



BIO-BUZZ

THE BIOLOGICAL SCIENCES NEWSLETTER

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ANNOUNCEMENTS

BioBuzz Newsletter

The BioBuzz newsletter is written and compiled

Vol. 4 Issue 2 Update

Wednesday, March 23, 2016 - Updated information - PUBS and New Biology Instructor

Message from the Chair



Greetings, everyone!

On behalf of our department, welcome to our new undergraduate and graduate students, and to our new alumni. We hope you will continue to enjoy and subscribe to our semi-annual publication. Please

feel free to provide feedback, or send us any news stories about your professional lives. We strive to keep you up-to-date on new occurrences, programs, initiatives and opportunities.

This term, we have 32 MSc and 9 PhD students in spring 2016. Good luck to all of you in your studies.

Graduate students provide delivery of our courses and labs. They tutor, grade and are available to meet with students. We encourage you to get in touch with the Graduate Student Society, where you will make long lasting friendships and connections. As well, we promise to support you in your studies. Attend departmental events, including symposia and the various talks and presentations identified throughout the term through notices and emails. This is your opportunity to learn and grow in your field of choice.

Our undergraduate population is very important to us, also. We encourage you to reach out and meet your professors, where you'll learn about research opportunities, and perhaps find research

by Sheila Matson. Anyone interested in contributing to or advertising in our publication is invited to contact [Sheila](#).

ALUMNI: We want to hear from you.

If you would like to contribute to our publication we'd love to hear from you. Please contact sheila.matson@uleth.ca.

Did You Know? Dean's Honour Roll

Each semester the Dean of Arts and Science publishes the Faculty of Arts and Science Dean's Honour Roll. In Fall 2015 there were 328 students whose names appeared on this listing. Of that 32 students have a declared major in Biological Sciences. This is a trend that has repeated for a number of years, and we hope one that continues. We congratulate those students!

opportunities. As you'll see further on in the newsletter, the Luke Stebbins Symposium will be occurring on April 15, from 1:00-4:30 pm, where students who are enrolled in an Independent Study have the chance to compete with peers for cash prizes. Stop by the office (D866) to find out what's involved.

We are launching a brand new initiative for students entering the University of Lethbridge, with a Biological Sciences major. The Research Internship initiative is underway, and you'll read more about this undertaking. The cohort program will begin in Fall 2016. We are very encouraged already by the number of students who are applying to be considered as part of this initiative. Some of our faculty have offered their expertise for the facilitation of the program, and we express our gratitude to Drs. Igor Kovalchuk, Brent Selinger and Greg Pyle.

Sincerely,



Joe Rasmussen, PhD

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Research Internship Program

Imagine being the first to discover something about a gene, a cell, an organism or an ecosystem! This brand new and exciting initiative is entitled the Research Internship concentration. It allows a cohort of specially selected students to make discovery through biological research an integral part of their university program. Students selected will have an 80% in Biology 30, with an overall average in their subjects of 75%.



To this point in time we've received 31 applications from high school students. Our faculty will be involved totally in the process to make this a very worthwhile part of the 4 year programs upon which these students are embarking.

In their first year, after an orientation to the tools necessary to conduct research in one of the many biological sub-fields, these students will participate in research projects under the direction of faculty. Each subsequent year will build on these skills with an emphasis on actually designing, carrying out and disseminating the results from research projects under the guidance of faculty.

Throughout this program, these students will enhance key skills such as critical thinking, problem solving, observation, diagnosis, organization and presentation that are important not only to research but to any career path.

This is the first initiative of its kind offered by the department of Biological Studies. Stay tuned for updates!

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Welcome Dr. Dmytro Yevtushenko



The Department of Biological Sciences welcomes Dr. Dmytro Yevtushenko as Potato Growers Association Research Chair. Dmytro came to the university in January 2016 and is already involved in meetings with PGA members, scientists from the Lethbridge Research Station and departmental members.

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Welcome to Jenny Burke - Instructor

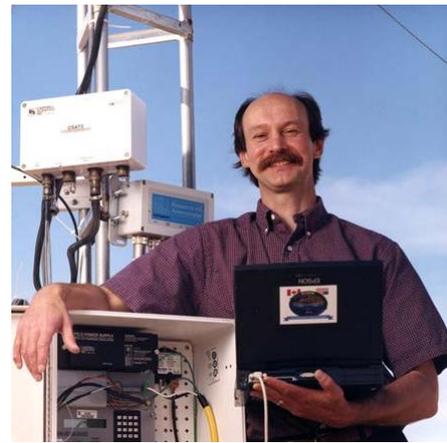
Jenny Burke (MSc 2006, University of Lethbridge) joins the department as an Instructor. Jenny has taught for Biological Sciences and for the FNTF for a number of years. She is the proud mother of Charlie, the light of her life, and is married to John Wort Hannam, musician extraordinaire.



Researchers find North American grasslands likely to be more productive under future climate change

Grasslands in North America could well be more

productive in future climate scenarios, a new research study shows. Researchers from the United States and Canada, including University of Lethbridge biologist Dr. Larry Flanagan, used a new modelling method to predict how native grasslands could respond to climate change and their results are pointing to increased productivity, even under slightly drier environmental conditions.



“Overall, our projections indicate significant gains in grassland cover by 2100 across major areas of western North America that are dominated by grasslands at present,” says Flanagan. “This was particularly true in the northern grassland regions that are often limited by cool temperatures in the early growing season. Warmer temperatures can cause an earlier start to the growing season, by as much as a few weeks.”

Grassland growth occurs quickly and depends on precipitation and soil water content. To predict daily changes in grassland cover, the researchers developed a model that calculated plant growth and the soil water budget, and calibrated it using measurements made at a range of field sites. Once the model was successfully tested, it was run under a new set of environmental conditions that consisted of climate projections for the next century. These projections were provided by Coupled Model Intercomparison Project Phase 5 (CMIP5), a five-year climate change modelling research strategy that is coordinated by the World Climate Research Program.

“Our analysis indicates a likely future shift of vegetation growth towards both earlier spring emergence and delayed autumn senescence, which would compensate for drought-induced reductions in summer growth and productivity associated with climate change,” says Flanagan.

The model doesn't include the effects of rising levels of atmospheric carbon dioxide on photosynthesis and water use efficiency, factors that could magnify the positive impact of climate change on the grasslands.

Grasslands cover more than 30 per cent of the world's land surface and are fundamental to the meat and dairy industries. This projected increase in productivity of grasslands has implications for agriculture, carbon cycling and vegetation feedbacks into the atmosphere.

“The stimulation of grassland plant growth by warmer temperatures is strongly dependent on adequate soil moisture being present in new climate change scenarios. The positive trends in native grassland

cover we currently predict for the next 100 years could be stalled by lack of moisture or other environmental limitations. So climate change could also have significant additional demands on irrigation and nutrient management that influence agricultural productivity in the next century," cautions Flanagan.

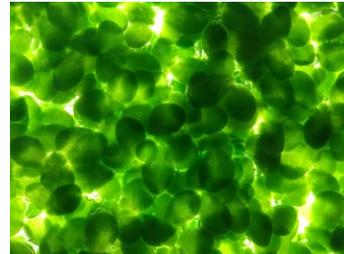
The research study by Flanagan and his colleagues can be found on the Nature Climate Change website under the 'Latest research' tab.

Published in ULethbridge News Release – March 15, 2016

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Congratulations Dr. Roy Golsteyn and Dr. Rob Laird!

Research Services held an Inaugural Research Photo Contest. Two of our department members, Dr. Roy Golsteyn and Dr. Rob Laird won awards. The two photos follow: Roy Golsteyn's is first, followed by Rob Laird's.



Roy's lab won "The People's Choice Award" for Best Photo. His lab receives a \$500 award.

Rob's entry won the category of best Origins and Explorations.

Congratulations to you both.

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Luke Stebbins Symposium - Spring 2016

The semi-annual symposium for undergraduate students registered in a BSc program, taking an Independent Study with a supervisor or co-supervisor from the Department of Biological Sciences is slated for the last day of classes, April 15, 2016. Students who have worked on research projects or on an honours thesis have the opportunity to compete with their peers. Each student is allotted 10 minutes to present their findings, with a short question period following, to three judges, who at the end of the session decide on a first, second and third prize winner. The prizes - \$200 for 1st, \$100 for 2nd, and a book prize (provided by Pearson Publishing are awarded to the winners.

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New MSc & PhD Students



The following graduate students joined the department since the last publication:

Lavinia Haase (MSc) Supervisor: Dr. Larry Flanagan
Jake Hayden (MSc) Supervisor: Dr. Rob Laird
Marie Prill (MSc) Supervisor: Dr. Theresa Burg
Parastoo Razmata(PhD) Supervisor: Dr. Greg Pyle

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Biological Sciences Christmas Gathering - December 2015



Our Christmas gathering was held at the home of Rob and Gillian Laird, where the department, their spouses/partners and children enjoyed a great evening of potluck and good conversation. The children did facepainting and games, under the leadership of the Barley twins - a great time was had

by all, judging from the smiles and paint on the kids' faces. A big thank you to the organizers of the evening - and to Rob and Gillian for hosting.

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PUBS Conference - February 2016



The University of Lethbridge Department of Biological Sciences hosted the 2016 Prairie University Biology Symposium (PUBS) for the second time in the conference history!

Over 100 students and professors from across 7 prairie universities attending made for an exciting event, where students and academics from diverse research backgrounds came together, to meet, mingle, and learn!

The Biological Sciences' 5th Annual Biology Graduate Research Symposium was held as a special session during this year's PUBS, showcasing the strength and range of our graduate researchers who call the University of Lethbridge home!

Congratulations to the winners for first and second place poster and platform presentations: 1) Diana Wilches (MSc candidate) and 2) Andrew Webb (MSc candidate) for platform presentations; and 1) Telsa Willsey (MSc candidate) and 2) Alessandra Bosco (MSc candidate) for poster presentations.

Thank you to the attendees, presenters, volunteers, judges, plenary speakers, and sponsors for participating in and supporting PUBS 2016!!!

Special thanks goes out to Theresa Burg and Sheila Matson for all of their help and guidance as well! This event would not have been as successful as it was without the hard work and dedication of the organizing committee - a very special 'thank you' goes out to Catalina Fernandez, Jody Heerema, Greg Holmes, Reyhaneh Pordel, Diana Wilches, and Telsa Willsey for their time and efforts

And to Sylvia Chow, who put the group together - you deserve special mention and thanks for the extraordinary amount of work you orchestrated and put in to make PUBS the success it was.

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BIO-BUZZ Newsletter

Above is the latest newsletter from the Department of Biological Sciences at the University of Lethbridge. If you no longer wish to receive this newsletter, forward this email to biology@uleth.ca with a message asking us to remove you from our mailing list OR unsubscribe using the link below.

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