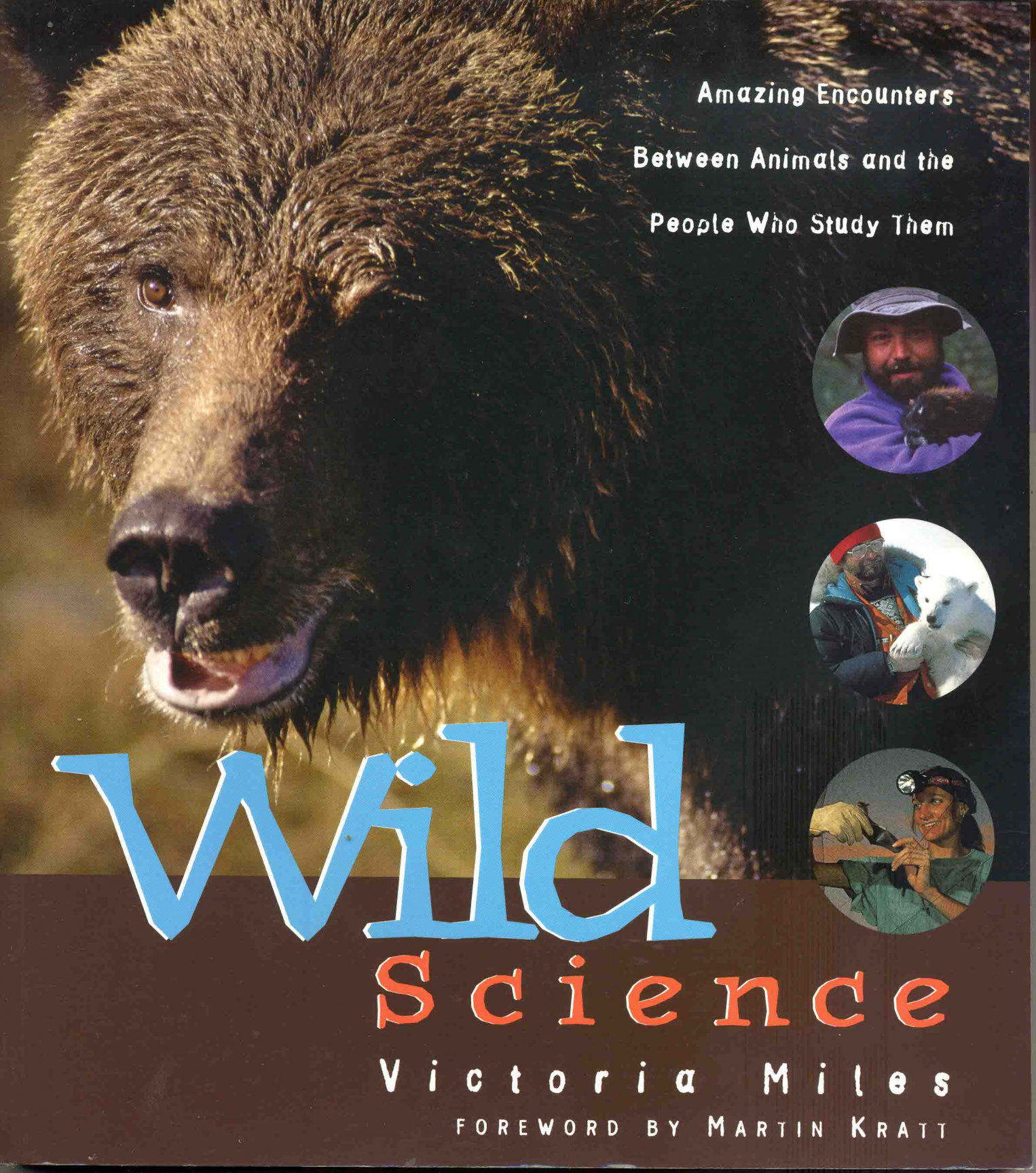


Amazing Encounters Between Animals and the People Who Study Them

Wild Science

Victoria Miles

FOREWORD BY MARTIN KRATT

FROM THE FIELD:

1 A Flurry of Gannets

June 8, 1997

On a Maine highway, a cargo van driven by Kathleen Blanchard was heading north for Île aux Perroquets in the Mingan archipelago along the Quebec North Shore. Kathleen knew how to get there because she'd been to the island before. She knew the island's story well and all about how its once-magnificent colony of northern gannets had entirely disappeared.

"Island of the Parrots" was named for the puffins, sometimes called "sea parrots," that nest every summer in burrows on the island's cliffs. Two hundred years ago it might just as well have been

With the help of other concerned seabird conservationists, Kathleen got the Canadian government's permission to do the study.

called "Island of the Gannets."

In the 19th century, naturalists visiting Île aux Perroquets recorded seeing an immense colony of gannets on the high cliffs. So many gannets nested there that from a distance it appeared as if the cliffs were covered in snow. But overhunting, egg-collecting and human disturbance took a terrible toll on the gannet population in the western North Atlantic. The last recorded sighting of a small number of gannets on Île aux Perroquets was in 1887, the same year the first light station was built on the island.

Around this time, gannets were also **extirpated** from the gannetry near Grand Manan, New Brunswick in 1886 and the colony rear Yarmouth, Nova Scotia in 1880.

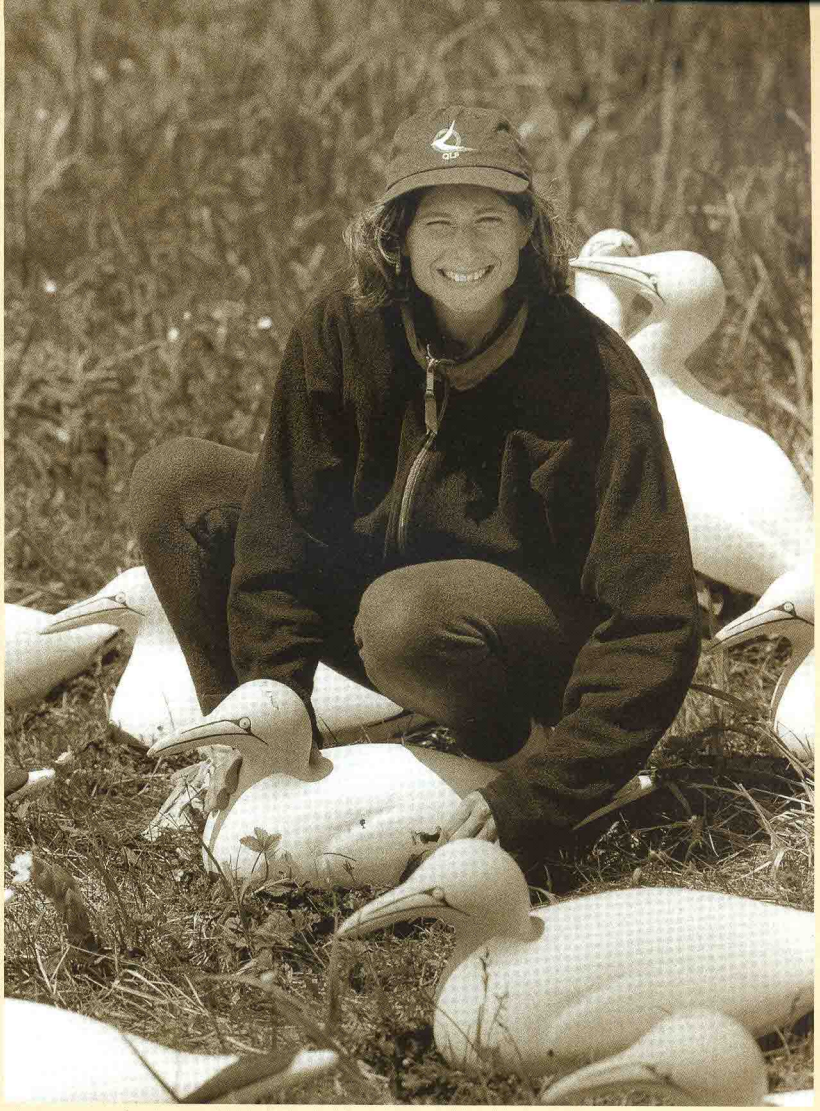
In 1918 the Migratory Bird Treaty Act between Canada and the United States gave gannets official protection, but in all the years since then they have not made a comeback on Île aux Perroquets. If gannets were going to return to the island, humans would have to help them.

After many years of planning and preparation, Kathleen was on her way to try to tempt them back.

As president of the Quebec-Labrador Foundation in Canada, Kathleen worked with Richard Sears of the Mingan Island Cetacean Study to set up the northern gannet restoration project for Île aux Perroquets. With the help of other concerned seabird conservationists, Kathleen got the Canadian government's permission to do the study and organized fundraising for the project.

In Maine, Kathleen stopped to pick up one of her biggest supporters, ornithologist Steve Kress, director of the seabird restoration program for the National Audubon Society. Steve had with him gannet decoys, dozens of them. Because there were no real gannets on Île aux Perroquets, decoys were needed to stand in their place.

Together, Kathleen and Steve loaded 46 individually wrapped decoys into the



After many years of planning and preparation, Kathleen was on her way to try to tempt them back.

Minga sets the decoys up on the cliffs hoping they'll attract some real gannets back to the island.

van. They had worked together before. Twenty-four years earlier, with the support of the Canadian Wildlife Service, Steve and a team of research assistants began relocating Atlantic puffin chicks from a colony on Great Island, Newfoundland, to Eastern Egg Rock off the coast of Maine. As with the gannets of Île aux Perroquets, overhunting **extirpated** the original puffin colony on Egg Rock. All but two of the puffin colonies on nearby islands had also disappeared, for the same reason.

Every summer for the next several years, "Project Puffin" continued to relocate Great Island chicks to Eastern Egg Rock and to nearby Seal Island. Today there are established puffin nesting colonies on both Eastern Egg Rock and Seal Island; their numbers are small but growing steadily.

Back in the 1970s, Kathleen was the first field assistant Steve hired for Project Puffin. Now she had a project of her own and she needed Steve's help to set it up properly.

There's no better magnet to a puffin than another puffin. The same is true for gannets. That's why the decoys were so important, and they had to be good ones. They had to look just like gannets.

Each of Steve's life-size decoys had been hand-painted to match the colours of an adult gannet: pure white body with black primary feathers on each wing, pale yellow head, grey-blue feet and beak, and ice blue eyes. Some decoys were modelled standing up, others were fashioned in an incubating pose. Steve also had a CD player (complete with solar cell batteries to generate power from the sun) to play recordings of gannet cries.

The cargo van crossed the border and continued north. At Matapedia in Quebec Kathleen picked up her last passenger, a young ecologist and environmental researcher named Minga O'Brien. Minga had worked on various field research projects and was now going to live on the island to watch and record the comings and goings of gannets that summer.

When they arrived at Longue-Pointe-de-Mingan the following day, Richard Sears was waiting for them. The next day, he was going to take Kathleen, Steve, Minga and all their cargo across to the island in the inflatable Zeppelin boat that he used to

study whales in the Gulf of St. Lawrence. The boat belonged to the Mingan Island Cetacean Study (MICS for short). Richard is the director of MICS and he promised that someone from the group would take Minga back to the mainland whenever she asked them to, and they would check in on her sometimes to see how she was doing.

June 11, 1997, Île aux Perroquets, Mingan Archipelago Reserve National Park, Gulf of St. Lawrence, Quebec, Canada

Puffins waddled on the rocks and fluttered about in the wind. A pair of ravens darted through the air, eiders paddled in the nearshore waters and terns waded along the shoreline.

Kathleen, Steve, Richard and Minga unwrapped the decoys and arranged them along the edge of the cliff, about six metres above the sea. With beaks pointed west, into the prevailing winds, the decoys faced the sea and waited. In this position they would appear to make eye contact with any real gannets carried on the wind currents from the huge Bonaventure colony about 160 kilometres (100 miles) away, as the gannet flies.

August 4, 1997

Minga was alone on Île aux Perroquets. Sort of. She shared her summer camp with nesting Atlantic puffins, razorbills, spotted sandpipers, tree swallows and savannah sparrows. At low tide a ring of flat rock ledges around the island invited whimbrels, short-billed dowitchers, greater and lesser yellowlegs, red knots, plovers and ruddy turnstones down to scuttle upon the shelf. In good weather, when the sea was calm, boats brought tourists from the mainland. Volunteers took turns keeping Minga company and her mom was with her now. Every five or seven days Minga caught a ride back to the mainland for groceries, fresh water, some conversation and a shower.

Seven-and-a-half weeks had passed since Minga first arrived on the island. Sometimes she would see hundreds of gannets in the air — though they never landed. It didn't take long before many of the decoys were covered in streaks and splotches of white gannet guano.

At 11:37 a.m., sitting with her mother on the pavement of the island's helicopter launch pad, Minga wrote history in her journal:

"Adult gannet landed in the southwest corner of the decoys; right at the edge of the cliff. Has been preening himself ..." Twenty minutes later, the gannet moved into the flock of decoys and "appeared to be sleeping."

The gannet preened, snoozed and yawned the next hour away. Once, he scratched his head with his foot. At 12:54 the gannet "popped up his head, faced edge of cliff and flew west."

Minga was thrilled. She decided to call her first visitor "Fergus le Fou," a play on the French nickname for gannet, "Fou de Bassan," which means "the crazy of Bass Rock." Bass Rock lies off the coast of Scotland and is home to one of the world's most famous gannetries.

August 5, 1997

"Overcast with a few clear periods, very little wind," Minga wrote in her log. For Minga, a break from the wind was a relief. A gannet's body fat helps protect it from the cold but Minga didn't have a gannet's insulation. Every day, she sat at her observation post at the top of the lighthouse, just under the light, wearing mittens, a couple of sweaters and longjohns under her jeans. The automated lighthouse was good only for gannet-watching and food storage — it was too cold and damp inside for a shelter.

In early July Minga was given permission to sleep in the emergency cabin. Before that she had camped in a tent outside; when it was time for bed, she crawled into her doubled-up sleeping bag and prayed that the wind wouldn't pull the tent off its pegs and drag her off the island while she slept.

August 15, 1997

Summers are cold and windy enough in the North Atlantic, but winters can be brutal. Gannets are hardy birds but even they need to escape the north in winter. On this morning, Minga had to leave Île aux Perroquets for the last time. She had other work to begin back home in Halifax.

In the future, if gannets chose to nest on Île aux Perroquets the young birds reared there would probably return to the island as five-year-olds to begin their own breeding cycle. Gannets had already shown a strong interest in the island, but Minga knew that for the project to succeed the local people must support it for a long time to come. Visitors to the island would have to keep disturbance to a minimum. As she stepped into the boat for the last time she let out a worried sigh — she had to leave, yet the struggle to restore the gannetry while respecting the people whose lives involved the island was just beginning.

As the Zeppelin took off from shore, a flock gathered over Minga's head. In all her trips back and forth from the mainland, Fergus and the other "fous" hadn't shown much interest in the boat. Now Minga looked up at the flurry of gannets and felt her spirits lift a little with the many wingbeats and the change in the weather.

September 3, 1997, Quebec-Labrador Foundation office, Montreal, Quebec

Kathleen lifted her eyes from her reading. From the window of her office overlooking the St. Lawrence River she could see gulls and cormorants circling in the air. On her desk lay Minga's journal — the notes on the **guano**-bombed decoys, Fergus and the other gannets that followed him ... the gannets passing, circling, landing ... the fog, the wind, the wet ...

Between the lines of Minga's entries Kathleen realized there was something familiar about the report. It was a link in a long chain that had begun many years ago, when Kathleen herself was a young intern on Project Puffin. Information from that restoration, gathered over so many years, had been passed on to help the gannet project. Next summer, there would be a new intern, and the knowledge from this first field study to pass on. With every passing year the pile of journals would grow. If, one day, gannets took hold and nested on Île aux Perroquets, then the record of what was possible first for puffins, then for gannets, would be ready to help bring another seabird colony back from the brink.

II THE SCIENTIST: Kathleen Blanchard

"I was always interested in nature," says Kathleen Blanchard. "Even when I was very young, I lived for it. My Dad was from Newfoundland and that gave him a very strong connection with the land and the sea. It was something he passed on to me.

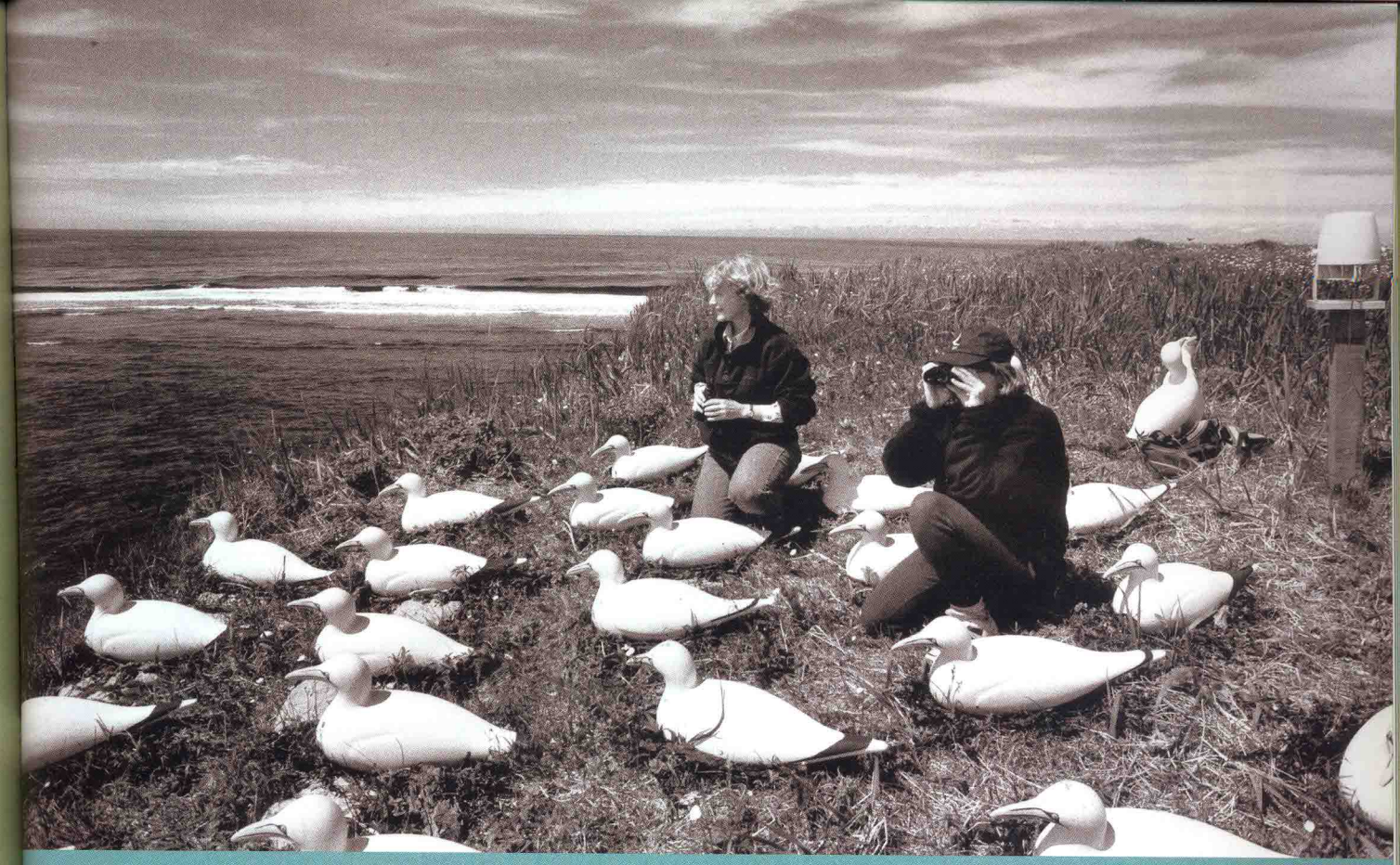
"Professionally, my first big break was in working for the National Audubon Society. I was 19 when I got a summer job working at their Adult Ecology Camp. I was glad to be there. I understood, even that young, that I could learn from nature and I wanted to be in the company of great naturalists who could teach me."

While she was at the camp Kathleen had a chance to prove herself. She didn't have any degrees, nor was she zealously trying to save the world. "It was the early '70s, and I was steeped in the philosophy of natural wonder that the writer Rachel Carson inspired in so many people. I was just so keen to learn, and at the same time I wanted to teach others."

It was just the spirit ornithologist Steve Kress was looking for — he hired Kathleen to be the first field assistant on Project Puffin.

Three degrees later, much of Kathleen's work today involves helping government agencies, businesses and conservationists to use environmental education and community-based approaches to tackle conservation programs.

"There's a lot that doesn't come up in college," says Kathleen, who received her Ph.D. from Cornell University in 1984 and has 25 years of seabird conservation work on the Quebec North Shore. "If you work in the field of conservation biology, you need to learn on the job how important it is to garner community support, and how



Kathleen Blanchard and Minga O'Brian sit among the decoys looking for signs of returning birds.

"I was always interested in nature; even when I was very young, I lived for it."

to communicate face to face with local people. We go through school and we think we need to learn all about the animals we are studying, but that is not enough. And at some point you have to be entrepreneurial if you want to make a project happen, even if others don't always agree with you."

III

THE SCIENCE:

Seabird Restoration

Location, location, location. When considering a place to attempt gannet restoration, Kathleen Blanchard and her team needed to find the most promising location they could. Île aux Perroquets was in a region where the gannet population was on the increase and the island itself had a long history as a gannet nesting site, plenty of mackerel in late summer for parent gannets to feed their young, no natural predators and the protection of Parks Canada. What more could a gannet want?

The conditions are good on Île aux Perroquets but nobody was expecting an overnight sensation. After all, the reason Steve Kress happened to have 50 gannet decoys to lend to Kathleen was because he'd tried for several years to bring back gannets along the coast of Maine, without any luck.

"Sometimes we have to work slowly and be patient," says Kathleen. "Social attraction with decoys is the most natural, the most gentle approach we could take, so that is how we began. So if you can succeed without bringing in and rearing chicks from another colony, you try. The drawback is that results can take a very long time and it's hard to teach people to 'wait and see.' Everyone wants results. The donors who fund your study, the interns who observe, the government officials who gave you permits, your colleagues in the scientific community and especially the people in the communities where you work, because you can't bring back the birds without the cooperation and goodwill of the people."

In 1998, the second year of the gannet restoration project, field biologists noted

hundreds of gannets flying past Île aux Perroquets on a daily basis. Some days, the fly-bys numbered in the thousands. And there were 15 journals reporting one particularly prospecting gannet pulling grasses — a behaviour that harkens towards nest-building.

Kathleen envisions that the next phase of gannet restoration on Île aux Perroquets will be to translocate chicks from the colony on Bonaventure Island in Quebec's Gaspé Peninsula. "It will more likely lead to a quicker response, which is what we saw with Project Puffin."

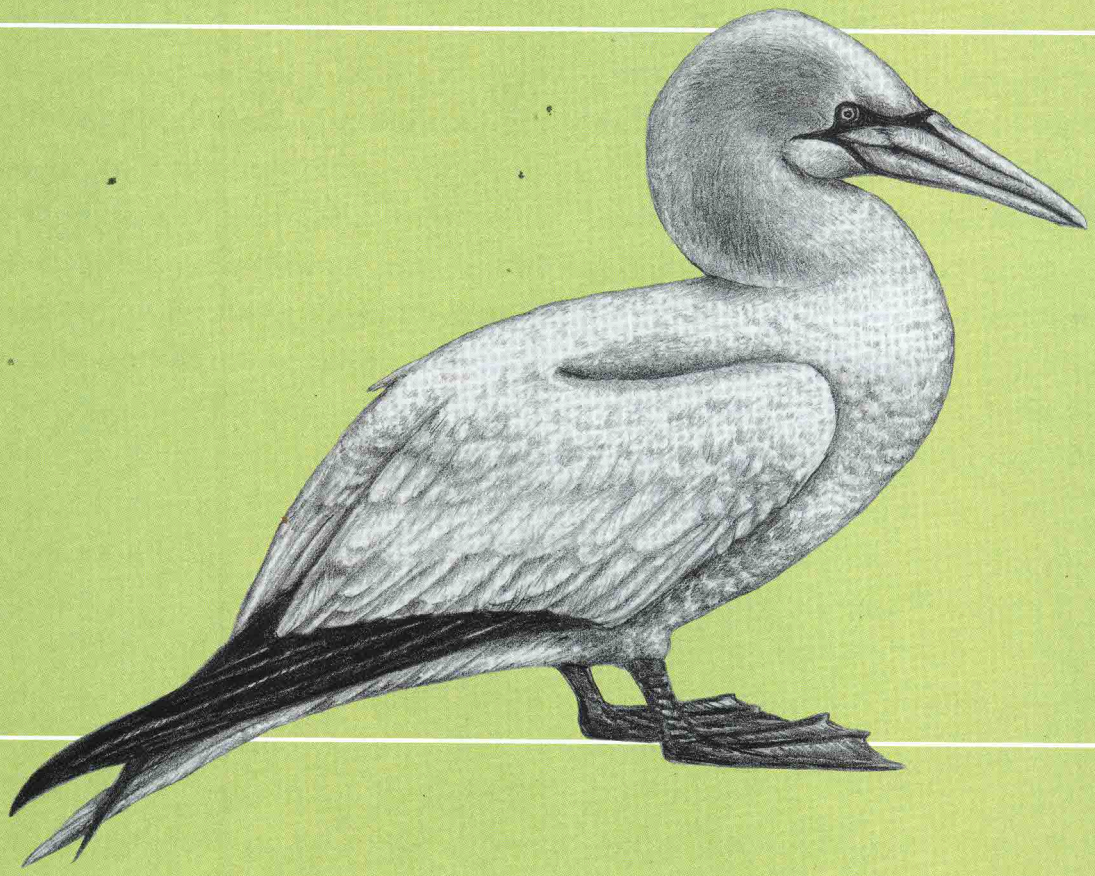
Gannets head south for the winter and some fly as far as the Gulf of Mexico.

The principle behind translocating chicks is "start them while they're young."Translocating is more invasive, but its potential for success is strong because it follows a gannet's natural behaviours and life cycle. They breed every year, usually after the age of five, and are loyal to the same mate year after year. They're also loyal to their nesting site, so where a gannet is raised is where it's most likely to rear its first chick, and the one after, and the one after that Gannets head south for the winter and some fly as far as the Gulf of Mexico. But every year, when they head north in mid-April, they're heading right back to the site where they were born.

IV

The Animal Notes:

Northern



Gannet

Common name:	northern gannet	**Family:**	Sulidae
Scientific name:	*Morus bassanus*	**Genus:**	*Morus*
Order:	*Procellariiformes*	**Species:**	*bassanus*

Today six gannet breeding colonies remain in the northeast Atlantic, all in Canada. There are approximately 87,900 breeding gannets, not very many as seabird populations go.

Size/weight:

The northern gannet is about the size of a large goose. It grows to 87 to 100 centimetres (35 to 40 inches) in length; the wingspan of an adult bird may be almost two metres (six-and-a-half feet).

Description:

The adult gannet has a dazzling white body with black primary feathers on each wing, a pale yellow head, grey-blue feet and beak and ice blue eyes. Young gannets are brown, becoming whiter as they mature.

Reproduction:

Northern gannets start their breeding cycle at about five years old. Usually the first breeding season is devoted to courtship and building the nest; pairs may remain together for years. A single egg is laid between late May and mid-June and the parent birds take turns incubating the egg with their webbed feet.

Food:

Northern gannets feed on small sea fish such as herring, mackerel, caplin and squid.

Approximate Lifespan:

Gannets live about 16 years.

Status:

Overhunting, egg-collecting and human disturbance took a toll on gannet numbers. Today six gannet breeding colonies remain in the northeast Atlantic, all in Canada. There are approximately 87,900 breeding gannets, not very many as seabird populations go. Another 444, 000 northern gannets nest at 34 colonies on the other side of the Atlantic.

Habitat:

Gannetries are located on steep cliffs and small offshore islands. Ideally, the nesting birds cannot be reached by land predators; if disturbed, gannets will often desert their nests permanently. When wind currents meet a cliff, the current streams upward and carries windsurfing gannets right to the top. A high cliff gives maximum impact to their fishing dives: a gannet diving from 30 metres (100 feet) can make a splash that sends water as far as three metres (10 feet) from where it spears the surface.

Range/distribution:

There are six colonies in the northeast Atlantic, with birds migrating south to disperse along the North American coast from New England to the Gulf of Mexico. In the northwest Atlantic, gannets have colonies in Iceland, the British Isles, including Ireland and the Shetland Islands, and in the Faeroe Islands.

So many gannets nested there that from a distance it appeared as if the cliffs were covered in snow.

Living, breathing gannets nesting among the cliff tops on the Île aux Perroquets.