

Black Spruce

Picea mariana

Swamp Spruce, Bog Spruce

Black Spruce is a wide ranging and abundant conifer of the northern parts of North America. Its wood is yellow-white in color, light in weight, and strong, making it the most important pulpwood species of Canada and commercially important in the Great Lake States. Black Spruce not only has the smallest cones, but also smallest seeds of any North American spruce. Black Spruce often grows in pure stands in flood plains of rivers. While listed as drought intolerant, experience shows that water availability affects growth rate and not survival. My specimens were collected well north of the Arctic Circle in micro-climate coves of the Kelly River, Alaska.



Identification

Leaves

Evergreen, stiff, 1/2 inch long, light blue-green, somewhat blunted tips. Twigs initially pubescent, then smooth.



Bark/Wood

Thin, gray-brown or red-brown. Smooth when young turning irregularly broken or scaly when mature.



Flower/Fruit

Monoecious; inconspicuous. Cones are the smallest of the spruces, 1" long, ovate. Scale margins are rounded and finely erose. Maturing in early fall.



Form

Small to medium sized tree with conical shape or spire-like crown. Shallow, wide ranging roots.



Uses

The most common use of Black Spruce is high quality pulp. It is also used for lumber, Christmas trees, and some highly specialized products - spruce gum salves and healing extracts.

Ethnobotany

Historically, Black Spruce has provided healing salves from spruce gum, beverages from twigs and needles, aromatic distillations from needles, and binding materials from long, split roots.

Native Distribution

Newfoundland west to Alaska, northern New England states, and northern Great Lake states.

Establishment

Requires protection from rodents that will browse and cause extensive damage.

Growing Conditions and Culture

Mature Size
 USDA Zone 3-7
 Light Requirements Shade to Full Sun

Soils Diverse, Wet
 Drought Tolerant? No
 Inundation Tolerant? Yes

Pests/Damaging Agents

Needle cast fungus can cause defoliation as can several rusts. Spruce budworm is most damaging and may require chemical controls. Browsed by many mammals.

Similar Species

White Spruce
 The two spruces share similar native ranges and primarily differentiated by growth sites: White Spruce on upland/dry sites; Black Spruce on wet or boggy sites.

Propagation

Seed - cold stratify and scarify. Layering. Softwood cuttings.

Source(s)

Transplants from Kelly River Bar, Alaska.