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**A WILD GOOSE CHASE TURNS UP VIRGINIA'S LINK
WITH AN ARCTIC ISLAND**

By Curtis Badger

Greater Snow Goose number 44CC had apparently made herself at home. My wife Lynn and I spent several days looking for banded snow geese at Chincoteague National Wildlife Refuge last fall, and after we made four trips and logged in 22 different birds, this goose was the only one present and accounted for on each of the four occasions. She clearly had taken a liking to the shallow impoundment behind the beach, hanging out with friends that, like her, had recently completed a trip from the Arctic and now were looking for a little R and R.

Waterfowl hunters have for years been harvesting banded ducks and geese and reporting the band numbers to government agencies. This helps biologists establish migratory patterns and consequently to provide resting and foraging opportunities for waterfowl as they move between breeding grounds in the north and winter homes along the coast. Many national wildlife refuges, including Chincoteague, were created primarily to provide migratory habitat for waterfowl.

While banding reports no doubt helped biologists establish flyway patterns, there was one serious drawback. In pretty much every case, the band number came from a dead bird. The chances for a re-sighting, as with snow goose 44CC, were very slim. But modern technology now makes it possible to record band numbers, report them, and have the bird move on to be spotted again, thus giving biologists the opportunity to track the movements of individual birds.

It also gives amateurs like Lynn and me the opportunity to participate in a little citizen science. The snow geese are banded on their breeding grounds in the Arctic, and some of the females are fitted with a yellow neck collar in addition to the traditional metal leg band. The collar typically has a four digit alphanumeric code. Greater Snow Geese tend to fly in large flocks and keep their distance from people, but we

found that with a good quality spotting scope and a great deal of patience, we could accurately read the code numbers and report them.

Reporting collar numbers, not surprisingly, involves the internet. After each trip we went to www.reportband.gov, which took us to the web site of the Patuxent Wildlife Research Center Bird Banding Laboratory. Reporting each number takes only a minute or so, and the report was quickly confirmed by an email. The fun part comes a few days later when an email arrives giving the date and place the bird was banded, the name of the bander, and the age and sex of the bird. All of this comes in the form of a certificate of appreciation from the U.S. Geological Survey (Patuxent's parent) and the Canadian Wildlife Service, who are cooperating in the program.

We reported collar numbers from four trips dating from November 5 through December 2, all at Chincoteague NWR. We reported 30 numbers, eight of which were re-sightings. As we received responses from the web site we set up a spreadsheet of our own and made an interesting discovery. Nearly all of the birds we reported had been banded at the same place – on the south plain of Bylot Island, just north of Baffin Island in the Nunavut province in Arctic Canada, by a team led by Dr. Gilles Gauthier of Laval University. A few of the birds had been banded that summer, but some of them had been banded in 2002 and 2003, making them nearly ten years old. All of them make the annual trip from the Virginia coast to Bylot Island and back again.

We contacted the banders and began to learn more about Bylot Island and about snow geese in general. Foremost, they are creatures of habit. The pairs mate for life, and the females tend to return to the same breeding territory year after year. They also use the same migratory routes year after year, weather permitting. What puzzled us was this connection between Bylot Island and the Virginia coast. Bylot is icebound for most of the year. We thought of it as a 6,900-square mile ice cube, punctuated by mountain peaks separated by perpetual glaciers. And then we learned more.

“Most of Bylot Island is mountainous, but south of the mountain range is a plain with extensive lakes, ponds, and grassy wetlands, along with elevated terraces and hills, “ said Marie-Christine Cadieux, project coordinator for the Bylot Island studies . “These drier areas are a polar oasis supporting a great diversity of plant life. There are 360 plant species and 74 species of birds, including more than 100,000 Greater Snow Geese in the summer. It’s the largest breeding colony of snow geese in the world.”

So when Bylot Island’s blanket of snow disappears in the summer, the landscape becomes one of creeks, ponds, wetlands, and sloping uplands covered with grasses and sedges. Sound familiar? In July, Bylot might be a lot like Chincoteague in January.

The study of Greater Snow Geese on Bylot began in 1988 through a partnership between Laval University in Quebec and the Canadian Wildlife Service. When the study began, snow goose population was growing tremendously, and biologists were worried about the negative effects a large breeding colony of geese could have on the Arctic tundra. In recent years research has expanded to include a broad range of plant and animal communities.

“The original intent was to assess the impact of goose grazing on the Arctic tundra,” said Cadieux. “But over the years the research program has broadened considerably and now includes other components of the terrestrial ecosystem. We also are interested in learning how climate change may impact the plant and animal communities of the tundra.”

It is difficult to believe that the Arctic tundra – wildly remote and covered with ice for most of the year – could have anything in common with the Virginia coast. But it does, and this connection is evident in the life of the Greater Snow Goose. A range map on the Laval University web site (www.cen.ulaval.ca/gongsg/) shows summer breeding grounds in a fairly concentrated area on Bylot Island. Winter grounds center on the Virginia coast, extending northward along the Delmarva Peninsula into the Bombay Hook area of Delaware and southward to the sounds and shallow lakes of eastern North Carolina. The two are

connected by a migratory route through central Quebec, with a staging area along the St. Lawrence estuary.

Snow geese travel to the Arctic to breed because in summer the tundra provides excellent habitat for nesting and raising goslings, with plenty of young grasses for forage. Time is critical, however, because nesting can't occur until the snow melts, and the geese must raise their young, molt, and be ready to head south before the snows arrive. Bylot averages only 101 days a year when the temperature climbs above freezing.

“The average laying date on Bylot Island is June 12,” said Cadieux. “The eggs will hatch 23 to 24 days after the last egg is laid. The geese average about four eggs per nest, but nesting success depends largely upon weather and predators. The Arctic fox, parasitic jaeger, and raven are some of the principal predators of eggs and young birds. The adults also are vulnerable during the nesting season as they molt (shed and re-grow) all their flight feathers. So timing is everything. If snow-melt occurs later than usual, the birds might not nest at all.”

At this time of year, a trip to the coast will provide a clue as to the success of the summer nesting season. Find a flock of snow geese in a wildlife refuge or farm field, scan them with your binocular or scope, and see how many dusky gray birds are scattered in with the snowy white adults. The gray ones would be the juveniles, the birds that hatched last July, the ones that followed their parents on a flight through Quebec to the St. Lawrence wetlands, and finally to the coast of Virginia for the first time. And while you're scanning, keep an eye out for a bright yellow neck collar. If you happen to see number 44CC, tell her we say “welcome back.”