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# The Common Conifers of Southeast Alaska



The temperate rain forest of the panhandle of Alaska is widely known for its lush vegetation. Conifers, cone-bearing trees such as hemlock, and spruce, seem to be everywhere. In reality, they cover a bit over half of southeast Alaska. Western hemlock (70 percent) and Sitka spruce (20 percent) are the most abundant. Western redcedar, yellow-cedar, mountain hemlock, and shore pine make up most of the rest.



United States  
Department of  
Agriculture

PREPARED BY  
Forest Service

Alaska Region  
R10-MB-246  
January 1994



# Sitka spruce - *Picea sitchensis*

## Alaska's state tree

### Leaves

- Dark Green, 5/8 to 1 inch long
- Needle sharp, growing on all sides of branches from woody pegs, a trait common only to spruce

### Cones

- Light orange-brown, 2 to 3 1/2 inches long
- Usually found in the top quarter of tree, hanging down from branches
- Papery scales

### Bark

- Thin and smooth, developing scaly plates with age
- Gray, becoming dark purplish brown with age

### Size at maturity and lifespan

- 150 to 225 feet in height and 5 to 8 feet in diameter
- Grows much larger in the southern part of its range
- 500 to 700 years

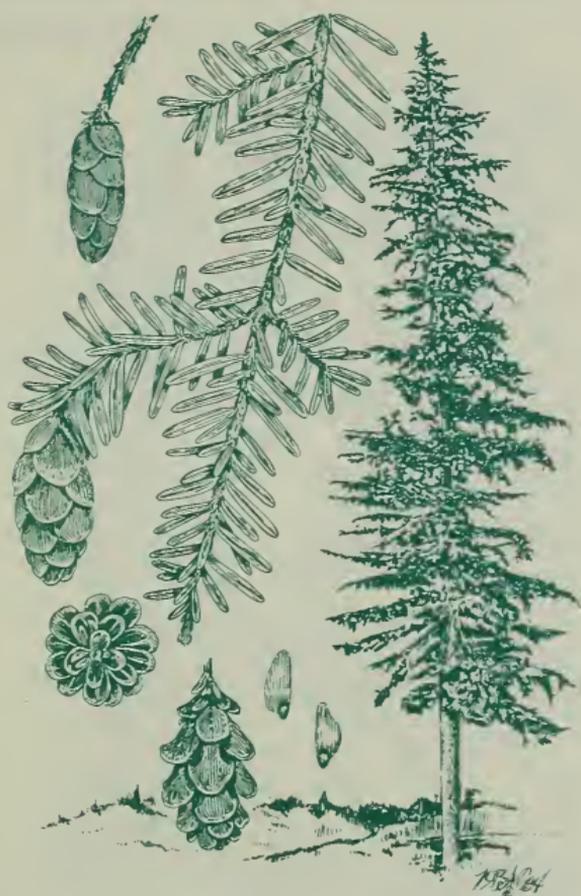
### Distribution

- Sea level to 3,000 feet elevation in Southeast Alaska
- Throughout Southeast Alaska, west to Kodiak Island and north to the coast of the Alaska Peninsula



Both species of **hemlock** have very thin branches and tops  
In the spring, new vegetation bursting from the buds is bright

## **Western hemlock - *Tsuga heterophylla***



### **Leaves**

- Light- to medium-green on top, with two whitish parallel lines beneath, 1/4 to 7/8 inch long
- Blunt-tipped, soft, shiny, and flat, growing from two sides of branch parallel to the ground

### **Cones**

- Brown, oval-shaped, 5/8 to 1 inch long
- Thin, papery scales
- Hanging down at end of twig

### **Bark**

- Reddish-brown when young, turning gray-brown
- Scaly when young, becoming thick and furrowed with age

### **Size at maturity and lifespan**

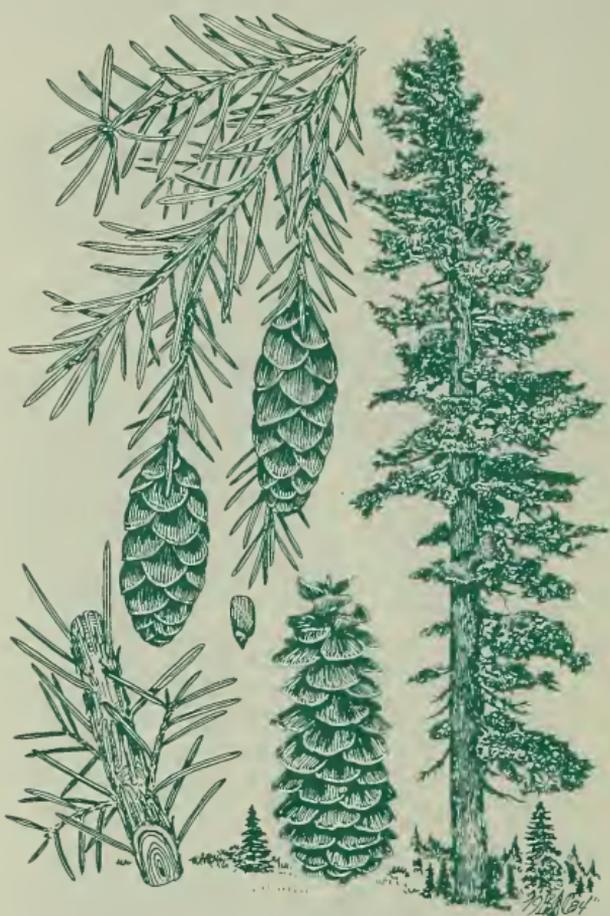
- 100 to 150 feet in height and 2 to 4 feet in diameter
- 200 to 500 years

### **Distribution**

- Sea level to subalpine areas
- Throughout the coastal forest of Southeast Alaska and north to Prince William Sound

that curve downward, and appear to be gracefully nodding. yellow-green. *Here's how to tell them apart:*

## Mountain hemlock - *Tsuga mertensiana*



### Leaves

- Dark blue-green, 1/4 to 1 inch long
- Soft but more pointed than western hemlock, growing from all sides of the branch in a starlike pattern

### Cones

- Purplish when new, brown when mature
- Cylindrical, 1 to 2 1/2 inches long
- Thin, papery scales

### Bark

- Divided into narrow flattened ridges, becoming thick and deeply furrowed with age
- Gray when young, turning reddish brown with age

### Size at maturity and lifespan

- 50 to 100 feet in height and 10 to 30 inches in diameter, prostrate near timberline
- Slow-growing trees, size 18 to 20 inches in diameter at 180 to 260 years
- 400 to 500 years

### Distribution

- Sea level to 3,000 to 3,500 feet elevation
- Throughout Southeast Alaska

# Shore pine - *Pinus contorta* Dougl. var. *contorta*

## Leaves

- Yellow-green to dark green, 1 to 2 1/4 inches long
- Two leaves, each a half-round, bundled together, making a circle when pressed together

## Cones

- Light brown, egg-shaped, 1 1/4 to 2 inches long
- Pointed backwards on branches
- Woody, with stiff prickles on the end of each scale

## Bark

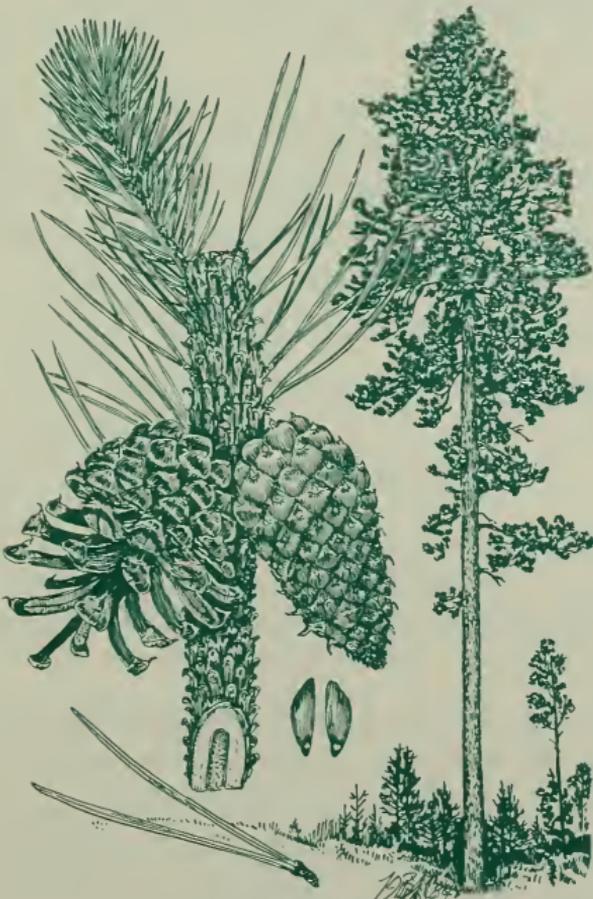
- Resinous and scaly, becoming furrowed with age
- Dark brown to blackish

## Size at maturity and lifespan

- Often a small, scrubby tree, 20 to 40 feet in height and 8 to 12 inches in diameter
- Sometimes 75 feet in height and 18 to 32 inches in diameter on well-drained, sunny sites
- 200 to 600 years

## Distribution

- Especially in coastal muskegs
- Sea level to alpine zone
- Throughout Southeast Alaska, north to Yakutat



## Other Conifers in Southeast Alaska

Four other species of cone-bearing plants are found in Southeast Alaska.

**Common mountain juniper**, *Juniperus communis*, is a low-spreading evergreen shrub that grows in muskegs, and on dry slopes and rock outcrops in alpine or subalpine areas.

Two fir species, **Pacific silver fir**, *abies amabilis* and **subalpine fir**, *abies lasiocarpa*, are found in this region. The Pacific silver fir is mainly found east and south of Ketchikan on well-drained sites from sea level to 1,000 feet in elevation. The subalpine fir is most common in Misty Fjords National Monument, the head of Lynn Canal, and in areas of recent glaciation, such as valley bottoms, or on moist subalpine slopes near timberline.

**Pacific yew**, *Taxus brevifolia*, is rare in Southeast Alaska and found only in the most southern part of the panhandle.

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Both species of **cedar** have scale-like needles that look like braided hair. The needles are small, pointed, smooth, and flattened to the branch. Though commonly called cedars, they are members of the cypress family. Yellow-cedar, also known as Alaska cedar, is named for its bright yellow heartwood, and western redcedar, for its deep reddish brown heartwood. Both are aromatic and highly resistant to rot. *Here's how to tell them apart:*

### Yellow-cedar - *Chamaecyparis nootkatensis*



#### Leaves

- Dark green, 1/16 to 1/8 inch long

#### Cones

- Patchy green and black, nearly round, 1/2 inch in diameter
- Scattered among the needles
- Sharp central point on each cone scale

#### Bark

- Shreddy, generally ash gray

#### Size at maturity and lifespan

- 40 to 80 feet in height and 1 to 2 feet in diameter
- Slow-growing trees, 15 to 20 inches in diameter at 200 to 300 years
- Up to 1,000 years

#### Distribution

- Muskegs, alpine meadows, and nearby forests of Southeast Alaska as far north as Prince William Sound
- Sea level to timberline in Southeast Alaska, though mainly at elevation of 500 to 1,200 feet
- Common in northern Southeast Alaska scattered in southern Southeast

### Western redcedar - *Thuja plicata*



#### Leaves

- Shiny yellow-green, 1/16 to 1/8 inch long
- Springy, fan-shaped branches, turning up at ends

#### Cones

- Brown, oval-shaped, 1/2 inch long
- Clustered near end of branches
- Cone scales woody and curve outward at maturity

#### Bark

- Fibrous and stringy
- Cinnamon-red when young, becoming gray with age

#### Size at maturity and lifespan

- 70 to 100 feet in height in Southeast Alaska (growing much taller in southern part of range) and 2 to 4 feet in diameter (occasionally reaching 6 feet)
- 300 to 700 years (occasionally 1,000)

#### Distribution

- Found in coastal forests in Southeast Alaska
- Sea level to 3,000 feet elevation
- Southern Southeast Alaska to just north of Sumner Strait

