

predawn light has begun to brighten the eastern horizon, but I still need my headlamp as I scramble along under a cloak of maples and oaks. I make up time on a clear stretch of trail but immediately slow down again to avoid stumbling on loose stones. I'm hurrying because I'm late. I was hoping to be on the summit of Hogencamp Mountain by now.

As the forest thins to scattered trees, the trail gives way to smooth gneiss, that metaphoric bedrock of the Hudson Highlands. The oaks get shorter, and the canopy—a three-dimensional tree ceiling covering the vast majority of hiking trails in the Northeast—lifts like clouds after a storm. Almost without warning, I find myself walking with a shadow cast by the moon. The solid rock beneath my feet gives me confidence, allowing me to lift my head and look around. A few bright stars linger as dawn creeps over the eastern hills of Harriman State Park. I grab a patch of rock and settle in for the show.

This is my first trek up Hogencamp, a 1,366-foot peak in New York's Hudson Highlands region. It's a far cry from the 111 northeastern peaks that top 4,000 feet—a benchmark in regional geography and psychology. Four-thousand footers not only provide access to subalpine zones dotted with spruce and fir; a select handful rise into true alpine conditions. From a visceral standpoint, this is where one feels both small and significant at the same time.

Commonly known as treeline but more accurately termed forestline, the elevation where trees stop and vis-

tas begin is determined by a number of factors, including wind, snow, soil, and summer temperatures. Although there are plenty of exceptions (scouring winds can lower treeline, while protection from wind and a moderate snowpack can encourage growth higher up), researchers have suggested 4,900 feet as the approximate climatic treeline in the Northeast's highest mountains.

And yet, from northern New Jersey to northern Maine and the remote Adirondacks to Boston's Blue Hills, dozens of bald peaks below 4,000 feet feature hallmarks of higher-elevation environments: scant shrub cover, expansive bedrock, and 360-degree views. What accounts for these low, open summits—some of the most rewarding, accessible, and fragile peaks we have? Several, such as Acadia National Park's Cadillac Mountain (1,530 feet) or New Hampshire's Mount Monadnock (3,166 feet) and Mount Chocorua (3,490 feet), are celebrated highlights of our regional hiking repertoire, while other gems, including Hogencamp, the Taconics' Alander Mountain (2,239 feet), and Maine's Rumford Whitecap (2,210 feet), are less well known.

Intrigued by these low peaks' curious natures and stunning views, I set aside a prime autumn weekend to explore two balds on opposite ends of the AMC region, in the dramatically different landscapes of southern New York and western Maine. On both excursions, I set off hours before dawn with three goals: to walk with the moon, to observe the summit sunrise, and to untangle some of the mystery surrounding these ecological oddities.





Open summits often come in clusters, as in New York's Hudson Highlands, home of Hogencamp Mountain (left), and New Hampshire's Dickey Mountain (right).



Sunrise casts a rosy glow over the grasses, blueberry bushes, and other plants cloaking western Maine's Rumford Whitecap Mountain.

## FIRE ON THE MOUNTAIN

Hours after the glorious sunrise on Hogencamp Mountain, I circle back to the trailhead via several side trails. Along the way I pass charred trunks of trees left from fires that scorched the area in 2001. Fire is a common factor in opening—and keeping open—peaks that otherwise might remain forested. Historically, mountains burned due to lightning or to clearing fires set intentionally by American Indians. During the 1800s, many fires raged through the Northeast, consuming the slash, or woody debris, left in the wake of heavy logging. The vegetal regrowth that appeared postfire adapted to its new environment, which was drier and rockier, with less soil.

Fire is responsible for clearing many Northeastern summits, including several beloved balds in the greater White Mountain region. Mount Cardigan (3,121 feet), in central New Hampshire, experienced a severe fire in 1855. An adjoining subpeak, Firescrew, was named for the event. Mount Monadnock, the lone and previously forested peak of southwest New Hampshire, first burned in 1800 and was torched again in 1820 to rid the region of wolves. Moat Mountain burned in 1854. While the causes are unclear, Mount Chocorua burned three times, around 1815, 1903, and 1915. On this peak and so many others, once the summit had burned, the vegetation disappeared, and the soil washed away.

Although I'm new to hiking the burned pates of the Hudson Highlands, the region quickly wins me over with its open tops and rocky ridges. Before launching my investigation into balds, I had subscribed to the notion that the higher the mountain, the better the hik-

ing—whether in New York or farther north. But here, long hikes aren't continuously straight up, and short hikes—ideal for budding naturalists—offer big rewards. I catch frequent glimpses of the Manhattan skyline and the Hudson River, and I lament that several summits within the sprawling West Point Military Academy grounds are off-limits to me. Fortunately, they're fair game for rock-loving snakes and lizards: the natural denizens of these low, dry, fire-adapted crests.

## OTHER BALDING AGENTS

Fire isn't the only factor in keeping low balds open. Peaks closer to the 4,000-foot contour are strongly influenced by climate in ways similar to true alpine environments. This is the case in northern New England, where the increase in latitude mimics a rise in elevation. The Mahoosuc Range, for example, on the border of northern New Hampshire and Maine, contains unique heath communities on open summits near 3,500 feet. Conditions here are more intense than equivalent elevations in, say, the Catskill Mountains, 200 miles south.

Geology also plays a role. Where one mineral bumps up against another, you might even see a sharp line delineating the vegetation. Trees can flourish or flounder, depending on a site's soil chemistry. But some of geology's influence is purely pragmatic: If a rock lacks cracks or crevices for trees and plants to take root in, vegetation will be sparse. If the rock breaks up easily, trees will dig in, and balds will be few and far between.

We see this verdancy in Vermont, where the phyletic schist of the Green Mountains is not only nutrient

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rich but also fractures more easily than, say, the granite of New Hampshire. That's why we're hard-pressed to find low, bald mountains in Vermont so common in its twin state to the east. Thanks to geology's influence on vegetation, open summits tend to be clustered. The Hudson Highlands, Adirondacks, western Maine, and New Hampshire are home to lots of balds; Vermont and Pennsylvania, few indeed.

On peaks with wide, open areas of smooth bedrock, an additional phenomenon plays a role in hindering tree growth: ice creep. As winter snowpack succumbs to gravity and slowly slides downhill, it inhibits lichen and moss from building soil, thereby preventing the larger plants that would otherwise follow.

Similar to large flora, fauna can be scarce on balds, but the lucky hiker might spot a migrating raptor. A hawk flying north from the Hudson Highlands to western Maine would soar over the open peaks of mounts Race (2,365 feet) and Alander in Massachusetts, Putney Mountain (1,660 feet) in southeast Vermont, and Mount Kearsarge (2,920 feet), among others, in central New Hampshire.

My own overnight journey to Maine is much less exciting, but it allows me to get an early start on one of the region's best hikes.

ONLINE

outdoors.org/cairns.

Because they lack suitable trees for blazing, bald summits are typically

dotted with cairns. These stone stacks

delineate unseen paths, keeping hikers

from trampling delicate vegetation and

of cairns and browse a slideshow at

getting lost. Learn more about the history

## **INTO THE BALD-LANDS**

Twenty-four hours after my last summit sunrise, I get a second helping of awe when golden light unfurls over the hills of western Maine. Following an on-time departure from the trailhead and a couple of hours' ascent though forested darkness, I arrive at the bald peak of Rumford Whitecap Mountain.

The white granite glows in the early light, contrasting starkly with dark islands of shrubs, lichens, and small trees. From Rumford Whitecap, I can see the rocky tops of Tumbledown Mountain (3,054 feet), Little Jackson Mountain (3,470 feet), and Sunday River Whitecap (3,335 feet). Farther afield lie Baldpate Mountain (3,790 feet), North and South Baldface (3,606 and 3,557 feet), Speckled Mountain (2,183 feet), and Bald Mountain (2,370 feet). The border of New Hampshire and Maine is open-summit country, a rock-walker's promised land of solid trails and big views.

It's also the Northeast's greatest density of open peaks below 4,000 feet. Granite bedrock and a history of postlogging fires, not to mention proximity to the North Atlantic and its accompanying rough weather, have



A biggie on any Northeast hiker's must-spot list: three-toothed cinquefoil.

created a landscape dotted with barren rounds. Rumford Whitecap ranks among the best, with a mile of open ridge at an elevation of only 2,210 feet.

A 4.5-mile trail network of moderate difficulty leads me up and down this interesting yet fragile ecosystem. An uncommon, fire-adapted red pine woodland, the largest of its kind in Maine, covers Whitecap's slopes, while the summit is home to three rare plants: mountain sandwort, silverling, and Canada mountain-ricegrass.

Whitecap isn't alone in housing unique and delicate vegetation. Many balds contain rare plants and natural commu-

nities. Cardigan showcases Bigelow's sedge and headlike sedge, while Monadnock harbors mountain cranberry, highland rush, and boreal bentgrass. These mountains are unusually low for such signature alpine species: Climatic treeline on Monadnock would be about 2,000 feet higher. Historical documents suggest the plants arrived after fires cleared the crests.

Exploring balds is about making time to take in the details, from grass-

es and berries to the charismatic three-toothed cinquefoil. "The view is the first thing people notice when they get up there," says Nicky Pizzo, AMC's Pinkham Notch program manager, who has led countless groups up Mount Cardigan. "I like to slow them down and show them the little things. Hikers striving for the summit sometimes miss the small plants." These unique inhabitants make low balds special, but they also make the peaks vulnerable. In revealing the unseen, Pizzo hopes to engender a new appreciation, which could in turn lead to stewardship.

## **UPPER MANAGEMENT**

And thus we arrive at a paradox, where especially rare and fragile ecosystems double as immensely popular hiking destinations. Mount Monadnock alone sees more than



Rocks and downed limbs form protective borders around Dickey's fragile vegetation (top). Many hikers say the region's views, including that from Rumford Whitecap (bottom), deserve the same consideration.

100,000 visitors each year, bringing the connected issues of trampling and trail management to the forefront. Lichens and small flowers take decades to grow but can be crushed in a moment by a child's foot.

The joined peaks of Dickey (2,734 feet) and Welch mountains (2,605 feet), near Waterville Valley, N.H., owe their openness to a complicated history of destruction. A hurricane in 1815 downed trees; a fire in 1820 burned them off; and a torrential rain in 1826 washed away anything left behind. Beginning around 1990, volunteers placed rocks around the emerging islands of vegetation, clearly defining the path and preventing hikers from stomping on the plants. The 4.4-mile, moderate-difficulty loop is a success story in trail management.

The process of forest regrowth poses its own challenges. If we take the names of mountains as literal descriptions of earlier conditions, New England and the Mid-Atlantic

states had many more open summits during the mountainnaming era of centuries prior. According to the United States Geologic Survey index of geographic names, Maine alone gives rise to at least 31 landforms named Bald Hill, Bald Mountain, and the like. Of these, however, only seven are open or somewhat open today. This is largely a result of history. The logging and subsequent fires that cleared so many mountains created these so-called "balds." But fire suppression, and natural succession in locations where the soil didn't wash away, allowed the trees to return.

This raises an interesting management dilemma that hits home for many hikers: Should open summits be maintained to preserve their views? Or should balds be left to nature's reclamation? Years from now, lacking fire or active management, trees will take over many peaks. Where they succeed, rare plants that thrive only in the open likely will disappear.

To further complicate the issue, many would extend the question of management to the surrounding viewshed. From atop Rumford Whitecap, I count more than 30 wind turbines on nearby ridges and just as many communication towers. On a hike up North Percy Peak (3,430 feet), an open pinnacle in far northern New Hampshire, the number of turbines visible from the summit was overwhelming. "With the number of wind farms being proposed and the height of turbines approaching 600 feet, more of these popular bald peak viewsheds will likely be impacted by industrial-scale wind farms," says Ken Kimball, AMC's director of research. AMC has negotiated settlements to reduce turbines' visual impact, but with more and more demand for cleaner power and faster wireless communication, these proliferating towers threaten to alter the vistas of once-remote, open high points.

Today, though, I catch a splendid sunrise on Rumford Whitecap before a gaggle of hikers arrives, making its way across a slab of granite that's broad and smooth enough for a contra dance. The group is giddy. And hurrying. Perhaps they departed later than planned. The wind starts to blow, and I begin my descent. I'm hoping to reach the top of nearby Tumbledown Mountain before long.

I cross open bedrock veined with sage-colored lichen, clumps of tawny grass, and scarlet shrubs. One after another, the trees rise taller: red spruce, red pine, then maple and oak. A canopy of foliage envelops the trail.

The Northeast is rich with open balds. Choose one. Climb it. Ponder its lack of trees. Slow down for its plants. Be there for sunrise—and don't be late. ●

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