

Running Cedar

(Lycopodium digitatum)

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Also called ground pine or fan clubmoss, it is native to North America and is known for its unique cultural and historical importance. It belongs to a group of plants called club mosses, in the Lycopodiaceae family, with a long evolutionary history, often classified as “fern allies”. Native American cultures in particular used this plant in a variety of ways, including its spores for ceremonies, as well as in medicinal applications.

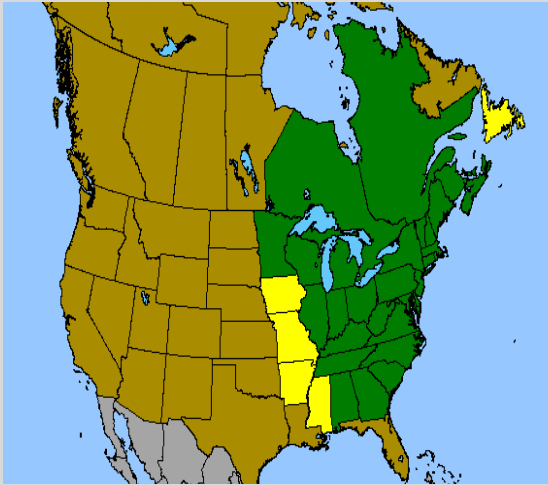
(Figure 1. A small patch of running cedar in the natural world- signifying undisturbed, content, soils.)(NC State University, 2025)



Plant Description

Running cedar is a small, evergreen, herbaceous plant that grows low to the ground. Its leaves are small and have a shiny green color, so it sometimes gets the name “ground pine.” Despite the name, it is not related to mosses either. Unlike mosses, clubmosses have roots and stems with a vascular system, xylem and phloem, that transport nutrients. (*Washington, Betsy 2025*) It usually reaches a height of about four inches and has spore-bearing structures (called strobili) that stand up slightly above the rest of the plant. (*Figure 2. Running Cedar strobili*) These are most commonly found in the Summer and Fall. Running Cedars are not flowering plants, and do not attract

pollinators. When the Spores are mature, they are released and spread via wind but it takes a long time (sometimes up to 20 years) to develop fully from these spores, which makes it hard to grow and cultivate. (*Backyard Ecology, 2021*) Because of this slow growth, transplanting it into new areas doesn’t always work well.



(Figure 3. Map of Running Cedar) (BONAP)

Habitat Preference

Running cedar is mostly found in the eastern parts of North America, especially in areas like southern Canada, the Appalachian Mountains, and the southeastern U.S. It grows best in open forests or fields with dry to somewhat moist, acidic soils. In the Appalachians, it's a common part of the forest understory. (*Backyard Ecology, 2021*) This plant thrives in specific soil and light conditions, so when it's present in an area, it's a good sign that the environment is relatively undisturbed.

Regional & Ecological Impacts

Although running cedar has been making a comeback, it's still at risk from things like habitat loss and overharvesting. Conservation efforts are focused on protecting its natural habitats and making sure that wild populations aren't over-exploited. Running Cedar spreads across the forest floor, helping to prevent soil erosion and creating a microhabitat for insects, fungi, and small animals. Its dense mats provide shelter for amphibians like salamanders, while also offering cover for ground-nesting birds.

(*Washington, Betsy 2025*) Running cedar has a symbiotic relationship with fungi, which help it absorb nutrients from the soil, and in return, it contributes to the forest's nutrient cycle as it decomposes. Public awareness about the cultural and ecological value of running cedar is crucial for keeping it safe for future generations. (*Backyard Ecology, 2021*) The growing interest in native plants and traditional uses also means that this plant could have a role in education and conservation going forward.



(Figure 4. Map Key/ Color Chart)(BONAP)

Cultural Uses

The most well-known use of running cedar is for its spores, when ignited, produce a bright flash of light. Native American tribes used these spores in ceremonies, throwing them into fires for dramatic, eye-catching effects. The flash could symbolize purification, the presence of spirits, or simply add some flair to a ritual. (*Washington, Besty 2025*) This property of the spores was later adopted in the 19th century for flash photography, where photographers used them as a light source. Even today, stage productions use a similar technique to create special effects that make performances more exciting (*Veteto, Nina 2023*)

In addition to its ceremonial use, running cedar was also used for medicinal purposes. Native American groups used the spores to make a powder that they applied to skin irritations, wounds, and rashes. They also brewed teas from the leaves to treat issues like urinary tract problems, digestive issues, and even headaches. Some tribes used these teas to help induce labor in pregnant women. Today it can be used as a homeopathic treatment for a variety of ailments. (*Veteto, Nina 2023*)



Conclusion

Running Cedar is much more than just a ground cover in the forest. Its ecologically and culturally deep-rooted history makes it an interesting and valuable plant. From preventing soil erosion and providing shelter for wildlife to playing a role in traditional ceremonies and medicine, it has been valued by many for millions of years. (*Figure 5. Running Cedar- Early Spring*) (*Heritage Trail, 2025*) Though it faces challenges like habitat loss and slow growth, conservation efforts and public awareness can help protect this unique plant for future generations.

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