UNIVERSITY of WASHINGTON | DEPARTMENT OF BIOLOGY

BIOLOGY STUDENT NEWSLETTER

WINTER QUARTER 2020 ISSUE 34

IMPORTANT DATES FOR WINTER QUARTER

Jan 6	First Day of Instruction
Jan 8	Biology Apparel Day
Jan 12	Last day to drop a class without a fee thru MyUW
Jan 13	All Courses Require Entry Codes to Add
Jan 17	Last Day to Apply to Biology major in Winter
Jan 19	Last Day to drop a class without the use of the ANNUAL DROP
Jan 20	Martin L King Jr Holiday
Jan 26	Last Day to Add a Class through MyUW
Feb 5	Biology Apparel Day
Feb 12	Last Day to Apply for Grad Reg Priority (GSP) for Spring
Feb 14-Mar 1	Spring Reg Priority Period 1
Feb 17	Presidents Day Holiday
Feb 23	Last Day to use ANNUAL DROP or convert to S/NS
Mar 2-29	Spring Reg Period 2
Mar 4	Biology Apparel Day
Mar 9	Mystery Flower Contest Ends
Mar 13	Last Day to Withdraw (from all Win Qtr classes)
Mar 16-20	Final Examination Week
Mar 23-27	Spring Break
Mar 30	Spring Quarter Starts
Apr 1	Biology Apparel Day

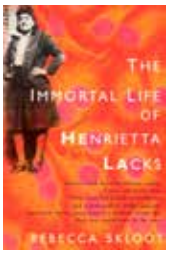
UNDERGRADUATE PROGRAM CHAIR Dr. Alison Crowe

Dr Alison Crowe

Welcome to 2020! As the Undergraduate Program Chair for Biology, I would like to welcome you to winter quarter and take this opportunity to encourage you to take full advantage of all that the department has to offer. It can be a real challenge to find time to engage in extracurricular activities, especially for our many students that work long hours in addition to taking a full load of classes. But any time you are able to carve out to attend a seminar, participate in a student-organized event will help connect you to the greater biology community and expand your view of what it means to be a biologist. One of the many wonderful things about being a biology major, is that you are learning transferrable critical thinking, communication and quantitative reasoning skills that will prepare you for a wide array of career paths, from genetic counseling to forensic biology, to environmental management, to science journalism. Taking the time to learn more about these different paths – through course-work, internships, job shadowing, or joining a registered student organization - could open doors to exciting new career possibilities.

As the Undergraduate Program Chair, one of my continuing goals is to learn more about your experience as an undergraduate in this department. During Winter and Spring quarters we will be organizing focus groups to learn more about your experience in biology. We encourage you to participate in one of these groups to talk about why you chose to be a biology major and what challenges you have faced as you navigate the major. We have also recently finished developing a new biology exit survey, so if you are graduating soon, please take the time to tell us about your experience and what your plans are for the future. I'm looking forward to hearing your thoughts and working to create a welcoming and supportive environment that serves all of our students.

On a personal note, last quarter I had the PRIVILEGE of teaching a course on the intersection of cancer and society. As part of the course, students read the book the Immortal Life of Henrietta Lacks by Rebecca Skloot (a former Biology Book Club selection) and reflect on how science impacts society. I was blown away by the creative ways that the students chose to express themselves in the form of artwork, poetry, short stories and personal letters. It was a good reminder to me of how important it is for us all to recognize and celebrate the wealth of different experiences and talents that each student brings with them into our classes, and to appreciate how much we can learn from listening to each other.



Lastly, if you are looking for fun things to do in the area to explore the natural world around you, check out the beautiful new Burke museum, free to all UW students or take a walk through the Joseph A. Witt Winter garden in the Washington Park Arboretum which is at its most spectacular from December to March. Starting in May, you can rent a canoe or kayak at the Waterfront Activities Center and head out onto Union Bay in search of bald eagles, osprey and herons…

Also, don't forget to stop in to talk with a biology advisor in the Biology Office, HCK 318, to help plan your spring classes!

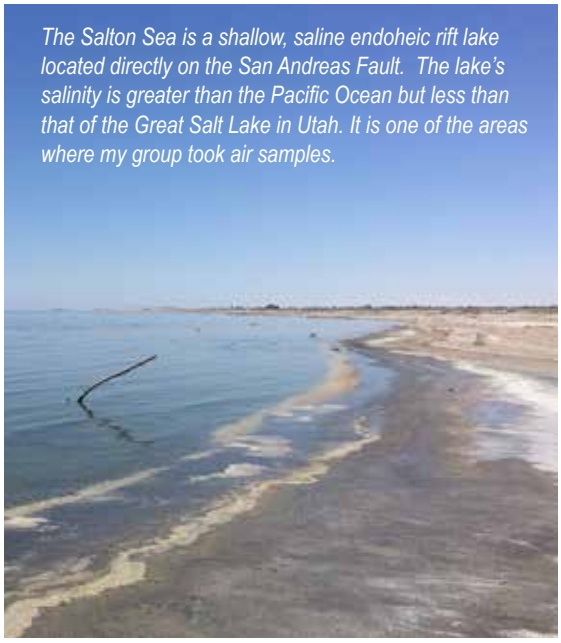
Enjoy your quarter,
Alison Crowe, *Undergraduate Program Chair*

SUMMER INTERNSHIP IN CALIFORNIA NASA Student Airborne Research Program

LUKE SCHEFKE

Earth& Space Science and EEC Biology major

In my short time at UW, I have tried to enhance my college experience by involving myself in a wide variety of activities and outlets. One such opportunity was not at UW itself, but during an internship over the summer with the NASA Student Airborne Research Program. I had found this program while researching online for ecology and Earth science based summer internships. As an Earth & Space Sciences and Biology double major, I felt that this program would provide me with a chance to expand my knowledge and connect with others in my field. This past June, after being accepted into the program out of more than 200 applicants, I met my fellow 27 interns in Southern California.



The Salton Sea is a shallow, saline endoheic rift lake located directly on the San Andreas Fault. The lake's salinity is greater than the Pacific Ocean but less than that of the Great Salt Lake in Utah. It is one of the areas where my group took air samples.

At the start of the internship, we went out to Palmdale where we learned about NASA's Earth system science research at a satellite hangar of Armstrong Flight Research Center. It was there where we were introduced to the faculty advisors and the graduate student mentors, along with the four groups they would be leading over the 8 weeks: land ecology, ocean remote sensing, whole air sampling, and aerosols. I was placed into the aerosol group and got briefed on my mentors' plans and started to formulate ideas for my research project. Each group also took a trip out to the field to take part in various activities, assist in research, and introduce the topics. My team went to the Salton Sea and the Anza-Borrego Desert State Park to collect air samples. After two weeks in Palmdale learning all about the work NASA does and gaining more background about the technology we would be involved with, we moved to the University of California, Irvine, where we would be housed and devote time to our research. I settled on a project looking at measurements of nutrients from wildfire smoke plumes, specifically potassium, phosphorus, and nitrogen, and their effects on biogeochemical cycles in local ecosystems.

After some time in Irvine, we drove back up to Palmdale for our flights and safety briefings. There were a total of 3 flights on NASA's DC-8 jet that NASA SARP participants were a part of. This plane has instruments on the outside to collect samples of air and, for this particular summer, was filled with large pieces of equipment on the inside. These machines were part of FIREX-AQ, a NASA and NOAA led initiative to study the effects of fires of all sizes on air quality and climate. These instruments ranged from whole air sampling to mass spectrometers to lidar scanning equipment. I was able to fly on 2 of the flights, the first of which was spent over the Central Valley, in the boundary layer of the atmosphere, the second spent a large portion of its duration over the ocean. Getting to talk to the scientists about the projects they are a part of was an incredible experience, as was exploring both the cockpit and cargo hold during flight.

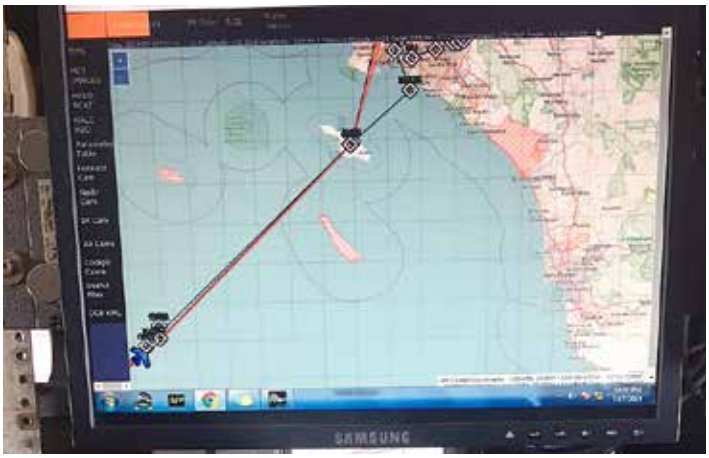
After our flights, we drove back to Irvine for the remainder of the time of our internship. We worked on our projects during the week and got to explore the region on the weekends and after working hours. Checking out local beaches and cultural sites, such as observatories and museums, enhanced the overall experience and allowed me to bond with the other interns, making lasting relationships and memories. This also increased my scientific background, as we were able to visit the

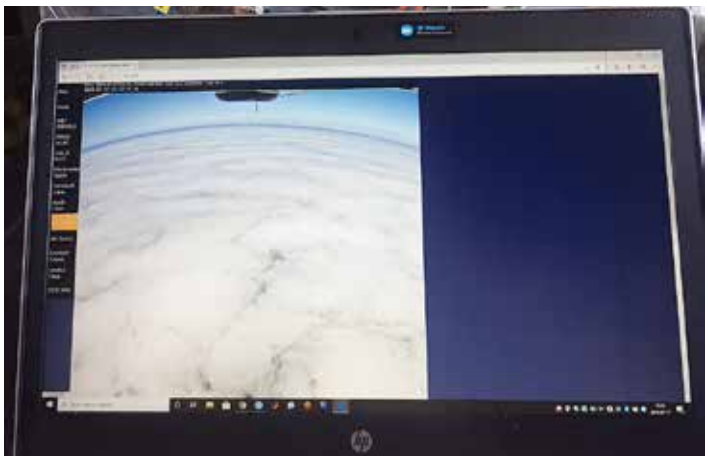
The NASA DC-8 aircraft, with instruments visible on the outside.

main complex of Armstrong Flight Research Center as well as the Jet Propulsion Laboratory. At the end of our time in California, we got to present our findings to the rest of the internship group, the mentors, and staff from NASA. I found that there were indications that wildfire smoke may indeed contribute significantly to nutrient deposition in ecosystems, but more work needs to be done. I have decided to do just that, and have been continuing my research into this school year.

This experience has allowed me to work towards my future goals of being able to work in the field and study the Earth and the life that calls it home. I got to gain experience both in the field and in a more controlled setting, learning about how a fully fledged research project works and operates. I also got to connect with professionals, who were able to give their insight into their studies as well as general advice on how to move forward in our journey through academia and beyond. Sometimes the days were long and the work was tedious, but I was incredibly proud of my final product. This experience not only added another item to list on my resume, it also provided helpful tools and resources and assisted in making a future for myself that is meaningful and worthwhile.

A view inside the NASA DC-8 aircraft, with several instruments visible.





A view from my seat during a flight,with one screen showing the path of the plane, the other showing live video from a camera mounted on the plane

TriBeta Biological Honor Society

2019-2020 Executive Board

President, MARLOWE KELLER.....mkeller4@uw.edu
VP of Tutoring, HANK CHENG.....yhhc@uw.edu
Vice President, AMANDA GARDINER.....amandamg@uw.edu
Vice President, FANQI (AMY) SHI.....fs36@uw.edu
Vice President, LISA YOUNG.....lisa1090@uw.edu
Adviser, BRIAN BUCHWITZ.....bjb@uw.edu

Full Membership is eligible to **any** student who has completed two Intro Biology courses (180/200) and one additional biology course with a GPA of 3.0 or higher.

Be on the lookout for the following TriBeta events that are planned for this quarter:

- **Letter of Recommendation Panel**
  (This panel is made up of Faculty explaining the proper etiquette for requesting a recommendation letter and how to avoid common mistakes.)
- **Valentine's Day Trivia**
  (Come join us for this fun get together)

- **Induction Ceremony into the Beta Beta Beta Biological Honors Society**
  (Become a member of the TriBeta Biological Honor Society)

- **Graduate Student Speaker**
- **UW Food Pantry Drive**
  (UW Food Pantry provides food assistance to students, staff and faculty who, for whatever reason, are having a hard time putting food on their plate.)

WHAT IS TRIBETA?

Beta Beta Beta is a national honor society dedicated to improving the understanding and appreciation of biologial 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.

FREE TRIBETA TUTORING UW Intro Biology Series 180, 200 & 220: starts the week of Jan 13

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 during tutoring hours. 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 from our tutors who are always eager to help you understand. 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 **Hank Cheng** at *tribetatutoring@gmail.com.*

BIOLOGY AWARDS AND SCHOLARSHIPS FOR WINTER 2020 Deadline Feb 5, 2020

We are projecting $380,000 in awards for the annual year 2019-2020.

More information can be found at the website:
https://www.biology.washington.edu/programs/undergraduate/awards?

UNDERGRADUATES AWARDS

Both scholarships (tuition support) and research awards are available for Win 2020.

Beacon Lab Research Award, Farner Scholarship, Excellence in Biology Scholarship, Friday Harbor Labs Award, Fry-Hotson-Rigg Award, Ingrith Deyrup-Olsen Peer Facilitator Award, Sudarsky Memorial Internship, Franco Award, Casey Leadership, May Garrett Hayes Scholarship, Porath-Johnson Scholarship, Shawn DeCew Beacon Field Award, Varanasi Scholarship Award

Applications and recommendations are due by Wed, February 5 @ 5:00 pm

GRADUATE AWARDS

Margaret Award, Beacon Award, Friday Harbor Labs Award, Hoag Award, Ingrith Deyrup-Olsen Teaching Award, Luvo Award, Edwards Award, Kruckeberg-Waler Award, Lawrence Giles Award, Wyckoff Award, Snyder Award,Riddiford-Truman Award, Paine Experimental & Field Ecology Award & Fellowship, Edmonson Award, Sargent Award, Wingfield-Ramenofsky Award, WRF-Hall Fellowship are available this cycle.

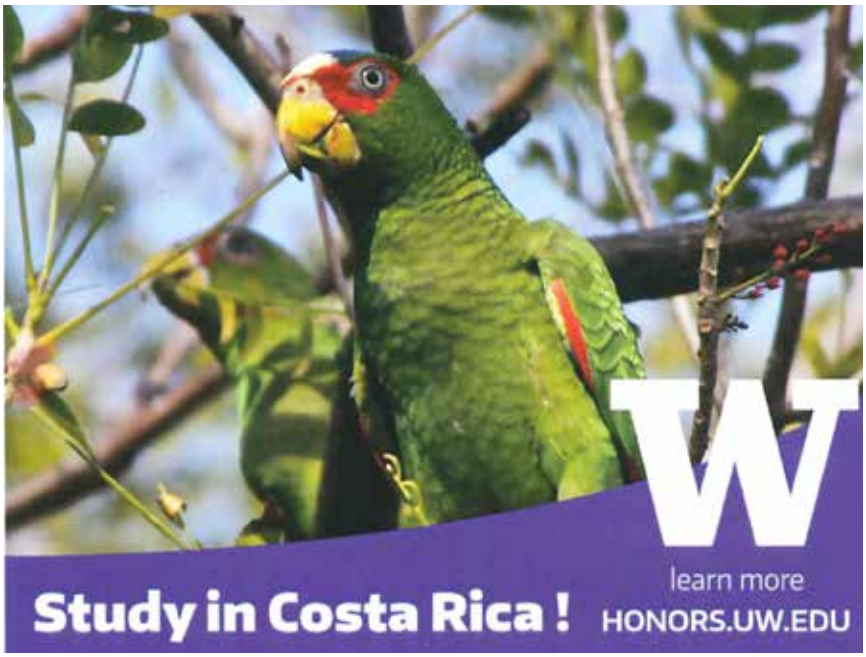
Applications and recommendations are due by Wed, February 5 @ 5:00 pm

POSTDOC AWARDS

Bevis Postdoctoral Research Award

Applications and recommendations are due by Wed, February 5 @ 5:00 pm

SUMMER B TERM: JULY 22 - AUGUST 23,2020 Explore Costa Rica this Summer!



COSTA RICA: Land Use Issues in Rainforest Conservation

12 Credits
HONORS 382 OR BIOL496 (5 Credits)
HONORS 213 OR BIOL493 (5 Credits)
Spring Seminar (2 Credits)

Open to all undergraduates!

In this program, you'll explore the rich natural regions of Costa Rica through excursions to reserves, national parks and research institutes. You'll gain first hand experience of issues surrounding ecological research, sustainable agriculture, ecotourism, development and conservation while working with and learning from the Costa Rican people.

INFORMATION SESSIONS:
January 21 4:30 LSB 301
January 24 2:00 LSB 301
Applications due January 31.

2020 UW EXPLORATION SEMINAR: Dates: August 26th to September 21st, 2020

ANDES TO AMAZON: BIODIVERSITY CONSERVATION AND SUSTAINABILITY IN PERU

PROGRAM DIRECTORS: Ursula Valdez (uvaldez@uw.edu) & Diana Garcia-Snyder dgs3@uw.edu)

CREDIT: 5 credits of BIS 480, ENVIR 496, BIOL 493, or Honors 223

An ecological and cultural exploration from the high mountains to the rainforest of southeastern Peru. We will explore the fascinating diversity of this region, while studying the conservation challenges confronting it. Through surveys of the biodiversity, and meetings with local people, land-use managers, conservationists, and other stakeholders, we will analyze sustainable alternatives for the conservation of this world biodiversity hotspot.

TOPICS AND PLACES:

- Natural history & research techniques for birds, mammals, and other vertebrates as well as invertebrates & plants
- Ecology and conservation of Andean grasslands and cloud forest of Manu Biosphere Reserve
- Ecology and conservation of Amazon rainforest along the Madre de Dios River
- Traditional agriculture and resource use by Andean and Amazonian native communities
- Historical relationships of the Incas and the environment & current tourism impacts on ecosystems around Machu Picchu
- An integrative approach to use science, nature and personal embodiment as a way to connect deeper with the places, ecosystems and people we will visit during the trip.

Details: https://studyabroad.washington.edu/index.cfm?FuseAction=Programs.ViewProgramAngular&id=10738

INFO SESSIONS:

Seattle campus:, 29 Jan 12-1pm and 7 Feb 3-4pm (LSB 401)

Bothell campus: 30 Jan 12-12:45pm and 5 Feb 12-1pm at THE COMMONS (look for our sign)

ROLLING ADMISSION UNTIL 15 Feb. APPLY EARLY, this is a popular program, only 20 spaces!

UNDERGRADUATE ADVISING Hitchcock Hall Rm 318 Office Hours: 8 am to 4:30 pm

Walk-in Hours Advising M, T, W, F: 9:00 am–12:00 pm, 1:00 pm– 4:00 pm
Walk-in Hours Advising Thursdays: 9:00 am–12:00 pm, 1:30 pm– 4:00 pm
Advisors: Janet Germeraad, Jason Patterson, Sheryl Medrano
Staff: Julie Martinez
General Phone: 206-543-9120
Email: bioladv@uw.edu
Website: https://www.biology.washington.edu/programs/undergraduate

Sheryl Medrano, Jason Patterson, Janet Germeraad & Julie Martinez.

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

One of the best parts of the Advising Ofice is that you do not have to be a Biology major to meet with one of our advisors. Even if you are just thinking about becoming a major feel free to stop by or make an appointment.

One thing to note is that during the weeks of registration no appointments can be made. Walk-ins will be the only way to meet one-on-one. So make sure to set up your advising appointment early and beat the rush.

INSTRUCTIONAL SUPPORT OFFICE & STUDY AREA TA Office Hours & Teaching Support

Staff in HCK 302 Gretchen Shirley-Bellande, Jeannette Takashima & Ben Wiggins

What time is the room open? 9am to 5pm Monday - Friday

Where is Hitchcock 302?

One door past the Undergraduate Advising Office. Our office is the main place to find TA office hours for the Biology department's intro series (180 & 200) and various other undergraduate courses. It is also where instructors come to find help with their teaching needs.

Are my TA office hours in HCK 302?

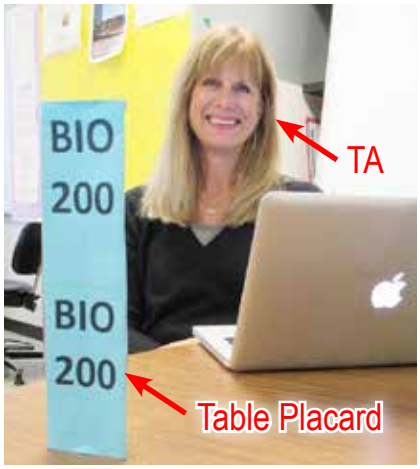
We have you covered. Outside our office door is a color-coded weekly schedule with the hours TAs can be found in the room. Sometimes there are minor changes throughout the quarter but we keep that schedule up to date, as best we can. If you notice something off just let us know.

How do I find my TA?

Once you are in the room just look for the table placard with your courses number on it, these placards should match or be a similar color to, the markers on the schedule outside our office.

Do I have to be with or waiting for a TA to study in HCK 302?

Athough we sometimes get crowded close to exam time, we always welcome you to study here during our open hours. We have five separate tables, each near its own whiteboard for you to use. We also have sunlights at several tables to help during those darker months.



Yes, exam pickup is here... if your instructor sent them to us.

See either Gretchen or Jeannette for exam pickup and bring photo ID. We keep exams until the end of the following quarter, so you have plenty of time to come pick yours up.

Mystery Plant: Guess & win an 8 card set of flowering plants at the greenhouse in Redmond!

This mystery plant is currently blooming near Life Science Building.

This is the winter quarter mystery plant and this plant is blooming right now near the Life Science Building. Submit your best guess with your name and email into our Mystery Flower Box located within the third floor Atrium of Hitchcock Hall.

After March 2nd, we will draw a name for the prize of a special, limited-edition set of eight Biology note cards featuring flowers blooming Winter Quarter in the Greenhouse over in Redmond.

The cards will be displayed in HCK 302 before then.

GUESS THESE TWO QUESTIONS:

1) What famous botanist established the genus for this plant in 1753?
2) List the genus & species.

HINTS: 1. These plants are widely grown for decorative purposes and their ability to bloom in winter and early spring.

2. Hybrid breeding has resulted in reversing the evolutionary process of this plant's true petals modifications back to true petals.

3. All the parts of this plant are toxic, rabbits and deer leave them alone.

BIOLOGY STUDY AREA (aka BSA) 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 is a GREAT place to study with other students, use computers, or just to read. It is very quiet and usually warmer than the atrium.

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 23 computers for general use and a Dawg-Print printer.

Lyudmila Polevoy and Jessica Nguyen will be staffing the BSA this quarter.

Miss Crab is typing up her research work on one of the computers in the Biology Study Area. She thinks the two support staff are awesome.

On this wall of the BSA is a display of Wing Shape & Flight and Colorations.

On three walls of the BSA are amazing collection displays to look at and learn.

The first one: Odonata of Washington State (commonly known as dragonflies and damselflies). The second display is of Butterflies of Washington. And third, is a two-part display of Wing Shape & Flight and Wing Coloration.

Be sure to take a look at them when you are there. You will then realize how lucky we are to have these collections on display, courtesy of the Burke Museum.

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