

# 2025 Alaska Native Plants of the Year: Feltleaf and Netleaf Willow

*By Beth Baker and Kitty LaBounty*



*Left to right: Feltleaf willow (*Salix alaxensis* v. *alaxensis*) on Alaska's North Slope, photo courtesy Dennis Ronsse; Netleaf willow (*S. reticulata*) growing in Anchorage; iNaturalist observation by shaunpogacnik (CC BY-NC).*

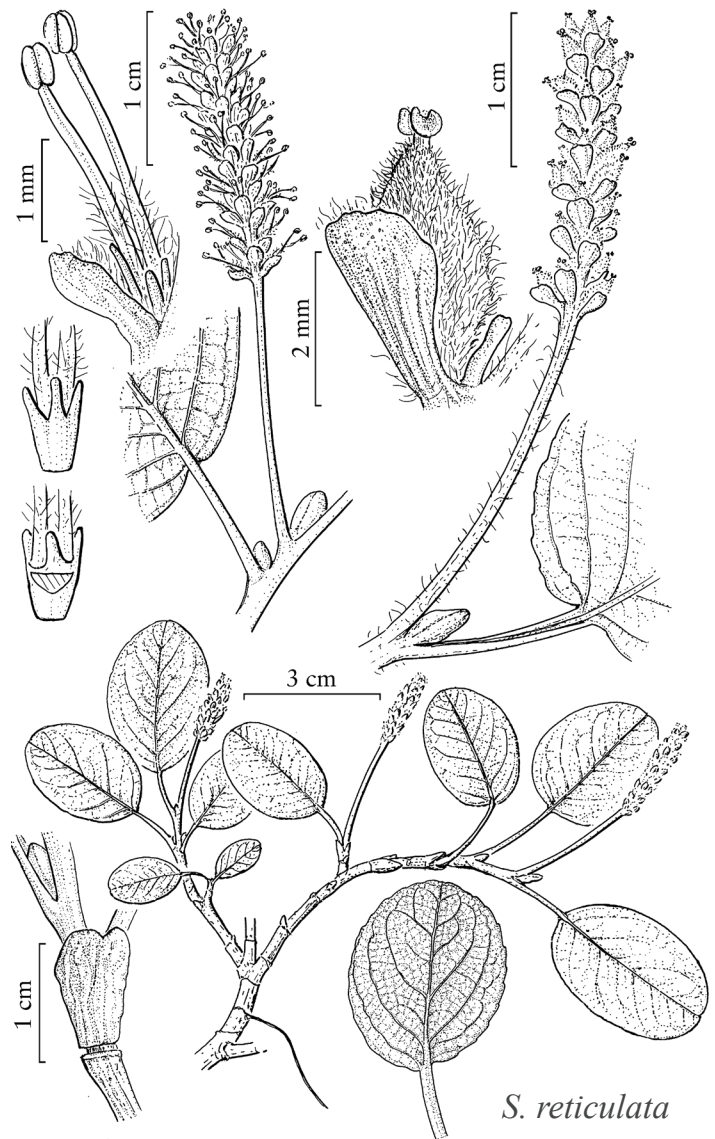
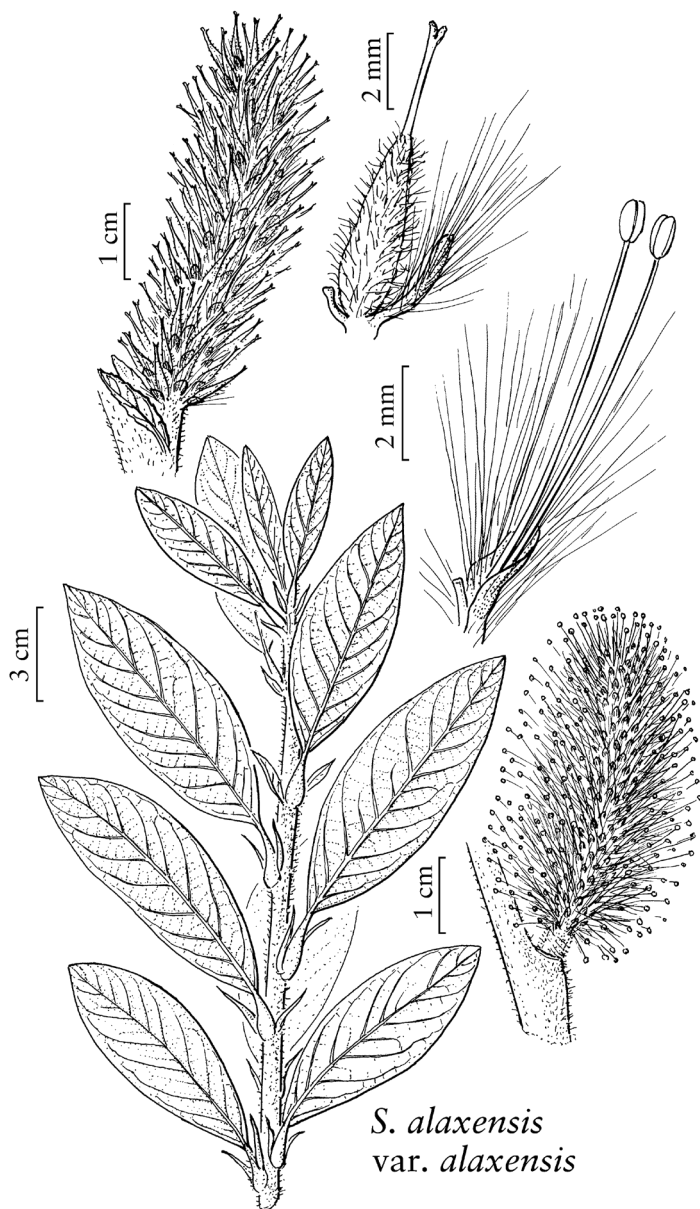
No matter where you are in Alaska, a willow is likely to be growing nearby. While some willows have a diminutive, creeping habit, they are still categorized as trees or shrubs. In fact, the willow genus, *Salix*, is the largest plant genus in Alaska by number of woody species. We have 36 native willows in Alaska, omitting their subspecies and variants. You would be a champion if you could identify all of them, plus their hybrids. The author Janice Schofield calls willows “a **taxonomic nightmare**” due in part to their tendency to hybridize. The feltleaf willow for example can hybridize with grayleaf willow, woolly willow, and Richardson willow. What a plant ID headache!

But wait, willows can relieve headaches too. They produce **salicin**, related to the chemical

in aspirin. The medicinal value of willows has been put to use around the world for thousands of years, including in Alaska where willow bark was chewed for head and tooth aches. People also eat the inner bark as food.

Let's get real, willows don't always like to be eaten and can't run away. So, if an animal chews on them, some willows are known to ramp up their production of these bitter-tasting chemicals, making their leaves less palatable. Better living through chemistry. How clever!

Despite the complexity of willow identification, a few Alaska native willows can be easily identified. This year, the Alaska Native Plant Society is honoring two of



Botanical drawings courtesy of Flora North America.  
Source: FNA, Vol. 7, [www.eFloras.org](http://www.eFloras.org)

them— **feltleaf willow** (*S. alaxensis*) and **netleaf willow** (*S. reticulata*)—in the second year of our Native Plant of the Year program.

### Feltleaf willow

Feltleaf willow is found throughout Alaska except the Aleutians and Southeast islands. It forms dense, bushy stands but can also grow up to nine meters tall.

The leaves of feltleaf willow make it easy to identify. The tops are hairless and dull green and the undersides are covered with dense, whitish felt. The only other willow species with dense woolly hairs, according to the late **Dominique Collet**, is the sageleaf willow (*S.*

*candida*).

Feltleaf willow performs a lot of ecosystem services. When a moose walks up to a salad bar of green options, it moves to its favorite feltleaf willow. Feltleaf is also appreciated by snowshoe hares, willow ptarmigan and insects seeking pollen and nectar in the early spring. As columnist Ned Rozell wrote, “Willows like the feltleaf are the little engines that make the northern forest go.”

Feltleaf willow quickly colonizes disturbed soil, growing rapidly after flooding to stabilize the soils. No wonder it is valued for projects



such as wildlife habitat restoration after fires, streambank protection, erosion control and mining reclamation. Thousands were propagated and planted after construction of the trans-Alaska pipeline.

This is a plant worth getting to know, and despite the best efforts of hungry moose, it is thought to be Alaska's most abundant tree.

## Netleaf willow

Beloved of Alaska rock gardeners, netleaf willow (*S. reticulata*), is a diminutive willow found throughout the northern latitudes—skipping only Iceland and Greenland. In Alaska, it is abundant at all elevations. In boreal forest regions, netleaf willow is mostly in open areas. In the warmer regions of the state, it is more restricted to rocky alpine habitats, where it is covered with snow and difficult to see for much of the year.

Despite its small stature, netleaf willow is one of the most easily recognized willow species in Alaska. The shrubs are small, up to six inches tall with small, dark green leaves having depressed (deep) net-like veins. Some might only recognize it as a willow because of the tufted seeds erupting from the mature fruits on the dark purple-red catkins.

When catkins aren't present, the plants could be confused with **alpine bearberry** (*Arctous alpina*). Alpine bearberry leaves are obovate (widest toward the top) and finely toothed along the margin with skeletonized leaves usually present. Leaves of netleaf willow are round, lack toothed margins and skeletonized leaves are not present.

Like many woody shrubs, netleaf willow forms **ectomycorrhizal relationships** with fungi that supply the willow with mineral nutrients that are in short supply in cold soils. In turn, the willow provides the fungi with carbohydrates.

There are reports of tundra and alpine mammals browsing this tiny plant, but the most obvious sign of animal interaction is the formation of insect galls on the leaves. Species of **galling sawfly** are likely the most common

types of insects causing the red or green galls. Larvae of flies and sawflies also feed on the maturing catkins. Netleaf willows are likely to be at least partially wind pollinated, but both male and female flowers produce nectar for attracting and rewarding pollinators.

Next time you find yourself in alpine or arctic tundra, keep an eye open for this attractive willow.

## Recommended Reading on Willows

- *Willows of Southcentral Alaska and Willows of Interior Alaska*, by Dominique M. Collet
- *Alaska Trees and Shrubs*, by Leslie A. Viereck and Elbert L. Little, Jr.
- *Feltleaf willows: Alaska's most abundant tree*, by Ned Rozell, Alaska Geophysical Institute ([available online](#))