BOGS NEWSLETTER

Photo by Loay Jabre, on a research cruise in Iceland

UPCOMING EVENTS...

DARWIN'S BIRTHDAY
FEBRUARY 12
TRIVIA AND PRIZES!

PI DAY
MARCH 14
THE ULTIMATE PIEMAKING CONTEST

LETT SYMPOSIUM
APRIL 2022
SHARE YOUR RESEARCH WITH THE DEPARTMENT!

BIOBALL
APRIL 2022
TIME TO CELEBRATE!

GRADUATE APPRECIATION NIGHT
LATE WINTER - TBD
WINE AND CHEESE ANYONE?

AND MORE!

See you there!

Hey, BOGS!

We've been met with many challenges this year, but looking back, I will fondly remember the great lengths that members of **BOGS** have gone to in making our department a fulfilling and wonderful place to be! I am constantly amazed at the kindness, generosity, and resilience I see in our department.

This year, we welcomed many new students, including some who have joined our executive team. A huge shoutout to **Samantha Crowley** (Secretary), **Jasmine Talevi, Samantha Beal, and Amy Irvine** (BioCoffee Team), and **Emily Yeung and Ellie Weise** (BioBall Organizers) for taking up these important roles in our department!

We also certainly can't forget the wonderful job **Megan Roberts and Scott Pollara** did in organizing our Fall Retreat - replete with wonderful food, company, mycology training, and nature exploration.

I wish you all an excellent 2022, and look forward to the many memories we will share in the new year!

Melanie Massey, President

Important Notice!

Please note that our website is now
dalbogs.weebly.com !
You can find out exec contact information, see the graduate handbook, and much more!
Our **Facebook Group** is also very active - search for
'Dalhousie's BOGS Biology Organization of Graduate Students'!

RECENT CONTRIBUTIONS

We've been busy...!

Amy L. Irvine et al. Hatching success of Common Murres *Uria aalge* is linked to the number of neighbours and resource availability. Marine Ornithology 49: 229-240.

Loay J. Jabre et al. Molecular underpinnings and biogeochemical consequences of enhanced diatom growth in a warming Southern Ocean. 2021. PNAS. 118 (30). https://doi.org/10.1073/pnas.2107238118.

This paper provides fresh insight into how changing temperatures and micronutrient availability influence Southern Ocean phytoplankton growth and nutrient availability in other ocean regions. Find out why and how!

Stewart DT, **Brent Robicheau**, **Nour Youssef**, et al. 2021. Expanding the search for sperm transmission elements in the mitochondrial genomes of bivalve mollusks. Genes 12:1211.

Adams SJ, **Brent Robicheau**, et al. 2021. Foliar endophytic fungi from the endangered Eastern Mountain Avens (Geum peckii, Rosaceae) in Canada. Plants 10:1026.

Haas S, **Brent Robicheau**, et al. 2021. Physical mixing in coastal waters controls and decouples nitrification via biomass dilution. PNAS 118: e2004877118.

Stewart DT, Stephenson CM, Stanton LM, Chase EE, **Brent Robicheau,** et al. 2021. A proposed method for analyzing molecular signatures to detect hermaphroditism in freshwater mussels: a case study using Pyganodon cataracta (family Unionidae). Canadian Journal of Zoology 99:450-458.

Walker AK and **Brent Robicheau**. 2021. Fungal diversity and community structure from coastal and barrier island beaches in the United States Gulf of Mexico. Scientific Reports 11:3889.

MORE CONTRIBUTIONS...

*We've been **very busy!***

Want some great tips on choosing your next supervisor?

Suchinta Arif, Melanie Massey, Natalie Klinard, Julie Charbonneau, Loay Jabre, Ana Barbosa Martins, Danielle Gaitor, Kirton, R., **Catalina Albury,** et al. 2021. Ten simple rules for supporting historically underrepresented students in science. PLoS Computational Biology. e1009313.

Loay Jabre, Cat Bannon, J. Scott McCain, Yana Eglit. 2021. Ten simple rules for choosing a PhD Supervisor. PLoS Computational Biology. e1009330.

Melanie Massey et al. 2021. Thermal variability during ectotherm egg incubation: A synthesis and framework. Journal of Experimental Zoology, 335(1): 59-71.

How can we better support BIPOC folks in ecology?

Melanie Massey, Suchinta Arif, Catalina Albury, and Cluney, VA. 2021. Ecology and evolutionary biology must elevate BIPOC scholars. Ecology Letters, 24(5): 913-919.

Scott McCain., et al. Proteomic traits vary across taxa in a coastal Antarctic phytoplankton bloom. The ISME Journal (2021). https://doi.org/10.1038/s41396-021-01084-9

Scott McCain, et al. Cellular costs underpin micronutrient limitation in phytoplankton. Science Advances. (2021). 7(32). DOI: 10.1126/sciadv.abg6501

THIS YEAR'S HIGHLIGHTS

We enjoyed an incredible retreat at the Deanery Project thanks to **Megan** and **Scott!** *Credit: Brent Robicheau*

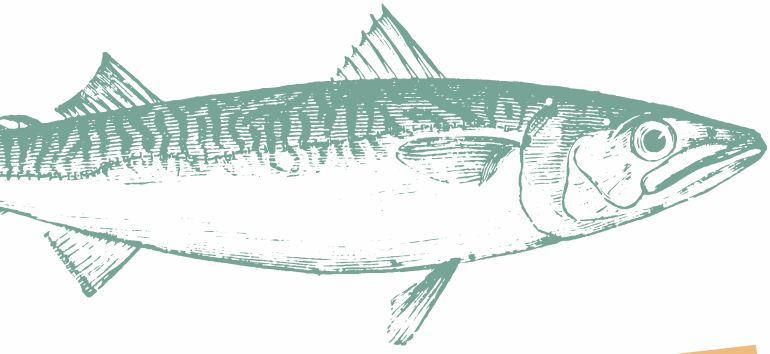
The great cookie swap brought holiday cheer to many! Thank you **Gaby, Laura, Ana, and Megan** for organizing this yummy event!

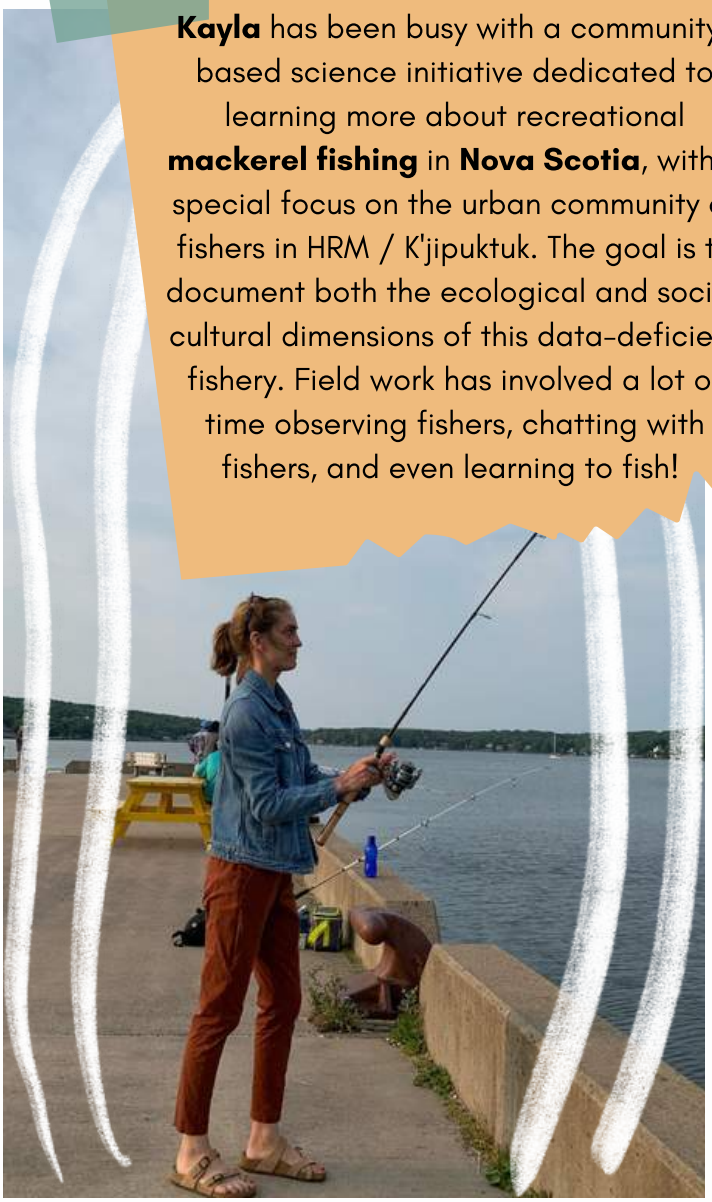
Chef **Scott Pollara** and his team of sous chefs including **Brent** and **Cat** cooking up a storm at the graduate retreat! *Credit: James Kho*

Many expert mycologists were made during the mycology workshop! *Credit: James Kho*

Cozy winter campfires were had at the retreat at the Deanery Project.
Credit: James Kho

FIELD HIGHLIGHTS



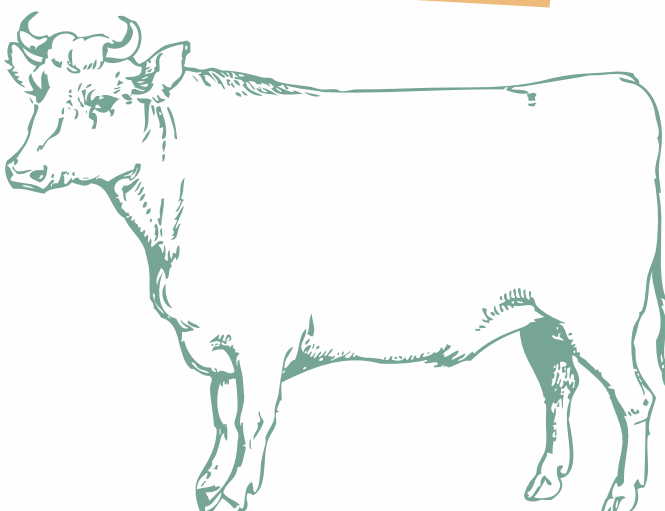


Kayla has been busy with a community-based science initiative dedicated to learning more about recreational **mackerel fishing** in **Nova Scotia**, with a special focus on the urban community of fishers in HRM / K'jipuktuk. The goal is to document both the ecological and socio-cultural dimensions of this data-deficient fishery. Field work has involved a lot of time observing fishers, chatting with fishers, and even learning to fish!

FOR PROJECT UPDATES OR TO GET INVOLVED, FOLLOW @GOFISHNS ON FACEBOOK OR INSTAGRAM.

For my summer I worked at an NGO in **Gimli, Manitoba** called the "East Interlake Watershed District" (**@Eastinterlakewd**). I was a project coordinator and worked with landowners to create and enhance wetlands and grasslands on their farm, among other tasks such as providing advice on how to make their farm more environmentally friendly (solar powered wells, fencing cattle from streams, shelterbelts, etc.).

- **Amy Irvine**



TALES FROM ICELAND

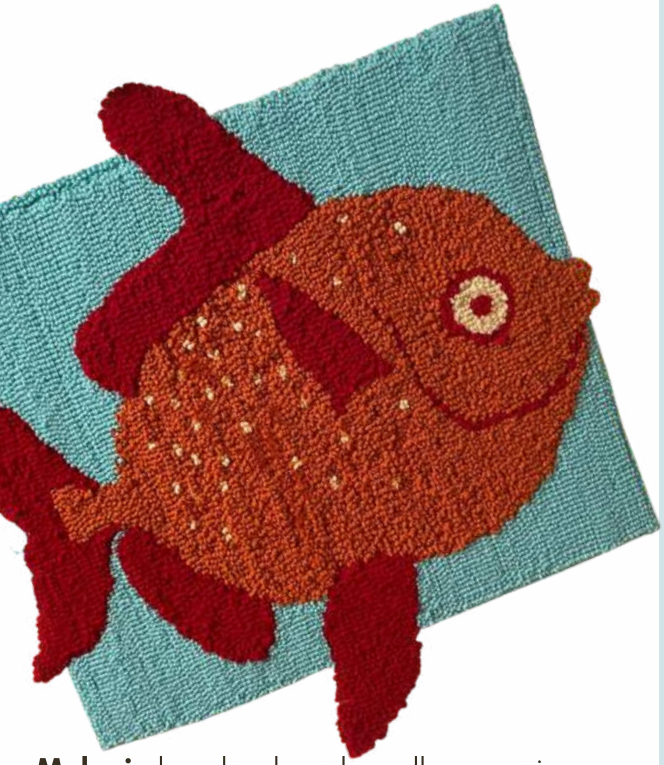
This past summer I flew to **Reykjavík**, hopped on a big research vessel (RV Pelagia from the Royal Netherlands Institute for Sea Research), and circumnavigated Iceland with an incredible team of scientists including Lena Beckley (MSc student, Bertrand Lab) to study phytoplankton dynamics in the Greenland-Iceland-Norwegian Sea region. This key oceanographic region is experiencing rapid climate change but remains understudied. On that account, we collected **thousands of samples** (phytoplankton, water chemistry etc.) and performed experiments at various locations to better understand how temperature and trace-metals influence the region's phytoplankton growth today and in the future.

In addition to hosting fascinating science, this month-long expedition -dubbed **MetalGate**- was packed with adventure and breathtaking scenery. We gazed at Greenland's massive snow-covered mountains, experienced midnight 'sunsets' and encountered several species of whales and seabirds - I can tell you what some of those species taste like. I asked a lot of questions, learned so much about so many things, forged new collaborations and made many new friends. I left MetalGate with new curiosities, a rejuvenated excitement to continue my research, and an entirely new perspective on science. I was very fortunate to receive a **Hugh C. Morris fellowship** to support my journey onboard RV Pelagia and many more adventures in the future - ***let's chat about how you can apply for this fellowship too!***

Loay Jabre - Hugh C. Morris Fellow, PhD Candidate (Bertrand Lab)

BOGS ARTWORK

Brent has taken up linocut and is making biology-inspired prints!

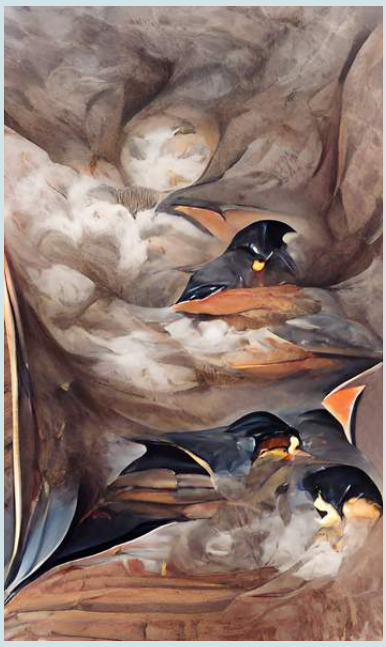


Melanie has developed an all-consuming rugmaking hobby. Pictured here: an Opah rug!

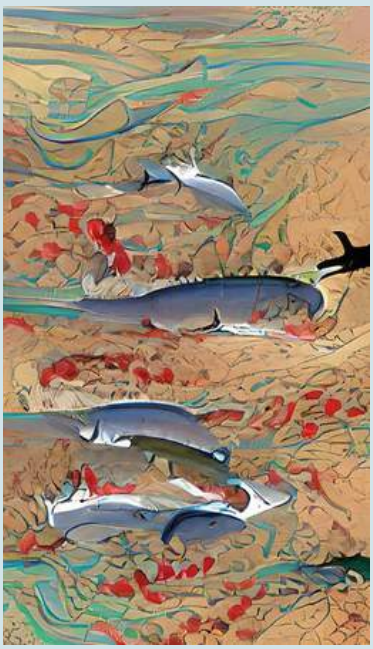
Fun with AI...

The following works were generated by AI using publication prompts! Try it yourself at wombo.art!

Ellie Weise: *Evaluating Genomic Estimates and Reconstructed Pedigrees as Assessment Techniques for Sea Lamprey Populations*



Hilary Mann: *Multiple brooding in barn swallows: extrinsic determinants and implications for conservation*



Hunter Stevens: *The transcriptomic profiles and marine migration success of canadian atlantic salmon*

Last but not least...

CONGRATULATIONS!

Shoutout to our graduating movers and shakers!

Connor Mackie • Liam MacNeil • Sarah Salisbury • Mili Sanchez • Hunter Stevens • Noor Youssef