

B.O.G.S.

Seasonal Newsletter



This season's cover photo (entitled '#scientific_bling' by the newsletter's editor BMR) was provided by Sydney Bliss and taken by Hilary Mann.

Read more about Sydney's MSc research on Page 3! Or better yet, ask Sydney & Hilary about this photo the next time you see them!

Hark, a reading-week approaches

As we near the term's mid-way point (a.k.a. reading week) it's a great time to reflect on the past few months. Once again, B.O.G.S. would like to welcome this year's incoming graduate students; with a new cohort of 16 grads, it's no surprise that this year's B.O.G.S. Retreat at the Harrison Lewis Coastal Discovery Centre was one of the largest in recent history! A **million thanks** to all those who helped cook the most glorious retreat spaghetti, and a **special thanks** to Noor and Sarah for organizing such a great weekend.

Over the past months faculty & students both new and old have continued gathering for weekly departmental and FISH seminars, sharing passions for fauna & flora both small and large, and stories of field work from safari in South Africa to life on a small Arctic island.

BioBuddies, now in its 2nd year, has been continued with the goal of helping new grads meet senior students and to adjust to grad school. Ideas were exchanged at a recent B.O.G.S. Townhall, and Bioween brought epic spooky stories of microbial Eeriekaryotes, as well as 'scary' treats and laughter.

Until next time,



Beth Watson & Brent Robicheau (Presidents)

p.s. wishing you a joyous reading-week!

UPCOMING B.O.G.S. EVENTS!



Movie Night — Nov 16 (tentative)

B.O.G.S. Holiday Party — Dec 7

Regular 5th Floor Lounge Events:

BioCoffee — Tuesdays @ 10:30am

FISH Talks — Fridays @ 3:30pm (as posted)

BioBeer — Fridays after FISH Talk

Event questions may be directed to

B.O.G.S. Social Coordinators:

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Laura Feyrer
Laura Steeves
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Beth Watson

Taylor Hersh
Georgia Denbigh

Xavier Bordeleau
Rebekah Oomen



Map and stats prepared using www.travellerspoint.com

B.O.G.S. members take flight! (or in some cases set sail!)

This past summer over 71,400km were traveled by graduate students in the Dal Biology Dept. Take a look on the map above to see where we travelled to! Many of these trips were for conferences (e.g. Marine Microbes 2018 & CSEE), while others were for workshops (e.g. a Stable Isotope Ecology Course) and fieldwork.

*At least 71,400km..
that's like circling
the earth 1.8 times!*



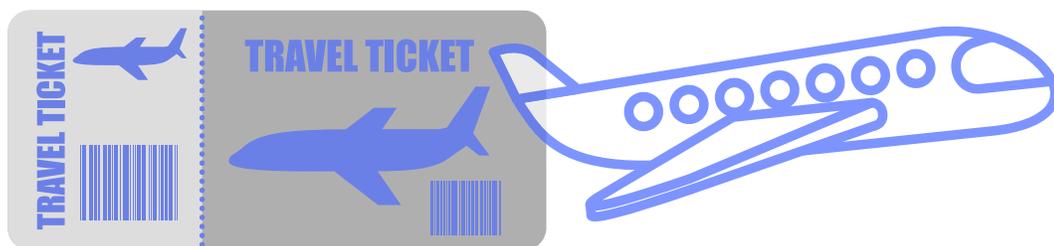
Taylor Hersh conducting fieldwork in Dominica, Trinidad, Grenada, St. Lucia, & Bequia! Picture from PhD Candidate T. Hersh (Whitehead Lab)



Sable Island Fieldwork; Picture from Sydney Bliss, MSc Candidate (Leonard Lab)



Atlantic Zone Monitoring Program Research Cruise; Picture from PhD Candidate Loay Jabre (Bertrand Lab)



BIO Research is AWESOME!

This section of the newsletter is dedicated to all the **AWESOME** things B.O.G.S. members have been doing regarding their research this past summer and early fall!

— *seriously...check out those tiny cups!*



Anik Obomsawin (MSc Candidate) hopes to figure out whether noise causes physiological stress and immunosuppression in **Tree Swallow nestlings**. Her fieldwork involved monitoring **64 active Tree Swallow nest boxes** this past summer. Picture from Anik O.



Laura Steeves (MSc Student) did field work this past summer in **Norway** exploring plasticity and adaptation in feeding traits for **wild populations of blue mussels**. Picture from Laura S.



Sydney Bliss (MSc Candidate) and her colleagues got to band **315 Ipswich Sparrows** for a mark-recapture survival study, and deployed **15 VHF radio-tags** and **10 light-level geolocator tags** for a migratory ecology study. Note that the photogenic bird pictured is wearing a tag backpack! Photo from Sydney B.



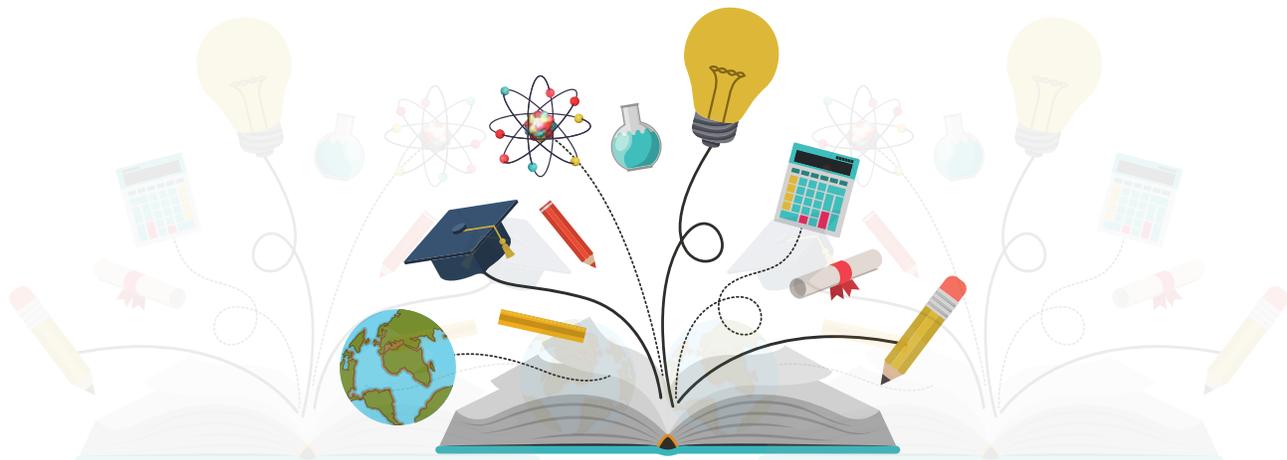
Georgia Denbigh (MSc Student; pictured above) working with the **transmission electron microscope** (always super cool!). Georgia also presented at the **Botany 2018 Conference**, and helped organize this past summer's **Atlantic Science Links Association Conference** for science teachers. Picture from Georgia D.



Taylor Hersh (PhD Candidate) helped collect **8,220 photographs of sperm whales** during their lab's past field season. Whales and sailboats, what more could a graduate student wish for! Picture provided by Taylor H.



Maria Soto and Loay Jabre (PhD Candidates) got to experience the **Scotian Shelf** during their fieldwork this early fall. They collected **protein, DNA, and vitamin samples for microbial studies**. After much work, they also got to *shrink* styrofoam cups using the pressure from **4000 meters** below sea level! Picture from Loay J.



Recent Publications

Congratulations to our B.O.G.S. members with new publications this past season!

Strople LC, Filgueira R, Hatcher BG, Denny S, **Bordeleau X**, Whoriskey FG, Crossin GT. 2018. The effect of environmental conditions on Atlantic salmon smolts' (*Salmo salar*) bioenergetic requirements and migration through an inland sea. *Environmental Biology of Fishes* 101: 1467–1482.

Bordeleau X, Hatcher BG, Denny S, Fast MD, Whoriskey FG, Patterson DA, Crossin GT. 2018. Consequences of captive breeding: Fitness implications for wild-origin, hatchery-spawned Atlantic salmon kelts upon their return to the wild. *Biological Conservation* 225: 144–153.

Hersh, TA, Dimond, AL, Ruth, BA, Lupica, NV, Bruce, JC, Kelley, JM, King, BL, Lutton, BV. 2018. A role for the CXCR4-CXCL12 axis in the little skate, *Leucoraja erinacea*. *American Journal of Physiology: Regulatory, Integrative, and Comparative Physiology*, 315: 218–229.

Robicheau BM, Chase EE, Hoeh WR, Harris JL, Stewart DT, Breton S. 2018. Evaluating the utility of the female-specific mitochondrial *f-orf* gene for population genetic, phylogeographic and systematic studies in freshwater mussels (Bivalvia: Unionoida). *PeerJ* 6: e5007.

Moland S, **Robicheau BM**, Browne R, Newell R, Walker AK. 2018. Determining the effects of biochar and an arbuscular mycorrhizal inoculant on the growth of fowl mannagrass (*Glyceria striata*) (Poaceae). *FACETS* 3: 441–454.

Rowarth, NM, and MacRae, TH. 2018. Post-diapause synthesis of ArHsp40-2, a type 2 J-domain protein from *Artemia franciscana*, is developmentally regulated and induced by stress. *PloS one*, 13(7): e0201477.

Rowarth, NM, and MacRae, TH. 2018. ArHsp40 and ArHsp40-2 contribute to stress tolerance and longevity in *Artemia franciscana*, but only ArHsp40 influences diapause entry. *Journal of Experimental Biology*, 221: jeb189001.