



Male spruce grouse.

Arboreal Attachments

Alaska's ties to the humble spruce

BY MICHAEL ENGELHARD

DAYS OR WEEKS AFTER CHRISTMAS, RESIDENTS OF TREELESS Nome drag spent, scrawny spruce from their homes, propping them up on Bering Strait ice. Referred to as the “Nome National Forest,” this offshore display is as much the result of longing as it is a joke. Nomeites will travel 60 miles to the abandoned townsite of Council, at timberline, to harvest Christmas trees or simply to look at threadbare forest. We’re not talking yellow cedar or hemlock here, just white spruce, and black spruce resembling bottlebrushes. The infatuation runs rampant across the north; Sitka spruce is the state tree. Alaskans have long loved conifers as one-stop, low-budget “stores” akin to urbanites’ obsession with big-box suppliers.

The Interior’s Koyukon Athabaskans, a true forest people, used spruce wood for deadfall and basket fish traps, for boats, houses, elevated caches, tent frames, sleds, bows, and as fuel. Pitch made great chewing gum or canoe caulking. The clear sap healed sores, while an infusion from the needles was thought to cure kidney problems and to transfer the evergreen’s spirit power. Boughs

covered tent floors and roofed summer huts, whereas bark yielded shingles. The cambium, a layer between heartwood and bark, could be ground up into survival rations. Roots became tightly coiled baskets, or thread for joining birch bark sheets into canoes. Spruce nourished the mind as well. Like a maypole or Lakota Sun Dance pole, a decorated trunk united villagers at the Stick Dance, a potlatch that honored the dead.

Nine hundred miles to the south, the Tlingit cherished Sitka spruce, which thrives on summer fogs and moist soils. They fashioned it into fish spears, canoes, paddles, slat armor, herring rakes, and richly carved house posts; they wove root mats and rainproof hats, and bark mixed with mountain goat wool into Chilkat blankets.

Non-Native newcomers found their own applications. They brewed beer by boiling the branches—Captain Cook had to ration this antiscorbutic drink on his North Pacific voyage. They carpentered oars, ladders, planking, scows, masts, and cabins and planed resonant soundboards for violins and guitars.



Spruce burl bowl by Fairbanks woodcarver Philip Marshall.

Lucrative during both world wars, Sitka or “airplane” spruce was shipped stateside for the manufacture of light aircraft and gliders. Pulped into newsprint it broadcast the Armed Forces’ successes. Coveted still for most of these purposes, and for wind turbine blades and racing sculls, spruce now also delights homeopaths and gourmets. Its young, bright-green, tender tips give a citrusy tang to syrups, jellies, teas, salads, gargles, restorative baths, gum sticks, and artisanal ice creams.

The copious trees likewise provide for wildlife. Their cones and foliage feed deer, porcupines, elks, bears, rabbits, and, of course, the eponymous, perfectly camouflaged grouse. Owls, bald eagles, and peregrines roost in the vertical larders’ moss-bearded branches, which screen moose and other wolf prey in the winter. Eagles nest in spruce crowns and, dragging salmon ashore, assist the nutrient transfer between ocean and forest. The canopy, conversely, shades salmon streams, keeping them cool and free of sediment from erosion.

Tree ring analysis in the Arctic has contributed to our understanding of climate change and to dating archaeological sites, especially near shifting tree lines. Longer summers ingrained as growth spurts, visible as broader rings in core samples from driftwood, house remains, or living trees. Aligned with boreal chronicles established elsewhere, these add up to a record of regional environmental conditions that spans centuries. However, black or “bog” spruce rooting in poorly drained muskeg often prove useless for dating, as their rings get distorted.

The largest of all spruces in girth and height and third tallest of the world’s conifers, the Sitka variety in its southern range can grow to more than 300 feet and live 800 years. On Prince of Wales Island, its fungi-harboring roots tap limestone caves 40 feet down. The branches and buttressed trunk of mature trees host other plant life, from mosses to liverworts, lichens, and ferns. Absorbing a parent tree’s nutrients, saplings sprout phoenix-like from “nurse logs”—the bodies of fallen, decomposing giants.

Weakened by beetle outbreaks and drought, Alaska’s spruce increasingly wither, fall to high winds, or go up in smoke. A signposted specimen on the Dalton Highway, the northernmost along the pipeline and a middling attraction even in its prime, turned into a pitiful skeleton. In evolution’s arms race, the bugs developed pheromones to communicate with each other, thereby locating mates and susceptible host trees. Black spruce seldom gets infested, and white spruce targets insects with special chemicals of its own.

A Koyukon myth tells of a woman who heard a tale so sad that she gouged her skin until she started to cry. She transformed into the very first spruce tree, with skin equally tortured and rough. The story stays mute on what later befell her. 🌲

Michael Engelhard lived for years in a cabin among black spruce on the swampy outskirts of Fairbanks, but his favorite Alaskan trees are the quaking aspen on the town’s hills. For firewood, however, he prefers birch.

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