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Iceberg in Baffin Bay at 73°N in the Canadian Arctic. Photo by Clara Thaysen

THE ARCTIC FROM LAND AND SEA

A Photo Essay



IN AUGUST OF THIS YEAR, Clara Thaysen (Rochman lab, St.G) boarded the Canadian Coast Guard Ship Amundsen for a month-long research cruise in the Qikiqtaaluk (aka Baffin) Region off the coast of Nunavut. Working alongside Environment Canada, Clara spent the month taking samples of water, soil, air, and zooplankton to better understand chemical contamination levels in the Arctic. Many of these chemicals originate elsewhere and are brought north through wind and ocean currents. The work, she notes, "was part of a long-term government program to monitor the fate of contaminants from the south, in the north".

At the same time, Russel Turner (Fortin lab, St.G) was dangling from an arctic cliffside to collect egg data and fit GPS units onto the backs of nesting sea birds (see Russel's description of his work on page 79). Russell's work brought him to three very different arctic locations and in collaboration with several teams of researchers and locals.

Luckily for us, they both brought their cameras. Taken together, these photographs - Clara's from the sea and Russell's from the land - create an intimate portrait one of the most wild, beautiful, and imperiled ecosystems earth.



Thick-billed murres and their chicks crowd a cliff on Coats Island in northern Hudson Bay. Russell Turner photo.



Snow melt trickles into Southwind Fjord on Baffin Island. Clara Thayesen photo.

**A view of Southwind
Fjord on Baffin
Island from the deck
of the CCGS
Amundsen. Photo by
Clara Thaysen.**







Russell Turner on Birding in the Arctic

This past summer, I had the lucky opportunity to spend three months at various sea bird colonies in northern Hudson's Bay. The first stop was East Bay Island off of Southampton Island in Nunavut. Here, my co-workers — other grad students from around Canada, Environment Canada researchers and local Inuit from Coral Harbour — study the demography and reproductive ecology of common and king eiders. We arrive to a tiny, completely snow-covered island by Twin Otter aircraft, landing directly on the sea ice. We are met with three feet of snow covering the entire island. Over the coming days, as the snow quickly melts, eiders start flocking to the island by the hundreds to scout out potential breeding sites. Once the eiders settle in, we are in full swing of our studies. This includes capturing and banding eiders, using high powered spotting scopes to re-sight previously banded birds, and setting up motion sensor cameras to capture female hens fleeing their nests from hungry polar bears that frequently scavenge on the island. The days are long and tiring, the air is crisp, but strong coffee and the opportunity to pretend you are filming the next National Geographic documentary motivate us to keep going.

After six weeks of nothing but ducks, I was whisked away via helicopter only 8 km away to East Bay Island Shorebird Camp. Here, an entirely different team of researchers and Inuit spend their days walking up to 20km in search of shorebird species. Avoiding the freshwater ponds, we walk in zig-zag patterns across the tundra hoping to stir up tiny nesting shorebirds. At times it feels like we are trying to find a needle in a haystack, as the shorebirds are perfectly camouflaged to their

environment and often don't flush (fly up from their nest) until we are within 3-5 meters. Once a nest is found, we identify the species, count and float the eggs, and then begin monitoring the nest every several days to better understand this critical stage of the breeding cycle. At the shorebird camp we are frequently visited by curious caribou who are not familiar with humans and come very close to investigate. When we stop for lunch or a water break, we are frequently visited by caribou herds. It was really an amazing experience.

After two weeks of wandering across the tundra, I boarded another Twin Otter and flew 125km south to Coats Island. I spent another six weeks at the Coats Island seabird camp which primarily studies the breeding ecology and movement patterns of thick-billed murres. This particular colony of murres contains roughly 30,000 individual birds that nest on 80 cliffs above the ocean. Here we climb up and down cliffs to monitor the breeding efforts of different plots and to capture birds to deploy GPS "backpacks." These backpacks stay on the birds for up to four days, giving us an idea of how far they travel to feed and providing information about what they are feeding on. Anyone who has spent time at a Murre colony knows that they are famous for their laughing demeanour and smell. The cliffs give off a foul odour which attracts a lot of predators. The cliffs are frequently visited by polar bears and Arctic fox. We would often see the foxes running around with eggs in their mouths and caching them in the ground for the harsh winter that awaits. Every once in a while, we would also be lucky to be greeted by the occasional walrus or a pod of beluga whales swimming beneath the cliffs.



Above:

Bylot Island, on the northeastern tip of Baffin Island, directly across the Baffin Straight from Greenland. CT photo.

Top Right:

Male (white) and female (brown) common eiders in flight on East Bay Island on the northern edge of Hudson Bay. RT photo.

Bottom Right:

Large male caribou, still with its winter coat, running across the tundra at East Bay Island shorebird camp. RT photo.







A male (foreground) and female (background) king eider on the tundra in northern Hudson Bay. RT photo. Government researchers in Alaska recently reported discovery of a male king eider that had been banded as an adult following an oil-spill rescue in 1996, placing a minimum age of 24 years on that individual.



Pipping egg under a thick-billed murre parent. After about 12 hours this chick will break free from its egg.



Thick-billed murre chick gets squished by a parent intent on keeping it warm.



Chicks collected in a net bag for processing.

"When climbing on the cliffs, sometimes it's easier to grab multiple chicks from one ledge, put them into a bag and move to a solid footing before banding. These chicks almost escaped their bag after being set down for only a few seconds."

- Russel Turner

**Coronation fjord in
Auyittuq National Park,
Baffin Island. CT photo.**







Left:

An arctic fox, still with most of its winter coat, searching for duck eggs on East Bay Island.
RT photo.

Below:

Glaucus gull making off with a thick-billed murre chick. The small black shape on its rump is a GPS unit. RT photo.







An Arctic fox posing for a photo during the sunset at Coats Island Thick-billed Murre Camp. These foxes would normally sneak around and steal eggs right out from underneath the Murres, then take them away and cache them for the winter. Caption and photo by RT. ■