

Quincy Bog Notes

Conserving Land, Connecting People with Nature

Spring 2018

Volume 26 Number 1

Tamarack – An Unusual and Sometimes Unsung Conifer of the North

Jim Frohn

Tamarack, hackmatack, eastern larch – these are all words for the same tree with the scientific name *Larix laricina*. Also called juniper in parts of Maine, the multiple common names are a good reminder of why we have scientific names – to provide a universally recognized name for a species.

While the Latin *Larix* means larch, and *laricina* means colors, none of the many common names capture one of the most interesting aspects of the species. This is a conifer that loses all its needles every fall, after they turn a yellow-gold color. Aldo Leopold, a well-known ecologist, forester, and author described the color of tamarack in the fall as “smoky gold”. The soft, short needles also have a unique look, arranged in clusters along the tree’s branches. The bark of the tree is platy, like corn flakes, and at a quick glance can sometimes be mistaken for spruce.

Range and Habitat

Among all the North American conifers, tamarack has one of the largest ranges, but is mostly found in the northern half of the continent. Its southernmost location is in the mountains of West Virginia, but it is more commonly found from Minnesota east to New England, and north into Canada all the way to the northern tree line, including parts of Alaska.

As one can guess from its broad range, larch is tolerant of many different soil and temperature conditions. It competes best on moist to wet organic soils, which is why it is often associated with peatlands and bogs. The tree can grow in very acidic conditions and can also withstand some extremely cold temperatures, surviving at -85° Fahrenheit!



Looking up at a tamarack crown in the dormant season. Photo by the author.

If one wants to establish a stand of tamarack, abundant light is required. Tamarack is very intolerant of shade, and is referred to by foresters as a pioneer species. In other words, it is one of the first species to occupy a disturbed site, establishing

readily on burns, clear cuts, and abandoned agricultural land, especially those with poorly drained soils. It is commonly seen growing on roadsides, old log landings, field edges, and other places where a significant disturbance created an opening and exposed mineral soil. Tamarack seeds germinate well on mineral soil and on moss, which is why they can become established in peatlands.

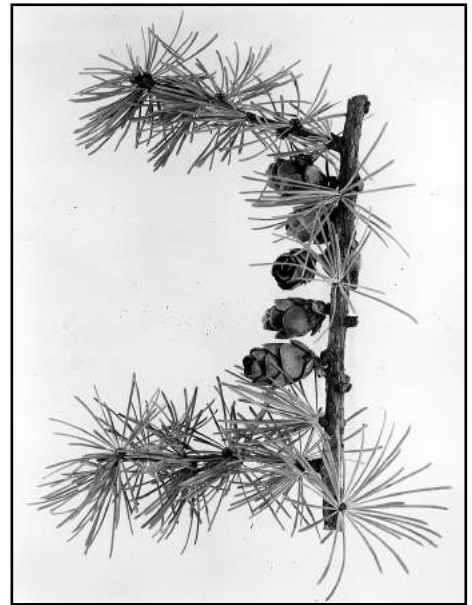
Due to tamarack’s affinity for wet sites and its intolerance of shade, it is typically found in association with other species that share similar ecological characteristics. Some common associates in wet organic soils are black spruce and northern white cedar. On sites with slightly better drainage, balsam fir and white spruce are found growing alongside tamarack. The species is also found with quaking aspen, grey birch, and white birch on old field sites, and with alder, willow, and red-osier dogwood in areas of old, poorly drained pasture or field.

Uses

Tamarack is an Algonquin word for “wood used for snowshoes”. The wood is flexible yet tough, and lends itself well to this use in northern regions where ash, another wood commonly used for snowshoe making, isn’t readily available. Native people also used the fine roots of tamarack to sew birch bark. Other uses of tamarack by natives included dogsled runners, boat ribs, and fish traps.

When Europeans arrived on the continent, they found another use for the roots of tamarack, or more accurately the lower trunk of a mature tree combined with the surface root. Tamarack tend to be shallow rooted, given their propensity for wet soils, and this forms sharp angles between the trunk and the surface root. This habit, combined with the rot resistance of tamarack, created wood suitable for ship “knees”. Knees were used for many applications in ship and boat building where strong but sharply angled pieces of wood were called for, mostly notably

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Needles and cones of tamarack.
Image by W.D. Brush, hosted by the USDA-NRCS
PLANTS Database.

President's Perspective

Janice Mulherin

Spring has sprung!! Mother Nature offered up several late season Nor'easters and below average temperatures before winter lost its grip. With spring's arrival, we reap the rewards of sweet maple syrup, vivid green colors, fragrant trailing arbutus, and the glorious songs of returning birds. Spring has also re-awakened wildlife at the Bog and new beaver dams have sprouted up (although not always in a convenient way from the human perspective).



Even if you don't see any beavers during your next visit to the Bog, you will surely see signs of their presence! Photo by Sue Buttrick.

At a recent workshop I attended, the speaker asked "What are your community treasures?" I like to think that Quincy Bog makes the short list for many of us. She talked about natural places connecting people to each other, as well as to our land and water. We crave places where we can come together. That sounds a lot like what happens at the Bog.

I hope you will mark your calendars for our Wednesday Evening Programs and our Nature Walks, as I am sure you'll find something you can enjoy. Our trail crew is busy with repairs and we expect to see even more improvement as the season progresses. Our Bog Hosts are ready to greet visitors at the Nature Center and on the trail, so please stop by and say "Hello". For those of you looking for a more challenging (and often less crowded) hiking experience, and a different perspective than the Bog offers, check out the Quincy Pasture Forest trails. Trail maps are available on our web site or at the trailhead's kiosk on East Rumney Road, in Rumney.



A view of Loon Lake is one highlight of the hiking trails at Quincy Pasture Forest.

This spring we also welcome new board members: Judi Hall, John Richards, Jess Halm, and Paul Wilson. All have frequented the Bog for many years and we appreciate the time and talent they bring. Steve and Judy Stokes Weber (departing board members) have packed up and moved west, fortunately only as far as Vermont. We are thankful for all they have done for the Bog and look forward to when our paths will cross again.

Enjoy the wonders of spring and see you at the Bog!

Janice Mulherin enjoys the changing sights and sounds that each season brings to our NH landscape. She is in her fifth year as President of the QBNA.



Trailing arbutus at Quincy Bog. Visit our Facebook page and our website to enjoy great images of the scenery, flora, and fauna of this special place!

Join the Friends of Quincy Bog



The volunteers of Quincy Bog Natural Area and the Pemi-Baker Land Trust bring tremendous energy and enthusiasm to *Conserving Land, Connecting People with Nature*. We have

no paid staff, so our progress depends on the efforts of people who care about the Bog and other natural places. Our trail improvements, educational programs, and land conservation efforts would not be possible without the generosity of our Friends. We know you believe in our mission if you're reading *Bog Notes!* Please consider supporting our work by sending a donation (along with your contact information) to the following address:

Quincy Bog Natural Area /
Pemi-Baker Land Trust
P.O. Box 90
Rumney, NH 03266

Thank you from all of us at QBNA/PBLT!



Junior Naturalist Corner

Marguerite Crowell

What does the word "tree" mean?

About 900 years ago, "tree" in Old English meant "thing made of wood." Wood is useful for building and heating our homes. Trees provide fruit and nuts for animals and people to eat. Trees are important for other reasons too. They take in carbon dioxide and release oxygen, which we need to breathe. That's definitely a good thing! In one day, one large tree makes enough oxygen for four people. Tree roots also help hold the soil together, which prevents erosion and muddy water.

What are some other uses for trees?

Some herbal medicines, coffee, rubber, paper, some soaps, and maple syrup all come from trees!

Cool Facts

- Some kinds of trees live longer and grow larger than anything else on earth. The oldest known tree is "Methuselah", a 4,760-year-old Bristlecone Pine tree in California.
- The tallest living tree in the world is also in the U.S.A: a Redwood that stands over 364 feet tall (that's taller than the Statue of Liberty and longer than a football field!)
- The slowest growing tree known is a White Cedar in Canada: it is 155 years old, and only 10 cm (less than 4 inches) tall!

Getting to Know Trees



Photos of Chestnut tree at Kew Gardens in London, England
Image source: <http://magazine.rnli.org>



How do trees help our environment?

All our surroundings, including the air, soil, water, plants, animals, and other forms of life make up the environment. Trees are nature's air conditioners. They transform liquid water into a gas called water vapor, and release it through tiny holes in their leaves. Each time this happens, the leaf surface and the air around it cools just a little bit. One tree can cool as much air as ten room-sized air conditioners running twenty-four hours a day! Trees planted near buildings can reduce the need for air conditioning. So, trees can even save us money, in addition to the many other benefits they provide us!

Cool Fact — The "Whomping Willow" in the Harry Potter books and movies is based on a chestnut tree in London, England's Kew Botanical Gardens! That tree is over 300 years old!

Want to learn more about trees?

Here are some great books to explore: *Operation Redwood*, *The Tree-Sitter*, *The Giving Tree*, and *Yggdrasil: The World Tree*.

What is a tree's least favorite month?

Sep-timber, of course! ☺

Since joining the board of directors in 2012, **Marguerite Crowell** has found many ways to help others enjoy and learn about nature at Quincy Bog.

Water & Wild Places in the Baker River Valley

Lisa Doner

It's easy to forget, when the Bog first comes into view and the sights of lily pads, ducks, and turtles take hold of the imagination, that Quincy Bog is part of a much bigger system of wetlands in the Baker River Valley. From the headwaters of the Baker River on the slopes of Mount Moosilauke and Streeter Mountain, this wetland complex stretches over 36 miles to the confluence with the Pemigewasset River in Plymouth. Along the way, the elevation drops from 3,500 feet, at Jobildunk Ravine on Mount Moosilauke, to just 480 feet near the Armory in Plymouth.

All along the length of the valley are numerous beaver ponds, fens, vernal pools, manmade reservoirs, small streams, and, of course, the Baker River. Each of these wet areas is part of the greater wetland system – and each plays a role in keeping the whole valley supplied with high-quality aquifer water, rich in plant and animal diversity, and protected from catastrophic flooding.

The Baker River Watershed Association (BRWA) helps steward this system, bringing together the four towns that line the banks of the river to raise environmental consciousness, monitor water quality and flooding risks, and create a forum for people interested in protecting the watershed.

This year, the BRWA is involved in several activities that serve this mission. A water quality team collects monthly water samples

from 13 popular swimming areas, testing for *E. coli* and chloride (from road salt). This summer, interns from Plymouth State University will visit these same sites every two weeks to monitor river health, tracking water clarity, oxygen levels, and pH. The BRWA also hosted a special race class in this year's first-ever Baker River Regatta, with prizes for removing trash from the river. And, on August 4 (rain date August 5), the BRWA is organizing a multi-town river clean-up event with individual organizers in Warren, Wentworth, Rumney and Plymouth.

So, next time you visit Quincy Bog, ponder the role of this special place as one of very few conservation areas in the Baker Valley. And, if these BRWA activities sound like something you'd love to be part of, then please consider joining the Baker River Watershed Association (www.bakerriverwatershed.org). We can always use more help!

Lisa Doner serves as the Chair of the BRWA and the Plymouth Conservation Commission, in addition to her work as a director at QBNA.



Unearthing a shopping cart along the Baker River with recent PSU graduate Andrea Lamper.

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Quincy Bog Notes is a twice-yearly newsletter of information, announcements, and news about the Quincy Bog Natural Area and Pemi-Baker Land Trust. This edition has been partially underwritten by Avangrid.

Quincy Bog Natural Area, 131 Quincy Bog Road, Rumney, NH, 03266, www.quincybog.org

Quincy Bog Notes

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in keels. Tamarack knees are still sometimes used today, and in addition to boats, can also be used in timber-framed houses, barns, and wooden bridges. Tamarack lumber is not in high demand, but it is useful in applications where rot-resistance is required, such as decking, rails, and posts. In years past, surveyors often used tamarack for property corner posts due to its longevity.



The platy bark of a tamarack tree.
Photo by the author.

Pests

Like most tree species, tamarack is not without its pests. Most are not particularly harmful, but the larch sawfly is one that defoliates tamarack, and if an infestation persists for multiple years, can lead to slow growth rates and ultimately death. Four to six years of defoliation can slow growth, while six to nine years of repeated defoliation can lead to tree

death. The larch sawfly is a European native, and has been present in North America since the late 1800s. Several parasitic wasps have been introduced over the years, leading to relatively

effective control of these pests.

Wildlife

Several wildlife species use stands of tamarack. Snowshoe hare feed on seedlings, red squirrels eat the cones and seeds, and red crossbills eat the seeds. Whitetail deer will feed on seedlings as well. Osprey often build nests in tamarack, and great gray owls in northern Minnesota reportedly only nest in tamarack peatlands.

Aldo Leopold writes fondly of the tamarack in his essay "Smoky Gold" in *A Sand County Almanac*. He describes hunting ruffed grouse in the tamaracks in the fall, and after taking a break for lunch, he "regard(s) a phalanx of young tamaracks, their golden lances thrusting skyward. Under each the needles of yesterday fall to earth building a blanket of smoky gold; at the tip of each the bud of tomorrow, preformed, poised, awaits another spring". A wonderful description of the tree itself and the cycle of nature, and an homage to a sometimes underappreciated tree.

Sources:

- Aldo Leopold. *A Sand County Almanac*.
- William F. Johnston. *Tamarack*. In *Silvics of North America, Volume 1, Conifers*. USDA Forest Service Agriculture Handbook 654

Jim Frohn serves as Grafton County Forester, based at UNH Cooperative Extension. Have questions about forests and forest stewardship? Contact Jim by phone at 603-787-6944 or email him at Jim.Frohn@unh.edu

