

## Natives to Know: Speckled Alder, *Alnus incana*, Subsp. *Rugosa*

Compiled by Wild Ones member, Joyce Tuharsky

**Speckled alders** grow mostly as a multi-trunked tree, 15–25 feet tall, with a broad-rounded irregular crown. In the Birch family (Betulaceae), these trees are native to the cold and temperate regions of North America from Hudson Bay and Newfoundland, south to Minnesota, Michigan, and Virginia. They thrive in wet soils found in lowland areas, marshes, and stream banks.

The leaves are alternate and simple, up to 4 inches long and 3 inches wide, egg-shaped with a blunt tip and coarsely toothed edges. The upper leaf surfaces are dark green; the lower surfaces are dull green and hairy, especially along the veins.

The bark is thin and smooth with prominent white speckles that give the tree its name. These “speckles” are actually enlarged lenticels—which are swollen spongy openings that act as air intakes. They are an important adaptation for species that grow in waterlogged conditions where roots cannot get oxygen from the soil.

Speckled alders are monoecious, having separate male and female flowers on the same tree. The flowers grow in catkins in early spring before the leaves emerge. The male catkins are purplish brown with yellow pollen, slender and drooping, about 1½ inches long. The female catkins are green, about 1/2 inch long, clustered on stalks. The female catkins mature into 1-inch-long reddish-brown, cone-like fruits (strobiles) composed of winged seeds. These fruit clusters persist into winter.



Speckled alders often form dense thickets from root suckering and “layering,” where low branches take root then detach from the mother plant to grow independently. In this way, Speckled alders stabilize waterways, preventing erosion and maintaining the integrity of riparian and wetland ecosystems. Speckled alders also improve water quality through uptake of nutrients, metals and other contaminants.

Another beneficial feature of Speckled alders (and all alders) is their ability to fix nitrogen in the soil through a symbiotic relationship with bacteria in their root nodules. It has been shown that timber tree yields increase when grown in association with Speckled alder.

Speckled alder thickets are browsed by and provide important cover for moose, deer, rabbits, and other mammals. Beavers use the branches to build lodges/dams, creating habitat for macroinvertebrates, amphibians, and fish. This tree is a host plant for a significant number of moths and butterflies, and is visited by pollinators, aphids, miners, beetles, and other insects. Grouse, woodcock, and many songbirds eat the seeds, buds, catkins and insects that thrive on the tree; and birds use the branches for nesting.

For all the reasons cited above, Speckled alder is considered an ecological cornerstone species that protects water quality, enriches soil, and supports biodiversity. Its acceptance of a wide variety of soil types (from gravel to muck) and abilities to fix nitrogen and stabilize waterways make it important species in restoration projects.

Photos by Peter M. Dzuik



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