

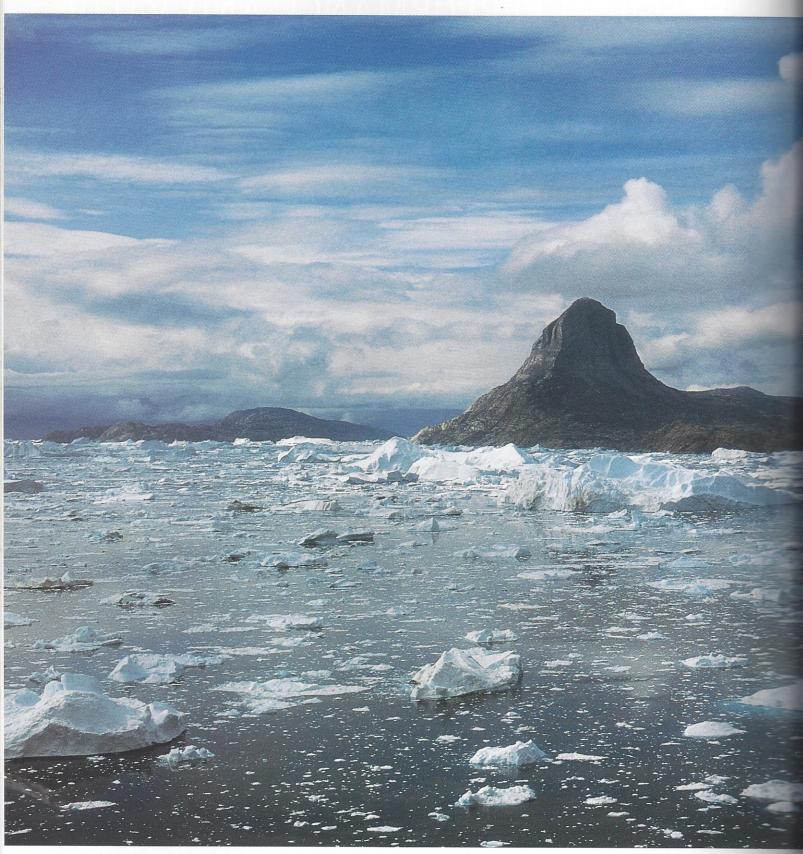
## Return to Uummannaq

Text and Photographs
by Tim Gallagher

Nearly a century after Danish ornithologist Alfred Bertelsen began his explorations of northern Greenland, five researchers retrace his steps.

What they find is disturbing.

f you had told me in June 2000 that in less than a month I'd be shivering in an open boat, ply-Ling my way northward along the coast of Greenland with more than 1,000 miles to go to reach Thule, I'd have said . . . well, something insulting. For the previous three summers in a row I had forsaken the warm comforts of my home in Upstate New York to huddle with my camerain the icy winds of subarctic Canada, the barren central highlands of Iceland, the storm-swept northwest coast of Greenland. I was ready for a change. I was dreaming of visiting someplace warm: a place where ice is unknown except in mixed drinks, where the coolest winds bring only a refreshing respite from the balmy heat, where researchers rise late and stroll to their study areas clad in



Even in mid-July, Uummannaq Fjord in northwestern Greenland is often choked with icebergs, making boat travel nerve-wracking at best. This past summer, Peregrine Fund researchers attempted to revisit 210 bird nesting sites not surveyed since the early 20th century. Many of the bird colonies had far lower numbers than before and some were empty.



At each site, we take a GPS reading; check for the presence of birds, the species makeup, and numbers; and record the data. Everything about this place is overwhelming. We barely speak as we motor along in our boat (facing page), a tiny, insignificant speck in this enormous landscape. In the picture at right, famed Greenland explorer Knud Rasmussen (second from left on top row) sits beside Alfred Bertelsen (just to his left).

shorts and straw hats. In short, I wanted to go to the tropics.

So, how did I end up motoring along in an open boat across an ice-choked fjord in northern Greenland, clad in all the high-tech Arctic gear I own and still freezing? It all started with a tantalizing e-mail I received from Kurt Burnham, manager of The Peregrine Fund's Arctic research program. He mentioned that he would soon be embarking on a little boat trip along the west coast of Greenland, and he had room for one more person. He and three other researchers would be checking a huge study area containing 210 known bird sites—seabird colo-

nies, falcon nests, tern and eider islands—all of which had been documented in meticulous detail early in the 20th century by Alfred Bertelsen, a Danish physician who spent most of his life in Greenland.

The idea was intriguing. What would it be like to revisit these sites almost a full century after Bertelsen began his work there? What might we learn about the present health of this spectacular Arctic ecosystem at the beginning of the 21st century? As an afterthought, Kurt added that this was a once-in-a-lifetime opportunity. That was the clincher.

"I'll be there. See you in Uummannaq," I said, barely realizing what the words meant as I hit the

computer key, sending my e-mail reply irretrievably into cyberspace.

13 JULY 2000; BASE CAMP: UUMMANNAQ FJORD, GREENLAND: From a distance, our camp is invisible, hidden in a massive cliff running several miles along the island and rising nearly 1,000 feet behind us, disappearing in a dense fog. But get closer and a narrow grassy area takes shape, some 75 feet above the water. There we stand. huddled before the cook stove with fresh coffee brewing. Behind us, our tents lay nestled in various nooks among the rocks, as sheltered from the elements as possible. We have piled rocks on top of every tent stake-a necessary measure to keep our things from blowing off the cliff the next time a strong wind comes

screaming through, as we know it will.

With me are Kurt Burnham; Bill Burnham, president of The Peregrine Fund and Kurt's father; Jack Stephens, a weather forecaster at Thule Air Base (not a bad person to have along on a trip like this); and Cornell professor emeritus Tom Cade, founder of The Peregrine Fund and former research director at the Lab of Ornithology. For Tom, this journey has special significance. He had first seen Alfred Bertelsen's Greenland study mentioned in the bibliography of Finn Salomonsen's threevolume Birds of Greenland. That was in the early 1950s when Cade was a graduate student.







The Inuit use dogs to pull their heavy wooden sledges (above) during winter. But as soon as the snow and ice melt, the dogs are useless to them. Many are turned loose on islands to fend for themselves (facing page), making it impossible for ground-nesting birds to raise young successfully. These islands, which once had numerous nesting terns and eiders, are now devoid of them.

Bertelsen's article—complete with a map of the Uummannaq District with the bird sites marked—had appeared in 1921 in a Danish journal, *Meddelelser om Gronland*. Cade thought how interesting it would be to return to Bertelsen's study area someday and see how much the bird numbers and species makeup had changed during the intervening years. Now, at age 72 and retired, he is fulfilling a half-century-old dream.

by any standard, Alfred Bertelsen was a remarkable man. As a young Danish physician in his early twenties, he joined the Greenland Literary Expedition (1902-04)—an ambitious attempt to explore the west coast of Greenland and study the languages and customs of the indigenous people, the Polar Inuit.

The expedition, led by famed explorer Ludwig Mylius-Erichsen (who would perish on a subsequent Greenland expedition in 1907), spent nearly two years living with a group of Inuit on the shores of North Star Bay. It's remarkable to think that this was just 84 years after British naval captains John Ross and Edward Sabine first visited this area. The Inuit who lived there

at that time led a Stone Age existence, entirely cut off from the rest of the world by ice and frigid water. They had no boats of any kind or any knowledge of them and were certain that the two British ships had flown down to them from the moon. They believed they were the only humans on Earth and that the rest of the planet was covered by ice.

Bertelsen soon after settled in Uummannaq, a fishing and hunting settlement a couple of hundred miles from Disko Bay up a spectacular fjord lined with snow-capped cliffs and peaks. He spent several decades there, traveling to the remote villages of the area, treating Inuit patients. Behind his home—still occupied by the current doctor—stands another small house that served as his hospital for many years. But Bertelsen was more than a physician. He was also a capable ornithologist and spent decades documenting the bird life of the vast Uummannaq District. He painstakingly mapped the locations of every bird site he could find in the hundreds of square miles he regularly covered.

And now we are here in the summer of 2000, carrying a copy of his map as we travel from site to site. At each location, we take a

GPS reading and note the presence or absence of birds and the approximate numbers, which we can compare with Bertelsen's original surveys.

13 JULY 2000; UUMMANNAQ FJORD: We head southwestward to check 26 bird sites that Bertelsen recorded along the Qarajaqs Isfjord. Lofty cliffs rise on both sides of us, like a primeval Grand Canyon, dusted with

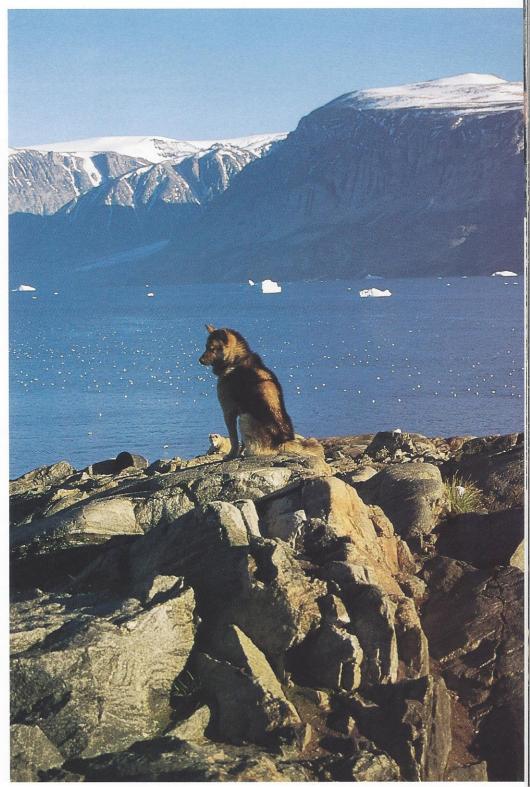
snow and ice where they vanish into low-lying clouds and fog. Occasionally a deafening crack and rumble echoes along the fjord as somewhere in the distance another battleship-sized iceberg breaks free of a glacier and plunges into the frigid water. Everything about this place—its scale, its raw beauty, its solitude—is overwhelming. We barely speak as we motor along in our boat, a tiny, insignificant speck in this enormous landscape.

Reaching the mouth of Qarajaqs Isfjord, our way is blocked by an impenetrable wall of icebergs. We cruise back and forth looking for an entryway, but it's hopeless. These icebergs have been driven here by the prevailing wind. It's possible that sometime in the next week or two, a strong wind will blow in the opposite direction, flushing the icebergs out of here and dispersing them through the larger fjord. But we don't have time to wait it out. Bill says we'll have to return in a few days with a helicopter to complete the survey.

We head back north, checking more accessible sites near Uummannaq. We pass one enormous cliff-face that, according to Bertelsen, once held a great colony with more than half a million pairs of Thick-billed Murres, as well as numerous Razorbills and kittiwakes. Now it is silent. We see only orange lichens growing where bird guano once stained the rocks and some long-abandoned murre and kittiwake nests. Although we see a few hundred Northern Fulmars in the general area, none of the other species is present. What's particularly bothersome is that this is not the first Bertelsen site that was a disappointment—just the most dramatic. Many of the sites checked earlier on this survey have had significantly fewer birds present and much less species diversity than Bertelsen reported.

This seems to be particularly true of the sites near human settlements. A

lot of the small islands that once held tern colonies and numerous nesting eiders and other waterfowl are now overrun with hungry dogs during the bird breeding season, so no chicks or eggs can possibly survive on them. These dogs, which are used by the Inuit to pull heavy wooden sledges during the winter, are useless once the ice and snow melt. Dozens of them are turned loose on these islands to fend for themselves each summer.



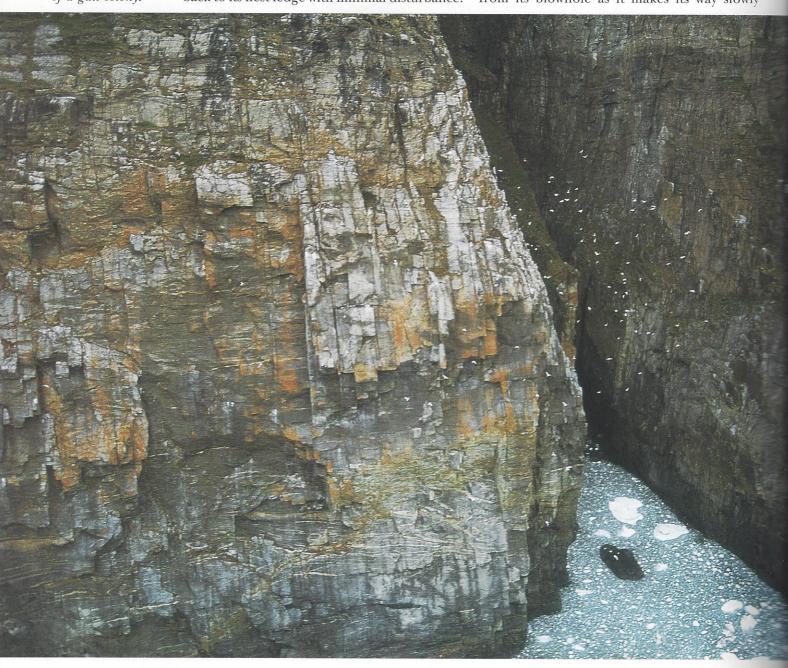
Some areas are choked with icebergs, making it necessary to survey nest sites by helicopter. In less than three hours, we visited 26 of Alfred Bertelsen's bird sites. Below, a chopper's eye view of a gull colony.

Though this might explain why so few groundnesting birds can be found near settlements, why are cliff-nesting species also vanishing? Did something happen to the small fish population on which they depend for food? Has this area become polluted or contaminated in some way? Or could hunters from nearby villages somehow have exterminated an entire half-million-pair colony? It's mind-boggling to speculate.

Some of Bertelsen's falcon nest sites also appear to be vacant, though we do find some new nests. To locate them, we typically drive the boat to the base of a likely looking cliff and fire a rifle. As the gunshot echoes along the cliff face, a falcon usually flushes from its nest, has a look around, and then goes right back to its nest ledge with minimal disturbance.

At one cliff today, a Peregrine Falcon flushes from a cliff when Kurt fires and is quickly joined by her mate, which soars in high above us. But the best moment of the day comes later when we spot a pair of white Gyrfalcons the palest I've ever seen—perched atop a lofty palisade. By the time we head back to camp at 10:00 P.M., we have visited 24 of Bertelsen's sites; not a bad day's work.

14 JULY 2000; BASE CAMP; UUMMANNAQ FJORD: We awake to the howl of gale-force winds rushing through the fjord, driving rain and sleet fiercely down on us. But offshore we hear another, stranger sound—a great whoosh, repeated every few minutes. It is a massive fin whale, more than 60 feet long, spouting spray from its blowhole as it makes its way slowly



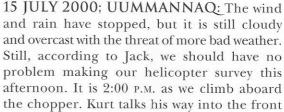
through the churning icebergs in the fjord. It passes within a couple of hundred yards of camp, completely unfazed by the weather.

According to Jack Stephens-who has been batting 1,000 on his weather predictions so far-the storm will last all day and probably all night as well. Each day, he sets up a mini-weather station—a satellite telephone hooked up to a computer—and downloads the latest images of emerging weather patterns. It's amazing. He's basically using the same radar and satellite data he would use in his office at Thule Air Base.

Obviously, the day is shot for checking nest sites. Bill decides that we should

> take the boat across to Uummannaq, which is not a long distance away but should be an interesting trip in this storm. There, we can make ar-

rangements to hire a helicopter and look around the settlement. waves and chop as well as icy rain hammer us all the way across, and there's nowhere to hide in this boat.



seat beside the pilot, where the mechanic usually sits. He holds Bertelsen's map in front of him and will point the way for the pilot and take GPS readings at each site. I'm happy to sit at the back on the left side. I've never been one to jump deliberately into the front seat of a roller coaster.

Even wearing the ear protectors the mechanic handed us, the noise is beyond deafening when the motor fires up. Then we're off, over the edge of the cliff and skimming across the fjord, like a fulmar with a rocket engine strapped to its back. And then we're rising—to cliff-top level and beyond, taking minutes to pass over an area that had taken us hours to cross in the boat.

Qarajags Isfjord, where we had turned back a few days earlier, is still wall-to-wall icebergs, but now

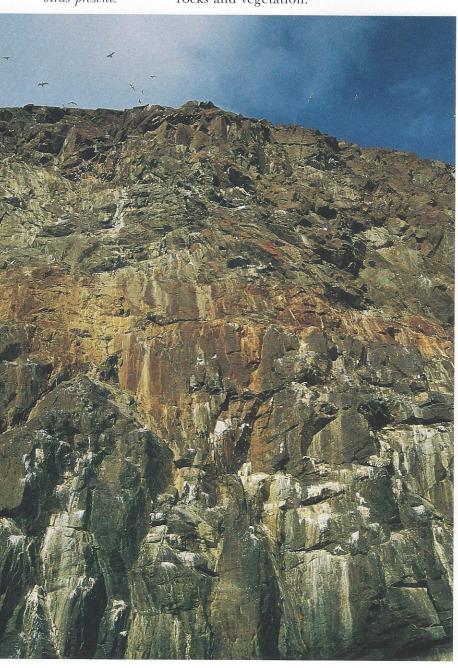
Our helicopter pilot, a young Norwegian named Tore (above right), takes us right up to each nest site, allowing us to count birds and take a GPS reading before roaring off to the next site, like a fulmar with a rocket engine strapped to its back. At left, Peregrine Fund founder Tom Cade records nest data from the helicopter flight in his field notebook.





The farther we travel from human settlements, the more nesting birds we see. Below, a thriving bird colony with numerous Iceland Gulls and other species. The bird sites immediately adjacent to villages seem invariably to have the fewest birds present.

we skim easily over it, the shadow of the helicopter standing out sharply in black against the blue-white glacial ice. We fly to the first Bertelsen site, where Iceland Gulls wheel back and forth against a rugged cliff face. The pilot, a young Norwegian named Tore, hangs in front of the cliff as Kurt takes a GPS reading and Tom and Bill note the numbers of birds present. I snap away with my camera at the cliff, at my friends on board, and at the icebergs below. Then Tore turns hard left, flying the chopper sideways and plunging downward as he moves away from the cliff and roars to the next site. (He's a good cab driver, and he knows the timer is running.) As we pass over a small island, several ptarmigan flush below us, their white primaries flashing against the dark rocks and vegetation.



Later I see a Gyrfalcon flush from a cliff far beneath me and fly swiftly across the ice. I shout to everyone to look, but it's impossible to hear anything in there. A couple of hours later, we're flying back up the main fjord toward Uummannaq. In less than three hours, we've checked 26 of Bertelsen's sites and found a few new sites that either didn't exist in his time or perhaps would have been difficult to find without a helicopter.

Back at Uummannaq, we eat dinner, and Jack checks the weather situation. He predicts that a major windstorm will strike at about 6:00 the next morning. Bill decides the best course of action is to do an all-nighter, heading north to check several out-of-the-way bird sites. Luckily (or maybe unluckily) it stays light 24 hours a day in the Arctic, so night is not a hindrance to determined researchers.

Later that evening, on the way north, two fishing boats accompanied by a smaller skiff emerge from another fjord. The skiff races ahead of the other boats. Suddenly a massive fin whale rises before them, blowing spray from its blowhole, and is met with a fusillade of rifle bullets from all three boats. The whale dives, but the Inuit hunters keep up the chase, not

allowing the huge animal to relax for a second. The larger fishing boats move steadily forward, seemingly herding the whale, while the tiny skiff races effortlessly across the water, trying to be there at close range whenever the whale surfaces. It's hard to say how many rounds they fire into the whale or, indeed. how many hits with a rifle it would take to disable such an enormous animal. No harpoons or other specialized whaling gear is visible on any of the boats. Exactly how they intend to land it is anybody's guess. But this scene repeats itself again and again—the whale rising, being hammered by more bullets, and divinguntil the Inuit hunters and their prey vanish in the distance into the bleak Arctic twilight.

The next day in Uummannaq we talk with a young Inuit woman who works at the small





hotel restaurant where we go to eat dinner and escape from the storm—which blew in a few minutes before 6:00 A.M., just as Jack had predicted. We tell her about the whale and ask if she knows how the men could get something like that home if they killed it. She says they would probably attach a chain to it and tow it their village. "But sometimes the whales sink to the bottom and wash up three months later, no good for anything," she tells us. "It's very sad."

17 JULY 2000; UUMMANNAQ: The storm is still blowing, with no letup in sight, so we're grounded for now. Outside the small harbor in front of the settlement loom mountainous icebergs that weren't there the day before. Even though the settlement has a steel cable

barrier stretched across the harbor, many smaller icebergs have pushed in and are crowding against boats. Earlier we had one iceberg ride up on our anchor rope, threatening to pull the boat under or capsize it, so we had to move it to a better spot in the anchorage.

Tom and I take the opportunity to visit the small museum in the village and learn more about Bertelsen. The curator, Lucia Ludvigsen, is very helpful. She's an Inuit and a native of Uummannaq but was educated in Copenhagen. She speaks perfect English—with a Danish accent—and tells us about the history of the area. We mention the empty bird colonies. The birds were still there in the 1960s, she tells us. She puts the blame for their disappearance squarely on the ships that often brought tourists from Disko Bay on sightseeing cruises

The cryptic colors of a Glaucous Gull chick are a near perfect match for the rocks behind it. This bird is on a dog-free island, up a side fjord far to the north of Uummannaq.

Author Tim Gallagher stands at the highest point on a small island, beside a cairn probably erect years earlier by the Inuit. The island has nesting Lapland

Longspurs and

numerous Rock

up the fjords. "When they got to the bird cliffs, the ships would blow their horns to flush the birds so the passengers could see them" she explains. She speculates that the birds' eggs fell out of their nests as the birds flushed and were smashed on the rocks below. "The birds finally abandoned the cliffs," she says.

But then she goes on to say that when she was a girl, she and her family would often visit the nearby islands in summer and harvest bird eggs. "Now all the 'well-tasting' birds are gone," she says. "Only the 'storm-birds' [Northern Fulmars] are left." It seems a telling comment that the only species that remains here is the fulmar-foul-tasting and unpleasant to catch because it spits a noxious oil on predators when it is attacked.

18 JULY 2000; UUMMANNAQ: We head out early today, full of high hopes. The weather has improved markedly, and we hope to knock off the final nine Bertelsen sites in one long day, covering some 200 miles of fjords. The scenery seems to get better and better the farther we go. Looking up at the jagged, snowcapped peaks, rising 4,000 feet above the fjord, all I can think of is Valhalla—the sacred place of ancient Norse legend. And the farther we get from Uummannaq, the more wildlife we're seeing. We stop on an island and find newly hatched eiders and some fledgling Glaucous Gulls. A second, larger island has ravens, Lapland Longspurs, and Rock Ptarmigan. We find several active gull colonies, some of which have nesting Black-legged Kittiwakes, a species that was scarce or absent on all of the earlier cliffs we checked.

Then it happens. A slight uneasiness in one of the engines, more felt than heard at first, like a slight stutter. Gradually it gets worse, the engine now misfiring audibly as we push forward at our unrelenting pace. Bertelsen sites fall one after another before us, but the engine cannot be ignored. We change the sparkplugs, which seems to help for a few hours, but the misfiring comes back, worse than ever. We finally turn back toward Uummannag in the afternoon, just three sites short of com-

pleting the survey. Soon we're only running on one engine, which cuts our speed well below half, because we don't have enough power to get the hull to plane on top of the water. We're now traveling at less than five miles per hour. It takes us all night and then some to reach Uummannag.

## **EPILOGUE**

Though we try for several days to get back on track-calling an ace boat mechanic in Seattle repeatedly via the satellite telephone and getting stepby-step instructions on how to fix the problem; trying everything we can possibly do to make the boat shipshape; and then heading doggedly northward, hoping to reach Thule before a major storm is due to hit-but it's hopeless. The motor has water mixed with its crankcase oil. It has a blown head gasket at best, or perhaps a cracked block. Turning southward, we make the long haul back to Uummannaq one more time. We're all in a somber mood that last night on the boat, even though the full moon hanging above the fjord in the purplish light of the Arctic, surrounded by snow-capped peaks, is one of the most beautiful things I've ever seen.

Soon we will all go our separate ways. Tom Cade has already left on a com-





mercial flight back home. But we must fly all the way south to Kangerlussuaq—where the boat trip began—before we can fly back north to Thule. That's the way things work in Greenland. As for me, though, I manage to hitch a ride on a C-130 military transport plane from Kangerlussuaq directly to Upstate New York, instead of having to fly from Thule Air Base to Baltimore and then take a commercial plane to Ithaca.

We are still three sites short of checking all of Bertelsen's sites, but Bill and Kurt will return in late summer and at least take GPS readings of them and see if any nesting took place.

As for what all of the data we gathered this season means, it's too early to say. It will take much more research before anyone can say with certainty just what factor or series of factors are to blame for the disappearance of so many nesting birds, but clearly this spectacular place is not as pristine as it appears. Was it the cruise ships? Global warming? Maybe. But a strong circumstantial case exists that the birds have been overharvested by the indigenous people to the point that many of their

breeding colonies are no longer sustainable.

The Inuit are an amazing people, with a tenacity for life that made them capable of thriving, against all odds, in one of the harshest environments on the planet. To survive, they had to kill as much food as possible, gorging themselves and caching whatever was left to be able to get through the times of starvation. The tenuous thread they held onto simply to stay alive made this necessary, and it became part of their being and their overriding ethic to be great hunters. But now that they have motorboats, rifles, and shotguns, perhaps they have too much of an advantage over the animals they hunt. If this turns out to be the case, then the Inuit will have to curtail some of their hunting or their unique way of life could vanish along with the seabirds, whales, polar bears, walrus, and seals they traditionally pursue. All we can do for now is to watch, gather data, report on our observations, and hope that it will make a difference.

"Return to Uummannaq" is an excerpt from Tim Gallagher's new book, Parts Unknown (The Lyons Press, 2001), due to be released this coming June. Cruising northward on another bone-chilling morning in northern Greenland, Bill Burnham (left) scans for birds with his binoculars. The open boat provides great unobstructed views of the birds and their nesting cliffs, but a little shelter from the wind and weather would be a nice touch.