooks and Suzanne Ragen Family Foundation
Richard C. Seaver Charitable Trust
Gordon & N. Helen Robilliard
Lynn & Alan Roochvarg
Steve & Elaine Scherba Jr.
Kevin Schofield
Catherine & Sean Scott
Nell Scovell & Colin Summers
Seacology
Thomas & Susan Shirley
Thalia & Richard Shorett
Myra Shulman & Jim Morin
Craig Smith & Melissa Smith-Zaninovich
Mary Margaret Smith
Erik Sperling
Richard & Megumi Strathmann
Adam Summers & Sharalyn Lehman
Sunflower Star Laboratory
Billie Swalla
The Drollinger Family Charitable Foundation
The Nature Conservancy
The Seaver Institute
Kathleen Thornburgh
Mariluz Villa & Thomas Reynolds
Barbara Von Gehr
Benjamin Walcott
Charles Walcott
Washington Research Foundation
Mason Wiley & Jessi Libbing
Colleen & George Willoughby Jr.
Susan Wyckoff ■

Sea Star Society Members are donors who contributed $1,000 or more this past year.

FHL Contributors

Thomas Abrams
Jonathan Allen
Dewana Anderson
Rachel & Mark Anderson
Gerald Baldasty & Randal Beam
Michael Baltzley & Maia Jones
John & Carol Bishop
Catherine Blank
Susan Bock & Gregory Clark
Anne Boettcher & Daniel Martin
Joanne Bourgeois
Gayle Brenchley & Susan White
Margaret Brucia
Christine Byrum
Tom & Barbara Cable
Chanelle Cadot
John Carrier
Alex Cheroske
Sharon Chia
Christopher Church
Rita Cloney
Ilsa & Roger Coleman
Clayton & Susan Cook
Darrel Cowan

Gifts received from October 1, 2023 - October 1, 2024

Photo at top: lilly3/iStock/Thinkstock

Thank you FOR YOUR SUPPORT (CONTINUED)

Bruce Creps
William Cruce
Carla D'Antonio & Thomas Dudley
Timothy Dwyer
Charles & Christine Eaton
Shannon Fairres
Frank Fila
Nancy Fitzsimmons
Maren Fuller
Zanne & Ian Gerrard
Carl & Bonnie Granquist
John Greger Jr.
Ann & Alan Grodin
Daniel Grunbaum & Martha Groom
James & Mary Guard
Don Gunderson
Dennis & Lorraine Hartmann
Amer Hassan
Carole Hickman
Michael Honey & Patti Krueger
Taina Honkalehto & Edward Melvin
IAMSLIC
Janet Ilg-Wingert & R. Craig Wingert
Laurinda Jaffe & Mark Terasaki
Clifford Keller
William & Carol Kem
Stephen & Rita Kempf
Diane Knoll
George Kowallis
Rae Kozloff
Marker Buoy Dive Club
James & Ella Markham
Karen & Robert Martin
Irina Masinovsky
Mark & Tracy McClintock
Ulan McKnight
Alexander McLean
Mellon Foundation
David & Kaniaulono Meyer
Judith Meyer & Eugene Helfman
Kimmerle Miller Leonard
Catherine Miller
Kathy Ann Miller
Marilyn & Scott Montgomery
Laurel Moreno
Alexander & Ann Motten
Phyllis & Michael Mumaw
Jenanne Murphy
Barbara Mutscheller
Lawrence Naughton III
Shannon Newby
Bette Nicotri & William Jones
Wayne Palsson
Mario & Nellie Pamatmat
Molly Payne
Amanda Perkins
Julie Piraino
Mark Potsdam
James & Priscilla Potter
Jill Rain
Luke Raymond
Douglas Rhoads
Tom Rich
Courtney Richmond
Véronique Robigou-Nelson & Bruce Nelson
Vijay & Mary Sarthy
Allen & Joan Schuetz
Dakota Schwab
Anne Shaffer
Alex Shapiro
Caitlin Shishido
Richard & Harriet Showman
Charles Simenstad & Stephanie Martin
Nancy Smith
Shelly Southwick
James & Karen Spaulding
Raymond Stephens
Steve & Susan Stricker
Thomas & Cindy Suchanek
Kimbal Sundberg & Debra Clausen
Sherman Suter
Nichole Swanger
Rhonda Swineford
Anne Sylvester & Stephen Herbert
Gregory Ulses
Brad Vaughan
Gay & Richard Vogt
Elaine Waite
Kurt Wieland
Tim Wootton & Catherine Pfister
Sylvia & Russell Yamada ▪

The Willows Professorship

The purpose of the FHL Dennis Willows Director's Endowed Professorship is to enhance the University's ability to hire and retain a distinguished director who will sustain FHL's international reputation for excellence in marine science. **I am currently prioritizing this as my top fundraising effort.** A substantial endowment will help us recruit an exceptional individual who can expand FHL's research expertise, attract new researchers and graduate students, and broaden FHL's teaching capacity. Down the road when I step down as director, FHL will be seeking a resident Director whose teaching and research are entirely at FHL. We're inviting friends and supporters to help grow the Dennis Willows Director's Endowed Professorship to make it an effective tool to support FHL in this critical fashion. You can help by making a contribution to the Dennis Willows Director's Endowed Professorship online via UW Giving. ▪

- Dr. Megan Dethier, Director

Director's Message...

Implementing Imaginings

Another year has whizzed by, with forward progress on many fronts – infrastructure improvements, staff hires, new curricula – and concrete planning for many others. Last year I wrote about our Strategic Planning work; this year we are already implementing some of the suggestions from that plan, working with five categories of action items:

- Strengthening ties with main campus
- Evolving undergraduate education
- Evolving graduate education
- Building partnerships and external relationships
- Engaging the local community

Planned action items range from short-term and relatively straightforward (e.g., Make availability of student funding more transparent and predictable to students and advisors), to long-term and complex (e.g., Establish one or more Centers focused on high-impact research topics). Meetings of FHL staff and scientists this fall and winter will help prioritize these action items and begin to figure out how to implement them. We are determined that this Strategic Plan will not be one that just sits on a shelf! A few key items are already underway, e.g. evolving both undergraduate and graduate curricula at FHL (see articles on pages 4 and 8 by Mar Wonham and Chuck Greene), and seeking a part-time staff member who can take charge of maintaining and training users on scientific equipment.

We are very proud that in June we opened the new Marine Genomics Center (formerly Lab 2) which was remodeled and equipped with NSF funding. Our October 1 Tide Bite (see the FHL website under News and Events) shows pictures and describes the process of this makeover. The MG Center has already hosted a summer class, and our postdoc Becca Maher and faculty Billie Swalla are among the researchers using the new equipment. Plans are underway to target Lab 5, which currently houses various classes and researchers, for a new renovation request to NSF for a Motion Analysis Center. We know that we will still need to use this building for core classes, though, so it will remain flexible in its design.

As we look toward our future, we are in the imagining stages of establishing a yet another Center. We believe that a key role that FHL should play, given its physical and intellectual position in the Salish Sea, is as a research center for issues and solutions related to nearshore ecology and climate change. This is by no means our only role, but as we continue to be a hub for diverse types of science we are focusing some of our attention on establishing a Center related to climate solutions and recovery of marine species. We will be seeking external funding for this effort. A "Center" at UW doesn't need to be a physical entity (although if someone gave us $10M for a new building we would be delighted!); it can begin in stages with new workshops, postdocs, and upgraded lab spaces.

Photo: Kathleen Ballard

Professor Megan Dethier, FHL Director

We are grateful for the continued engagement and interest in the Friday Harbor Labs by our many and widespread supporters, and will continue to keep the broader community updated as we implement our imaginings! ▪

Current Administrative and Support Staff

Director: Dr. Megan Dethier
Operations Manager: Dr. Bernadette Holthuis
Business Manager: Joey Gray
Advancement: Shannon Koller
Student Services Manager: Maia Kreis
Visitors & Whiteley Coordinator: Morgan Johnston
Office Coordinator: Jodi VanderYacht
Fiscal Specialist: Diana Pieples
IT Specialists: Dylan Crosby and Don Ruffner
Maintenance Supervisor: Doug Engel
Marine Operations Manager: Eric Loss
Dive Safety Officer: Pema Kitaeff
Boat Safety Officer: Kristy Kull
Stockroom Manager: Peggy Combs
Dining Hall Manager: Megan Connelly
Science Outreach Director: Michelle Herko
Custodial Supervisor: Lee Ann Walch ▪

Photo at top: burnsboxco/iStock/Thinkstock

FRIDAY HARBOR LABORATORIES
UNIVERSITY of WASHINGTON
College of the Environment

620 University Road
Friday Harbor, WA 98250

Change Service Requested

Photo: Jason Hodin