

SPRING 2020

BOGS

SEASONAL NEWSLETTER

April Mayflowers from Digby County, N.S.



In this issue...

Defences • Advice • Sourdough
News & Views • Recent Publications

Greetings Biology Dept. Citizens,

I recently made an interesting Freudian slip by telling my family that I was going to rearrange my "department" instead of "apartment" for something to do...needless to say...I must miss you all quite dearly! This time around, our BOGS members have prepared quite the treat for our readers. Not only do we have our first ever thesis defence reviews, but also advice and recipe columns. A million thanks to **Chad, Melanie, Anik,** and **Sydney** for their excellent contributions! Although our social calendar was cut short this past term, there were still plenty of exiting BOGS events that occurred since our last newsletter, and likewise plenty of folks to thank.

Thanks to our awesome social coordinators, **Mili** and **Elizabeth**, BOGS hosted our annual **BioWeen** and **Holiday Party** events (featuring group painting). Back by popular demand, our 2nd annual **Pi Day Pie Competition** was a huge hit; thanks again to **Loay** et al. for organizing and to all those who donated pies, judged the contest, and participated! A million thanks goes out to all those who participated and helped during our two fundraisers this past year (our **Bake Sale** and **Plant Sale**). And a special thanks goes to **Georgia** (lead organizer), as well as **Chad, Connor,** and **Noor** who helped make our plant sale such a major success (selling out before lunchtime!). Our penultimate event of the season turned out to be our yearly **Hockey Night Adventure** at the Scotiabank Centre. As per tradition, all attendees had tons of fun! Furthermore, a major shout-out goes to all the folks who worked extremely hard to organize our currently postponed major BOGS events. Especially to **Chad** and **Melanie** for planning the **Lett Symposium** and to **Noor** for helping me plan **BioBall**. The BOGS exec eagerly awaits our return to social activities so we can reschedule these two celebratory events (in some form).

On a final note...to all those BOGS members out there with questions, or wondering how they too can be active leaders on such a fun student society, I would encourage you to reach out at dalbogsedal.ca.

We are always ready to help our fellow Bio Grads!

Until next time,

Brent Robicheau (BOGS President)

UPCOMING BOGS EVENTS

Weekly Events:

Cyber BioCoffee

Tues @ 10:30am

FISH Talks (during Fall/Winter)

Fri @ 3:30pm (as posted)

Cyber BioBeer

Fri @ approx. 4pm (as advertised)

Questions?

BOGS Social Coordinators:

Mili S. // mili.sanchez@dal.ca

Elizabeth Z. // Elizabeth.Zwamborn@dal.ca

ADVICE

Written by **BOGS Exec** (but mostly **Chad S**)

FOR THE HOUSEBOUND GRAD STUDENT

"As the smell of sourdough hung in the air, graduate students during the summer of 2020 were best seen hunched over their computers but not in their usual habitat. During the Covid-19 outbreak they were driven to their homes, all the while wondering how to work under these new pandemic challenges." This description is likely what future biologists will read when learning about grad-life during a global pandemic. Like many of us, you might be putting tough expectations on yourself and thinking that you should be taking this opportunity to learn a new language, or instead considering how to build a testable string theory. Although self-transformations and positive-affirmations are admirable pastimes, it is important to remember there is absolutely no need to change your life. If you don't want to train for a marathon, then don't. There is no need for that. Of course, if you really want to start a new hobby...you do it! You just don't need to feel as if you have to. Regardless of how you choose to self-reflect and proceed during a global pandemic, the fact remains that working from home sucks! There are so many distractions, and honestly melting into the couch sounds a lot better than figuring out the correct correlation matrix for a PCA. In an effort to help you work on your degree while also working from home during a global pandemic, we've compiled a list of helpful tips!

Balance Work and Fun

You don't need to spend all day in front of the computer working. Take Actual Breaks!

Break = not doing any work and relaxing.

If your break does not look like this then you need to practice. Try to find a balance between work and fun that is best for you.

You are dealing with a pandemic!

Be kind to yourself.



Aim for a Reliable Schedule

Having clear guidelines for work and leisure time will help you find your balance while getting a noble amount of work done. Don't forget that this is not set in stone; be flexible and try your best... after all, that sourdough won't feed itself.

Sourdough Magic

Written and Illustrated by **Melanie Massey**

Like others, I've gone through several of the emotional stages of social isolation: disbelief, denial, guilt...anger, depression, hope...and of course, an immense desire to bake bread. (Baking bread, by far, has had the biggest emotional payoff.) Here I'll walk you through a few simple steps to start baking your own flavorful sourdough, whose characteristic tangy flavor is a result of fermentation within a co-culture of wild yeast (that's correct...you don't need to buy yeast for sourdough!) and *Lactobacillus* bacteria. Ultimately, you will create this culture and act as its caretaker, all the while using chunks of this culture to bake your bread; your culture is called your starter, though you can give it a name (and I promise, this is perfectly normal!). Making a thriving starter will take approx. 1 week, and all you need is flour + water. I haven't been much of a baker in the past, but making my own sourdough starter (her name is Baby Sydney, after my sister, by the way) has brought a joy into my life that I didn't know I needed. The world outside is scary right now, but there's something magical and peaceful about taking time out of my day to care for a cute little culture of micro-organisms. Behold, the Magic of Sourdough!



Set Rules with Others Living in your Space

Roommate or frenemy, who's to know, especially when you are trying to finish a paragraph and they are being way too loud during their Netflix party. It is critical that everyone communicates and setting quiet hours might be best for your situation.

Get Out of the House (in a Safe & Responsible way)

Don't be afraid to start your day with a walk around the neighbourhood or using your lunch break to take a bike ride on a beautiful sunny day. Getting outside in the fresh air and sunshine is great for mental health—and let's face it—you could use an airing out, it has probably been days since you last showered.

Keep a Dedicated Office Space

You don't need your own home office. All it takes is a specific space in your home that is for work time. Hunching over your laptop on the couch isn't going to cut it when you are trying to finish that literature review. It's not great for your spine either.

Don't Hesitate to Ask for Help or to Reach Out for a Friendly Chat

We are all in this together and right now is the most important time to stay connected. BOGS is still hosting weekly online BioCoffee and BioBeer and everyone would love to see you! Even if it is just a five-minute zoom call, it can make all of the difference.

Stay Positive

Remember you are a brilliant, beautiful and incredible *Homo sapien*. Your ancestors have survived five mass extinctions and you have all the strength you need to get through this.

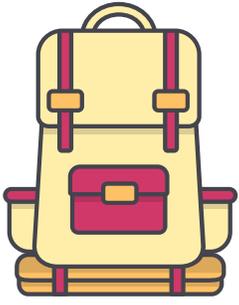
We really hope this helped you, even if it was just a little.

Get Started with a Starter:

Day 1 Thoroughly mix 1 cup flour + ½ cup water using a fork or chopstick (if you are tight on flour, try half instead). Put the paste-like mix into a large jar; 1L will work well. Let it sit for 2-3 days covered loosely with a lid or damp cloth until you see bubbles (activity!) **Day 2** Once you see bubbles, discard ½ of the starter (you will have about 1/3 cup left). Add 1 cup flour + ½ cup water. You've just given the culture its first feeding! **Days 3-7** Feed starter twice daily, about 12hrs apart (the same times each day). Each time you feed it, discard ½ (you can use the discard in a "discard recipe", such as sourdough pancakes), add 1 cup flour + ½ cup water. During these days, you're training it to feed/grow. You'll notice that a few (4-6) hours after feeding it, the culture grows and bubbles. **Days 7+** Your goal is to get the starter to double in size about 4hrs after a feeding, which tells you it is happy & mature (and importantly, ready to bake with!) Don't worry if it needs extra days. Mine took about 10! You can go ahead and find a bread recipe online to use your starter with. After this, you can store it in the fridge, feeding once per week. (If all else fails, friends always share starter with friends!)



News, Views, Endeavours & Adventures



OFI Workshop in NFLD.
Photo by **Brent R.**

Last fall, various members of the **LaRoche and Bertrand Labs** attended and presented at an **OFI Workshop in Newfoundland**. Great science, great adventures! (see left image from The Rooms Museum)

This past field season **Connor Mackie** (MSc Can.) from the LaRoche lab observed a cool **seal** (right image) while working at her field site in **Shelburne, NS**. Connor is studying the **microbial communities at fish farms**.



Seal at fish farm, image provided by **Connor M.**

Last January **Manuelle Beaudry-Sylvestre** completed her **ATC exam**, and recently gave a conference talk at **CCFFR**. **Manuelle** is investigating temporal trends in age & size at maturity of Canadian fish populations within the framework of fisheries-induced evolution. Exciting research indeed!

When not busy attending the **Canadian Conference for Fisheries Research** this past January, **James Kho**, was attending to stowaways in his field samples. James writes "Blue herring, not as cool as my study species Atlantic herring". See photos below.



Bio Grads attending **conference**; photo submitted by BOGS treasurer **James K.**



Blue herring "**stowaways**"; photo from Ruzzante lab member **James K.**



View from NW Atlantic Research Cruise.
Photo provided by **Liam M.**

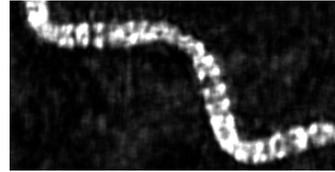
Olivia Pisano recently presented research at the **North Atlantic Right Whale Consortium in Portland (Maine)**. **Olivia** aims to develop an automated survey method that uses aerial and Very High Resolution (VHR) satellite imagery in conjunction with machine learning algorithms to detect, identify and count whales. This will be used to help understand the movements of **baleen whales in the Gulf of St. Lawrence** and their overlaps with shipping and fishing activities. BOGS looks forward to learning more about this work at a future FISH talk!

This past school year, Biology's very own **Chad Simmons** competed in the **Three Minute Thesis final competition!** Way to go Chad! Read some advice from Chad *et al.* on pg. 2

Lisette D attended a conference in Bariloche (**Argentina**) last November! Also, a **BIG BOGS Congratulations** goes out to **Sarah Salisbury** and **Lisette Delgado** who both completed their **Prelim Exams** at the end of April...and also to **Gordon Lax** who **defended his thesis!** Hip Hip Hooray!

Liam MacNeil and **Cat Bannon** journeyed off the coast of Newfoundland to explore the unique biological & chemical signatures of ocean microbes in the NW Atlantic Ocean. They were treated to early winter weather and lovely horizons (left image).

A phytoplankton (*Chaetoceros*) holographic image taken during NW Atlantic research cruise.
Photo submitted by **Liam M.**



Pies at Pi Day (yum!)
Submitted by **Connor M.**

Melanie Massie was the **first place winner** of this year's **Pi Day Pie Competition** (see Pi Pie above). Much fun was had by all. A million thanks to all those who baked glorious pies! Looking forward to next year.

This year's **BOGS holiday party** features ornament painting! Check out all the cool designs (below).



Holiday Party ornaments, submitted by **James K.**

Over the past months, **Andrea Bryndum-Buchholz** was invited to an **expert WWF workshop on Pan Arctic Marine Protected Area Network under climate Change (Netherlands)**; see photo below) and completed her **Prelim Exam. Congrats!**

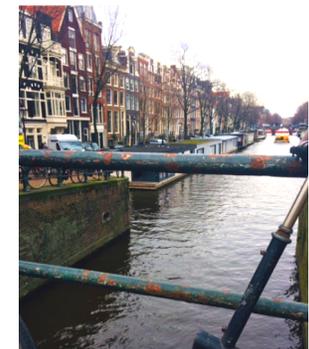


Photo taken while at workshop in **Netherlands** provided by **Andrea B-B.**

Zoom meetings not cutting it? If you're in the mood for some **extra Biology & Academia viewing content** consider the following **movie marathon lists**. Featuring primarily **Biology or School related movie hits** compiled by **Sarah S** and **Brent R.** Happy viewing!

Movie Marathon

Biology Related Films

Avatar
Finding Nemo
Princess Mononoke
Gattaca
Osmosis Jones
Jurassic Park
Lucy

School Related Films

Easy A
School of Rock
Good Will Hunting
Mona Lisa Smile
Lean on Me
Anne of Green Gables 2
Music of the Heart

Recent Publications

Congratulations to our BOGS members with new journal articles!

Bryndum-Buchholz, et al. (2020) Differing marine animal biomass shifts under 21st century climate change between Canada's three oceans. *FACETS* 5: 105-122.

Hurley I, Tittensor DP (2020) The uptake of the biosphere integrity planetary boundary concept into national and international environmental policy. *Global Ecology and Conservation* 22: e01029.

Robicheau BM, et al. (2019) Diversity and keratin degrading ability of fungi isolated from Canadian Arctic marine bird feathers. *Arctic* 72: 347-359.

Capt C, Bouvet K, Guerra D, **Robicheau BM**, et al. (2020) Unorthodox features in two venerid bivalves with doubly uniparental inheritance of mitochondria. *Scientific Reports* 10: 1087.

Defence Reflections

Anik Obomsawin and **Sydney Bliss**, members of the Leonard Lab, recently defended their MSc Theses. Here they reflect on their defences and use of the new remote presentation format. BOGS wishes them both the best of luck! May many exciting adventures await...

Q: Out of 5 Stars how would you rate a remote defence? Why?



AO: I would recommend the virtual defence! My biggest concern was figuring out the technology. Luckily, my supervisor, committee, and the department as whole were very supportive, ready to answer any questions I had, and willing to test out Microsoft Teams with me before the defence. During the defence, it was comforting seeing my committee members sitting in their home offices and hearing them talk about how they are dealing with transitioning to online operations. Presenting my research was the strangest part for me because I couldn't see anything on my screen other than my slides. I felt a bit like I was talking to myself at the kitchen table for 20 minutes! The question period was very relaxed and felt like a one-on-one conversation because I was addressing my laptop camera rather than a room full of people. To be honest, when I heard there would be no audience, I was relieved because I felt like defending in front of an audience would add to the pressure... but after the defence was over, I started to regret not being able to share my research with the people who had supported and inspired me throughout my degree. For that reason, I subtracted 0.5 star from the total rating, but all in all, it was a very positive and memorable experience.



Anik got to work with cool birds during her MSc; photo from **Anik O.**



SB: I was dreading the remote defence as I assumed it would be awkward and weird, not unlike some video calls. However, I was surprised! There were no issues with people interrupting each other or long silences since there were clear times during the defence for specific people to speak. My defence was in late March and shortly after Dal had shut down. There was so much going on in the world and so many changes to everyone's daily lives that the defence felt like a relatively small obstacle compared to everything else. Largely for those reasons, both myself and my committee were relaxed about the whole thing. It was also far less intimidating to face questions from the comfort of my apartment compared to facing a panel sitting around a table. The biggest negatives were that I was unable to have any friends attend the defence, after the call ended it all felt very anti-climatic, I closed my computer and had a nap. Though, it's probably the only time in my life where I can say I gave a major presentation wearing sweatpants. 4/5 stars, I would do it again.



Sydney also got to work with cool little birds during her MSc; photo from **Sydney B.**

