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Ten Peaks in the Great Eastern Alpine Zone

A list of great mountains expands old ideas of boundaries

Michael T. Jones and Lisabeth Willey



O UR TENTS WERE FACING NORTHWEST, AWAY FROM THE EXPECTED rain, about seven feet apart on a spongy substrate of crushed serpentine gravel. In thick gloom we'd set up a sturdy camp, reinforced with tarps purchased at Canadian Tire, on the floor of a yawning glacial cirque about five miles from the summit of Newfoundland's tallest mountain. We were concretely aware that a large tropical storm, Danny, had followed us up the Atlantic coast and was expected to hit Canada's island province sometime that night. As we'd left the States the day before, radio commentators worried that Danny would cut short the president's vacation on Martha's Vineyard. We fixated on how much water this storm would dump on Newfoundland's coast ranges before spinning off toward Ireland.

Through the early morning, the tents heaved and flapped, and the sound of rushing water grew closer and louder. We awoke early and tightened down the tents; racing fog and a violent, windblown downpour obscured the valley and the surrounding mountains. We managed to string together a few pleasant hours that revolved around cowboy coffee and copies of the Corner Brook *Western Star* newspaper, several of which we had along as part of our plant-collecting apparatus.

By evening, it was clear that we'd chosen the wrong campsite *and* brought the wrong tents. Water pooled on the tent floors and seeped through the flies. Each gust sent a shower of water through the three-season screens. Through the second night, we slept restlessly, if at all. Around midnight, the storm slackened enough for us to hear a group of moose move steadily through camp, and bleary, damp cold settled on our alpine valley. At daybreak, we emerged from the saturated tents expecting a fogscape resembling the previous day.

Instead, we saw a startling mountain vista unlike any other in the East. Sheer walls rose in three directions, forming a semicircular glacial basin more dramatic and expansive than the Great Gulf below New Hampshire's Mount Washington. The ravine had formed along a major geologic boundary. To the east, unvegetated reddish ocher walls of serpentine (rich in metals toxic to most alpine plants) rose a thousand feet to a pronounced ridgeline. But to the west, the cirque wall was richly vegetated with alpine and subalpine species. In the night, great waterfalls had emerged every half-mile or so from the crest of the ravine, draining the storm water from the enormous alpine plateau

A dramatic and expansive landscape of sheer walls and a cirque amazed and humbled the authors on the tallest peak in Newfoundland. MICHAEL T. JONES

above us. Across the valley, a prominent cream-colored travertine seepage contrasted sharply with the orange cirque wall, and below it, three caribou watched us prepare coffee.

SHAKING OFF THE STORM, WE STARTED UP THE VALLEY. ARRIVING AT the top of the headwall, we saw an endless alpine tableland stretched out before us, sloping gradually toward the stony summit. The ground was thickly carpeted with alpine plants and lichen. Behind us, the unnamed cirque opened below us-providing views of the distant Fox Island River valley and the Long Range Mountains to the east. We were completely alone in this vast alpine wilderness. Not a road, or a building, or a power line corridor, or any trace of any other human broke the tranquil scene. We stood for a while at the head of the dramatic, nameless cirque, just as spectacular as those in New England. It seemed natural and intuitive to us that this spectacular place should be permanently protected for future generations and for the mountains themselves. It's an unusual feeling, a juxtaposition of seeming inevitability (how can this place be anything other than a worldfamous preserve?) with evidence to the contrary (new roads, logging, and development). After standing on many eastern summits and feeling the same way, an obvious question emerged: Just how many other unknown, unnamed, and unprotected alpine marvels exist in the East? What else might we have overlooked? During the past eleven years, we've rambled over farflung corners of eastern alpine wilderness to answer these questions. Realizing that many of these spectacular areas receive little or no protection, but have industrial interests encroaching on them ever closer each year, we resolved to redouble our efforts to spread the word about the remaining areas and perhaps help build a constituency for their informed management.

THERE ISN'T ENOUGH TIME IN A LIFE TO CLIMB ALL THE MOUNTAINS one might wish. Even the most ambitious and fortunate will see their time for nonessential pursuits rush through their fingers like fine sand. Discerning mountaineers might develop some system of levelheaded prioritization: a top-ten list of peaks they want to climb, perhaps. Consciously and not, mountaineers everywhere seek out *alpine* mountains, those skyscraping peaks high enough to break through the natural treeline. Many North American alpine peaks are capped by a sort of rocky, distinctive tundra, but the greatest surpass the "alpine zone" for an even higher crown of ice, snow, and rock. The alpine tundra persists just below these summit snowfields, like mantles around them. The actual elevation of the treeline, of course, varies with latitude, aspect, substrate, bedrock and surficial geology, and proximity to the ocean, but everywhere the treeline is an important ecological boundary that provides a frame of reference when comparing different mountains.

In North America, most of the alpine territory is in *the West*, where lifetimes of thrilling adventures await in the sprawling treeless wilds of the Sierra Nevada, the Olympics, the Cascades, and the Rockies. But eastern North America has beautiful alpine wilderness as well—much more than is generally known. Often, the discussion of eastern alpine tundra focuses on the peaks of New England, which support a combined alpine area one-tenth the size of that found in Rocky Mountain National Park.

The total extent of alpine tundra in eastern North America has never really been articulated.

New England's alpine scenery is mostly confined to Katahdin and the Presidential Range. Some of us would go so far as to say these two ridges are world class, or at least worthy of discussion among the other famous alpine summits of North America. Many mountaineers based in New England (through choice or chance) will, in the end, measure their commitment to these two ranges not in trips or hours, but in decades. But, many more eastern mountains await them: Katahdin and Mount Washington (and the smaller alpine peaks of Maine, New Hampshire, Vermont, and New York) together compose only a small fraction of the alpine wilderness in the East. For our purposes, Katahdin and the Presidentials provide context and a familiar launching point for a breakneck but holistic overview of the alpine ecosystems in eastern North America. Alpine mountains, naturally rising above the surrounding sea of boreal forest, continue north from Katahdin in great arcs around the Gulf of Saint Lawrence as far as interior Labrador. East of the Gulf of Saint Lawrence, these mountains run along the Gaspé Peninsula and the west coast of Newfoundland via the major Appalachian chains. West of the gulf, high alpine peaks run at disjointed intervals through Québec and Labrador along the Laurentian Plateau of the Canadian Shield (see the map on page 16).



The top ten peaks on the authors' list lie scattered from the White Mountains of New Hampshire to Labrador. MICHAEL T. JONES AND LISABETH WILLEY

OUTSIDE OF THIS REGION WHERE "ISLANDS" OF ALPINE TUNDRA ARE relatively discrete, *alpine* becomes harder to define. For example, north of this region, in Labrador, the barren ecosystems of the mountains merge with coastal tundra that continues in a great belt around the Arctic. Correspondingly, the great ranges along the Labrador coast (the Torngats, Kaumajets, and Kiglapaits) are in many ways more similar to the arctic ecosystems of Baffin Island, Ellesmere Island, and Greenland than to the alpine islands of New England, southern Québec, and Newfoundland. Similarly, the "eastern alpine" has a distinct southern boundary: nowhere south of the White Mountains do peaks reach the alpine diversity of Mount Washington, although subalpine spruce-fir cap the highest mountains of Massachusetts, Virginia, and North Carolina.

We'd go so far as to say that these islands of alpine ecosystems spanning six states and provinces—are worthy of a more unified approach in conservation and science. Several other more worthy authors have explored this concept: Drs. Merritt Fernald, Arthur Pease, and their colleagues at Harvard explored many of these alpine areas and certainly had a clear sense of the distribution of alpine ecosystems in eastern North America. More recently, Dr. Charlie Cogbill has written a number of excellent papers on the subject of treeline and eastern alpine ecosystems. But the total extent of alpine tundra in eastern North America has never really been articulated in a format that is accessible to mountaineers, hikers, naturalists, conservationists, and scientists alike. There are well over 150 eastern alpine peaks in all. This is a daunting list, considering that dozens of alpine peaks are inaccessible without air transport. Many have yet to receive formal or permanent protection from mining, road building, and development (which isn't to say that there is a clear conservation strategy for any of these peaks). With the hope of reaching a wider audience with this information and gradually building an informed constituency for the eastern alpine region (and, ultimately, its conservation and biodiversity), we've prepared the following list.

Our list is based on four relevant but otherwise arbitrary geographic, geological, and ecological criteria: (I) elevation, (2) isolation (distance from a higher mountain), (3) alpine vegetation diversity based on the number of broad bedrock types present (as these strongly influence alpine vegetation, e.g., limestone, serpentine, etc.), and (4) extent of continuous alpine tundra. At a minimum, each of these peaks or ranges supports thousands of acres of alpine territory. This is to say that the smaller alpine areas such as the Adirondacks, the Greens, Moosilauke, the Franconia Ridge and the Bonds in the Whites, Bigelow, and the rest, beloved and sublime, are (for present purposes) outside of our scope.

Our list of great peaks naturally covers both familiar, accessible mountains such as the Presidential Range—which towers over the others in elevation, but pales in comparison with the great northern ranges in alpine extent and diversity—as well as remote and poorly explored ranges. In the Uapishka Mountains (No. 3) and Lewis Hills (No. 6), a few rough roads come near the mountains and groups like the International Appalachian Trail and Les Amis des Monts-Groulx have cut the first trails, but you probably will not see anyone, should you visit these ranges. These are a long way from the comforts of home, but once there, you'll have a wild and remote alpine landscape entirely to yourself. These mountains still support the full suite of characteristic arctic-alpine fauna. Wolves still roam in the Uapishka Mountains, arctic hare and ptarmigan are common in the Lewis Hills, and you're likely to see woodland caribou above treeline in any of these more remote mountains. In this essay, we also cover two frighteningly untamed ranges: the Mealy Mountains (No. 2) and the Monts Otish (No. 4). There is no ground access to these ranges in summer; there are no trails, and definitely no safety net.

Of course, it's easy to romanticize all of these mountains from the warm, dry comfort of a New England living room. Raw and rotten weather can come to any big, northern mountain, but in the alpine peaks of the Canadian

Mountain	Range	State or Province	Elevation (feet)	Alpine zone	Latitude	Longitude
				(acres) ¹		
1. Mount Washington	White Mountains	New Hampshire	6,288	3,000	44.271	-71.303
2. Unnamed High Point	Mealy Mountains	Labrador	~3,870	>150,000 ³	53.647	-58.554
3. Mont Veyrier	Uapishka-Groulx	Québec	3,622	>150,000 ³	51.531	-68.076
4. Mont Yapeitso	Otish	Québec	~3,700	>75,000 ³	52.322	-70.445
5. Mont Jacques Cartier	McGerrigles	Québec	4,160	3,000	48.988	-65.948
6. The Cabox	Bay of Islands	Newfoundland	2,671	40,000	48.833	-58.484
7. Gros Morne	Long Range	Newfoundland	2,648	1,000	49.594	-57.784
8. Baxter Peak	Katahdin	Maine	5,268	2,000	45.904	-68.921
9. Barr'd Harbour Hill ²	Highlands of St. John	Newfoundland	2,066	15,000	50.820	-56.845
10. Mont Albert	Chic-Chocs	Québec	3,775	7,000	48.903	-66.205

¹Extent of alpine ecosystem is the approximate land area of high-elevation, treeless plant communities with arctic/alpine affinities. Estimates are either based on previously published works (e.g., Kimball, K.D. and D.M. Weirach, 2000. Alpine Vegetation Communities and the Alpine-Treeline Ecotone Boundary in New England as Biomonitors for Climate Change. USDA Forest Service Proceedings RMRS-P-15-VOL-3. 2000) or delineation by the authors using aerial photographs.

² Topographic maps of the area present the "North Summit" (1,619') as a point 7.5 miles to the west (50.83°, -57.02°) of the high point listed here.

³ The total extent of alpine ecosystems on the larger, northern ranges can be difficult to define. At high latitude, alpine ecosystems merge confusingly with taiga, making aerial delineation difficult and arbitrary. In addition, extensive surveys have not been conducted in these ranges, so field-based estimates are unavailable. Shield, it can inspire its own sort of faltering despair. The flies are sometimes miserably and freakishly thick. Luckily, cold rain usually tempers the enthusiasm of the flies, so seldom are both a problem. Because of all this, the shoulder-seasons are nicest; there is sometimes a window in June when the flowers have opened and the flies haven't come. Then, there is a time in September when the flies are gone, the weather is tolerable, and the light is long. Bands of red and yellow color the edges of small lakes. In summer or winter, we hope you decide that these mountains are worth a closer look.



Mount Washington's height and diverse alpine tableland ranks it first on the list. JERRY AND MARCY MONKMAN

Ten Great Eastern Alpine Peaks

1. Mount Washington, Presidential Range, New Hampshire (6,288', 44.27 N, 71.30 W)

For its great height, alpine extent, and isolation from other alpine areas, there's no eastern mountain as significant as Mount Washington and the Presidential Range. It seems intuitive to us (having cut our teeth on their flanks) that the Presidentials would dominate this exercise, but purists might generally prefer Katahdin (No. 8). Katahdin's pronounced remoteness and lack of infrastructure are clear differences, of course, but Mount Washington harbors a much larger and more diverse alpine tableland. Away from the summits and the major arteries (Crawford Path, Ammonoosuc Ravine, Tuckerman Ravine, etc.), much of the Presidential alpine area receives relatively little traffic most of the year. Spectacular alpine plant displays may be found in areas of late-lying snow on and below the headwalls of Oakes Gulf, Tuckerman Ravine, Huntington Ravine, and Great Gulf. Other ecologically noteworthy areas include the Alpine Garden and Monroe Flats near the Lakes of the Clouds. Several arcticalpine species reach their southernmost location in eastern North America on the Presidential Range, including the alpine-arctic plants moss campion, nodding saxifrage, sibbaldia, and alpine cudweed and the American pipit (an arctic-breeding bird). Several excellent guidebooks exhaustively cover the Presidential Range, especially the *AMC White Mountain Guide* (Appalachian Mountain Club) and Dr. Nancy Slack and Alison Bell's *AMC Field Guide to New England Alpine Summits* (Appalachian Mountain Club, 2006), which is also extremely useful on Katahdin, Mont Jacques-Cartier, and Gros Morne. Mount Washington and the Presidential Range can be accessed easily on foot from all the highways surrounding the massif: US 302, US 2, NH 16, as well several smaller roads leading into the range—Cog Base Road, Jefferson Notch Road, Dolly Copp Road.



The glacier-scarred Unnamed High Point of the Mealy Mountains in a remote area of Labrador reminded one alpinist of an inland Norwegian fjord. JERRY KOBALENKO

2. Unnamed High Point, Mealy Mountains, Labrador (about 3,870' 53.65 N, 58.56 W)

The Mealy Mountains or Akamiuapishkua (in Innu), located about 130 kilometers east of the air base at Goose Bay, Labrador, remain one of the least-accessible alpine mountain ranges in all of North America. The range rises to its greatest height in the English Mountains, a series of rounded glacier-scarred Precambrian anorthosite and granite summits on the Grenville Canadian Shield. The alpinist Michael Lederer, whose account of the Mealy Mountains was published in 2009 by the American Alpine Club ("2009: English Mountains," posted at aaj.americanalpineclub.org), describes the range as something between Baffin Island and an inland Norwegian fjord. Many of the remote alpine peaks are unnamed. The coastal position of the range creates a local climate with both continental and marine elements, producing abundant late-lying snow at high elevations. Fortunately, most of this region was recently set aside as a 4,500-square mile Canadian National Park, but there is no supporting infrastructure and the range is no easier to access as a result. Until recently, the English Mountains were poorly known to science, but the Labrador Highlands Research Group of Memorial University has developed a field research program there. The entire massif supports a wide range of alpine and subalpine habitats, from old-growth, closed-canopy white spruce in the river valleys to open-canopy taiga and heath-dominated tundra at the highest elevations. Alpine portions of the range are important habitat for the Mealy Mountain woodland caribou herd, which is considered threatened, and a southern population of willow ptarmigan. The Mealy Mountains are accessible by helicopter (Universal Helicopters, www.uhnl. nf.ca) or float plane (Air Labrador) from Goose Bay, Labrador (expect to pay between \$2,500 and \$5,000). It's theoretically possible to access the English Mountains from the shores of Lake Melville in summer, which would involve a 60-mile boat trip from Goose Bay and an arduous, 20-plus-mile overland traverse through dense spruce forest and string bogs. But overland summer travel in Labrador can be its own special kind of hell, overwhelmingly miserable during the extended black fly season.

3. Mont Veyrier, Uapishka Mountains (Monts Groulx), Québec (3,622', 51.53 N, 68.08 W)

In the black, damp heart of boreal Québec, 450 miles north of Québec City, the massif of the Uapishka Mountains huddles on the taiga like some broken, twisted creature just heaved itself up out of the adjacent Manicouagan meteor



Deep in Quebec, Mont Veyrier sits, a massive hunk of metamorphic rock. MICHAEL T. JONES

crater. The formally recognized name for the entire massif is Monts Groulx, which is simply too banal to persist. Uapishka, an original Innu name for the massif, reportedly means "White Mountains," and is gaining popularity. The Uapishka Mountains have the unusual distinction of being extremely remote and wild and relatively accessible (the western portion of the range may be easily accessed after a 16- to 20-hour drive from New England). In many ways, it represents the most logical starting point for those seeking a truly wild, remote, and unregulated alpine experience in eastern North America. The Uapishka comprise billion-year-old metamorphic rocks of the Grenville geologic province, the southernmost portion of the Canadian Shield, which reaches south to the Laurentian Mountains and the Adirondacks and northeast to the Mealy Mountains. The Uapishka Mountains constitute one of the largest areas of alpine tundra in eastern North America, more than 370,000 acres (more than 50 times that found on Mount Washington). Along the western edge of the massif near Mont Veyrier, about a half-dozen large summits rise prominently from the plateau and provide stunning views of a flooded, Triassic-age meteor crater across the Labrador Highway. An unmarked, eighteen-mile wilderness traverse from north to south (Mont Jauffret to Mont Provencher) may be completed in three to five days. Naturalists trained on Mount Washington will recognize many of the alpine plant species here, although many species typical of the Canadian taiga reach into the alpine snowbeds. Wolves, caribou, black bear, pine marten, and willow ptarmigan are common on the high tundra, and brook trout and arctic char occur even in the highest lakes. The western summits of the Uapishka can be reached from Québec Route 389, the Québec-Labrador Highway, which runs

north to Labrador from Baie-Comeau, Québec. A rough hiking trail at highway kilometer 335 provides access to Mont Provencher; a similarly rustic footpath leads south from kilometer 365 to the massif of Mont Jauffret. Mont Veyrier may be accessed in one or two days' hike from either of these summits. Get a copy of the map published by *Les Amis des Monts Groulx* (www.monts-groulx.ca) or by Beyond Ktaadn (www.beyondktaadn.org).



The rarely photographed summit of Mont Yapeitso, which means "bull caribou." GUILLAUME DE LAFONTAINE

4. Mont Yapeitso, Monts Otish, Québec (about 3,700', 52.32 N, 70.45 W) Two hundred kilometers west of the massive Uapishka Mountains (No. 3) lie the scattered summits, knobs, and ridgelines of the Monts Otish. Rising to 3,700 feet at Mont Yapeitso (which reportedly means "bull caribou"), the fourth-highest mountain complex in Québec, the Otish Range comprises several dozen semi-isolated, boomerang-shaped, or linear summits that are almost completely unknown to adventurers, naturalists, and conservationists. About as extensive as the Uapishka (the alpine region extends about 50 by 30 miles), the Otish are situated in a geologically complex region of the Canadian Shield at the border of the closed-canopy black spruce forest and the lichen forest zone. The mountains lie near the boundary between the Grenville geologic province and the older rocks of the Superior province, but are composed mostly of the Otish group, sedimentary layers from the Proterozoic era, which rest atop the older metamorphic rocks. These layers were formed after faults caused depressions in the basement rock, forming inland seas that allowed the accumulation of sedimentary deposits. The mountains themselves are made up of red sandstone and conglomerates as well as gabbro dykes formed during the Grenville orogeny. The prevalence of sedimentary rock contributes to a particularly interesting, but under-studied, calcareous alpine vegetation unusual on the Canadian Shield. The Monts Otish are accessible in summer by helicopter or float plane from Témiscamie, Québec (www.airroberval.com). Québec has approved plans for a new road to facilitate mining in the area (*Route des Otish*), but it appears that this road will (fortunately) not come close to the higher peaks. Beyond Ktaadn (www.beyondktaadn.org) has published an overview map of the Otish high peaks region.



Most of the arctic-alpine plants known in ranges to the south grow on Mont Jacques-Cartier, 230 miles north of Katahdin. MICHAEL T. JONES

5. Mont Jacques-Cartier, Gaspésie, Québec (4,160', 48.99 N, 65.95 W)

The high mountains of Gaspésie, about 200 miles north of Caribou, Maine, would be the final word on Appalachian alpine biodiversity if not for the mountains of western Newfoundland and their endless alpine wonders. Nonetheless, given that the highest peaks of the peninsula lie merely 230 miles from Katahdin, its alpine biodiversity is stunning. Nearly every arctic-

alpine plant known from the two great alpine peaks in New England (the Presidentials and Katahdin) occur here, as do dozens of others. The diverse alpine vegetation is closely tied to the geology of the region's highest peaks, which include extensive areas of calcareous, serpentine, and potassic bedrock, each harboring a representative alpine flora. The high peaks of Gaspésie, Québec, are roughly divided into two mountain ranges near the Sainte-Annedes-Monts River, which meets the ocean at the town of the same name. East of the river is the tableland of Mont Jacques-Cartier, formerly called Tabletop Mountain and today more broadly referred to as the McGerrigle Range. Together with the Chic-Choc Mountains to the west (see Mont Albert, No. 10), the McGerrigle Range provides habitat for the only woodland caribou herd south of the Saint Lawrence. Critical habitat for this iconic species surrounds the summit of Jacques-Cartier. Both ranges lie within the Parc national de la Gaspésie. Because of the park's geological and botanical diversity, the enormity of its alpine areas, and the breadth and comfort of its front-and backcountry facilities, this is an exceptional destination for mountain exploration at any time of the year. The peaks of the McGerrigle massif may be accessed via Québec Route 299 and numerous side roads. Access to the Jacques-Cartier summit is heavily regulated and a day trip to the peak requires shuttle reservations. Several peaks on the western edge of the McGerrigle Range, including Mont Xalibu and Mont Richardson, are often easier to access. Expect seasonal closures to protect the tundra habitat of woodland caribou. Access through the surrounding wildlife reserves may also be subject to seasonal road closures during hunting season. Obtain a map of Parc national de la Gaspésie from Québec's national parks agency (www.sepaq.com).

6. The Cabox, Lewis Hills, Newfoundland (2,671', 48.83 N, 58.48 W)

From the fogbound ferry terminal at Port aux Basques at the southwest corner of Newfoundland, it's only about two hours up the Saint Lawrence coast to reach the various logging roads that lead into the mountains of the Bay of Islands region. These mountains are broad mesas with enormous alpine tablelands, encompassing four major ranges known as the Lewis Hills, Blow Me Down, the North Arm Hills, and the Tablelands. The highest point on the island of Newfoundland is a windswept and lonely dome known locally as The Cabox, located near the center of the Lewis Hills Range. The Lewis Hills stand as Newfoundland's testament that spectacular mountain scenery can exist at elevations lower than 3,000 feet. The four igneous massifs



The Cabox, a dome near the center of the Lewis Hills, is the highest point on Newfoundland. MICHAEL T. JONES

surrounding the Bay of Islands are famous for their exposures of serpentine. Brilliant orange serpentine bedrock is punctuated by sweeping glacial cirques overlooking the ocean, making the Lewis Hills Range among the most visually spectacular in eastern North America. A wilderness traverse across the Lewis Hills and its sister range, Blow Me Down, can be completed in five to seven days. Some of the best mountain scenery in Newfoundland may be found at Rope Cove and Molly Ann, glacial cirques on the west face of the Lewis Hills, overlooking the ocean. Caribou, as well as rock and willow ptarmigan and arctic hare, are commonly encountered on the tundra of both the Lewis Hills and Blow Me Down. The Lewis Hills may be accessed from the south, by way of logging roads from Port-au-Mal and Cold Brook, or via the winding, rutted Logger School Road, which leaves the Trans-Canada Highway south of Corner Brook. The Newfoundland and Labrador section of the International Appalachian Trail (IATNL) has recently completed trails into Blue Brook off Logger School Road. The IATNL website provides good information about trail and road access (www.iatnl.ca), and Beyond Ktaadn (www.beyondktaadn.org) has published a map of the entire Bay of Islands region.

7. Gros Morne, Newfoundland (2,648', 49.59 N, 57.78 W)

Like Katahdin is to Maine, Gros Morne is the mountain of Newfoundland. The alpine scenery is spectacular. Gros Morne Mountain is the centerpiece of the Gros Morne National Park's world-class tundra-fjord-ocean landscape and the most recognized and visible mountain in Newfoundland. It is not the highest-Gros Morne's quartzite summit crests about sixteen feet below the gabbroic dome of the The Cabox (No. 6), about 60 miles to the south. Gros Morne's winsome and eerie name is sometimes taken to mean "Big Hill," but morne means "sad" or "bleak" and gros means "great," "heavy," or "colossal." Some of these combinations result in too much of an overstatement to be poetic (think "Colossal Sadness"), but "The Big Bleak" definitely has more of a Newfoundland ring to it than does the "Great Somber," another translation sometimes tossed about. The mountain is no bleaker than any other eastern alpine mountain, and its ocean views of Bonne Bay are unparalleled in the East. Gros Morne is bounded to the north by a landlocked fjord, Ten Mile Pond, and to the south by a large cirque; the Long Range runs out the view to the eastern horizon and the serpentine Tablelands balance the mountain scenery across Bonne Bay. Gros Morne is composed largely of quartzite, which distinguishes it from the gneissic Long Range that runs the length of Newfoundland's northwest coast. The alpine vegetation of Gros Morne shares more in common with Mount Washington (No. 1) and Katahdin (No. 8) than the serpentine portions of the Lewis Hills (No. 6). The flat tableland of Gros Morne harbors large populations of rock ptarmigan, arctic hare, and caribou, and may be the most accessible place to see all three of these alpine-loving species. Gros Morne National Park has information available at the visitors' centers as well as online (search on the Parks Canada



The name of Gros Morne Mountain, the most visible peak in Newfoundland, could be translated to mean "The Big Bleak." That moniker might seem a little unfair given its stunning coastline view. MICHAEL T. JONES

website, www.pc.gc.ca). The Long Range (multiday) Traverse is an eastern classic but requires coordination with Parks Canada officials and a permit from the park. Start this traverse with a ferry across Western Brook Pond fjord and end on Gros Morne Mountain itself. If you've only got a day, the nine-mile round-trip James Callahan Trail leads to the summit where spectacular views may be had of the coastal fjords and the Long Range. The trailhead for Gros Morne Mountain is located four miles east of Rocky Harbour. Check with the park in advance; the mountain summit is closed seasonally for caribou calving.

8. Baxter Peak, Katahdin, Maine (5,268', 45.90 N, 68.92 W)

Looking back on one and a half centuries of reverence for this mountain, it might be easy for the uninitiated to assume it's overrated. It isn't, of course. Among Katahdin's early explorers was Henry David Thoreau, who made the trek from Concord during his second summer at Walden Pond. In his follow-up essay "Ktaadn," (which formed a chapter in his book *The Maine Woods* [first published in 1864]), Thoreau redefined his understanding of wilderness based on his frightening experiences at Katahdin's treeline. In his journal, he wrote, "For what canst thou pray here—but to be delivered from here?" In the 1840s, Katahdin hovered at the edge of burgeoning frontier industry that had reached into northern Maine. Today, frontier mountains such as the Uapishka



Katahdin's windswept ridge frightened Henry David Thoreau in the mid-1800s. LISABETH WILLEY

(No. 3) and Lewis Hills (No. 6) have been made similarly accessible by haphazard resource extraction. In some ways, Katahdin is ecologically similar to Mount Washington (No. 1): its granitic bedrock supports a similar suite of alpine plant species and its eastern facade is deeply indented by treeless cirques. Katahdin's alpine tableland supported a local caribou herd until the early 1900s; two subsequent reintroduction efforts failed.

There is a wealth of information about Katahdin, and a good place to start is with Baxter State Park. Authorities carefully regulate access to Katahdin, and those not familiar with the peak should consult with them before heading that way. The North Basin is a spectacular cirque on the east face that is both accessible (from Chimney Pond) and relatively quiet.



The remote rocky plateau of Barr'd Harbour Hill, in the Highlands of St. John, supports a range of alpine plants. MICHAEL T. JONES

9. Barr'd Harbour Hill, Highlands of St. John, Newfoundland (2,066', 50.82 N, 56.85 W)

Eighty miles north of Gros Morne (No. 7), the Highlands of St. John are paired quartzite massifs, banded with limestone cliffs, topped with a broad, flat summit of sandstone felsenmeer. The Highlands' name derives from their vantage overlooking St. John Island, and not from the city of St. John's on the southeastern tip of Newfoundland. Dr. Merritt Fernald visited these peaks in the 1920s, and his accounts provide insights into the logistics of alpine adventure on the edge of civilization 100 years ago. The requisite bushwhack through krummholz (the wind-stunted trees are known locally as *tuckamore*) to reach the plateau makes the place seem no closer to civilization today. Recently cut logging roads now reach high up the northern flanks, and the Highlands have been variously proposed for silica mining and a biodiversity reserve. The windswept, white tablelands support what eventually comes to seem like a very familiar and common alpine flora: black crowberry, alpine bearberry, mountain cranberry, three-toothed cinquefoil, bog bilberry, and Labrador tea in open rock fields, with scattered patches of alpine azalea, diapensia, mosses, and lichens on exposed sites. In protected areas under spruce krummholz, starflower, bunchberry, northern comandra, bakeapple, and Canada mayflower are common. Especially on the eastern portion of the North Summit above its central canyon, small bogs fill depressions on the tableland where deer's hair and bakeapple grow thick. In places on the most exposed tableland, the felsenmeer (a German term, literally, "sea of rock") is pocked with polygons and circles of vegetation, some filled with crowberry and others by black spruce or common juniper. Among these are occasional frost boils of clay and gravel.

Perhaps the most striking element of the Highlands, though, is the caribou herd. Deep, entrenched caribou trails meander through the peat of the tableland. Dozens of antlers strewn across the felsenmeer suggest that at some times of year the Highlands abound with these majestic creatures. The fastest route up either of the Highlands of St. John is from the logging roads (e.g., Squid Cove Road) that leave Route 430 just north of the North Summit. In a sturdy, high-clearance vehicle, you can wind your way within a couple of kilometers of the rocky plateau, leaving only a couple hours' struggle through the tuckamore. Alternatively, a short access road cuts from Route 430 east toward the visible power line right of way, leaving an extremely steep halfmile bushwhack to access the cliffs below the plateau. Beyond Ktaadn has published a map of the Highlands of St. John (www.beyondktaadn.org).

10. Mont Albert, Gaspésie, Québec (3,775', 48.90 N, 66.21 W)

This serpentine giant stands like a massive red monolith among the rest of the Chic-Choc Range and offers starkly different mountain scenery than the metamorphic and granitic peaks south of the Saint Lawrence. Compared with the distant and remote Lewis Hills (No. 6) in Newfoundland's Bay of Islands, the serpentine massif of Mont Albert is relatively accessible from New



The unusual geology, abrupt changes at treeline, and caribou wandering about, all vaulted Mont Albert in the Chic-Chocs onto the list, even though the mountain lies only twelve miles from No. 5. LISABETH WILLEY

England and Québec City. Although only twelve miles from Mont Jacques-Cartier (No. 5), Mont Albert warrants its own entry into this list because of its unusual and visually stunning geology. As mentioned earlier (No. 5), the Gaspé Peninsula offers a wide range of alpine recreational opportunities, and largely because of Mont Albert, is unrivaled in its scenery, alpine area, and alpine biodiversity south of the Saint Lawrence. The northeastern face of the mountain can be traversed via the eleven-mile developed footpath beginning and ending near the *Gîte du Mont-Albert* and traversing the ravine called the *Cuve du Diable*. From the north, the vegetation changes abruptly after you reach treeline, where the bedrock gives way from amphibolite to serpentine. Alpine wildflowers typical of serpentine mountains are abundant here, including alpine catchfly, Labrador sea thrift, Lapland rosebay, and several sandworts and chickweeds. Caribou are common on the tableland. The same map and references as for Mont Jacques-Cartier (No. 5) apply to Mont Albert. Acknowledgements. The authors wish to acknowledge the Guy Waterman Alpine Stewardship Fund, Sally Waisbrot, Steve Sauter, Janet Chayes, and the Beyond Ktaadn team: Tom Seidel, Will Kemeza, Iona Woolmington, Noah Charney, Charley Eiseman, Nate Lavey, Matt Burne, Val Stori, and Amanda Devine. The authors also thank the Walden Woods Project, Beyond Ktaadn's fiscal sponsor; and Steve Young, founder and longtime director of the Center for Northern Studies, who first introduced them to the Newfoundland alpine and has been their mentor for a decade. Finally, thanks to their friends and partners in Canada: Michel Denis, Dominic Boisjoly, Isabelle Thibault, J.P. Messier, Marie-Pierre Clavette, Guillaume Fortin, Daniel Germain, Stewart and Marta Butt, Paul Wylezol, and Kevin Noseworthy.

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