

# Orchids

In Southeast Alaska



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## Introduction

Orchids are placed within the monocotyledons, one of the two major flowering plant groups. The monocots include grasses as well as many showy plants such as iris and lily species, and the orchids may have evolved from a primitive lily ancestor. Orchids comprise the Orchidaceae plant family, which is one of the two largest in the world. It contains about 25,000 orchid species, which includes about 8% of all plant species. Orchids are most abundant in the tropics, where the majority of these plants are epiphytic, growing on trees. Orchids also occur northward in temperate areas of North America, Europe, and Asia, where they are terrestrial, rooting in soil. Some even occur north of Arctic Circle. About 38 species and varieties occur in Alaska, 28 of which are known to occur in the southeast part of the state.



The presence of orchids often indicates lack of human disturbance. Many terrestrial species also occupy specific and predictable habitats. They may be sensitive to soil characteristics such as the range from acidic to alkaline soil reaction (measured by pH), and usually require habitat specific mycorrhizal fungi. The large number of orchid species, their habitats, pollinators, and fungal partners are important components of biodiversity and are thus valuable subjects for conservation. They are also valuable for evolutionary and ornamental research, and make up a large part of the ornamental plant trade.

# Orchids in Southeast Alaska

## Fairy Slipper orchids

**Eastern** (*Calypso bulbosa* var. *americana*); rare; forest, forest edge; Chilkat Valley

**Western** (*Calypso bulbosa* var. *occidentalis*); rare; small islands; Lynn Canal and south

## Lady's Slipper orchids

**Mountain** (*Cypripedium montanum*); rare; bogs, forest, alpine; Glacier Bay; Chilkat Valley

**Yellow** (*Cypripedium parviflorum*); rare; beaches, muskeg; Glacier Bay, Prince of Wales Is

**Sparrow's egg** (*Cypripedium passerinum*); rare; beaches, bogs, riparian; Glacier Bay, Chilkat Valley

## Bracted orchids

**Northern** (*Coeloglossum viride* var. *viride*); infrequent; alpine sun; probably throughout SE

**Long** (*Coeloglossum viride* var. *virescens*); rare; riparian forest shade; possibly throughout SE

## Rein orchids

**Northern bog** (*Platanthera aquilonus*); infrequent; wetlands, cliffs; Chilkat Valley, Glacier Bay

**Chamisso's** (*Platanthera chorisiana*); rare; muskeg, bogs; possibly throughout SE

**White bog** (*Platanthera dilatata*); frequent; meadows, fens; muskeg throughout SE

**Green bog** (*Platanthera huronensis*); infrequent; meadows, muskeg; northern SE

**Blunt-leaved** (*Platanthera obtusata*); rare; coastal forest, near glaciers; northern SE

**Round-leaved** (*Platanthera orbiculata*); infrequent; red cedar forest; Prince of Wales Is and south

**Slender bog** (*Platanthera stricta*); common; peatlands; throughout SE

## Piperia orchids

**White** (*Piperia candida*); rare; open forest; Prince of Wales Is and south

**Alaska** (*Piperia unalascensis*); rare; open forest; possibly throughout SE

## Plantain (Rattlesnake) orchids

**Giant** (*Goodyera oblongifolia*); frequent; coastal forest, throughout SE

## Ladies Tresses orchids

**Hooded** (*Spiranthes romanzoffiana*); frequent; coastal wetlands, shores, muskeg; throughout SE

## Adder's Mouth orchids

**Two-leaved (Aleutian)**; (*Malaxis diphyllus*); rare; coastal beaches and cliffs, muskeg; throughout? SE

**Bog** (*Malaxis paludosa*); rare, muskeg, bogs; possibly throughout SE

## Twayblade orchids

**Northwestern** (*Listera banksiana*); infrequent; coastal forest, throughout SE

**Northern** (*Listera borealis*); rare; forest; Yukon border

**Broad-lipped** (*Listera convallarioides*); infrequent; forest, beaches; southern SE

**Western heart-leaved** (*Listera cordata*); frequent; forest; throughout SE

## Coralroot orchids

**Spotted** (*Corallorhiza maculata* var. *maculata*); infrequent; Chilkat valley to the Chilkat peninsula

**Western** (*Corallorhiza mertensiana*); frequent; coastal forest; throughout SE

**Early** (*Corallorhiza trifida*); infrequent; coastal forest, glacial borders; probably throughout SE





**Eastern Fairy Slipper**



**Western Fairy Slipper**





**Yellow Lady's Slipper**



**Mountain Lady's Slipper**



**Sparrow's Egg Lady's Slipper**



**Northern Bracted**



**Long Bracted**



**Northern Bog Rein**



**Chamisso's Rein**





**White Bog Rein**



**Green Bog Rein**

(photo by Pam Bergeson)



**Blunt-leaved Rein**



**Round-leaved Rein**





**Slender Bog  
Rein**



(photo by Ron Hanko)

**White Pimpernia**



(photo by Ron Hanko)

**Alaska Pimpernia**



**Giant Plantain (Rattlesnake)**



**Hooded Ladies Tresses**



**Two-leaved (Alcufian)  
Adder's Mouth**



**Bog Adder's Mouth**



**Northwestern Twayblade**



**Northern Twayblade**

(photo by Ron Hanko)

(photo by Ron Hanko)



**Broad-lipped Twayblade**



**Western Heart-leaved  
Twayblade**

(photo by Judy Hall)



**Spotted Coralroot**



**Western Coralroot**





**Early Coralroot**

It has been really fun for us to document what type of insect helps pollinate certain orchids. Most orchids have a single place where their pollen is stored which usually contains two or more pollen masses called **pollinia**. Pollinia are usually attached directly to the insect by a glue, or by a stalk with an adhesive disk that adheres to the insect. The photos below show a dance fly entering an early coralroot flower and leaving the flower with pollinia attached to its back. By visiting another plant, the dance fly could provide cross pollination.





