



Department of Biology Newsletter

April 15, 2019

UNIVERSITY OF VICTORIA

Shea Wyatt, Varela Lab – CABIOS Internship



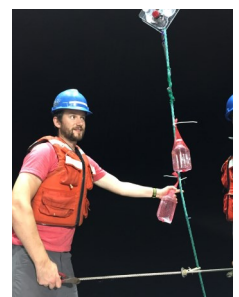
International research and collaboration are excellent opportunities for graduate students and young scientists to expand their professional network, engage in unique and exciting science, and have meaningful experiences beyond the borders of their own country. As a PhD student in biological oceanography under the supervision of Dr. Diana Varela, a large portion of my work involves ocean expeditions to various locations in order to conduct experiments and collect samples. I study diatoms, one of the most abundant and biologically important members of the marine phytoplankton

community. Diatoms contribute to everything from producing oxygen and being at the base of food webs, to sequestering carbon through the biological carbon pump and controlling dissolved silica concentrations in the global biogeochemical silicon cycle. My original intent was to study the process of silicification and the effects of ocean acidification on diatoms in the temperate and Arctic waters that are typically studied by students in the Varela lab; however, when I first started grad school little did I know that I would soon have the opportunity to take my research to the sunny island of Bermuda! The Bermuda Institute of Ocean Sciences (BIOS) is a marine research and education institute, located in St. George's, Bermuda. Founded in 1903, the Institute has a small university-style campus that contains research facilities, housing, and all of the support infrastructure necessary to facilitate world-class oceanographic and biological research. One of the most notable oceanographic research programs in the world, the Bermuda Atlantic Time-series Study (BATS) is operated by BIOS, and has been in operation since 1988, providing data on the temporal variability of the ocean and climate change. In addition to many other research programs, BIOS also facilitates many education programs. In May 2018 I was successful in applying as a graduate student intern to the Canadian Associates of BIOS, which funds students to spend up to 12 weeks living and working at the research station, either conducting their own original research sponsored by a BIOS faculty member or working directly on a project originating at BIOS.

The research that I proposed to conduct in Bermuda was an extension of my research at UVic, and took place from September to November of 2018. Transporting my field research program to Bermuda was a monumental undertaking in many ways. Typically, I load equipment and supplies onto a Coast Guard ship and sail from Victoria and then return a few weeks later. In this case I had to find a way to bring along my irreplaceable essentials and then borrow or ship everything else from a multitude of sources. In that respect I am indebted to my BIOS sponsor, Dr. Damian Grundle (UVic Alumni), the BATS program, and other scientists and technicians working at BIOS. Thanks to all of them, I successfully completed a 2-week transect during September that sampled across the North Atlantic Subtropical gyre, crossing from Bermuda to Puerto Rico and back again. I also completed two additional cruises to the BATS sampling station in October and November, and performed a week-long ocean acidification experiment using the environmental chamber facilities available at BIOS. I was also able to complete some lab analyses and prepare many samples for the return home. Results from the time and energy spent in Bermuda will form one chapter of my dissertation and at least one separate publication. I also just returned from the ASLO2019 conference in Puerto Rico, where I travelled again as a CABIOS student and presented preliminary results from my ocean acidification experiment. In addition to the hard work and endless hours spent on a ship and in a lab, there were many opportunities for fun and recreation. I was only one of many research interns at BIOS, with other students ranging from senior undergraduates to post-graduates from universities in the US, UK, Canada, Panama, and Bermuda. Despite having more than a few years of seniority and a lot more grey hair than all of them, we built friendships and indulged in all that Bermuda had to offer. The whole experience was extremely positive and will offer many future opportunities to come. For students who are interested in similar opportunities and whose interests range from microbiology to corals to ocean chemistry or atmospheric monitoring, more details on the next rounds of CABIOS internships can be found here: <http://bios.edu/education/canadian-associates-of-bios/>

Inside this issue

SHEA WYATT, GRADUATE STUDENT VARELA LAB	1
SEMINARS	2
CALENDAR	2
BIOLOGY ORAL EXAMINATIONS	2
LAB NEWS	2
BIOLOGY HONOURS DEFENCES 2019	3
MASTER MINDS 2019	4
FOREST BIOLOGY SYMPOSIUM	4
WORKSHOPS	4
UNIVERSITY OF VICTORIA LEVIN FEST	5



Biology Seminars, Everyone Welcome!

Biology

Therese Frauendorf

PhD Exit Seminar
Department of Biology,
UVic

“The effect of climate change and introduced species on nutrient cycling in tropical island streams”

Friday, April 26 2019
at 3:30 pm in MSB 150

Biology

Piata Marques

PhD Exit Seminar
Department of Biology,
UVic

“How studying a wide-spread invasive species can help us understand the effects of urbanization ”

Friday, May 3, 2019
at 3:30 pm in MSB 150

Biology

Gerry Gourlay

PhD Exit Seminar
Department of Biology,
UVic

“TBA”

Friday, May 10, 2019
at 3:30 pm in MSB 150

Biology

David Ma

PhD Exit Seminar
Department of Biology,
UVic

“TBA”

Friday, May 24, 2019
at 3:30 pm in MSB 150

Calendar

Important Dates :

Friday, April 19

Monday, April 22

Saturday, April 27

Friday, May 3

Monday May 6

Good Friday

Easter Monday

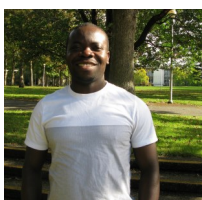
Examinations end for all faculties. End of Winter Session

Senate meets

May-Aug courses begin for all faculties



Biology Oral Examination



Kennedy Boateng, PhD

Supervisors: Drs. Barbara Hawkins and Peter Constabel

Thursday, April 18, 9:30 am, ECS 130

“Red alder (*Alnus rubra*) defense mechanism against western tent caterpillar (*Malacosoma californicum*) defoliation”

Lab News

Congratulations to Chloe Christensen and Rhea Ashmead

Chloe and Rhea have won the prestigious 2019 World Symposium on Lysosomal Storage Diseases Young Investigator Awards. The Young Investigator Awards are eligible to graduate students and post-doctoral graduates who completed their doctorate program within the past 3 years. These awards provide a scholarship to the recipient as first author to present their work at the Lysosomal Biology and Lysosomal Storage Disease *WORLD Symposium* 2019. This is an international competition and there are a total of 10 such awards for 2019. This year’s winner include young scientists from U.S., Japan, South Korea, Brazil, and Canada. They were honoured at the Award Ceremony and Opening Reception of the 2019 Symposium in Orlando, FL. To read more, click [here](#).

Biology Honours Defences 2019

All defences will be held in Elliot 160.

Monday, April 15

Penelope Young @9:00 am

Supervisor: Dr. Nashmi

External Examiner: Dr. Chow

"Tyrosine phosphorylation and the assembly of $\alpha 7$ neuronal nicotinic acetylcholine receptors"

Konrad Suesser @10:30 am

Supervisor: Dr. Christie

External Examiner: Dr. Nashmi

"Fasting and synaptic plasticity 1"

Danial Hunter @1:30 pm

Supervisor: Dr. Reimchen

External Examiner: Dr. Darimont

"Salmon and black bear colour morphs"

Brandon McNabb @3:00 pm

Supervisor: Dr. Varela

External Examiner: Dr. Dower

"Diatoms and ocean acidification"

Tuesday, April 16

Erin McDonagh @9:00 am

Supervisor: Christie

External Examiner: Dr. Gil-Mohapel

"Mild brain injury in mice"

James Choi @10:30 am

Supervisor: Dr. Christie

External Examiner: TBA

"Fasting and synaptic plasticity 2"

Callie Green @1:30 pm

Supervisor: Dr. Brown

External Examiner: Dr. Chow

"Adam17, microglia and microbleeds"

Sarah Martin @3:00 pm

Supervisor: Dr. Walter

External Examiner: Dr. Nashmi

"Neuromelanin, light and cultured neurons"

Wednesday, April 17

James Hui @9:00 am

Supervisors: Drs. Willerth and Nashmi

External Examiner: TBA

"Motor neuron pathfinding"

Nora Morrison @10:30 am

Supervisor: Dr. von Aderkas

External Examiner: Dr. Hawkins

"Cycas revoluta secretions"

Talen Rimmer @12:00 pm

Supervisor: Dr. Juanes

External Examiner: Dr. Gemmrich

"Ferry wakes and clam gardens"

Robyn Sahota @1:30 pm

Supervisor: Dr. Stevens

External Examiner: Dr. Page

"Diet variation among west coast zooplankton"

Kennedy Nikel @3:00 pm

Supervisor: Dr. Winchester

External Examiner: Dr. MacKinnon

"Van Isle insect biodiversity and biomass"

Thursday, April 18

Beatrice Gentili-Hittos @9:00 am

Supervisor: Dr. Allen

External Examiner: Dr. Marr

"Angiosperm diversity on Vancouver Island"

Jessica Fraser @10:30 am

Supervisor: Dr. Perlman

External Examiner: Dr. Allen

"Host-parasitoid interactions and sex ratio in *Drosophila testacea*"

Nelson Perks @12:00 pm

Supervisor: Dr. Baum

External Examiner: Dr. Page

"El Niño and coral recruitment at Kiritimati"

Mackenzie Woods @1:30 pm

Supervisor: Dr. Juanes

External Examiner: Dr. Marx

"Noise, noise, noise and the plainfin midshipman"

Emma Wells-Durand @3:00 pm

Supervisor: Dr. Choy

External Examiner: Dr. Walter

"Editing the enzyme, glucocerebrosidase"

Master Minds 2019

Master Minds Lecture Series 2019

Every year since 2006 a new roster of entertaining speakers delve into their personal passions to bring you engaging and visual presentations on an eclectic range of subjects.

All talks take place from 7:00 to 8:30 pm.

Masterminds is sponsored by the UVic Retirees Association and UVic's Institute on Aging and Lifelong Health, with support from the University.



Arthur O'Meara and land claims in BC, 1900-1928—The story of an early 20th Century Indigenous land rights case

Hamar Foster

April 17, 2019

Harry Hickman Building, room 105

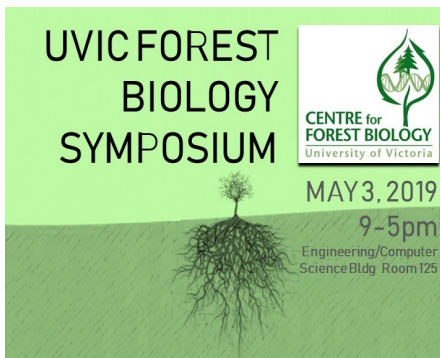
Creating a "One Planet" region: Healthy cities in the 21st century—Creating a healthier and more sustainable Victoria

Trevor Hancock

April 24, 2019

Harry Hickman Building, room 105

Forest Biology Symposium



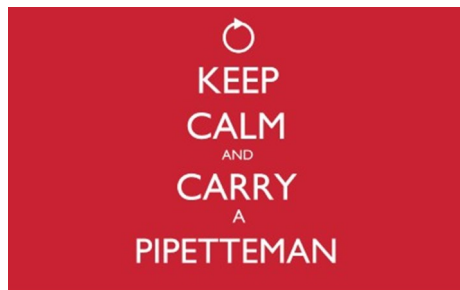
The 2019 UVic Forest Biology symposium will be held at the University of Victoria on Friday, May 3, from 9:00 am to 5:00 pm in ECS 125.

Keynote speakers will include Dr. Jörg-Peter Schnitzler from the German Research Center for Environmental Health (Helmholtz Zentrum München) and Dr. Melanie Jones from the University of British Columbia - Okanagan.

Registration is free and everyone is welcome. Those who wish to attend should RSVP to forestbiology@uvic.ca.

Workshops

Vancouver Molecular Biology Workshop



The Michael Smith Labs Present their annual MOLECULAR BIOLOGY WORKSHOP at the University of British Columbia on June 17 to 21, 2019 (CAN\$1500).

This intense five-day workshop will focus on a myriad of different techniques used in the molecular manipulation of DNA, RNA and protein, as well as inclusion of lectures of high throughput genomic techniques. Primarily aimed at researchers who are new to the area, familiar but require a quick updating, or would like more practical bench training. Hands on techniques covered include: Various nucleic acid purification methodologies (silica bead, organic, and/or pl based), restriction digests, ligations, dephosphorylation assays, agarose gel electrophoresis, transformation (including electroporation), PCR, reverse transcriptase assay, real time qPCR, SDS-PAGE, Western blot analysis, Isoelectric focusing strips, and 2D protein gels. This also includes theoretical and hands-on work on Next Gen Sequencing (using an Ion Torrent set up).

To register or inquire about the workshop, please contact Dr. David Ng at db@mail.ubc.ca or 604-822-6264.

More information can be found [here](#)



University
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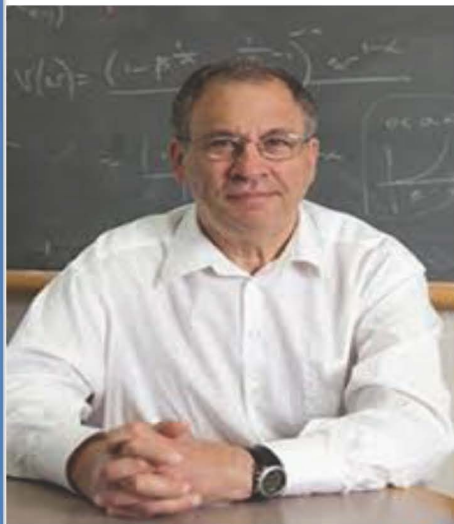
University of Victoria Levin Fest

Saturday, June 15, 2019

9:00 am – 5:00 pm

Bob Wright Centre A104

A Symposium at the Intersection of Mathematics and Biology



Keynote Speaker: Dr. Simon Levin

*J.S. McDonnell Distinguished University Professor
in Ecology and Evolutionary Biology*

Princeton University

*To celebrate the conferral of
UVic Honorary Doctor of Science
to Dr. Levin*



Sponsors



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of Victoria**
Science

To register: Contact events.eplify.com/LevinFest2019 before May 15, 2019.

Contributed Presentations:

Oral presenters will be selected from submitted abstracts.

To submit an abstract for a talk: Please submit a title, list of authors, abstract (200 words max) and affiliation before May 1, 2019 to:

Kristina McKinnon, pims@uvic.ca or events.eplify.com/LevinFest2019

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