

BIOLOGY STUDENT
NEWSLETTER

AUTUMN QUARTER 2017

ISSUE 29

IMPORTANT DATES
FOR AUTUMN QUARTER

| | |
|----------------|---|
| Sept 27 | First Day of Instruction |
| Oct 3 | Last day to drop a class without a fee thru MyUW |
| Oct 4 | Biology Apparel Day |
| Oct 4 | All courses require entry codes to add, beginning |
| Oct 6 | Last Day to apply to Biology major in Autumn |
| Oct 10 | Last Day to drop a class without the use of the Annual Drop |
| Oct 17 | Last Day to add a class through MyUW |
| Oct 25 | Biology Networking Night |
| Nov 1 | Last Day to Apply for Grad Reg Priority GSP for Winter |
| Nov 3-Nov 19 | Winter Reg Priority Period 1 |
| Nov 10 | Veterans Day Holiday |
| Nov 14 | Last Day to use ANNUAL DROP or convert to S/NS |
| Nov 20 - Jan 2 | Winter Reg Period 2 |
| Nov 23-24 | Thanksgiving & Fri Holiday |
| Nov 30 | Mystery Flower contest ends |
| Dec 6 | Biology Apparel Day |
| Dec 8 | Last Day to Withdraw (from all Aut Qtr classes) |
| Dec 11-15 | Final Examination week |
| Dec 18-Jan 2 | Holiday Break |
| Jan 3 | Winter Quarter Starts |

Acting Chair of the Dept: Dr. David Perkel

Welcome Back to Biology!



Dr David Perkel

Dear Biology undergraduate students,

I hope you have had an excellent summer, whether you were studying, doing research, working, traveling or relaxing. Autumn quarter courses begin Wednesday September 27, 2017.

As you put together your course schedules, we encourage you to visit the Biology Advising Office in Hitchcock Hall, room 318 to find out about the large number of opportunities we offer, including course experiences at Friday Harbor Labs on San Juan Island, Exploration Seminars, research experiences and many other intellectual activities.

You will notice that the crew constructing the new Life Sciences Building (LSB) has made great progress over the summer. The windows are already being installed and we hope that it will be fully enclosed before the rain returns in earnest. The LSB is scheduled to open in Autumn 2018, and will house state-of-the-art classrooms, research labs and a world-class greenhouse. As of this fall, the Biology Department is also searching for up to four new faculty members, who will bring new research and teaching energy to the department, and provide educational and research-experience opportunities for you. We are anxious to start using this new space and hope you share that sense of anticipation.



The new Life Sciences Building (LSB) Sept 17, 2017.

Another highlight is that Biology faculty member Dr. Greg Wilson and his team have continued work on the *T. rex* fossil they discovered in Montana last summer. They have now found more of the bones and this will be one of the most complete *T. rex* specimens in the world. Named after the discoverers, volunteers Jason Love and Luke Tufts, the Tufts-Love *T. rex* skull is currently on display at the Burke Museum as researchers painstakingly remove rock to reveal the bones. The Museum is on campus and admission is free to UW students, faculty and staff, so head on over for a close-up look.

Biology, thanks to its generous friends and donors, is thrilled to be able to offer over \$15,000 in scholarship funds. The call for applications is in this newsletter. We warmly thank our alumni, faculty, staff and other friends of Biology for their generous donations, which make these scholarships possible. We urge you to explore these excellent opportunities.

I wish you all a fruitful year.

David Perkel, Acting Chair of the Department of Biology

LOOKING FOR THE REST OF THE T. REX! Tufts-Love T. rex in Hell Creek Formation

Last year, the Burke discovered a *Tyrannosaurus rex* in the badlands of northern Montana, including a skull that weighed 3,000 lbs in its plaster field jacket. It is only the 15th ever discovered. The exciting discovery occurred when the excavation trip was almost over, so the crew prioritized getting the skull safely to the Burke over fully exploring the site.

This summer, the team led by Burke Curator of Vertebrate Paleontology and University of Washington (UW) professor Dr. Greg Wilson headed back to find the rest of the 'rex.

Digging for fossils is painstaking work. While powerful equipment like excavators and jackhammers can help, most days at the T. rex site were spent carefully removing small sections of dirt one chisel-stroke at a time, hoping to reveal bone.



UW graduate Yuen Ting Tse at the "Tufts-Love" T. rex dig site.

Many crew members are volunteers—undergraduate and graduate students at the UW, teachers on summer vacation and

amateur paleontologist. All of whom brave the scorching heat and cheerfully take on even mundane work, like trucking wheelbarrow loads of loose dirt from one spot to another, and pass the time talking about their favorite Star Trek episodes.

Their patience paid off when they found several new fossils this year: the rear portion of the jaw bone found last summer, a scapula (shoulder blade), and more ribs (including the rounded gastralia or "belly rib" bones).

While it can't be confirmed until the fossil is prepared, the team is relatively certain they also found a humerus (the long arm bone that connects the shoulder to the elbow). The *T. rex* humerus is not much larger than the average human's. Jokes made at the expense of *T. rex*'s small arms are not in short supply, but it's fascinating to see such stark evidence that an animal that stood 40 feet at the hip and stretched the length of a city bus had such (relatively) puny arms.

The location of the bones in relation to each other suggests that the "Tufts-Love" *T. rex* may have died curled up counter-clockwise from head to tail, but it's not possible to determine exactly how the animal died. Preparation of the jaw bone excavated last summer revealed bite marks that could be from battles with other *T. rex*, but they show evidence of healing, so don't appear to be the cause of death.

"This is going to be one of the most complete *T. rex* specimens in the world. And it's gorgeous in terms of its preservation—the bone is spectacular," said Wilson. "I'm super excited to be able to bring this to the Burke, the Pacific Northwest, and the University of Washington."

Wilson leads a large, multidisciplinary team that studies geology and fossils in the Hell Creek Formation to learn more about the period of time immediately before and after the mass-extinction event that killed off the dinosaurs and gave rise to the age of mammals, 66 million years ago.



Burke Museum fossil preparator Bruce Crowley excavates T. rex bones, including a rib.

"The more specimens that we have, the more we get to understand about this top predator and this ecosystem that was the last of its kind in the world," said Wilson.

The *T. rex* crew thinks they've found everything there is to find at the site, but work on these specimens is just beginning. Before they can be studied, rock and dirt must be removed, and the fossils must be preserved.

Since the discovery of the skull in 2016, the museum team began preparing the smaller fossils first to see the condition of the bone and to get a feel for how easy or difficult it is to remove the sandstone surrounding it before starting on the skull.

Unlike our human jawbone, the *T. rex* jaw is made up of several bones. This 3-foot portion of the lower jaw found last summer is approximately two-thirds of the animal's total jaw, which would likely have been four-feet long. This summer they incredibly found the rear part of the jaw.

The public can watch preparation of the magnificent *T. rex* skull LIVE at the Burke beginning August 12, 2017. More and more will be revealed each day, so come back often to see the progress!



*UW postdoctoral researcher David DeMar uses his tattoo to identify the rear portion of the *T. rex* lower jaw found this summer at the "Tufts-Love" *T. rex* dig site.*



Prepared portion of the lower right jaw from the 66.3-million-year-old "Tufts-Love" Tyrannosaurus rex that was discovered last summer.

In total, about 30 percent (90 bones) of the dinosaur has been found — making the "Tufts-Love Rex" one of the top 10 most complete *T. rex* skeletons ever discovered. For more information check out www.burkemuseum.org.



*Burke Museum fossil preparator Bruce Crowley and paleontology volunteer Jean Primozych carefully removes rock from the *T. rex* skull.*

THEY'RE COOL, THEY'RE GROOVY & They are going to help you succeed in Biology 180



Dr Katie Dobkowski, Christine Savolainen, Celese Spencer, Dr Scott Freeman & John Parks.

Biol 180 is the first class in the Biology Intro Series: Mendelian genetics, evolution, biodiversity of life forms, ecology, and conservation biology. It is open to all students interested in biology whether intending to major in the biological science, enroll in preprofessional programs, or fulfill a Natural World requirement.

This article is to help you get to know who the Biology 180 crew are and what each of them do so you can see how it all works together. There are some fun facts about them, but most important, what advice they think will help you best succeed in Biology 180 this quarter.

DR SCOTT FREEMAN, CO-LECTURER

Recipient of the UW Distinguished Teaching Award in 2010. He employs flipped-classroom learning techniques in his courses. He creates an interactive classroom experience by calling on students and using powerpoint presentations, poll everywhere and in-class conversations.



What is one piece of advice you would give students in your class?

Study in a group, so you have to test your understanding by teaching the material to someone else.

What is your favorite part of the class?

The interaction with students and watching students learn from each other.

What do you think is the hardest part of the class?

Switching from succeeding as a student by memorizing to succeeding as a student by thinking.

What is your favorite lab?

Antibiotic resistance--we've published a paper using data from Bio180 students, with help from colleagues at UW School of Medicine and Harborview Medical Center and two undergraduate

researchers. It's in Journal of Microbiology and Biology Education, March 2016 pp172-182.

DOI: <http://dx.doi.org/10.1128/jmbe.v17i1.1008>

DR KATIE DOBKOWSKI, CO-LECTURER

She will be employing flipped-classroom learning techniques in Biology 180.



All time favorite Biology subject?

Marine Biology

Other than Biology what academic subject would you like to study?

Archaeology

Is there a book/video that you would recommend to students outside of what there is in class? I love the True Facts videos on YouTube, especially the one about invertebrates.

If you could take a vacation anywhere?

I'd like to go to Iceland, to see the Northern Lights and geysers.

JOHN PARKS, LAB COORDINATOR

His duties include: Supervisor of the TA lab instruction, exams, regrades, special requests and all things students.



What is one piece of advice you would give students in your class?

Notice biology in the world around you; applications of what we teach are everywhere.

What is your favorite part of the class?

Seeing students start their biology education.

What is your all-time favorite biology subject? Other than Biology what academic subject would you like to study?

Astronomy or Art History

What is your favorite lab?

The evolution of antibiotic resistance, in which students analyze data contributed by more than 20,000 prior students.

Is there a book/video that you would recommend to students outside of what there is in class?

Cascade-Olympic Natural History by Daniel Mathews. Take it on any walk in Western Washington.

CHRISTINE SAVOLAINEN, ASSISTANT LAB COORDINATOR

Her duties include: Assisting John Parks in all things lab and the Poll Everywhere Specialist.



What is one piece of advice you would give students in your class?

Start reviewing your notes early, and come prepared to actively participate in class. Find a couple of people in class to talk Biology with, this will greatly improve your understanding of the material and cultivate enthusiasm for the topics at hand!

What is your all-time favorite Biology subject?

Varied trapping mechanisms of carnivorous plants

What do you think is the hardest part of the class?

Keeping up with the material and preparation for the academic rigor of a Biology Intro course at a world class university.

What is your favorite lab?

Experimental Design and Critical Thinking (the termite lab) AND Biodiversity and Ecosystems Functions

CELESE SPENCER, FIELD TRIP COORDINATOR

Her duties include: Planning and coordinating all the field trips.



What is one piece of advice you would give students in your class?

Start or join a study group during the first week

What is your favorite part of the class?

Observing changes in student's thinking throughout the quarter

What do you think is the hardest part of the class?

Ignoring your texts, emails, Facebook, news, and sports games, etc during Lecture.

What is your favorite lab?

Biodiversity and Ecosystems Functions

Is there a book/video that you would recommend to students outside of what there is in class?

Silent Spring by Rachel Carson and google: Interpretive Dance of Meiosis

AVAILABLE for the INTRO SERIES: TA hours in HCK302. Bio 180 TA there 5 days a week, check for the hours.
FREE TUTORING AVAILABLE on the 4th Floor of Hitchcock with TRIBETA TUTORS – Check for times on the white boards.

HARE TODAY, GONE TOMORROW?: The Medicinal Herb Garden has Hungry Visitors



Sylvilagus floridanus, Eastern Cottontail



Odocoileus hemionus columbianus, Black -Tailed Deer

Since May, Keith Possee, Medicinal Herb Garden Curator, has had his hands full with some very hungry visitors to the Garden. Four legged visitors, whose taste has gone from eating local native plants to really loving the medicinal herbs from around the world.

These visitors are becoming quite bold and quite particular about which plants they prefer to eat. They don't even seem to care if Keith is watching. See photos taken by Keith in the MHG of the Eastern Cottontail, *Sylvilagus floridanus*, and the Black-Tailed Deer, *Odocoileus hemionus columbianus*. It was thought the deer found its way through the Burke Gilman trail.

The delicious variety of plants is so plentiful, the rabbits have decided to set up residence and to live happily ever after there. We might even assume they may be treating their own medical conditions by the choice of the plants eaten.

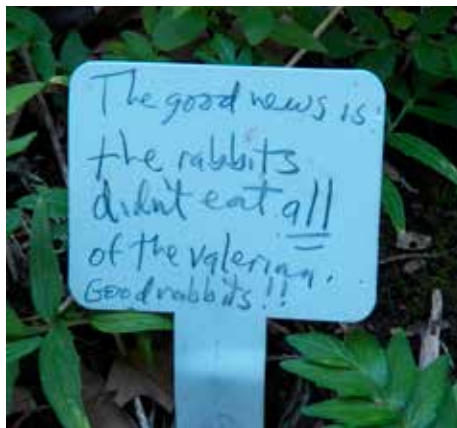
Attempting to trap the rabbits but trapping only squirrel after squirrel, Keith has resolved to co-exist with the Eastern Cottontail, which were introduced to Washington state as game animals in the 1930s.

Keith has become quite philosophical if you talk to him. So not surprising the following signs have appeared around the rabbit's favorite plants to eat.

Be sure to check out the Medicinal Herb Garden before the hoards of rabbits eat all the plants and check out what Keith has written about them. Depending on when you visit, you may have a good chance of seeing some rabbits in action.



Valeriana officinalis, Valerian

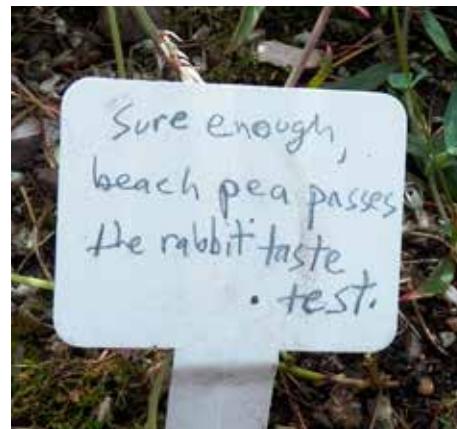


Valerian, *Valeriana officinalis*

A perennial flowering plant, with heads of sweetly scented pink or white flowers. Native to Europe and parts of Asia. Valerian has been used as a medicinal herb since at least the time of ancient Greece and Rome. Hippocrates described its properties and Galen later prescribed it as a remedy for insomnia. Considered a powerful nervine and used as a sedative and to treat tension, anxiety, insomnia and migraines. In Medieval Sweden, it was sometimes placed in the wedding clothes of the groom to ward off the 'envy' of the elves.



Lathyrus japonicus, Beach Peas



Beach Peas, *Lathyrus japonicus*

Common names of Sea Pea and Sea Peavine. A herbaceous perennial plant growing trailing stems on sand and gravel storm beaches. A legume native to the temperate coastal areas of Asia, Europe, North and South America. The pods can be eaten but like many members of the genus *Lathyrus* they contain β -oxalyl-L-a, β -diaminopropionic acid which can cause paralysis called lathyrism. The leaves of the plant are used in Chinese traditional medicine.



Borago officinalis, Borage



Borage, *Borago officinalis*

Known as a Star Flower, is an annual herb in the flowering plant of *Boraginaceae*. Native to the Mediterranean region. Its flowers and leaves as well as the oil from its seeds, are used as medicines. Traditionally, *Borago officinalis* has been used in hyperactive gastrointestinal, respiratory and cardiovascular disorders like gastrointestinal (colic, cramps, diarrhea), airways (asthma, bronchitis), cardiovascular, (cardiotonic, antihypertensive and blood purifier), and urinary (diuretic and kidney/bladder disorders).



Echinacea pallida, Pale Coneflower



Pale Coneflower, *Echinacea pallida*

Species of herbaceous perennial plant in the family *Asteraceae*. Native to the Central region of the US, in the Mississippi Valley, the southeastern Great Plains, and the region south of Lake Michigan. The states of Tennessee and Wisconsin list the species as threatened, mostly due to habitat loss and over-collection of roots which are made into herbal medicine. It is believed that this flowering plant has the ability to boost the immune system.



Aster foliaceus, Leafy-Bract Aster

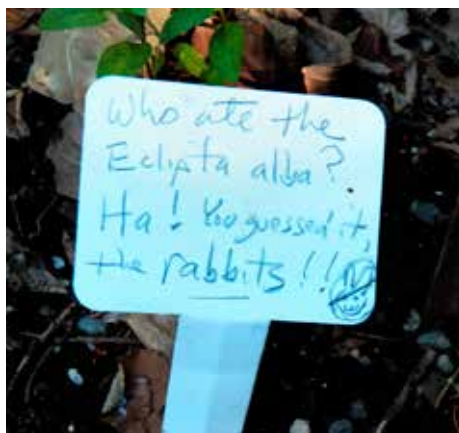


Gotu Kola, *Centella asiatica*

Commonly known as Centella, Asiatic Pennywort, or Indian Pennywort is a herbaceous, frost-tender perennial plant in the family *Apiaceae* and is native to wetlands in Asia. It is used as a culinary vegetable and a medicinal herb. In traditional medicine, *Centella asiatica* has been used in an attempt to treat varicose veins, chronic venous insufficiency, psoriasis, minor wounds, strangury and to encourage lactations.

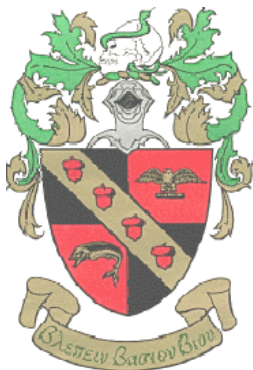


Eclipta alba, Eclipta



Eclipta, *Eclipta alba*

Commonly known as False Daisy and Bhringraj. This herb is believed to have originated on the Indian subcontinent and now grows in various other warm parts of the world such as Brazil, Thailand and China. The plant bears a small flower that can be red, blue or yellow but it is the white species that is most commonly harvested for its medicinal benefits. It has been traditionally used in Ayurvedic medicine for being a liver tonic (for which it is one of the more effective herbs) and having beneficial effects on diabetes, eye health, and hair growth.



2017-2018 Executive Board

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jessig@uw.edu

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margaretslack8@gmail.com

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bjb@uw.edu



TriBeta Biological Honor Society:

“What is TriBeta?” Beta Beta Beta is a national honor society dedicated to improving the understanding and appreciation of biological studies. It is a platform for students to earn recognition for their efforts and accomplishments while networking with other students and UW Biology staff with the same interests.

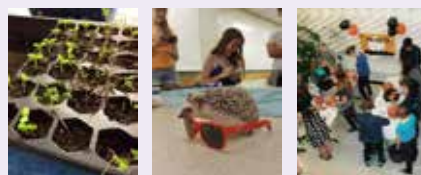
In short: a really great organization.



TUTORING

Tutoring TriBeta offers free tutoring for the Intro Biology series (180/200/220). Tutors are available for one-on-one sessions as well as drop-in tutoring in the Hitchcock 4th floor lounge

Monday–Thursday 3:30 pm–6:30 pm



MONTHLY MEMBER MEETING

The second Thursday of every month join your fellow TriBeta members to play games, discuss the latest scientific discoveries, and have a great time!

Our first Monthly Member Meeting will be October 12th.

UPCOMING EVENTS

Sept 27th & 28th –
Dawg Daze Student Activities Fair

Oct 4th – **T-shirt Sales**

Oct 12th – **Monthly Member Meeting**

Oct 19th – **Pumpkin Carving**

Nov 1st – **T-shirt Sales**

Nov 9th – **Monthly Member Meeting**

November 30th – **Quarterly Seminar**

Dec 6th – **T-shirt Sales**

Dec 7th – **Study Night**



HOW TO JOIN

Full Membership is eligible to any student who has completed two Intro Biology courses (180/200) and one additional biology course with a minimum 3.0 GPA or higher. Details on other levels of membership and a short application can be found on our website.

To keep up to date with TriBeta, visit our website and subscribe to our emails!
<http://tribetauw.weebly.com/>

FREE TRIBETA TUTORING: UW Intro Biology Series 180, 200 & 220

UW Introductory Biology Students: The secret to excelling in Biology 180, 200, and 220 is discussing course content with others and asking questions to make sure that you fully understand new concepts.

This is where TriBeta can help! TriBeta Tutors are students who have taken the full 180-220 series, been successful, and enjoy teaching. They can help you with course material & concepts, study habits, and test preparation!



The study lounge also provides FREE snacks.

Take advantage of this opportunity by dropping by the Study Lounge on the 4th Floor in Hitchcock.

We are here to help you Monday – Thursday from 3:30-6:30 p.m., no appointment necessary.

You can work with other Intro Biology students, or receive individualized help. The lounge is located right above the HCK 3rd floor entrance.

If you have any questions, or have completed the series and are interested in tutoring, please contact Margaret Slack at tribetatutoring@gmail.com.

BIO BOOK CLUB: When Breath Becomes Air by Paul Kalanithi

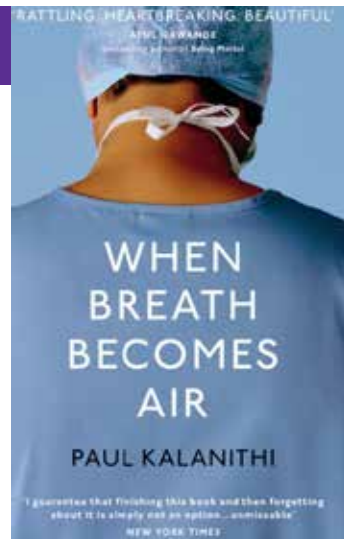
Get Ready for Bio Book Club!

We will choose a fiction or non-fiction book each quarter with a scientific thread, but also examines social, cultural, and environmental topics. Please feel free to send book recommendations to Sheryl Medrano at smedrano@uw.edu.

This fall we will read: ***When Breath Becomes Air* by Paul Kalanithi.**

This posthumously published memoir chronicles Kalanithi's unique path to becoming a neurosurgeon and his attempts at understanding his purpose in a world in which all beings eventually die.

Please check the Biology website for meeting times and location.



UWFARM: Volunteers are an Integral Part of What Keeps the UWfarm Growing!



Do you want to learn about and help grow fresh, locally grown food?

Would you like to learn the intricate techniques of sustainable urban agriculture? The UW Farm provides an excellent opportunity to explore this in a peer-to-peer learning environment. Get on the sustainable agriculture bandwagon, and let's give ourselves a brighter, healthier, and yummier future!

Work varies from season to season - from preparing the soil, readying tools, supplies, planting, tending, and harvesting to preparing the produce for sale. Get your hands dirty and your mind growing while helping the UW Farm prepare for the upcoming growing season and learn about the many aspects of urban sustainable agriculture. As well as gain some key skills and knowledge about local plants and growing cycles.

There are two primary work sites, one at the UW Botanic Gardens' Center for Urban Horticulture on the east side of the UW-Seattle campus and one at the new Mercer Court dorms on the west side of the UW-Seattle campus.

Weekly commitment can range from 2-10 hours per week for at least 4 weeks.

<https://depts.washington.edu/uwbgsupport/volunteerNew.php>
Contact: Rae Russell, Interim Community Coordinator.



STUDY MARINE BIOLOGY AT THE UW Get a Marine Bio minor; it might change your life.

ABBY VON HAGEL is a student from Seattle in the Interdisciplinary Honors Program pursuing a Major in Molecular, Cellular and Developmental Biology with plans to graduate in 2019. She is also pursuing a Minor in Marine Biology through a program run cooperatively by the Department of Biology, The School of Aquatic & Fishery Sciences, and The School of Oceanography. We talked with Abby to find out what inspired her to study marine biology and to learn how an introductory course led to her researching at the UW's marine field station at Friday Harbor Labs.

If you are interested in making marine biology part of your studies, fieldwork or research, go to marinebiology.uw.edu or contact the Marine Biology Academic Adviser Joe Kobayashi at marbiol@uw.edu.

How and why did you come to minor in Marine Biology?

During my first quarter at the University of Washington, I was part of a FIG that included the Marine Biology 250 course. It was then that I learned about things such as Coriolis forces, shark reproduction, and bioluminescence. Incorporating a broad range of disciplines piqued my interest in the Marine Biology minor. The addition of the minor has allowed me to thrive in small hands-on courses, presented research opportunities, and allowed me to develop close professional connections to professors and other marine scientists.

Why do you think marine biology is an important field?

In my opinion, most teaching examples used in biology classes at the University of Washington are based on terrestrial organisms. Given that the oceans compose 99% of the earth's biosphere, I think marine biology research makes an important contribution to our understanding of life on earth. Whether discovering green fluorescent protein biomarkers in jellyfish, investigating the biomimetic potential of clingfish discs, or evaluating the effect of ocean acidification on marine invertebrates, scientists have learned much from studying marine organisms. I am constantly amazed by how much there is still left to learn about life in the oceans.

How does the minor in Marine Biology relate to or inform, your major?

By minoring in Marine Biology, I am able to apply the broad conceptual ideas of chemistry, physics, or physiology to a specific study system. For example, I was able to use my knowledge of osmoregulation in marine and freshwater fish to conceptualize the effect of excessive sodium on the human renal system.



Doing fieldwork at Eagle Cove, San Juan Island as a part of the spring ZOO-BOT quarter.
Photo credit Sara Galer.

What has been the most interesting course you have taken so far for the Marine Biology minor?

My favorite classes I have taken so far for the marine biology minor were the courses I took while at Friday Harbor Laboratories, particularly Biology of Fishes with Dr. Matthew Kolmann and Marine Invertebrate Zoology with Dr. Megan Dethier. Both these courses took full advantage of the opportunities offered at the labs, with small interactive lectures, multiple trips into the field, and access to lab sea tables filled with organisms.

How have you been involved with research in Marine Biology?

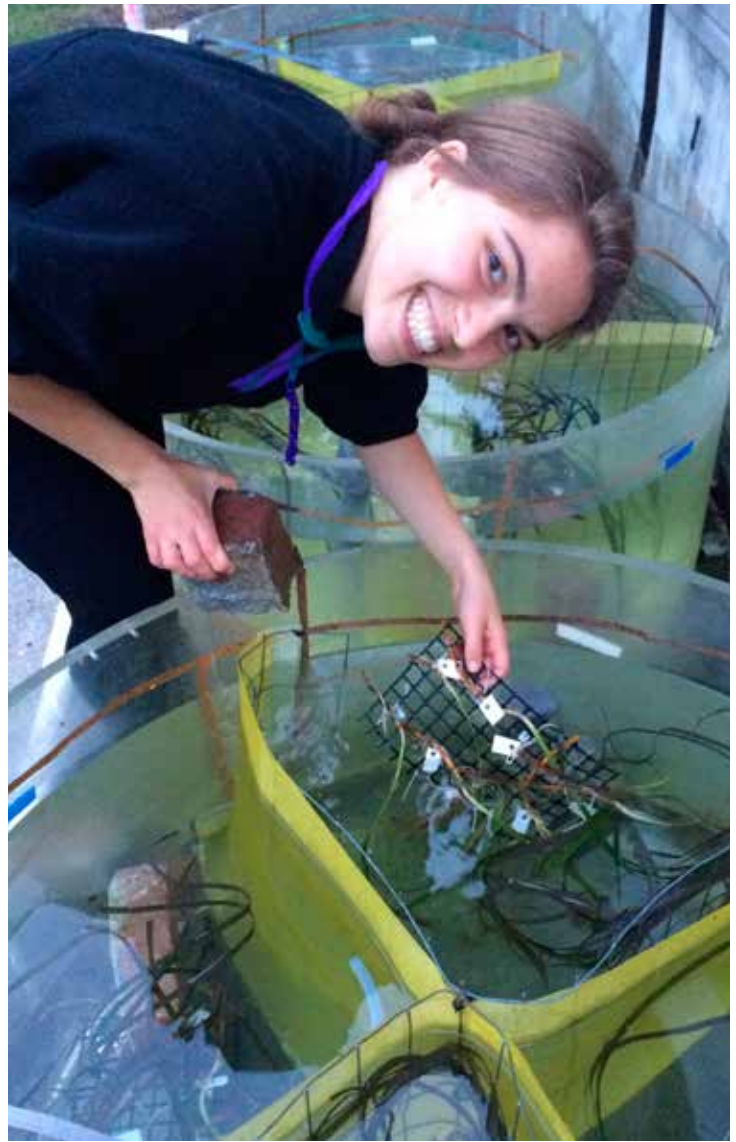
I have been involved with a variety of research projects that work with marine organisms. I was part of a student research team that designed and carried out an experiment dealing with trophic interactions in eelgrass meadows. I had the opportunity to present this research at the UW Undergraduate Research Symposium and to the Samish Department of Natural Resources. Currently, I am using micro-CT scanning to analyze how snailfish (*Liparidae*) bone structure varies along a depth gradient, which I plan to present at the upcoming Society for Integrative and Comparative Biology (SICB) conference. This summer, I have been working on fieldwork experiments with Dr. Megan Dethier examining Manila clam recruitment and survival as well as working in the lab of Dr. Adam Summers generating CT images of fishes and creating a publically accessible database of all CT scan data as part of the NSF-funded oVert project.

Do you have any recommendations for UW students interested in Marine Biology?

My first recommendation to other UW students interested in Marine Biology would be to find a way to become actively involved with a lab or organization focused on marine organisms. Gaining experience with fieldwork, outreach, or work in a lab setting provides useful connections and an idea of the type of work conducted by marine scientists. Don't be afraid to talk to advisors, researchers, and professors about your specific research interests. The University of Washington has many great resources for those interested in marine science.

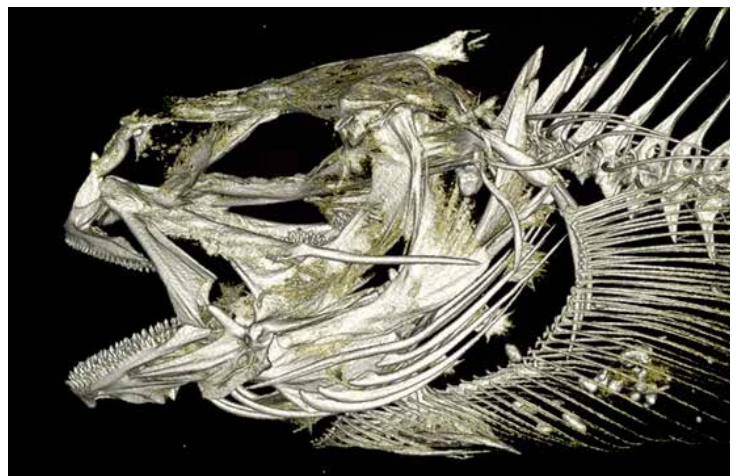
What are your future goals after graduating from the UW?

My experience working in a research environment as an undergraduate has encouraged me to pursue a graduate program that would allow me to continue conducting research both in the lab and the field. Eventually, I hope to obtain a doctorate degree and explore questions related to functional mechanisms in marine organisms.



Abby attending to outdoor mesocosm experiments at Friday Harbor Labs.

Photo credit Hyejoo Ro



*Micro-CT scan of the snailfish *Allocaireproctus tanix* (lateral view).*

Photo credit: A. von Hagel

NEW GRADUATE STUDENTS: Welcome to the Department of Biology!

UW Biology PhDs have earned a reputation for excellence and innovation. We value a diversity of people and approaches to solve the most important problems in biology. Accordingly, our students and faculty study a wide range of topics—at spatial scales ranging from molecules to the entire planet, and time scales ranging from nanoseconds to millennia. Many work at the intersections of fields, developing cutting-edge technologies and forging interdisciplinary collaborations.

PUSHPAM AJI JOHN *in the lab of Lauren Buckley*
JAZMINE ALLEN *in the lab of Julia Parrish*
JORDAN CLAYTOR *in the lab of Greg Wilson*
ZOE KULIK *in the lab of Christian Sidor*
ASHLEY PAYNTER *in the lab of Sam Wasser*
KAVYA PRADHAN *in the lab of Janneke Hille Ris Lambers*
JACKSON TONNIS *in the lab Takato Imaizumi*
MARINA WATOWICH *in the lab of Sam Wasser*



SCIENCE INTERPRETATION PROGRAM: Volunteer With Pacific Science Center



It takes a big team to carry out our mission to ignite curiosity in every child and fuel a passion for discovery, experimentation, and critical thinking in all of us. Volunteers are an essential part of this community and we're looking for enthusiastic individuals to join us!

Fit your interests! Science Interpretation Volunteers should be passionate about STEM fields and excited to share their interests with the Science Center's visitors.

Fit your personality! Science Interpretation Volunteers primarily work with the public who visit the Science Center; volunteers should be enthusiastic, energetic, and approachable.

Fit your schedule! We are looking for volunteers to fulfill a variety of day and time commitments, weekday availability is preferred.

Fit your needs! This is a great opportunity for people looking to contribute to their communities, and for individuals who want to gain real-world experience.

Interested? Application details are available at: pacificsciencecenter.org
(Click on Volunteer with us) or you can contact: volunteers@pacsci.org | (206) 443-2868

BIOLOGY NETWORKING NIGHT: Save the Date: Wednesday Oct 25, 2017 5:30-7:30

Want to know what people have done since they earned a degree in Biology?

Then come to Networking Night with alumni from our department. Students will get a chance to hear people speak about a variety of professions, all with one thing in common: a degree from UW Biology (or Botany or Zoology from pre-merger years).

This event will be a small panel in a Q&A format of alumni where they share their career-building experiences since graduation, talk about their respective career paths, experiences that influenced their decision to pursue a certain profession, successes, and lessons learned. After the event, you might have the opportunity to talk to or get contact info from the participants.

*Biology Networking Night is hosted
by Jason Patterson in HCK 132.*



HCK 302: INSTRUCTIONAL SUPPORT OFFICE / STUDY AREA / REGRADE DROP / EXAM PICKUP



In addition to the Biology Study Area on the second floor, Hitchcock 302 offers you an area to study with several tables and whiteboards for your use. We also host TA office hours throughout the week. Come by and check out the calendar outside our office to see if when your TA(s) office hours are here.

This is the place to pick up your EXAMS. **Please note:** Exams will be kept for one quarter. If you took an exam in Autumn, it will be kept until the week between Winter & Spring Qtrs.

This is also the place to drop off your Exam REGRADES. *Just follow the signs!*
Staff members, Gretchen Shirley-Bellande and Jeannette Takashima can help you.



GET CONNECTED IN BIOLOGY: Where to look today!

Biology Undergrad Listserve

The Biology Advisors maintain a listserv called biostudent. Anyone can request to be added to this email notification system. Notices regarding jobs, research, internship, and scholarship opportunities as well as course announcements and event notices are sent out to this list. Want to be in the know? Visit this site and enter your information to request to be added to biostudent: <http://mailman1.u.washington.edu/mailman/listinfo/biostudent>:

Go to this site and you will see two gray boxes

- 1: Need to type in your email address (uw.edu address ONLY)
- 2: Need to type in your name (optional)
- 3: Need to check the box about list mail being batched
No — you will receive them separately
Yes — you will receive them all in one daily batch
- 4: Click the subscribe button and your part is done

UW Biology Department Website

www.biology.washington.edu

UW Biology Facebook Page

www.facebook.com/UWBiology

UW Undergrad Research Program

<http://www.washington.edu/research/urp/>

Career Center at UW

<http://careers.uw.edu/>

TriBeta Honor Society & Bio Club

<http://students.washington.edu/tribeta/>

Beta Beta Beta is an honor society for students, especially undergraduates, dedicated to improving the understanding and appreciation of biological study.

The Biology Club is sponsored by Tri-Beta and is open to all UW students, faculty and staff.

UW Farm

New blog: <https://botanicgardens.uw.edu/center-for-urban-horticulture/gardens/uw-farm/> and <https://www.facebook.com/uwfarm>

The UW Farm is now a registered student organization. If you would like to learn more about the farm please join our listserv and facebook page and show up for a work party, or come to our next all-farm meeting.

Burke Museum

<http://www.burkemuseum.org/>

General Admission FREE to Burke Members, children 4 and under, and **UW staff/faculty/students**

Free Admission—Admission is free to the public on the first Thursday of each month.

BIOLOGY APPAREL DAY: The first wednesday of every month & get a treat!

Biology Apparel Day happens the first Wednesday of every month.

If you are wearing Biology Apparel on a first Wednesday of the month throughout the year, you can come to Hitchcock Room 318 (Advising), to receive a sweet treat AND an opportunity to submit your name for a chance at a grand prize.

The Tribeta Biological Honor Society started up T-shirt contests as another way for Biology Students, Staff, and Faculty to support Tribeta and Biology Club and of course, show our UW Biology pride! Your T-shirt purchase supports Tribeta and events put on for Biology Club members, like tutoring for the introductory biology courses, the annual Halloween party and their Spring BBQ.

T-shirts are 20 dollars, cash or check. You can purchase them on T-shirt day in the atrium of Hitchcock Hall. You can contact tribeta@u.washington.edu with any questions!



BIOLOGY ADVISORS: Undergraduate Advising in Hitchcock 318

THE UNDERGRADUATE BIOLOGY ADVISING DEPARTMENT

OPEN: Monday thru Friday 8 am to 4:30 pm. General Phone: 206-543-9120

We welcome UW and prospective students to contact us with any questions regarding an option in Biology.

OPEN WALK-IN: Monday - Friday 9:00 am to 12 pm AND
M, Tu, W, F 1:00 to 4:00 pm, with Thurs 1:30 to 4:00 (office closed 12 to 1)
or contact one of our three advisors for an appointment by phone or email.

The photo on the right (in the office decorated for the Campus Decoration Challenge) includes the advisors and staff of Room 318. Advisors are: Jason, Janet & Sheryl. Staff: Julie.



Jason Patterson, Janet Germeraad, Resident Mr Bones, Julie Martinez, Owl and Sheryl Medrano

Mystery Plant: Guess and win an 8 card set of flowering plants at the Medicinal Garden!

This is the Autumn Quarter mystery plant and it is fruiting right now in the Medicinal Garden. Submit your best guess with your name and email into our Mystery Flower Box located within the third floor Atrium of Hitchcock Hall.

A drawing for the prize of a special, limited edition set of eight Biology note cards featuring flowers blooming Autumn Quarter in the MH Garden. Cards displayed in HCK 302.

QUESTIONS:

- 1) Common name for this late blooming deer and rabbit resistant perennial?
- 2) Name one ailment treated in native american medicine?



The Mystery flower hints: 1. Native to North America 2. Used by the Cherokee, Chippewa, Iroquois, Meskwaki and Potawtomi for medicinal purposes. 3. Bloom late and are critical fall nectar source for pollinators, especially monarchs.

Advising Available

Biology Department

Walk-in Advising

Janet Germeraad

Jason Patterson • Sheryl Medrano

318 Hitchcock Hall

Mon-Fri, 9:00 am–12:00 pm

M, Tu, W, F, 1:00 pm–4:00 pm

Thursday 1:30 pm–4:00 pm

Closed: 12:00 to 1:00 pm

Website URL:

<https://www.biology.washington.edu/programs/undergraduate>

Undergraduate Academic

Advising and Office of

Minority Affairs & Diversity

141 Mary Gates Hall

206-543-2550

Quick Question hours (Mon–Fri)

9:00 am–4:30 pm

or email askoma@uw.edu

<http://www.washington.edu/omadcs>

Biology Study Area (BSA)

220 Hitchcock Hall

Mon–Fri

8:30 am–5:00 pm

The Department of Biology

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BIOLOGY STUDY AREA :

All Students are Welcome in Hitchcock 220

All students are welcome — not just Biology majors!

The BSA is open Monday - Friday 8:00 am - 5:00 pm

The Biology Study Area (BSA) is a GREAT place to study with other students, use computers, or just to read.

Dave Hurley manages the BSA and can even answer your biology questions. If you forgot your textbook, you can check out one from the BSA staff if they have a copy.

The BSA has 21 computers for general use and 9 computers for high-performance computing (but not gaming), a Dawg-Print printer and one scanner.

Hiren Ajudia (Biology), Lyudmila Polevoy and Maura Kilpatrick will be staffing the Biology Study Area and programming.



Mr Grasshopper is typing up his research work on one of the computers in the Biology Study Area. He thinks the support staff is great.