

Female catkins of dwarf willows less than 20 cm tall



S. ovalifolia



S. polaris



S. phlebophylla



S. stolonifera



S. setchelliana



S. myrtillifolia



S. rotundifolia



S. arctica



S. reticulata



S. fuscescens

Pistils of dwarf willows less than 20 cm tall



S. ovalifolia



S. polaris



S. phlebophylla



S. stolonifera



S. setchelliana



S. myrtillifolia



S. rotundifolia



S. arctica



S. reticulata



S. fuscescens

Female catkins of willows taller than 20 cm whose catkins develop before the leaves

Catkins are mostly borne directly on the stem.



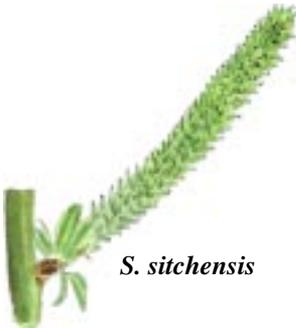
S. richardsonii



S. pseudomonticola



S. arbusculoides



S. sitchensis



S. hookeriana



S. scouleriana



S. pulchra



S. alaxensis

Pistils of willows taller than 20 cm whose catkins appear before the leaves



S. richardsonii



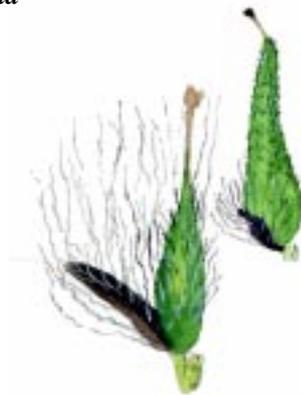
S. pseudomonticola



S. arbusculoides



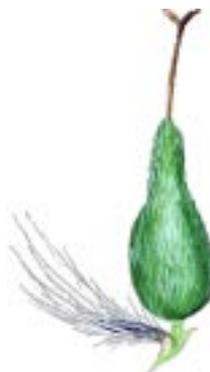
S. sitchensis



S. hookeriana



S. scouleriana



S. pulchra



S. alaxensis

Female catkins of willows taller than 20 cm whose catkins develop at the same time as the leaves

Catkins are borne on leafy branchlet



S. myrtilifolia



S. barclayi



S. commutata



S. bebbiana



S. lasiandra



S. hastata



S. pseudomyrsinites



S. sitchensis



S. glauca

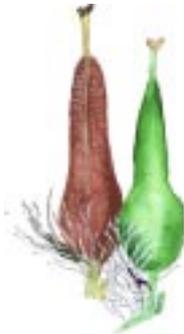


S. niphoclada

Pistils of willows taller than 20 cm whose catkins develop at the same time as the leaves



S. myrtilifolia



S. barclayi



S. commutata



S. lasiandra



S. hastata



S. pseudomyrsinites



S. bebbiana



S. sitchensis



S. glauca



S. nipoclada

Summer species descriptions

Salix alaxensis

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Uses

Feltleaf willow leaves have a relatively low content of bitter anti-herbivory substances compared to most other willows. Moose are very fond of feltleaf willows and reach the higher branches by breaking off the small trunks. It is also an important food source for snowshoe hare, beaver, and smaller herbivores.

Feltleaf Willow is the favorite species for riverbanks restoration because it roots readily from cuttings.

The young leaves are edible and are traditionally collected and preserved by Eskimos. The inner bark has a sweet taste and can be eaten raw or cooked. The long leafless sprigs cut early in the spring make fine interior decorations of “pussy willows” when the young catkins burst open.

“Diamond willows” are sometimes formed on this species.

Insects and mites

Chrysomelidae, *Dorytomus* sp., *Euura* sp., *Itomeyia* sp., *Orgyia antiqua*, *Pontania* sp., *Phyllocolpa* sp., *Rabdophaga rosaria*, *R. rigidae*, *Saperda concolor*, *Trypophleus striatulus*, Eriophyiidae.

Salix barclayi

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Uses

This species is recommended for revegetation projects using the dormant cuttings method.

Access to abundant *S. barclayi* shrubs as winter forage is critical for overwintering moose survival. Successive snow layers force the flexible Barclay’s willow stems down to the ground. By late winter, in a heavy snow year, moose who have depleted nutritious young growth accessible on taller willows, young birch, and aspen saplings are unable to reach this important food source buried under deep crusty snow. As a last resort, they scrape the bark off willow trees and aspen. Famine is especially evident in heavy snow winters that follow consecutive low snow-low mortality winters with high moose survival and recruitment. In late spring of those gloomy deep snow years, many starving moose calves are seen dying along the roads.

Insects and diseases

Chrysomelidae, *Dorytomus* sp., *Euura* sp., *Orgyia antiqua*, *Phyllocolpa* sp., *Pontania* sp., *Rabdophaga rigidae*, *R. rosaria*, *R. salicis*, *Trypophleus striatulus*, *Trichosoma triangulum*, Eriophyiidae, rust, white mildew, tar spots.

Salix bebbiana

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Uses

Shrubs are usually heavily browsed by moose, causing them to be many-branched from ground level. Stiff erect Bebb shrubs remain accessible above snow cover for moose after lower willow shrubs with flexible stems have been buried under the snowpack. Where overwintering moose density is high, Bebb willows are heavily browsed by the end of the winter, and little remains of the last summer's new growth.

Winter cuttings do not root well and are not recommended for revegetation projects.

"Diamond willows" are sometimes formed on this species.

Insects

Euura sp., *Orgyia antiqua*, *Pontania* sp., *Rabdophaga rigidae*, *R. rosaria*, *R. salicis*, rust spot

Salix scouleriana

Continued from p. 90

of March and start releasing the seeds by early June. The leaves start developing from mid-May to early June.

Uses

Winter cuttings do not root well and are not recommended for revegetation projects.

"Diamond willows" are sometimes formed on this species.

The early catkins are a very important source of nectar for insects such as bees and flies. In the Pacific Northwest, hummingbirds visit the flowers, although it is still not clear if they get their nutrients from the nectar itself or by capturing insects visiting the flowers. The northward spring migration of the hummingbirds appears to coincide with the blooming of the willow.

Insects and diseases

Chrysomelidae, *Euura* sp., *Itomeyia* sp., *Orgyia antiqua*, *Pontania* sp., *Rabdophaga rigidae*, *R. rosaria*, *R. salicis*, *Trichosoma triangulum*.

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Zasada, J. C. and R. A. Densmore. 1977. Changes in seed viability during storage for selected Alaskan Salicaceae. *Seeds Sci. & Technol.*, 5: 509 -518.

Useful information sources:

American Willow Grower Network. 412 county Road 31, Norwich NY 13815-3149.

Directory of Alaska Native Plant Sources. Alaska Plant Material Center. HCO2 Box 7440 Palmer, Alaska 99645.

The 1996 National List of Vascular Plant Species that Occur in Wetlands can be downloaded from this website: <http://www.nwi.fws.gov/bha/>

George Argus' s out-of-print 1973 The Genus Salix in Alaska and the Yukon is available for download at <http://info.dec.state.ak.us/ciimms/news.htm>, the website of the Information Management System of the State of Alaska.

George Argus' s electronic copy of the Alaska and Yukon Willow Workbook and the INTKEY Salix data are available for download at <http://www.uaa.alaska.edu/enri/willow/index.html>, the website of the Alaska Natural Heritage Program.

Additional hardcopies of this guide can be requested from the Kenai Watershed Forum, PO Box 2937, Soldotna, Alaska 99669. An electronic copy of Willows of Southcentral Alaska can be downloaded from the Kenai Watershed Forum website <www.kenaiwatershed.org>.

Glossary

Anther- See p. 11.

Bloom- See p. 32.

Bract- See p. 11.

Bud scale- See p. 19.

Catkin- See p. 11.

Fen- Wetland dominated by grasses and sedges.

Gall- Swelling or abnormality in plant tissue caused by an organism. See p. 15.

Genus- See p. 12.

Hybrid- Offspring of two separate species.

Floret- See p. 11.

Midvein- See p. 11.

Nectary- See p. 11.

Ovary- See p. 11.

Phenology- See p. 12.

Petiole- See p. 11.

Stamen- See p. 11.

Stigma- See p. 11.

Stipe- See p. 11.

Stipule- See p. 11.

Sucker- See p. 9.