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Homecoming Chili Feed 2018

The Biology and Chemistry Programs along with other STEM Faculty will be holding their annual Homecoming Chili Feed on Saturday, October 13 from 11am to 1pm before the football game on the lawn on the east side of the Science Building.

New to this year’s Chili Feed is a competition between faculty for the best chili — you taste, you vote, you decide!

Many kinds of chili made by the faculty and staff will be available for alumni and their families to enjoy. We will have drinks, chips, and other food available along with all eating utensils. Stop by and say hi!

Science Building Updates

Since a new Science Building seems NOT to be happening in the Loras crystal ball, the college has written and received several grants as well as alumni donations to renovate several classrooms. In addition to updated Rms 19, 109 and 208, group learning rooms which were mentioned in the previous 2015 newsletter (shown below), a recent grant for $190,000 from the Carver Foundation was just received this summer 2018. The DNA Lab will be expanded to hold more students and the physiology lab/cadaver lab will be updated with new LED lights, a painted ceiling and air conditioning! Wow! Dr. Cooper and Dr. Davis are dancing in the hallways! Other items that the grant will help us purchase are more light microscopes, 2 new thermocyclers for PCR, a refrigerated centrifuge and a new micro-pure distilled water system! Yay!

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**Faculty Updates**

Dr. Cooper’s lab continues to work on cell biology research using *Dictyostelium* as a great model organism that directionally migrates very rapidly. This past semester the students in Cell lab used adapters created by a J-term Engineering class and printed on Loras’ 3D printer to hold student cell phones up to the microscopes in order to take pictures and movies of the cells in lab! It was a fun collaboration! In other research news, Dr. Cooper spent her spring break in 2018 traveling with her family to the Outer Banks of North Carolina (all three schools’ spring breaks lined up for the first and probably only time ever!). This qualifies as research news since she brought along lab equipment and collected wild strains of *Dictyostelium* from various states along the way, including North Carolina where the original lab strain was isolated. She took another family trip in July to Colorado and managed to leave all the lab equipment behind for a couple’s weeks! Dr. Cooper took over as Division Chair in Fall of 2017. Her kids (6th grade, 4th grade, and 2nd grade) delight in making fun of her for being a “chair” and asking if people sit on her at work. (The answer is always “yes, of course!”) She continues running and has done a 50K ultramarathon and is currently training for a marathon. The whole family hopes to see you back for chili at Homecoming, and Dr. Cooper will even try to stay awake after her long run in order to catch up with you during the event!

Dr. Davis enters his 29th year of teaching and fun in the Biology Program at Loras! He continues to teach Vertebrate Physiology each Fall but had a one semester break from Human Anatomy in SP 18 and taught Bio 115 lab! However, he will be back in the cadaver lab for SP 19! He has enjoyed teaching a summer outdoor Bird Biology course and a semester-long Bird Biology course lately. Always lots of good birds to find in the Dubuque area and helping students expand their personal land ethic via bird biology! He has 21 Loras students signed up to go to Costa Rica again (4th time with students!) in January 2019. Dr. Sinha and Dr. Davis’ wife Barb will be going too! Dr. D is still learning about how map turtle eggs turn into turtles! He had several recent students studying effects of water content on growth and survival of map turtle eggs in the field at the Lock and Dam and in the lab. Also he just published a five year study on Reproductive Success of Prothonotary Warblers in Artificial Nest boxes. He had tremendous numbers of these birds move in and raise babies in over 30 PVC nest boxes in the floodplain forests on the river in front of Timmerman’s Supper Club in East Dubuque. He now has a student measuring the effects of nest box density on reproductive success.

He and his wife Barb really enjoyed their semester teaching abroad in Ireland for Spring 2016. They were gone for 4+ months and enjoyed a cozy, warm little apartment near Grand Canal Docks in Dublin. Their place was only 15 min walk from St. Stephens Green and Grafton St. Irish colleges have a two week Spring Break over there so Barb and Dr. D. left the day before St. Patty’s Day (yes, they did not stay in Dublin!) and flew to Rome. They spent 3 nights each in Rome, Florence, Cinque Terre and Paris and 2 nights in Montrüex, Switzerland, Assisi and Bruges, Belgium on their European trip! Fantastic! Nineteen nights of AirBnB! They met so many great people wherever they went! Though they were sad to come home, they did enjoy the springtime warmth of May in Dubuque!

Dr. D.’s kids are all doing well. Drew is still a research photographer for Apartments.com and CoStar commercial real estate companies and he now has his own company drone! He has been doing quite a bit of aerial photography in the last year! Middle daughter Laura Timmerman and husband Scott moved back to Dubuque in early June 2018. She is a Physical Therapist at DBQ Physical Therapy and Scott is helping run the family business at Zephyr Aluminum and Glass. Lisa, daughter #2, moved to San Diego in June 2017. She talked her boss in Chicago into letting her “relocate” and do the same Graphic Design job she was doing in the Willis Tower and do it from her bedroom in San Diego! Amazing! And she loves the city and the whole setup. Her
(Davis continued) Mom and Dad coincidentally had the same spring break in March 2018 so they spent 6 days being driven around the whole San Diego area taking in all the sites and, of course, a few breweries too! Please stop in and say Hi if you are ever in the Dubuque area!! Send us updates of your latest job activities, travel adventures or Loras alumni shenanigans! We would love to hear from you! Tom.davis@loras.edu

Dr. Dave Shealer began his 20th year at Loras, and he continues to teach Bio 116, as well as Evolutionary Ecology, Experimental Design/Biostats, and Animal Behavior. His research program on Black Terns has fizzled a bit of late, but he has been branching out, by necessity, to a more continent-wide scale. For the past four years, he has acted as advisor to a population study of Black Terns in Michigan (one of the few sites thus far identified that seems to experience high productivity). He and a colleague from Eastern Connecticut State University have been collecting blood samples from Black Tern colonies across North America and are in the final stages of compiling a genetic profile of the species continent-wide. He presented preliminary results from this study at the International Ornithological Congress in Vancouver in late August. He also is working on a grant proposal to study Black Terns on a major southbound migration stopover site at Padre Island, Texas. Dave’s daughter, Mikailah, is a sophomore biology major at Loras and a member of the women’s soccer team. And yes, she’s taken Bio 116 from her old man and currently is enrolled in Biostats. Wish her well!

During the 2018 J-term, Dr. Sinha took a group of students to India for about 3 weeks as part of her course, Sustainable India - the Interface of Nature-Economy-Society. The group travelled extensively in north India including visiting the famous Taj Mahal and talking about environmental issues ranging from biodiversity conservation to air and water pollution. Students enjoyed planting trees (on another continent!), watching birds, working alongside scientists in collecting data on restored wetlands etc. Of course, the icing on the cake was the tiger safari in a tiger national park. Dr. Sinha’s research has expanded from invasive species and prairies to the inhibitory effects of various phytochemicals. In the last four years, she has had several students conduct research on the effects various plant based compounds have on bacteria. One of her students presented his results on the variation in inhibitory effects of garlic cultivars on an array of bacteria at the Iowa Academy of Science Meetings. Of the courses Dr. Sinha teaches, her top favorites continue to be Environmental Issues and Plant Biology (and not because she believes that plants are cool, dynamic and sexy!). Drs. Davis and Sinha have expanded the Loras Community garden to have raised beds, a pergola and a leopold bench. Check it out at Homecoming! Dr. Sinha and her kids, Sitanshu (4th grader) and Preesha (2nd grader), travel to India every summer. In the spring, they visited Bryce, Zion, Arches and the Grand Canyon National Parks where they hiked 36 miles in 5 days!

Last year Dr. Schnee published “Science and ethics case study “A Genetic Defense for Murder? “ a peer reviewed case study with teaching notes and answer key to be published on-line by the National Center for Case Study Teaching in Science”. The case study came out of the cluster he taught with Dr. Idziak on the Human Genome Project. He had taught the cluster continuously for over twenty years and unfortunately, last year was its last as the cluster requirement at Loras has been discontinued. Instead this fall he is getting to teach Microbiology with the biggest class size in years. ( 21 students!). In addition, he continued his research examining effect of cadmium on oviposition behavior in Drosophila melanogaster, which resulted in a paper that has been submitted to the journal BioMetals. He also supervised the research thesis of two students, Brooke Prooski Green (on oviposition behavior) and Joanne Moulton (on antimicrobial effects of Lauric acid). This past Summer he visited his family in New York where he found an old paper picture of himself getting a polio vaccine that made the front page of the New York Daily Mirror!
New Postbaccalaureate Premed Program

Loras launched a program recently for students who already have received a bachelor’s degree in a field other than science and who hope to enroll in medical school eventually. The Postbaccalaureate Premedical Program offers those students a chance to take all the prerequisite courses for medical school in 12 months (or longer, depending on when the student begins the classes.) In May Loras’ first postbaccalaureate premedical students arrived on campus to start a grueling summer of three intensive courses, one after the other, of general chemistry, introductory biology, and a five-credit organic chemistry course. A few other students have joined the program for the fall, bringing our total number to seven. The students are from all over the country – from the East coast to the West coast, along with Midwestern states! Drs. Cooper, Davis, and Moser (Chemistry), designed and launched the program, which now has a dedicated director in Dr. Ulrike Schultz, MD, MPH, who is also pre-health counselor for our Loras undergraduates. The program can also be used to take prerequisites for other health professional schools, and so we anticipate continued growth in the program and are hoping to develop relationships with medical schools in the future!

Sponsored Research

We are seeking alumni who would like to be sponsors for undergraduate research projects. This would involve supplying some funds for basic supplies, small stipends, travel expenses for doing research projects or attending a conference to give a poster or talk at a conference. The amount of money could range from $100 for basic supplies to $3000 for a summer stipend to work with a faculty member doing research all summer or during one semester. Current faculty research projects include:

Role of cell proteins in cell migration of *Dictyostelium* social ameoba with Dr. Cooper

Effects of invasive species on native flora & soil microbes; mapping invasive species using GIS - Dr. Sinha

Egg laying site preference in fruit flies with Dr. Schnee

Role of soil water during incubation in map turtle embryo growth and development with Dr. Davis

Effects of artificial nest box density on reproductive success in Prothonotary Warblers with Dr. Davis

Factors affecting migration success in Black Terns with Dr. Shealer
CAMPUS UPDATES

Keane Hall—Third floor now contains several classrooms at the ends of the hallways and many new faculty offices, a student lounge and conference room. Currently a large construction project is underway to install a new elevator and renovate the Alta Vista entrance to remove the stone steps and create a 3 story atrium. Various offices have been moved to accommodate the workers and construction equipment. Hopefully this construction will be finished by the end of Fall semester 2018. Fourth floor Keane has been completely gutted and awaits a decision on its future use.

Rock Bowl—During the summer of 2018, the old artificial field turf was removed and new field turf installed. It looks great! The track surface was also redone and new lines will be painted this fall 2018.

Campus Edible Garden—Large new wooden raised beds, updated fencing and soil plus a fancy trellis gateway were added to the garden this April. The size of the garden expanded as well! It is now 60 ft x 24 ft! Lots of room for growing many edible plants! The center strawberry bed is amazing! Check it out when you visit!

News of former Biology Faculty

Dr. Ed Cawley, a long time member of the Biology faculty, passed away in April 2014 at the age of 83. He was one of the expert botanists and ecologists in the Dubuque area. His research on clams and mussels in the Mississippi River and his constant input and stewardship for all things outdoors is greatly missed.

Dr. Joe Kapler’s wife, Helen, passed away in 2014 as well. Dr. Kapler still visits his forest cabin, affectionately called “The Woods”, near Andrew, IA on a regular basis.

Dr. John Bamrick passed away in March 2018 at the age of 92. His wife Eunice lives in Rochester, MN closer to their daughter, Jane. He graduated from Loras in 1953 and was a beloved faculty member in the Biology Department from 1956 until 1995. His obituary can be read on-line. Search for John Bamrick obituary, Dubuque, IA.

Dr. Gerry Eagleson, who retired from Loras in 2008, is living in Dubuque.

BIOLOGY ALUMNI ADVISORY COUNCIL

We encourage feedback and input from our alumni. We will convene our first annual meeting of the Biology Alumni Advisory Council on Friday Oct. 12 during the 2018 Homecoming celebration. We hope to have over 15 Biology alumni from various backgrounds return to campus and learn more about the past, present and future of the Biology Program. The purpose of this group will be to work with Biology faculty and students to 1) strengthen the Biology program, its curriculum, its classroom and research equipment, and its connections to more Biology alumni and 2) to help students have more external alumni connections while they are at Loras and after they graduate.

THANK YOU!

Thank you to all the alumni who have donated some money to Loras or to the Biology Program specifically. We look forward to using your money to improve our college experience for our students. Many of them have been quite successful. We get constant feedback each year from our graduated students about how they have been well prepared, many times better prepared than other students in their classes from similar sized and larger schools.

Always stop in and say hi if you are in Dubuque!