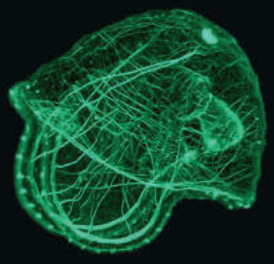
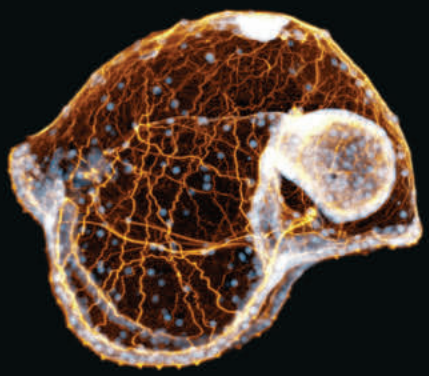
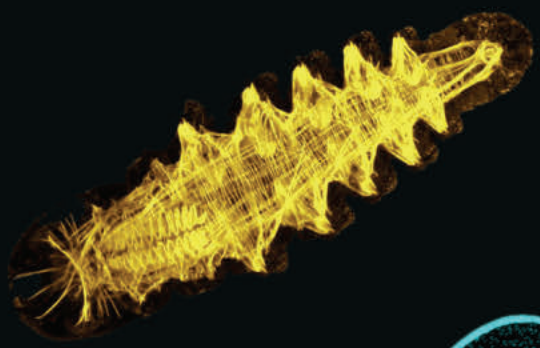


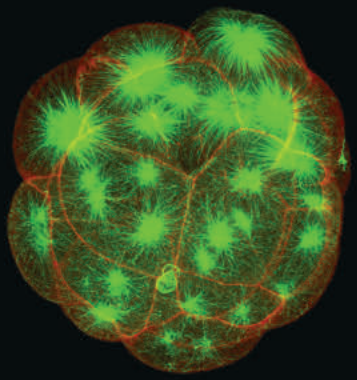
University of Washington 2008

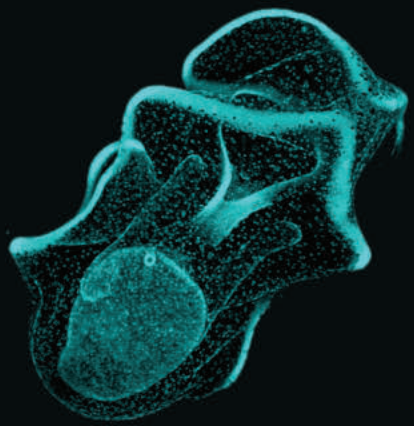
Friday Harbor Laboratories

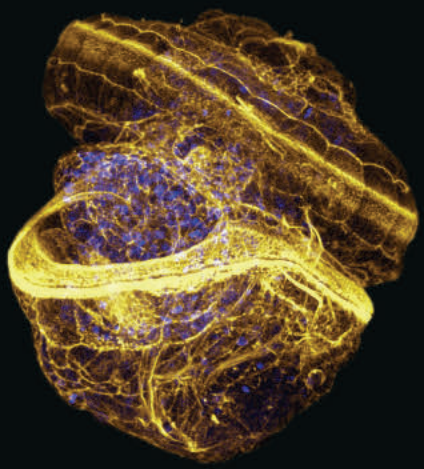
Opportunities for Research and Education











Friday Harbor Laboratories

The Friday Harbor Laboratories are well-situated for research on many aspects of marine biology and oceanography. The waters around San Juan Island are relatively free from pollution, and although the salinity is in general like that of the open ocean, there are a few estuarine situations of low salinity. There are swift tideways as well as quiet bays and lagoons. A tidal range of about three meters exposes diverse intertidal areas of rock, sand, and mud. The flora and fauna are exceptionally rich. Representatives of nearly all major groups of marine algae and invertebrates can be collected at the shore, and depths down to 300 meters can be explored by dredging and other collecting techniques. Organisms important for research in physiology, development, and ecology are available.

The islands of the San Juan Archipelago are generally rocky, forested, and rimmed by precipitous shores. The islands were strongly glaciated and have valleys with lakes, swamps, and bogs. The varied terrestrial and freshwater habitats offer diverse flora and fauna for classes and researchers.

The 484 acre tract of land on which the Laboratories are sited and the marine waters of the region in general, are biological preserves. The Laboratories also control biological preserves at False Bay and Argyle Lagoon on San Juan Island, at Point George and Cedar Rock on Shaw Island, and other areas. These preserves provide a wide range of protected terrestrial and marine environments for short and long term research projects.

Fernald Laboratory at FHL (W. Calvin)

The Friday Harbor Laboratories are located on San Juan Island in Washington state, part of an archipelago that lies near the Canada-USA border. The town of Friday Harbor may be reached by scheduled airline service from Seattle, and by Washington State Ferries from Anacortes about 75 miles north of Seattle.

Research at FHL is conducted throughout the year. It is a principal function of the Friday Harbor Laboratories to provide facilities for visiting investigators from national and international institutions. FHL also has a permanent, resident research program. Laboratory space and housing for investigators and visiting classes are available year-round. Investigators and students are encouraged to use the facilities outside the busy instructional period in summer. Accommodations are also available for college-level educational groups for meetings and symposia. Individuals who wish to apply for research space and housing should do so online at ***http://depts.washington.edu/fhl/res_index.html***. This Web site also includes a list of independent investigators at Friday Harbor Laboratories for the previous year.

FHL endorses San Juan County's Marine Stewardship Area. FHL visitors are asked to assist in protecting fish and invertebrates through rigorous efforts to minimize harvest. At the end of a visit, FHL visitors are asked to return organisms to their original site, or to pass them on to other scientists or students.

Courses and Research Apprenticeships

FHL offers coursework and research apprenticeships in the spring and autumn for undergraduates and post-baccalaureate students. The instructional programs in summer are intended primarily for graduate students with the exception of Marine Invertebrate Zoology. Well-qualified undergraduates may be admitted to graduate level courses with the consent of the Director and the faculty of the courses involved. Courses are taught by faculty of the University of Washington and other universities and research institutions. Courses in summer may be taken sequentially, but not concurrently.

Research Apprenticeships are intense, full-time research training experiences offered to qualified undergraduates and post-baccalaureates. Small groups (5-12 students) work on a focused research study guided by faculty and graduate student mentors. Students selected for participation receive financial support.

Additional information and FHL's online application form can be found at ***http://depts.washington.edu/fhl/stu_index.html***.

For Further Information:

http://depts.washington.edu/fhl

Phone:

(206) 543-1484 or

(360) 378-2165

Scientific Facilities

Laboratories and Equipment The teaching and research laboratories consist of twelve buildings with running sea water. A photographic darkroom, walk-in cold rooms, microtechnique room, flume, and shop are available. Analytical equipment for general use includes centrifuges, computers, scintillation counter, an HPLC, nucleotide sequencer, PCR thermocyclers and other equipment for molecular biology, spectrophotometers, culture chambers, fluorescence microscope, video equipment, scanning laser confocal microscopes, and electrophysiological equipment. A scanning electron microscope and transmission electron microscope may be used by investigators who have or can obtain appropriate training.

Stockroom The FHL stockroom provides reagents, labware, photographic materials, and small items of equipment at no additional cost to students or investigators. Persons needing unusual materials, large quantities, radioisotopes or special equipment should make arrangements in advance.

Marine Equipment A 58-foot steel research vessel, the R/V Centennial, equipped for dredging, trawling, net hauling, and water sampling is available for classwork and research. The services of an R.O.V. submersible capable of working to 1,000 foot depths are also available. Rowboats and outboard powered boats can also be used.

Facilities for Diving Divers certified by the University of Washington (AAUS) may use four boats and a limited number of tanks and weights for specific projects approved by the Diving Officer (DO). Study site information as well as check-out dives are provided by the Diving Officer (DO).

Library The Friday Harbor Laboratories library provides a core collection of books, journals and electronic resources with a focus on the marine sciences. Areas of emphasis include developmental biology, cellular biology, oceanography, fish biology, and marine ecology. Access is available to the UW libraries catalog, journal indexes, electronic references, news sources and journals.

Synoptic Collection A collection of preserved marine animals and plants is available as an aid to identification and location. In addition, files of collecting and study-site surveys and color transparencies of local marine life and habitats are maintained for reference and study.

Importation of Species Most imports of marine species into Washington State for research are illegal without a permit from the Washington State Department of Fish and Wildlife. Permits, when granted, will require strict quarantine of non-native organisms with no contact with the FHL seawater system.

Vertebrate Research Persons intending to work with fish at Friday Harbor Laboratories must have University of Washington Animal Care Committee approval before holding fish in laboratory aquaria for experimental purposes.

FHL Courses and Research Apprenticeships - 2008

Photo: Dermasterias larva (Fernanda Oyarzun)

Friday Harbor Laboratories
2008 Calendar

Spring Quarter

March 31 to June 7, 2008
Student Applications due January 10th

The ZooBot Quarter (16 credits total)

- Marine Zoology (5 credits)
- Marine Botany (5 credits)
- **Marine Benthic Ecology - Research Apprenticeship (6 credits)**

Other Research Apprenticeships (15 credits each)

- Parallel Evolution of Nervous Systems: From Genes to Behavior
- Marine Sedimentary Processes: Elwa River Dam Removal Impacts

Beam Reach Program

Summer Session A

June 9 to July 12, 2008
Student Applications due February 1st

Courses (9 credits each)

- Functional Morphology and Ecology of Marine Fishes
- Marine Algae
- Comparative Invertebrate Embryology
- Biomechanics
- Blinks Marine Science Research Internships (Session A & B)

Summer Session B

July 14 to August 16, 2008
Student Applications due February 1st

Courses (9 credits each)

- Marine Invertebrate Zoology
- Evolution and Development of the Metazoans
- Oceans and Life on Planets: Remote Exploration of Seafloor Microbial Activities

Autumn Quarter

September 22 to December 6, 2008
Student Applications due July 1st

Research Apprenticeships (15 credits each)

- Pelagic Ecosystem Function in the San Juan Archipelago
- Assessing Predation Across Marine Habitats

Beam Reach Program

Research apprentices receive an FHL stipend:
$3000 for 15 credits, $1200 for 6 credits

http://depts.washington.edu/fhl/

Spring Quarter

THE ZOOBOT QUARTER

March 31-June 7, 2008
10 weeks: M-F 8-5; S 8-12
16 credits total

MARINE ZOOLOGY
5 credits - Biology 430
Dr. Megan Dethier

MARINE BOTANY
5 credits - Biology 445
Dr. Emily Carrington

MARINE BENTHIC ECOLOGY
Research Apprenticeship
6 credits - Biology 499
Dr. Kevin Britton-Simmons
Dr. Megan Dethier

This trio of courses surveys the groups of marine invertebrates and plants represented in the San Juan Archipelago; natural history, adaptations, evolution, and taxonomy. Considerable field work and detailed laboratory study of organisms is included. All students will perform organized outreach activities with the local schools. A field trip to the wave exposed outer coast will allow contrasts of the organisms and ecology there. The linked apprenticeship will focus on the study of the ecology of intertidal organisms. Each student will select an independent research topic to perform in the field, laboratory, or both; examples include interactions between introduced seaweeds and native herbivores, the adaptive significance of morphological variation in marine invertebrates and the variation in rates of recruitment of juvenile clams onto beaches. ***The apprenticeship will be integrated with the Marine Zoology and Marine Botany courses; students must register for all three.*** Enrollment limited to 15 students.

For additional information contact:

mdethier@u.washington.edu

ecarring@u.washington.edu

aquaman@u.washington.edu

Online application can be found at *http://depts.washington.edu/fhl/stu_index.html*

Other Research Apprenticeships

PARALLEL EVOLUTION OF NERVOUS SYSTEMS: FROM GENES TO BEHAVIOR

March 31 - June 7, 2008
10 weeks: M-F 8-5; S 8-12
15 credits - Biology 499
Dr. Leonid Moroz & Dr. Andreas Heyland

Nervous systems are some of the most complex machines in our universe. The myriad of signaling mechanisms within nerve cells, the billions of nerve cells and trillions of connections (most of them are unique) are truly wonders of enormous proportions. Yet extant nervous systems are the way they are because they have been molded by millions of years of evolution. We can fully understand the complexity of nervous systems if we examine them, their components, signaling pathways and properties from an evolutionary perspective. This apprenticeship will provide students with the technical and intellectual tools with which to capitalize both on the enormous diversity of animal lineages and species available at FHL and on the wealth of information that studies of nervous system evolution can provide. Enrollment limited to 8 students. **For additional information contact: moroz@whitney.ufl.edu**

MARINE SEDIMENTARY PROCESSES: ELWHA RIVER DAM REMOVAL IMPACTS

March 31 - June 7, 2008
10 weeks: M-F 8-5; S 8-12
15 credits - Oceanography 499
Dr. Andrea Ogston & Dr. Charles Nittrouer

This research apprenticeship focuses on designing and performing baseline studies prior to dam removal on the Elwa River. Students will evaluate the impacts of the existing dams on the marine sedimentary system, as well as the impacts of dam removal. Apprentices will collect data on a research cruise to the marine environment near the Elwha River mouth, have the opportunity to design and conduct laboratory experiments, and take weekly field trips to a variety of sedimentary environments.
Enrollment limited to 8 students.
For additional information contact: ogston@ocean.washington.edu

CTD Crew (C. Greene)

Summer Quarter

FUNCTIONAL MORPHOLOGY AND ECOLOGY OF MARINE FISHES

Session A June 9 - July 12, 2008
5 weeks: M-F 8-5; S 8-12
9 credits - Fish 565
Dr. Adam Summers & Dr. Lara Ferry-Graham

This course will use the diverse marine fish community of the San Juan Islands as a tool for exploring the relationship between functional morphology and ecology. The students will learn: 1) the evolutionary history and relationships of the major radiations of bony and cartilaginous fishes; 2) the tools and techniques of functional morphology. For the first several weeks of the course, there will be daily lectures and field trips to familiarize students with the basic tools and animals they will need for the latter portion of the course. For the second half of the course, students will pursue an independent research project. Enrollment limited to 12 students.
For additional information contact: asummers@uci.edu or lfgraham@mlml.calstate.edu

Armina eating *Ptilosarus* (J. Murray)

MARINE ALGAE

Session A June 9- July 12, 2008
5 weeks: M-F 8-5; S 8-12
9 credits - Biology 539
Dr. Bob Waaland & Dr. Tom Mumford

This course explores marine algae with emphasis on their role in marine ecosystems. The course will have three key components: 1) Investigating seaweed diversity and developing the practical skills essential for identification of these organisms. Diversity will be examined through field forays and laboratory studies of seaweed-dominated cool temperate water communities accessible in the San Juan Archipelago. 2) The functional role of seaweeds in marine ecosystems will be examined through discussion, laboratory and field methods emphasizing the role of seaweeds as primary producers in coastal marine communities, their functional morphology and their interactions with other members of the marine community e.g., role in food webs and as habitat. 3) Quantitative analysis of the distributions and abundances of seaweed populations will be investigated with a combination of lectures and field and lab exercises. Enrollment limited to 12 students.

For additional information contact: jrw@u.washington.edu or tom.mumford@wadnr.gov

COMPARATIVE INVERTEBRATE EMBRYOLOGY

Session A June 9 - July 12, 2008
5 weeks: M-F 8-5; S 8-12
9 credits - Biology 539
Dr. Richard Strathmann & Dr. Sally Leys

This course provides extensive hands-on laboratory experience with the fertilization and development of diverse animal phyla. The course serves both marine biologists and developmental biologists. In addition to the basics of invertebrate reproduction and development, lectures will also include analyses of morphogenetic processes, evolutionary changes in development, and functional consequences of different modes of development. Although the majority of lab time will be devoted to observing, photographing and drawing embryos, lecture and lab practice will also introduce other techniques. Field collecting trips to diverse habitats will acquaint students with the environments in which reproduction and development occur and will be sources of embryos. Enrollment limited to 12.

For additional information contact: rrstrath@u.washington.edu or sleys@ualberta.ca

BIOMECHANICS

Session A June 9 - July 12, 2008

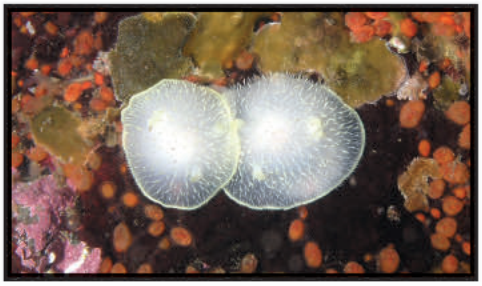
5 weeks: M-F 8-5; S 8-12

9 credits - Biology 533
Dr. Emily Carrington, Dr. Mark Denny &

Dr. John Gosline

Biomechanics, which involves the use of an engineering perspective to evaluate the mechanical design of organisms, is a relatively new field of biological science. Beginning in the 1970's, several FHL summer courses in Biomechanics fueled the explosive growth of the field of comparative biomechanics worldwide. Indeed, the Society of Integrative and Comparative Biology just established a division in Comparative Biomechanics this year. Recent offerings at FHL have focused on fish locomotion, a fascinating aspect of biomechanics. However, we wish to return to a broader study of "fluids and solids" to develop an understanding of the diversity of ways organisms construct materials, organize body plans, and interact with their physical environment. Enrollment limited to 12 students.

For additional information contact: ecarring@u.washington.edu



Nudibranch Cadlima luteomarginata (K.Sebens)

MARINE INVERTEBRATE ZOOLOGY

Session B July 14 - August 16, 2008
5 weeks: M-F 8-5; S 8-12
9 credits - Biology 432
Dr. Mar Wonham & Dr. Molly Jacobs

Comparative biology of marine invertebrate animals, focusing on morphology, natural history, functional biology, life history, and evolutionary relationships will be covered in this class. Two daily lectures will provide overviews of the major and many smaller phyla, but the heart of the course comprises study of living animals in the labortory and field work in the diverse marine habitats surrounding San Juan Island. Graduate students will receive enrollment preference, but well qualified undergraduates are also encouraged to apply. Prior coursework in invertebrate biology or animal diversity is advisable, but not essential. Enrollment limited to 20 students.

For additional information contact: mollywj@gmail.com or marwonham@yahoo.com

Subtidal sculpin (K.Sebens)

EVOLUTION AND DEVELOPMENT OF THE METAZOANS

Session B July 14 - August 16, 2008
5 weeks: M-F 8-5; S 8-12

9 credits - Biology 533
Dr. Billie Swalla & Dr. Ken Halanych

Our understanding of metazoan relationships has been changing as molecular phylogenies have been constructed and refined. This new understanding of metazoan relationships allows new hypotheses to be constructed about how body plans have evolved. Advances in Developmental Biology have shown that the metazoans use similiar signaling molecules and transcription factors during development to elaborate particular morphologies. The cloning and expression of these homologous genes in different organisms allows predictions about how evolutionary processes work during embryonic development. Additionally, rapid advances in genomic sciences have allowed researchers to start unlocking the mysteries of development and organismal evolution in novel ways. One of the objectives of this course will be to introduce students, i.e., future researchers to the technological and theoretical potential of genomic tools on marine organisms. However, this course will differ from other evolution of development courses in that it will stress a stronger understanding of organismal and comparative biology. Enrollment limited to 12 students.

For additional information contact: bjswalla@u.washington.edu or ken@auburn.edu

CTD Cast (C. Greene)

OCEANS AND LIFE ON PLANETS: REMOTE EXPLORATION OF SEAFLOOR MICROBIAL ACTIVITIES

Session B July 14 - August 16, 2008
5 weeks: M-F 8-5; S 8-12
9 credits - Ocean 578
Dr. Woody Sullivan, Dr. Jody Deming, Dr. Laurenz Thomsen, & Dr. Dirk de Beer

This course is inspired by the new field of Astrobiology, which can be defined as the study of life in a cosmic context. An exciting aspect of Astrobiology for oceanographers and marine biologists is that other oceans exist in our solar system, (on Europa, a moon of Jupiter) and in the past (on Mars). The course is thus designed to take knowledge of marine biology on this planet, especially marine microbiology in environments defined by strong chemical and/or thermal gradients and extend it beyond Earth. The first goal is to explore the relationships between (a) microbial life as we know it, particularly across marine gradients, (b) the early and contemporary ocean on Earth, (c) past and present oceans on other planets and moons, and (d) the possibilities for life in the environmental gradients inherent to those extraterrestrial oceans. The second goal is to give students direct experience in controlling and gathering data from state-of-the-art robots operating in real-time on the floors of Puget Sound and the Baltic Sea; this type of remote exploration is not unlike that of planetary missions controlled from Earth. Students will also learn selected molecular biological techniques for evaluating types of microbes present, and shifts in their composition across gradients in time and space. Enrollment limited to 12 students.

For additional information contact: woody@astro.washington.edu

Autumn Quarter

Research Apprenticeships

PELAGIC ECOSYSTEM FUNCTION IN THE SAN JUAN ARCHIPELAGO

September 22 - December 6, 2008
11 weeks: M-F 8-5; S 8-12
15 credits - Ocean 499
Dr. Jan Newton, Dr. Breck Tyler, &
Dr. Sandra Parker-Stetter

The primary research objective of this apprenticeship is to investigate the physical-biological coupling of oceanographic processes and biota in the San Juan Archipelago. This work is timely because the San Juan Basin is highly productive, hosting abundant populations of plankton, fishes, seabirds, and marine mammals. The Basin is the area along the entire Pacific coast judged to be most highly sensitive to climate change, due to idiosyncrasies of tidal forcing. It is located at the nexus of the Fraser River and the Pacific Ocean, allowing for comparison of fresh water and marine influences. In order to understand the functioning of the Basin's complex ecosystem, it is essential to determine which processes are dominant in shaping the physical environment. These will also determine directly the habitat available for prey and predator species. If these elements can be linked, it will be possible in the future to assess the status of regional biota by means of remote observing systems. The primary educational goals are to have apprentices examine the workings of a marine ecosystem from top to bottom to understand how coupling with oceanographic processes leads to spatial and temporal variation in biotic patterning. We use the natural laboratory of the waters adjacent to San Juan Island to begin to explore the mechanisms responsible for variability in the region. Enrollment limited to 12 students.

For additional information contact:
newton@apl.washington.edu

Pollicipes polymerus (J. Murray)

Marine Invertebrate Zoology course (G. Paulay)

ASSESSING PREDATION ACROSS MARINE HABITATS

September 22 - December 6, 2008
11 weeks: M-F 8-5; S 8-12
15 credits - Biology 499
Dr. Lindsey Leighton

Predation research, particularly in marine systems, has grown in importance as the role of predation in ecosystem health and biodiversity has become increasingly recognized. A considerable body of research has identified "top-down" ecosystems, in which the top predators are critical to the stability and resilience of the given ecosystem, even when faced with rapid or severe changes to the physical environment. Nonetheless, assessing and measuring predation among different communities in a meaningful way has remained relatively difficult.

Although desirable, direct observation of marine predation in the field is obviously logistically challenging. Caging and tethering experiments have proven invaluable, but have potential "caging" biases, and would often be difficult to conduct at multiple localities from diverse habitats while using the same experimental protocols. Thus, predation is often measured either in terms of predator diversity, predator abundance, or predator function (e.g. crushing strength of the predator etc.).

This research apprenticeship will focus on the use and analysis of direct traces of predatory activity, such as drill-holes and crushing scars, with the intention of testing whether and how such traces are useful proxies for predation intensity (mortality owing to predation) among environments. Predation trace data from prey will be collected and compared to data from direct field observations and laboratory experiments performed at Friday Harbor Labs. Enrollment limited to 12 students.

For additional information contact:
leighton@geology.sdsu.edu

The Beam Reach Program

MARINE SCIENCE AND SUSTAINABILITY SCHOOL

March 31 - June 7, 2008
August 25 - November 1, 2008
18 credits - Ocean 360 (10 credits) & Ocean 365 (8 credits)
Dr. Val Veirs, Dr. Jason Wood & Eric Eisenhardt

Beam Reach is an intensive 10-week long "voyage" divided almost equally between the Friday Harbor Labs and a sailing vessel. Students conduct independent research projects that use bioacoustic techniques to explore endangered killer whales, their prey, and their environment. Our silent biodiesel-electric catamaran enables pioneering research and also offers adventure, collaborative and leadership training, sustainable technology demonstrations, and increased environmental awareness.

The Beam Reach curriculum integrates two letter-grade courses that are approved for 18 quarter credits (12 semester credits) through the University of Washington College of Ocean & Fishery Sciences. "Marine Field Research" (Ocean 360, 10 credits) guides the student through design and implementation of an independent research project in the marine environment. "Practicing Sustainability Science" (Ocean 365, 8 credits) helps the student select a research topic that is relevant to a current marine environmental problem and gives them an opportunity to contribute to its solution through a group service project conducted in partnership with local organizations.

The courses will be taught by an interdisciplinary team with expertise in both killer whale and fish bioacoustics.

For additional information:
http://beamreach.org or
scott@beamreach.org

Gunnel on eelgrass (J. Murray)

The Whiteley Center

The Helen Riaboff Whiteley Center provides a refuge for established scholars and artists to study, write, create, and interact with collaborators in a peaceful and stimulating environment. Scholars of any discipline may work at the Center for stays of several days to three months, undisturbed by the conflicting demands of their academic and artistic careers.

The Study Center building provides four study rooms, a meeting room, access to the internet and AV equipment. Seven cottages located adjacent to the Study Center provide housing for scholars. Arthur and Helen established this Center as a place of collegial interaction, a tribute to the faculty of the UW, and a gift to scholars of all nations.

Whiteley Study Center (A. Whiteley)

Scholarships & Fellowships

Scholarship and fellowship support is available to qualified students in need. This funding derives from generous donations from alumni and friends of the Laboratories. Financial aid is awarded on the basis of need and merit; admission decisions are not influenced by financial aid requirements. Support is available to both undergraduate and graduate students.

For additional information regarding scholarships and fellowships, please visit ***http://depts.washington.edu/fhl/studentFellowships.html.***

Post-Doctoral Fellowships

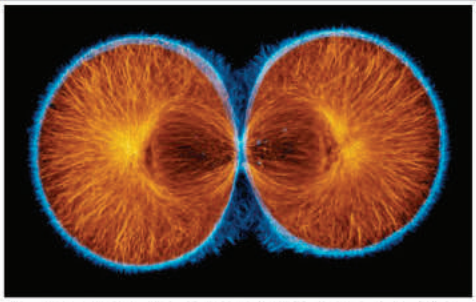
FHL will support a post-doctoral scientist for a two-year appointment to establish an active research program and assist the Director and Resident Associate Director in facilitating the efforts of visiting scientists and students. Applications are welcome from scientists with qualifications in any area of marine research readily supportable by FHL.

For additional information regarding post-doctoral fellowships, please visit ***http://depts.washington.edu/fhl/resPdocFellowInfo.html.***

Mellon Faculty Support

Mellon Foundation fellowship support is available for qualified visiting faculty and researchers who bring cultural or ethnic diversity to FHL. It is intended for independent researchers and faculty who serve as research mentors at any time of the year. Interested persons should contact the Director at ***sebens@u.washington.edu.***

The Center for Cell Dynamics



Green urchin zygote completing first cleavage, stained for microtubules (orange) and actin (blue) (G. von Dassow)

The Center for Cell Dynamics (CCD) at FHL is conducting innovative work combining experimental cell and developmental biology with computer simulation modeling. Funded by a NIGMS Center of Excellence award promoting the emerging field of computational biology, the Center is led by Dr. Garrett Odell.

The Center's mandate is to cross-train scientists in bench biology and mathematics/computational modeling techniques while working on complex problems that require both approaches. Research focuses on understanding the mechanisms that underlie the process of cytokinesis, the gene networks that pattern embryonic development, and those that endow cells with motility/contractility.

For more information on the availability of collaborative post-doctoral and visiting faculty research opportunities, please visit the CCD Web site at ***www.celldynamics.org.***

The Anne Hof Blinks Research Fellowship Program

The Blinks Fellowship Program offers hands-on, full-immersion summer research internships to 6-8 motivated seniors, post-baccalaureates and graduate students. The program seeks students of diverse cultural backgrounds and interests. By linking fellows with marine scientists, fellows learn both the process and the substance of scientific research. The experience will expose fellows to life and work in a marine science research laboratory.

For additional information and project options, please visit ***depts.washington.edu/fhl/studentBlinkschol.html.*** This program is funded by philanthropic donations to the Anne Hof Blinks Fellowship and generous support of the Andrew W. Mellon Foundation, ASCB and FASEB.

Blinks Students (K.Ballard)

Dr. Kenneth P. Sebens, Director

Dr. Kenneth Sebens assumed the directorship of FHL in September 2005. He succeeds A. O. Dennis Willows who served as Director for the previous 33 years. Our new Director was formerly Director of Northeastern University's Marine Science Center and East-West Marine Biology (Three Seas) Program (1985-1991), Director of the University of Maryland MEES Program (1991-1997) and Dean of the College of Science and Mathematics at UMass Boston (2003-2005.) His areas of research are rocky subtidal community ecology, suspension feeding, hydrodynamic effects on benthos, and coral reef ecology. Dr. Sebens is a Professor in the Biology Department at the University of Washington.

Personnel

Administration & Support Staff

Director: Dr. Kenneth P. Sebens

Resident Associate Director: Dr. Richard Strathmann

Administrator: Scott Schwinge

Fiscal Specialist: Aimee Urata

Student Coordinator: Stacy Markman

Facilities Coordinator: Vikky Dauciunas

Whiteley Coordinator: Kathy Cowell

Dining Hall Operations Manager: Laurie Spaulding

Marine Supervisor: Dr. David Duggins

R/V Skippers: M. Anderson, D. English & D. Willows

Diving & Boating Safety Officer: Pema Kitaeff

Sr. Computer Specialist & R/V Skipper: Dr. Craig Staude

Computer Support: Alan Cairns

Director of Development: Robert Schwartzberg

Development Support: Rachel Anderson

K-12 Education: Jenny Roberts & Alana Hysert

Librarian: Maureen Nolan

Stockroom: Jeannie Meredith

Instruments & Equipment: Brian McGlynn

Caretakers: Michelle & Mike Herko

Custodian Supervisor: Lee Ann Walch

Building & Grounds Supervisor: Fred Ellis,Jr.

Center for Cell Dynamics

Director: Dr. Garry Odell

Associate Director: Dr. Victoria Foe

Managing Director: Dr. Kimberly Littlefield

Business Manager: Charles Paxton

FHL R/V Centennial (K.Ballard)
Front cover photos:
Invertebrate larvae (G.von Dassow)

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