While the summer is winding down, our sustainability efforts continue to ramp up! Join us on Thursday, August 27 from 12:00pm - 1:00pm in WSC 187 for another great learning lunch. You’ll have the chance to hear about the tremendous progress the Dean’s Office has made in our collective efforts to create a more sustainable workplace environment, and discover the next steps in our plans for enhancing sustainability in the Dean’s Office. We look forward to seeing you there!

Malicious Mercury

The beautiful Ivory Gull has long had a home in Canada’s far north, but an alarming rise in mercury levels may be jeopardising the future of this snowy bird. With only 400-500 breeding pairs left in the world, Professor of Biology Brian Branfireun has been studying why this arctic scavenger bird has suffered a foreboding drop in population over the last few decades.

While there are many factors which contribute to the decline of a species, it is becoming increasingly clear, in this case, that one substance is largely to blame. Branfireun, Director of the Biotron, along with Alexander Bond from the Royal Society for the Protection of Birds, tested century-old feathers from museums to establish a baseline concentration for this deadly substance. They found that mercury levels in Ivory Gulls have risen nearly 50 times over a period of 130 years, when the feathers were first collected.

Making matters worse, the source of all this extra mercury is not natural, and likely comes from industrial activities like burning coal and metal smelting. The high arctic is not immune to the results of such human activity. The deadly element expelled from these processes eventually finds its way into the water, where it works its way through the food chain and collects in the top marine predators. Being a scavenger, the Ivory Gull eats the fat from predators’ carcasses and ingests the accumulated substance.

Hope is not lost for these creatures however, as steps to modify industrial practices are underway. In 2013, Canada, along with 128 other signatories, signed on to the Minimata Convention which bans new mercury mines and includes new control measures on air emissions.

It will take a very long time for the contamination to cycle out of the ecosystem, but research like Branfireun’s will certainly inform and help drive public policy, changing tactics and processes to ensure the continued health of the environment.