

The Herb Society of America's Notable Native™ Herbal Tree 2023 *Juniperus communis*, common juniper



Juniperus communis in northern New Mexico.
© K. Schlosser.

Family: Cupressaceae (Cypress)

Latin Name: *Juniperus communis* L.

Common Names: common juniper

Growth: Tree

Hardiness: Zones 2-7

Light: Full to partial sun

Soil: Well-drained; wide range of soil types

Water: Moderate moisture; tolerates drought

Use: Pollinator; wildlife food & shelter; edible fruits; medicinal properties

Propagation: Semi-hardwood cuttings (less than one year; seed germination requires patience and proper preparation)

CONSERVATION STATUS: SECURE
Listed as *Coefficient of Conservation: 4*, Not of special concern by some in the Chicago region.

History

With a broad but sometimes sparsely scattered spread, *Juniperus communis* reaches every state except HI, TX, OK, KS, MO, AR, LA, TN, MS, and FL. The only state without a Juniper species is Hawaii.

Though growing from coast to coast, *J. communis* can be uncommon to non-existent (in the wild) in a great many midwestern and southern states.

It is a circumboreal Genus, appearing around the globe in northern temperate regions and dipping down into the Atlas Mountains of north Africa.

In most areas in which juniper species grow, they have been found to be useful to humans. They are also attractive, fragrant, and easy to grow. There is little else with a better aroma of Christmas in the summertime than the hills of pinyon pine and juniper in the Southwest U.S.

***J. communis* is the species most frequently used for their edible fruits.**

Description

Junipers grow in a wide range of sizes, depending on the species. There is a *Juniperus grandis* in California that towers above all others at 78' and has an equally impressive age, estimated at 3,000 to 6,000 years old.

Generally, junipers grow from 8' to 35' or so. At the other end of the spectrum, *Juniperus communis*, which can reach nearly 50', also grows as a small shrub from 1' to 5' with branches sprawling across the ground.

Notice in the photo (upper right) that the leaves of *J. communis* are often needle-like rather than scaly (as below). Other junipers can also have needle-like leaves, or both. Sometimes immature trees have the needle-like leaves and change to scaly with some age.

All are evergreen, in many shades of green. In Spring, male junipers take on a yellowish hue as pollen cones appear at the tips of the leaves. Once the pollen is dispersed, mostly by wind, the cones drop to the ground.



J. communis ripe fruits (blue), unripe (green).
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J. virginiana, scale-like leaves and yellow pollen cones (male).
©K. Schlosser



J. communis var. *depressa* growing in its sprawling shrub form, is a common landscaping shrub.
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Depending on latitude and longitude, pollination occurs in spring. *Juniperus communis* is dioecious, meaning that male and female structures grow on separate trees. Male structures are small, yellow and globular, and grow at the tips of leaves. Once pollinated by wind, the female structures develop into fleshy green, aging to purple, aromatic, berry-like cones. These are eaten and distributed primarily by birds.

Many gymnosperm species produce an ovular secretion, the pollination drop, which extends beyond the micropyle (small opening in an ovule through which pollen penetrates) and forms a liquid surface on which the pollen lands.

Subsequently, the drop withdraws and transports pollen grains into the ovule where they germinate, form pollen tubes and ultimately release sperm that fertilize eggs. The sole function of the pollination drop was once thought to be the transport of pollen into the ovule. These ovular secretions, however, contain a suite of organic and inorganic compounds including sugars, amino acids, organic acids, proteins and calcium.

The nature of the proteins in the drops suggests that in addition to nourishing the developing pollen, they play diverse roles in pollination.

Pollen cones are yellow, measuring 0.08 to 0.12 inch long, and fall soon after shedding their pollen in the spring.

Propagation

Most junipers are propagated via bird distribution of seed after consuming the seed, digesting the fleshy scales, and passing the hard seeds. Some mammals may incidentally distribute seed.

Uses

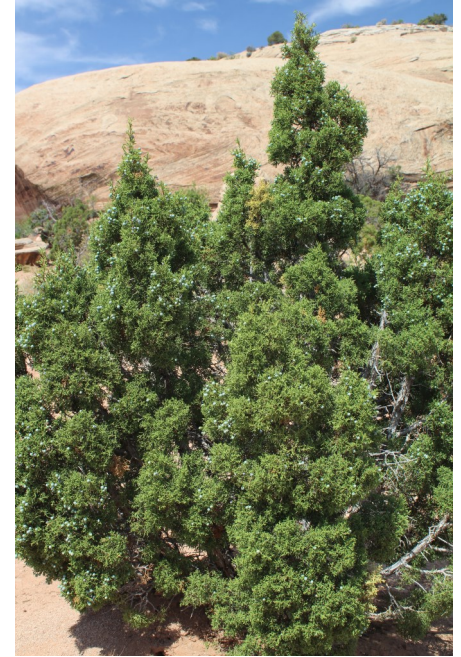
Egyptians, Romans, and Greeks used juniper medicinally, long before the berries were used as a spice. Native Americans tied sprigs of juniper to aching muscles and used the oil as an insect repellent. A poultice of crushed berries or wood has been used to heal wounds, bruises and other skin conditions. It is also been used as a diuretic, and as a treatment for intestinal parasites and digestive problems.

Inhaling juniper smoke was thought to relieve congestion. It has also been used

to treat rheumatism and arthritis. More research is needed, however, on the use of juniper as a health supplement. Use of juniper during pregnancy or by those with kidney problems is not recommended.

The dried purple-black berries, are used to season stews, sauerkraut, and meat dishes, especially game dishes. The berries are also used in marinades and rubs. Some Native American tribes added smashed berries to grain dishes.

It is well-known as a component of gin



Females produce berries that appear in mid-summer and last until the birds consume them all.

Culture & Habitat

Common Juniper has a vast circumpolar distribution that spans temperate and boreal forests and skims the edge of the Arctic Circle in the Northern Hemisphere. It is one of the few woody species that can survive beyond the treeline which is the lowest temperature or highest altitude limit of tree species. It is present in all of the provinces of Canada and in 41 states in the US.

Donald Culross Peattie wrote, "The Common Juniper has what is perhaps the widest natural range among all trees: certainly it is the only tree native in both North America and Europe."

Being tolerant of dry soils and low rainfall conditions, Common Juniper can be found inhabiting dry, exposed rocky slopes, open wooded hillsides, open clearings, and sandy fields.

Pollination

Junipers are typically dioecious but occasionally monoecious, and are primarily wind pollinated.



Pollen cones on *J. virginiana* in early spring.

and has been used in bitters and liqueurs.

The bark, roots, twigs, and cones have been used for dyeing wool. The foliage is used to make wreaths. The aromatic wood has been used to make rot-resistant furniture, fence posts, bows, and even pencils.

Drawers and closets are lined with wood from the red cedar juniper (*J. virginiana*). Juniper oil is used in soaps and cosmetics.

Juniper also makes a nice addition to the landscape; some are used as windbreaks or to create hedgerows. However, the pollen from some varieties of juniper causes allergies for some. Birds feast on the berries and the branches provide shelter for wildlife. It is a host plant for several butterfly and moth species.

The burning of juniper branches is a part of some old folkloric traditions to bless and protect the home, and Native Americans used juniper in rituals and ceremonies.



Juniperus virginiana in Nebraska.
©Kathy Schlosser

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JUNIPER RECIPES

Herb Gardener's Cocktail

This adaptation is dedicated to the loyal members of the Native Herb Conservation committee.

Adapted from a recipe on the Liviko website (gin distillers in Estonia).

1 1/2 ounces floral gin*
7 ounces tonic water with a floral or citrus flavor
Whole arugula, endive, or radicchio, leaves, washed and allowed to dry a bit
Ice

Fill a glass with ice. Stir in the gin and tonic water. Garnish with a leaf or two of crisp arugula or another bitter herb.

**There are a number distillers who incorporate a variety of herbs in addition to juniper. Among them are Bluecoat Gin with notes of angelica, coriander, and elderflower, and Crafter's Aromatic Flower Gin. This one is a blend of rose hips, meadowsweet, fennel, orange, lemon, coriander, and others.*

Creamy Gin & Juniper Sauce for Chicken, Game, or Salmon

2 tablespoons butter
3 tablespoons juniper berries, crushed
1/3 cup minced shallots
1/4 cup gin
3/4 cup vegetable stock
3/4 cup heavy cream
1/2 cup chopped fresh flat-leaf parsley

Melt butter in a sauté pan. Add juniper berries and shallots and cook lightly to soften a bit. Stir in gin and stock, stirring until it simmers. Add cream slowly, stirring constantly until sauce comes to a simmer and thickens. Stir in parsley and pour over prepared meat. Serve right away.

Salmon with Hazelnut & Juniper Berry Sauce

4 salmon steaks
2 tablespoons oil
1/3 cup hazelnuts, lightly toasted and chopped
6 Juniper berries, crushed
1/2 cup brandy
1 cup cream
Salt to taste

Sauté salmon steaks in oil for 6 minutes, turning and cooking for an additional 4 minutes. Remove from pan and place on warmed platter.

Add hazelnuts and Juniper berries. Deglaze with brandy.

When mixture is reduced and alcohol is gone, add cream and stir until thickened.

Pour sauce over warm salmon steaks and serve immediately.

***Juniperus communis* is the species most commonly used for their edible fruits. Many other species are also edible, though somewhat unpalatable. At least one is poisonous—*Juniperus sabina* (not native to the U.S., but cultivated here)—so be sure you know your plants before eating the fruits.**



Juniperus osteosperma, Utah Juniper
©K. Schlosser

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More Junipers of Interest



Juniperus osteosperma, Utah Juniper. An ancient tree, still living, twisted and turned by wind and weather. © K. Schlosser



Juniperus virginiana, Eastern red cedar
North Carolina. ©K. Schlosser

Native Americans and pioneers used Utah Juniper for a broad range of health issues, as a food, and as a fiber. Misbehaving children were held in a makeshift “sweat lodge” by placing a blanket over the smoke from small smoldering branches.



A younger Utah Juniper.



J. virginiana fruits. ©K. Schlosser

The fragrance and natural insect-repellent property of Eastern red cedar has made it useful for fence posts, decking, and woodworking, including cedar chests for storing linens. It has also been used for medicinal purposes.

It is not recommended that Juniper berries be consumed in large amounts or too often, nor by pregnant or lactating women without a consultation with a physician.

By Native Herb Conservation Committee, The Herb Society of America, Inc. March 2022, with the assistance of Susan Betz, Regina Cybulski, Debra Knapke, Maryann Readal, Kathy Schlosser, Mary Jo Wilson.

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