Juniperus communis

Common Juniper – the flavour of gin



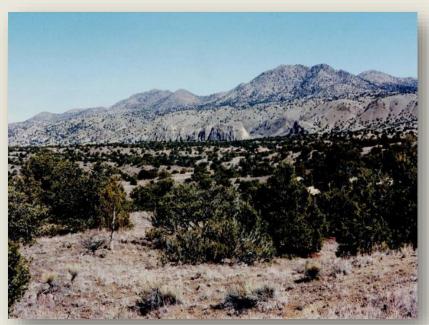
Juniperus communis in Saint-Christophe-Vallon, Aveyron, France. Photograph: Krzysztof Golik, CC BY-SA 4.0 https://creativecommons.org/licenses/by-sa/4.0, via Wikimedia Commons.

You would expect that the Common Juniper's claim to fame would be the *berries* used to flavour alcoholic gin, but its world-wide distribution is equally significant. In fact, it has the broadest geographical range of any *woody* plant, extending throughout the cool temperate regions of North America, Europe and Asia, from the Arctic to about 30°N latitude. There are even relict populations in



Distribution map of *Juniperus communis*. Map by: MPF, CC BY-SA 3.0 https://creativecommons.org/licenses/by-sa/3.0, via Wikimedia Commons

the Atlas Mountains of North Africa. In the Northern Hemisphere, the genus *Juniperus* is a major component of arid and semi-arid tree/shrub ecosystems.



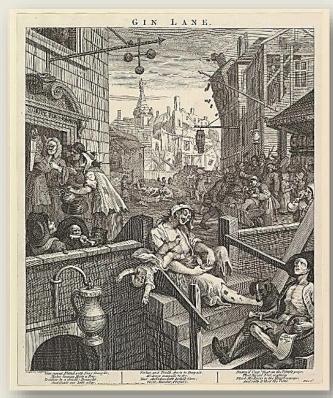
Juniper shrubland in New Mexico, USA, between Albuquerque and Santa Fe.

Juniperus communis is evergreen conifer which can vary in from low form spreading prostrate shrubs to trees to 10 metres high. They remarkably are long-lived; some are known to be more than 2000 years old.

The plants are *dioecious*: that is, male cones from male trees and

female cones from female trees. Pollen from male cones is dispersed by wind onto the female cones where the magic happens. The pollinated female cones develop, each with three *fleshy* fused scales, each scale with a single seed, and the succulent cones are referred to as Juniper *berries*. They start life green, and gradually mature to blue-black.

We know juniper berries as flavouring for the alcoholic beverage gin; and the word gin from Old French comes Genévrier, meaning juniper. But the berries are actually *cones*, not berries. They are harvested and dried, and commonly used in northern Europe to flavour beers and ales, and other alcoholic beverages. The berries are also used to flavour savoury dishes, especially game. Surprisingly, the berries were rarely used by the indigenous communities of North America, although



William Hogarth's 1751 cartoon – Gin Lane.

medicinal *tea* was made from juniper branches. This famous print from 1751 by cartoonist William Hogarth advertised the *Gin Act*. It portrays the evils of gin, with inhabitants of *Gin Lane* destroyed by their consumption of gin – miserable, feckless and indolent.

In the 1690s, gin ('Genever') was imported from the Netherlands into



Juniperus conferta – from Japan

to riots in London. These were followed by the *Sale of Spirits Act* in 1750 which introduced further restrictions. *Tea* and *beer* were proposed as healthier alternatives.

World-wide there are more than 50 species of Juniper, mostly distributed throughout the Northern Hemisphere, from the Arctic to Africa, with some

England where it soon became even more popular than beer, leading to a huge increase in alcohol consumption. By the 1730s, it was estimated that Londoners were imbibing about 1.1 litres of gin each week. The *Gin Acts* of 1729 and 1736 massively increased licence fees and taxes, leading



Juniperus virginiana – from North America – with needle-like, bluish juvenile leaves, and minute green, scale like adult leaves.

species even from south, central and western Asia. Not only does *Juniperus communis* take the prize for the most widespread woody plant, but a juniper forest in south-eastern Tibet and the northern Himalayas at 4,900 metres a.s.l., forms one of the highest tree lines in the world. *Tree lines* mark the point, at high elevations or high latitudes, beyond which trees cannot survive.

Juniperus shared a common ancestor with Cupressus (Cypress) but diverged about 60 Mya during the Palaeocene. Europe and/or Asia are believed to have been the Centre of Origin for Juniperus, which subsequently diversified within Eurasia, and eventually dispersed to North America, followed by a single migration from Europe to Africa. Dispersal has benefited from the fleshy cones of Juniperus, which can be eaten by birds and then dispersed over very long distances.

Harris S. The Oxford Plants 400

 $\underline{https://herbaria.plants.ox.ac.uk/bol/plants400/Profiles/IJ/Juniperus}$

Mao KS, Hao G, Liu JQ, Adams R, Milne R. (2010). Diversification and biogeography of Juniperus (Cupressaceae): Variable diversification rates and multiple intercontinental dispersals. *The New Phytologist*. 188. 254-72. 10.1111/j.1469-8137.2010.03351.x.

The Gymnosperm database:

https://www.conifers.org/cu/Juniperus_communis.php

Wikipedia: https://en.wikipedia.org/wiki/Juniperus_communis

Wikipedia: Gin Act 1751 - Wikipedia

Wikipedia: https://en.wikipedia.org/wiki/Beer_Street_and_Gin_Lane

Wikipedia: <u>Tree line - Wikipedia</u>

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