UNIVERSITY of WASHINGTON | DEPARTMENT OF BIOLOGY

BIOLOGY STUDENT NEWSLETTER

AUTUMN QUARTER 2016 ISSUE 26

IMPORTANT DATES FOR AUTUMN QUARTER

Sept 28	First Day of Instruction
Oct 4	LAST DAY to drop a class without a fee thru MyUW
Oct 5	Biology Apparel Day
Oct 5	All courses require entry codes to add, beginning
Oct 7	Last day to apply to Biology major in Autumn
Oct 11	LAST DAY to drop a class without the use of the ANNUAL DROP
Oct 18	LAST DAY to add a class through MyUW
Oct 26	Biology Networking Night
Nov 2	Last Day to Apply for Grad Reg Priority GSP for Winter
Nov 4-Nov 21	Winter Reg Priority Period 1
Nov 2	Biology Apparel Day
Nov 11	Veterans Day Holiday
Nov 15	Last day to use Annual drop or convert to S/NS
Nov22 - Jan2	Winter Reg Period 2
Nov 24-25	Thanksgiving & Fri Holiday
Nov 30	Mystery Flower contest ends
Dec 7	Biology Apparel Day
Dec 9	LAST DAY to Withdraw (from all Aut Qtr classes)
Dec 12-16	Final Examination week
Dec 19-Jan 2	Holiday Break
Jan 3	Winter Quarter Starts

Acting Chair of the Department: Dr. David Perkel

Dr David Perkel

Welcome Back to Biology!

Dear Biology undergraduate students,

Much of what we learn and do can feel intangible. But as you return to campus from summer break, you will immediately notice some very tangible changes on our portion of campus. First, the Burke Gilman Trail upgrade project between Rainier Vista and 15th Ave. NE has been completed! This means the bridge over NE Pacific St. has reopened, making it easy again to get to Hitchcock Hall. You will, however, need to circle around the west side of Kincaid Hall, as a huge new construction site extends between Kincaid Hall and the T-wing bridge. As you may have heard, this is the site of our new Life Sciences Complex. Scheduled to open in less than two years, this state-of-the-art building will house 7 floors of research and teaching space, with a large greenhouse as well. You can find more information on the project on the biology website. This project will benefit the entire Biology community.

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

From the financial perspective, we also offer over $15,000 in scholarship and research funds. We are grateful to 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.

And finally, if you love dinosaurs, you might want to make a trip to the Burke Museum (free to UW students, staff and faculty members). Biology faculty member Greg Wilson and his team unearthed this past summer a T. Rex fossil, one of the most complete in the world and the only one currently in Washington State. The skull, still encased in the plaster used to protect it during transport, will be on display at the Burke through early October. Catch it before the long process of extracting the skull from its surrounding rock begins!

I wish you all an excellent year.

David Perkel, *Acting Chair*

With the one side of the skull exposed, the team found it measured more than four feet in length and just under three feet in width. Based on the size of its skull, Burke paleontologists estimate this dinosaur is about 85% the size of the largest T. rex *found to-date. More information in Article inside.*

Tyrannosaurus rex Discovery in the Hell Creek Formation! Check out Biol 475

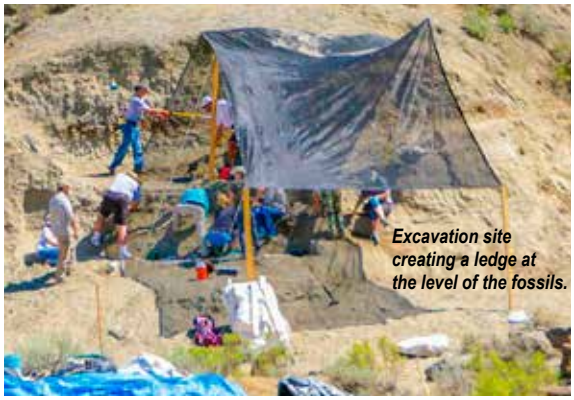
The BIOL 475 class spent three weeks with the Wilson Lab prospecting for and collecting fossils from areas all over Garfield and McCone counties in northeastern Montana. The days included plenty of hiking and exploration, specimen jacketing, sediment collection, and more. Among many other exciting finds, the team discovered a *Tyrannosaurus rex* skull and partial skeleton! The specimen is around 66.3 million years old, and is approximately 20 percent complete that includes a very complete skull plus teeth, ribs, vertebrae, hips and lower jaw bones. The skull is the 15th mostly complete T. rex skull to be found in the world, making it an extremely rare and important find for science and the general public.

Burke Museum palentologists identified bone shards characteristics of Tyrannosaurus rex *on the surface of a hill.*

The bone's honeycomb-like appearance is characteristic of Tyrannosaurus rex.

Two Burke Museum paleontology volunteers, Jason Love and Luke Tufts, were looking for signs of fossils on federal land managed by the Bureau of Land Management (BLM) in the Hell Creek Formation when they stumbled upon a large scattering of bone fragments on the surface of the sandstone. Upon further inspection, they noticed large fossilized vertebrae sticking out of the rock. The large size of the bones along with their honeycomb-like internal appearance indicated that they belonged to a carnivorous dinosaur. "At this point, we knew it was a dinosaur because of the size—there were no other vertebrates on the land that were this size," said Wilson. They suspected it might be a *T. rex* but couldn't yet be sure…

First the team, led by field crew chief and postdoctoral researcher Dave DeMar, needed to remove about 20 tons of rock from the hillside—a section nearly 16 feet in width—so they could create a ledge at the level of the fossils. This grueling task took a team of eight to ten people nearly two weeks of continuous digging with jackhammers, axes and shovels.



Excavation site creating a ledge at the level of the fossils.

Once the ledge was in place, they switched to smaller hand tools to carefully remove rock and dirt away from the ribs, uncovering nearby vertebrae and pelvic bones in the process.

Several feet away from the ribs, the team came across an incredible find—a skull! As they chipped away the surrounding sandstone, they could see fossilized bone emerging with a keyhole-shaped opening, that was unmistakably the back (squamosal bone) of a *T. rex* skull.

"The combination of the skull features, the size of the bones, and the honeycomb-like appearance of the bones tell us this is a *T. rex*," said Wilson. "This was a very exciting moment for us."

The skull excavation continued, revealing that the entire right side was intact from base to snout, including teeth.

Wilson and his team believe the other side of the skull is likely present. "There's a very good chance that the other half of the skull is there," said Wilson, "but the more we expose [of the skull out in the field], the greater the risk of damage." They're waiting to carefully remove the rock surrounding the fossil back at the Burke Museum before they can determine its completeness.

The back (squamosal bone) of a Tyranosaurus rex *skull.*

With the one side of the skull exposed, the team found it

measured more than four feet in length and just under three feet in width.Based on the size of its skull, Burke paleontologists estimate this dinosaur is about 85% the size of the largest *T. rex* found to-date. At the hips, the *T. rex* stood 15- to 20-feet-tall and was as long as a city bus from tail to head, more than 40 feet in length!

The skull of the Tyrannosaurus rex *discovered by Burke Museum palenontologists. The skull is preserved upside down in the rock. The black tooth from the upper jaw can be seen protruding from the rock in the center of the photo.*

A Tyrannosaurus rex *tooth close up from the arrow in the above photo.*

Once the skull was almost entirely removed from the hillside, the team began the process of creating its plaster "field jacket"—similar to a cast used to cover a broken bone—to protect it during transportation to the Burke Museum. To create the jacket, the team first covers the fossil with aluminum foil before adding numerous layers of burlap strips dipped in plaster to create a hard protective shell. For particularly large fossils like the skull, they often need to integrate multiple wooden braces to give additional support. This process is extremely important to get right to fully protect the fossil and prevent cracks from forming.

After the top and sides of the plaster jacket were dry, the team carefully rolled the specimen over to repeat the jacketing process on the other side. Rolling a fossil this large is no easy task—it requires lots of careful planning and plenty of people on hand to prevent damage. Thankfully the process went perfectly and the team fully encased the fossil in one more layer of plaster.

T. rex *ribs in a plaster field jacket (left) and the skull block ready for plaster (right)*

Palenontologis dig under the T. rex *skull to loosen it from the surround rock before the jacket it flipped.*

The skull jacket being carefully hoisted from the site thanks to the help from a local farmer.

The next challenge was moving the massive fossil to the truck so it could be driven to its new home at the Burke Museum.

The team estimates the skull and its plaster jacket weigh a staggering 2,500 pounds! It is so heavy that a neighboring rancher's hay baler (with a 2,000-pound load maximum) couldn't lift it. Thankfully, the rancher had a heavy-duty tractor that was able to handle the weight and safely lifted the skull to the truck as members of the crew used straps to steady it.

The Burke's paleontology team will begin preparing the fossil (removing the rock surrounding the bone), which may take a year or more.

Each new discovery creates a fuller picture of what life on Earth was like millions of years ago and provides us greater opportunity to understand what life will be like in the future.

"Media coverage of the specimen has been prolific, with as many as 1,047 stories written around the world that have reached an estimated 2 billion people. This discovery will be an important part of the new Burke Museum, which is set to open in 2019. We're calling it the "Tufts-Love Rex" in honor of Luke Tufts and Jason Love, the two Burke Museum paleontology volunteers who initially discovered it.

The Wilson Lab will be returning to the site next summer to excavate the remaining portion of the skeleton. Participants in next year's BIOL 475 class may have the opportunity to help with the process!

What would you do after the fall of Civilization?: Take Biology 313 next summer

BIOL 313 Civilizational Biology (4) I&S/NW Prerequisite: BIOL 220. Explores fundamental biology needed to build and maintain human society (both historically and after a future apocalyptic event). Focuses on engineering and innovating necessary biology tools "…from raw materials to preserve food, make bread, purify water or salt, construct textiles, design a farm, deliver a baby, inter a deceased body, etc.".

Hard soap with oil infusion of plants with antibacterial properties. Made by Jeff Luebbe.

Congratulations! You belong to a curious and thriving species.

Our cooperative efforts to research, invent, engineer, and manipulate the world around us has established ourselves as one of the most successful organisms that our planet has seen. But as biologists, we understand that no species is guaranteed a spot in the world of tomorrow. It is almost certain that Homo sapiens will eventually experience a widespread catastrophe that will push us to the edge of extinction. What will be required of these 'post-fall' survivors in order to restart human civilization? Are you prepared to contribute to this revival?

Civilizational Biology offers students a unique chance to test their growing knowledge of biological sciences into various post-fall scenarios. The scope of this course focuses on a broad range of biologically-based topics and skills relevant to restart human civilization. Some of these topics include: Food production, food preservation, water management, health care and wilderness medicine, the many uses of lipids, fiber engineering, birth science, and proper disposal of the deceased. The class included educational field trips to the UW Center for Urban Horticulture and the Lake Washington Institute of Technology Funeral Service School.

Our classmate Jeff perfectly articulates the Civ Bio experience, "I finished the bio series in spring quarter. With all that info fresh in my brain, I was excited to jump at the opportunity to take a cool sounding, novel summer class. Within the first week I had a realization. I could explain all sorts of mechanisms within biology, like cation exchange for plants, etc… But I couldn't start a farm… Half way through Bio 313, I felt for the first time, like a real biologist. I understood something like saponification of lipids (for soap making), from the most rudimentary standpoint… I can say that for most things we studied. That's what I loved most about the class. For me, it was a step toward understanding, and noticing the little things in the biological world that keeps our society going on a daily basis."

Mat Lee 's Final Project merged a scavenged alternator, original wiring and a human power source to expand on standard diurnal work cycles.

And of our final projects, our classmate Derek says it best, "Perhaps the greatest innovation of this class was the scientific freedom. The final project was given with very little limitations on what could be done. In the first week I learned about soil requirements and became curious about decomposition and returning nutrients to the soil. So my final project became on animal and human waste/corpse decomposition."

None of us will ever be able to look at a light bulb without recalling our classmate's struggle to keep one lit via bicycle. We struggled together as a community in order to create wonderful projects that had no limits, and I know I have never had more fun and freedom to create, build and experiment. As our classmates explained, the best part is knowing what we learn is relevant. For example, this device with which I write sits on a Jenga tower of industry. Pull one block out and the whole thing could come crashing down. So in case of the fall, you may want to find one of us. We'll know what to do.

Summer 2016, Biology 313 students
Lauren Goetsch, Tyler Porter, Jeff Luebbe & Derek Erickson

Some class members of Biology 313, *Civilization Biology.* Alice Yu, Suning Li, Lauren Goetsch, Mat Lee and Jeff Luebbe

Salicylic acid (a primitive version of the anti-fever medicine aspirin) collected from area willow bark by ethanol extraction. Made by Graham Gingras.

BIOLOGY 313 PROJECTS:SHOWN ABOVE

A Solar stills for purifying and desalinating water (both a test and a large-scale version)

B Litmus paper for water pH testing made from red cabbage

C Firestarters constructed from pinecones and dryer lint

D Experimental composting of human waste products

E Dairy-based glue

F Germinated lemon trees as a source for anti-botulism citric acid for canning

G Built tools for processing of raw grain to usable flour

H Fermentation source for a distilling project to produce medical-grade alcohol

I Dehydrator that uses solar energy to dry and preserve fruit-based calorie sources

The Hindu Monkey God's Secret Garden on Stevens Way: The Medicinal Herb Garden

Himalayan Whorlflower, Morina longifolia *It originates from the Himalayas from Kashmir to Bhutan at altitudes of around 3000-4000m and flowers from June-September.*

The Medicinal Herb Garden is located on the campus of the University of Washington. Its main entrance is off Stevens Way, where two concrete monkeys sit atop 12-foot poles. They're replicas from those at the public gardens in Padua, Italy, established in 1545 as Europe's first botanical garden. They are twin representations of the Hindu monkey god, Hanuman and said to oversee and protect the gardens. This first garden is called Cascara circle because it is encircled by Cascara trees. Plants from the northwest are grown here, The Cascara's bark was used as a laxative.

In 1911, the School of Pharmacy created the Medicinal Herb Garden on 1.5 acres, to teach students how to make medicines from plants and how to identify plants. At that time, most drugs used in medicine were plant derived, so a pharmacist needed to know not just the name of compounds but also had to do the extractions. The students learned how to harvest and dry, distill, or otherwise prepare the medications.

The garden was expanded to 8 acres at its peak between 1915 and 1918 when over a thousand pounds of digitalis herbs (foxgloves), used as heart medication, were sent to Europe to support the Army medical service. Digitalis was used during surgery and to save lives on the battle field as a heart medication that helped regulate the pulse.

Over the years, a wide variety of annuals, perennials, trees, and shrubs were established in the gardens and in the borders. At its peak, the Medicinal Herb Garden was considered one of the finest collections of medicinal plants in the world. After WWII, with the shift to synthetic medicine over plant extracts, the garden went into a decline and decreased in size to the 2 ½ acres it covers today.

The School of Pharmacy funding stopped in 1979 due to budget cuts and fortunately the Department of Botany recognized the garden's value and adopted it that same year. But with no additional funds to support the gardens, the MHG staff (2 full time and one part time) were laid off and the the garden slipped dramatically. In 1984, the Friends of the Medicinal Herb Garden was formed to save the garden with its volunteers and money.

The Medicinal Herb Garden is in fact, the largest such garden in the western hemisphere. Since 1996 under the care of curator and gardener Keith Possee, the century-old garden spans 2.5 acres and boasts more than 1,000 species of medicinal herbs and plants (none of which are ever harvested; the garden is for educational and display purposes only). Paths meander through seven sections of gardens with species such as the spotted touch-me-not (a contact-shy plant that actually relieves rashes), the boxthorn species that produces goji berries (all the rage in smoothies) and Sweet Annie (critical in the treatment of malaria).

RULES:

- Please note that the Medicinal Herb Garden is not a source of medical advice or a guide to self-medication.
- Harvesting plant material, flowers, or seeds from plants in the Medicinal Herb Garden is strictly prohibited.
- Dont step on beds or make your own trail don't step on wood surround the beds, its very old and not secure so could cause sprain ankles, etc.
- Don't pick plants as some contain irritating saps or prickles.

Cardoon, Cynara cardunculus, *also called the Artichoke thistle, is has edible leaf stems.*

KEITH POSSEE

MHG CURATOR & GARDENER

Thanks to Keith Possee's passionate dedication, he has singlehandedly transformed this historic garden into a treasure trove of plants from all around the world. Visit the garden throughout the year and you'll catch wonderful seasonal surprises like the mandrake blooming in February or chocolate scented daisies in high summer. Here are some of the garden's September blooms for you to enjoy.

Marshmallow, Althaea officinalis. *French confectioners whipped up the sap & sweetened it to make the modern marshmallow.*

Pickerel Weed, Pontederia cordata.
A deciduous, aquatic perennial. Seeds edible.

Canadian Goldenrod, Solidago canadensis.
Browsed by deer and good to fair as food for domestic livestock. It can become an invasive plant as it has in eastern and southeastern China.

Leopard Lily, Iris domestica.
Used in Chinese villages for it medicinal values. The dried rhizone has long been used in east Asia to treat throat troubles, asthma, swollen liver and spleen, gonorrhea, malaria and arrow poisoning.

TriBeta
Biological Honor Society:

"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 efforsts and accomplishments while networking with other students and UW Biiology staff of the same interests.

In short: a really great organization.

2016-2017 Executive Board

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Maddy McKeague
maddymckeague@gmail.com

Secretary
Lydia Sweet
sweetlyd@uw.edu

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thayee@uw.edu

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dagc@uw.edu

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jessig22@uw.edu

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Kristen Bocast
kbocast@uw.edu

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Anna Kus
annakus13@gmail.com

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Alina Tranalin
a.tran95@gmail.com

VP of Tutoring
Liesl Strand
liesl134@uw.edu

Adviser
Doc Linda Martin-Morris
lmorris@uw.edu

TUTORING

TutoringTriBeta 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 13th.

UPCOMING EVENTS

Sept 28th & 29th – **Dawg Daze**

Oct 5th – **T-shirt Sales**

Oct 13th – **Monthly Member Meeting**

Oct 27th – **Pumpkin Carving**

Nov 2nd – **T-shirt Sales**

Nov 10th – **Monthly Member Meeting**

Dec 7th – **T-shirt Sales**

Dec 8th – **Study Night**

Keep an eye out for information on our Quarterly Seminar!

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. Further details 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 Biology 180, 200 & 220

UW Introductory Biology students: The secret to excelling in Biology 180, 200, and 220 is discussing those new concepts and information with other students or asking your instructors questions to know if you fully and correctly understand the concept.

This is where TriBeta can help! TriBeta Tutors are students who have taken the full 180-220 series, done well, and enjoy teaching. They can help you with material, concepts, study habits and many studying tips!

The study lounge also provides snacks FOR FREE.

There are two ways to take advantage:

1) Come to our study lounge on the 4th floor lounge in Hitchcock Monday - Thursday from 3:30-6:30 pm. The lounge is located right above the HCK 3rd floor entrance.

2) Sign up for 1 on 1 tutoring at the following link http://tribetauw.weebly.com/tutoring.html

If you want to do well in the intro series, try us out! If you have any questions or you would like to apply to be a Tribeta tutor feel free to e-mail Liesl Strand, at tribetatutoring@gmail.com

Fourth floor lounge in Hitchcock

UFARM : FARM TO TABLE FUND RAISING DINNER Thursday Oct 27 6:30-9:00

"What is the UW farm?" Alan Trimble and Jennifer Ruesink were two biology professors tired of graduating ecology students who "could not recognize a carrot growing in the ground." They along with Beth Wheat, a graduate student in Ruesink's lab, felt that there was a need for students to physically interact with ecosystems in a positive way; an antidote to the usual stories students heard of human environmental destruction.

In 2004 the three taught a "Foundations of Ecology" course. The class took a trip to the medicinal herb garden to study seed dispersal. There the teaching team started talking with Keith Possee, the garden's steward, about a possible solution. Each of them had experience with student farms or community gardens. And they all wanted to draw attention to the importance of sustainable agriculture. They were inspired by the "Cuba miracle"—the way Cuba had completely reinvented its agriculture in Havana nearly overnight. Keith remembers thinking, "if they can grow so much food right in the middle of the city we could at least try." This was the seed of an idea: the UW Farm.

In 2006, a group of students, faculty, and staff came together to start a small urban farm on campus. They carefully double dug three beds at the Botany Greenhouse, and began to grow food in them.

As the community around these garden beds grew, the farm grew to surround the entire outdoor space at the Botany Greenhouse. There was so much energy and excitement around the UW Farm, and so much potential for growth and expansion, that in 2011, students approached the folks at the Center for Urban Horticulture about growing into one of its vacant fields.

Finally, with the addition of the Mercer Court Apartments site in August 2013, the UW Farm now occupies three unique different spaces, illustrating the various styles and possibilities for urban sustainable agriculture.

Fund Raiser Dinner on Thursday October 27th, 6:30-9pm at The Center for Urban Horticulture and will feature a meal of local produce prepared by Chaco Canyon Organic Cafe, local brews, games, live music, and much more. Funds go to the farms's operationg budget, which would increase the capacity as a place of community and learning for students and locals alike.

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.

Anthony F Cannistra ..... *in the lab of Lauren Buckley*
Caroline Cappello ..... *in the lab of Marty Boersma*
Christian Gaetano..... *in the lab of Greg Wilson*
Stuart Ian Graham ..... *in the lab of Lauren Buckley*
Olivia Kosterlitz ..... *in the lab of Chris Amemiya*
Andrew Magee ..... *in the lab of Adam Leaché / Minin*
Sage Malingen ..... *in the lab of Keiko Torii*
Savannah L. Olroyd..... *in the lab of Christian Sidor*
Roman Ramos Baez..... *in the lab of Jennifer Nemhauser*

Plant in Hitchcock Atrium: Zanzibar Yam, *Dicoscorea sansibarensis*

Smaller Diasocorea sansibarensis are growing over the railing on the fifth floor. If you look closely (see arrow) you can see two aerial bulbils. The plants starting on the fourth floor and growing up the twine are older and have bigger tubers.

What is that plant with little potatoes hanging in the air?

So there you are, studying in the atrium on the third floor of the Hitchcock and in a break you look up to see vines climbing their way up twine from the fourth to the fifth floor and some small vines hanging over the railing on the fifth floor. You wonder if you have been studying way too long as it looks like they all grew.....a lot.

Well you are looking at *Dioscorea sansibarensis*, its common name Zanzibar Yam, native to tropical Africa and recently has been reported growing in Miami-Dade county in southern Florida.

The plants are tuberous, notice the stems twine counter - clockwise and will climb 7 meters (21') up to 25 meters (75'). Leaves alternate at basal nodes. It propagates vegetatively through the production of aerial bulbils that fall to the ground.

It is an ornamental plant cultivated for its large, unusual shaped leaves and is not edible. If left unchecked, this fast -growing climber spirals up tall trees and complelely smothers the canopy with its foliage.Then it showers the ground with thousands of aerial bulbils and once it has established in an area, the forest has little chance of recovery without human intervention. Especially since the bulbils do not stay dormant for long,and will germinate in a matter of weeks.

BIOLOGY NETWORKING NIGHT: Save the Date: Wednesday Oct 26, 2016 5:30-7:30

Want to know what people have done since they earned a degree in Biology? What would they do differently?

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, what experiences 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 listserve 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 sta

UW Farm

New blog: http://blogs.uw.edu/uwfarms/ and
https://www.facebook.com/uwfarm

The UW Farm is now a registered student organization with over 600 members. If you would like to learn more about the farm please join our listserve 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.

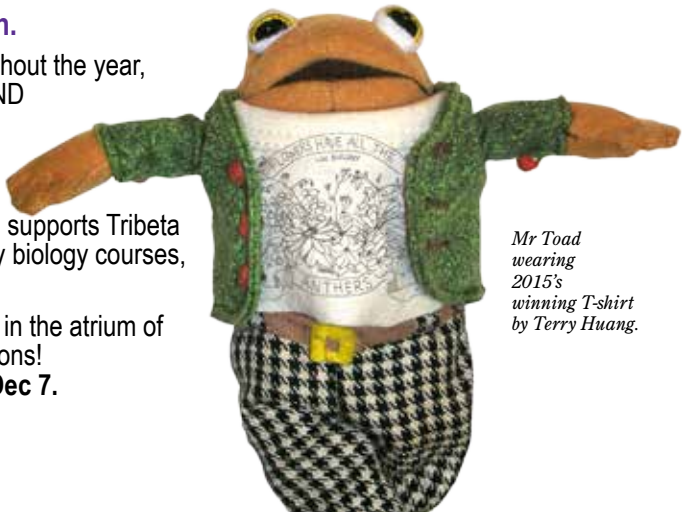
BIOLOGY APPAREL DAY: THe first wednesday of every month & get a treat!

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 efforts 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 15 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 Apparel Wednesdays in Autumn Quarter are Oct 5, Nov 2 and Dec 7.



Mr Toad wearing 2015's winning T-shirt by Terry Huang.

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 is 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 MHGarden. Cards displayed in HCK 302.

QUESTIONS:

1) What modern day country exists in the region that this plant originates from?

2) What is the genus species for this fruiting shrub?

The hints: *1. The name in medieval latin means apple seeded.*

2. Shrub/tree is long lived - 200 years old.

3. Seeds are used as a spice known as anardana in Pakistan and India.

BIOLOGY STUDY AREA : All Students are Welcome in Hitchcock 220

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 27 computers, a Dawg-Print printer and one scanner.

All students are welcome — not just Biology majors!
BSA is open Monday - Friday 8:00 am - 5:00 pm.

Dave has two undergraduate computer support staff, Hiren Ajudia (Biology) and Carlos Jimenez (Biochemistry) who will be staffing the Biology Study Area and programming, so you may see them around as well.

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.

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:
http://depts.washington.edu/biology/advising.htm

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 advice@u.washington.edu
http://depts.washington.edu/uaa/advising/index.php

Biology Study Area (BSA)

220 Hitchcock Hall
Mon–Fri
8:30 am–5:00 pm

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