

*Picea sitchensis*

[Synonyms : *Abies falcata*, *Abies merkiana*, *Abies sitchensis*, *Abies trigona*, *Picea falcata*, *Picea menziesii*, *Picea menziesii* var. *crispa*, *Picea sitchensis* forma *speciosa*, *Pinus menziesii*, *Pinus menziesii* var. *crispa*, *Pinus sitchensis*, *Sequoia rafinesquei*]

**SITKA SPRUCE** is an evergreen tree. Native to western North America it has needle-like, leaves and red or green catkins.

It is also known as British Columbia sitka-spruce, Coast spruce, Coast west spruce, *Distelfichte* (German), Great tideland spruce, *Kiefer* (German), *Menzies Spar* (German), Menzies spruce, Sequoia silver spruce, Silver spruce, *Sitka-Fichte* (German), *Sitkagran* (Danish, Swedish), *Sitka Spar* (German), *Spriwsen Sitka* (Welsh), *Smrek sitkanský* (Slovak), *Smrk sitka* (Czech), Tideland spruce, Tidewater spruce, *Tidsselgran* (Danish), West Coast spruce, Western spruce, and Yellow spruce.

The flowers are pollinated by the wind.

Warning – prolonged contact with the fresh wood may cause dermatitis.

Sitka spruce can be extremely invasive when introduced outside its native habitat.

*Sitchensis* means ‘of or from Sitka Island (now Baranof Island) in south-eastern Alaska’.

North American KITASOO Indians dried and stored the inner bark for future food and the MAKAH tribe ate the young shoots raw. The inner bark was also eaten fresh usually with berries (or dried and formed into cakes) by many of the local tribes including the Tsimshian, Haida and Tlingit. The pitch was enjoyed by many tribes including the Oweekeno, Makah, Haisla, some of the Kwakiutl, the Hesquiat, Hanaksiala and Quinault as a kind of chewing gum.

Sitka spruce attracted various superstitions. Thompson Indians believed that skin rubbed with the branches or prickly needle-like leaves bestowed protection from evil, the Bella Coola tribe relied upon the boughs to guard them against illness or death, and the KITASOO tribe were convinced (perhaps a little more credibly) that the prickly leaves would repel animals.

The tree also played varied roles in tribal ritual. Some of the Kwakiutl tribe considered branch tips to be sacred. The branches were used in Nitinaht ceremonies for initiating children into the tribe (as well as forming part of their costumes and featuring in their Winter dances). It appeared in a Hanaksiala ceremony that was performed to increase the strength and tolerance of adolescent boys, and the boughs were used to sweep away bad influences that might assault girls in the Hesquiat tribe who had reached puberty. Branches also came to the fore in Tsimshian hunting and fishing rituals.

Both the Hoh and Quileute tribes made toys from the wood, and the Haisla and Hanaksiala Indians used it for their hunting arrows and also for various fishing tools. For the Hesquiat tribe sitka spruce wood was fuel.

Roots provided ties for fishing spears for the Quinault Indians – and they were specially prepared by some of the Kwakiutl for making fishing nets. The Haida, Hahwunkwut, Tlingit and Bella Coola tribes used the roots for basketry – as well as for making rope and hats.

While Nitinaht Indians viewed the pitch in a more conventional way (as a waterproofing agent on boxes) the Makah tribe thought of it as an adhesive and mended things with it – and the Haisla Indians lit it on the end of their wooden torches for night fishing.

Saplings attracted the attention of Quileute Indians when growing in convenient sites as these could be bent into snares for catching deer and other game.

As a source of medicine records suggest that the tree was quite popular in many North American tribes.. Haisla, Kwakiutl and Hanaksiala Indians all used it to treat colds, and they and the Sikani also prescribed it for coughs. It was used to ease headaches and kidney and period problems by the Kwakiutl tribe, and the Thompson and Kwakiutl Indians took it for diarrhoea. Both the Hesquiat and Bella Coola Indians used it to ease pain, the Bella Coola applied it to burns – and the latter also used it for treating some heart problems. For the Hanaksiala and Nuxalk it was a laxative, while Hesquiat Indians applied it to sunburn. It offered a treatment for tuberculosis in the Haisla, Gitksan and Hanaksiala Indian tribes. The Quinault Indians used it for some throat ailments, and the Makah took it as an ingredient in a decoction prescribed for blood disorders. The Thompson Indians used it to treat blindness, and for some of the Carrier it was a remedy for snow-blindness. Stomach upsets could be treated with it by the Bella Coola, Oweekeno, Makah and some of the Carrier tribes, and it provided a breath freshener for the Hanaksiala and Haisla Indians. The Tlingit chose it for treating venereal disease (and toothache) and the Hanaksiala, Oweekeno, Haisla, Bella Coola and Gitksan all used it to ease rheumatism. Records show that the Kwakiutl, Oweekeno, Bella Coola, Haisla, Hanaksiala and Quinault tribes turned to it for treating wounds and, apart from the Quinault, they and the Hesquiat Indians also applied it to various skin ailments.

Early European settlers used parts of the tree for roofing and the walls of cabins. But as a source of food they only viewed the tree as suitable for emergency rations. In this capacity the inner bark and young shoots were eaten and the latter were also prepared as a tea.

Like those of other close relatives these needles form the major part of the Winter diet for some kinds of grouse. The trees also offer vital cover for a wide range of animals including brown bear, elk, caribou, deer and mountain goat. Authorities also note that they are nested in by many birds, including the bald eagle and the peregrine falcon.

This tree was introduced to Britain in either 1831 or 1834 by David Douglas (1798-1834) the famous Scottish botanist and plant collector. Apparently his first parcel of seeds got lost but on his second attempt the seeds that arrived in Britain were the forerunners of those now long familiar in the Scottish Highlands.

It was the wood of this tree that was especially prized during World War I at the beginning of the 20<sup>th</sup> Century for building the framework of aeroplanes. Although the wood is not especially strong it was found that the structure of its grain (if carefully chosen) enabled the production of a laminate that was lighter and stronger than any other wood or metal then known. After that War this wood was used laminated for building the *Spirit of St. Louis*. This was the plane flown by the American aviator Charles Lindbergh (1902-74) that made the first crossing of the Atlantic in May 1927 from New York to Paris. Then the wood was again in demand for planes flown in World War II – and afterwards when *Spruce Goose* [the huge wooden seaplane designed and built by Howard Hughes (1905-1976)] was completed in 1947 it could be found in her frame too.

Apart from aircraft this wood has also been felled for pulp (for newsprint), the manufacture of plywood, shipbuilding and cooperage. It has also been used for turbine blades, the nose cones for missiles and space craft, the masts and spars of boats, and for racing sculls, building interiors, scaffolding, furniture, packing cases and ladders. It can be found in

musical instruments such as violins, mandolins and organ pipes, and in guitar faces or the sounding boards of more expensive pianos. The wood has also been burnt as fuel. Sitka spruce is the State tree for Alaska and also one of those for Alabama in the United States. The former was approved as such in 1962.