

Ornamental
TREES & SHRUBS
for Alaska

M. F. BABB



Siberian crab in bloom, Palmer, Alaska

University of Alaska

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This bulletin summarizes findings from a nine year study of woody ornamentals in Alaska. Those familiar with such materials recognize that such a brief period of experimentation yields no hard and fast conclusions, even though supplemented by critical observation, and by the experience of those who have the advantage of a longer residence here.

Two classes of woody plants are described — those native to Alaska, and those introduced. Evaluation of these two classes of materials is necessarily different and has a different basis. It is known that native materials are hardy, and thanks to the work of the U. S. Forest Service, their range of adaptation is known. Their value as ornamentals is problematical.

The second class of materials consists of exotic trees and shrubs. Their ornamental value has been well established, but their range of adaptation in Alaska is for the most part still uncertain.

An attempt has been made to establish the range of adaptation of these introduced materials and the value of the native materials as ornamentals by distributing them for testing to cooperators from Homer to Fairbanks, to Venetie within the Arctic Circle, and to Chignik out on the Alaska Peninsula. Such cooperation has been established largely with church groups and schools in several communities. To these, most sincere thanks are due for their unrecognized but devoted assistance.

These studies were initiated and conducted by M. F. Babb, who in 1948 brought a wealth of experience to the Alaska Agricultural Experiment Station from Wyoming. He has been assisted at the College Farm by Arvo Kallio.— Allan H. Mick, Director

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Ornamental Trees And Shrubs For Alaska

THIS bulletin lists and describes trees and shrubs that are considered to have merit for landscape use in Alaska. It is designed to serve as a guide in selecting suitable materials for landscaping private homes, public buildings or military bases. It should also be of value to nurserymen or prospective nurserymen by indicating what types of materials are most likely to succeed in various sections of the state.

Some of the varieties and species described might not be considered highly desirable for landscape use in more southerly latitudes where the range of selection is greater, but to offset that loss some are included which are not adapted to more southerly latitudes. Thus to a certain degree Alaskans have an opportunity to develop their own individualistic type of landscape architecture.

The degree of winter hardiness of some of the species and varieties is not exactly known, but where possible the distribution and native habitat of each is given.

For the native tree species chief reliance as to distribution and habitat has been placed in Forest Service Handbook No. 55 by Taylor and Little. For introduced species of trees or shrubs the local distribution is given, if known, otherwise the general area or region of its origin is given. These should be used as guides in selecting materials for a given location. Thus if the natural distribution of a particular species is confined to the southeast or south portions of Alaska it may not be sufficiently hardy for more norther-

ly locations. In a similar manner, if the natural habitat of a species is on high, well-drained land it would be unwise to select it for a wet or poorly-drained site.

The relative hardiness of a tree or shrub must also be taken into consideration in selecting it for a particular exposure. In general, half-hardy types will survive better if planted on a northeasterly, east or southeast exposure provided such exposures are reasonably well protected from strong winds and storms. To be sure, they will often, if not generally grow better or faster on a southerly or southwest exposure but eventually, as they increase in size, the lower portions of the trunk and bases of the lower limbs become bare and suffer injury from "sun scald" which weakens and may eventually kill the whole plant. Such injury usually occurs during unseasonably warm winter days when the low, level rays of the sun strike directly on the exposed portions of the trunk or lower limb bases. It often can be overcome by leaving the lower branches unpruned, but the safer way is to plant half-hardy materials in locations where it will not occur.

Descriptions as to height, growth habit, or even the appearance of some trees and shrubs will be found to differ from those given in many standard references. Such differences reflect the influence of environmental factors which vary greatly in Alaska, from its more

southerly portions to the northern limit of each tree and shrub species. For this reason a shrub which might be considered suitable for a base or foundation planting in a more northerly area might be entirely too large and aggressive for such use in a more southerly location.

LOW SHRUBS

Alnus crispa (Ait.) Pursh.)
AMERICAN GREEN ALDER

Other names *A. mitchelliana* M. A. Curt., *A. viridis* Am. auth., not DC., Green alder, Mountain alder

Shrub 1 to 2 feet, low, spreading, aromatic when young, occasionally to 8 or 9 feet. **Leaves** egg-shaped to broadly round-oval, $1\frac{1}{4}$ to $3\frac{1}{4}$ inches long sharply pointed, usually somewhat rounded at base, finely and closely toothed, smooth beneath or slightly hairy on veins, bright green above. Female **flowers** (catkins) on slender, softly-hairy stems.

Distribution: Widely distributed in central and northern Alaska.

Habitat and landscape use: Prefers cool, moist sites. Used mainly for planting in wet soils where other shrubs might not be adapted.

Arctostaphylos uva-ursi (L.) Spreng.
BEARBERRY

Other names *Uva-ursi uva-ursi*

(L.) Britt. Common bearberry, Kinnikinick, Kinnikinnik, Mealberry, Hog-cranberry.

Shrub or ground cover, trailing, prostrate with long flexible branches covered with reddish to grayish papery bark. **Leaves** short-petioled, entire, broadly oval to long-oval, rounded at apex, shiny, bright green, smooth above, lighter beneath, $\frac{3}{4}$ to $1\frac{1}{2}$ inches long. **Flowers** white, tinged with red, about $\frac{1}{6}$ inch long, in terminal clusters. **Fruit** berry-like, dull orange-red, $\frac{1}{4}$ to $\frac{1}{2}$ inch in diameter, dry and mealy, single stone, consisting of 5 to 10 partially or wholly fused nutlets.

Distribution: Arctic regions, south to west Newfoundland, Quebec, South Dakota, Washington and northern California.

Habitat and landscape use: Found on exposed rock and sandy soils forming large mats. It makes a good ground cover for rocky slopes or sandy, shady locations. Apparently

not adapted to alkaline soils. Rather difficult to establish.

Betula nana L.
DWARF ARCTIC BIRCH

Other name *B. nana* subsp. *exilis* (Sukatch.) Hult.)

Shrub 1 to 3 feet, much branched, with velvety, slightly resinous twigs. **Leaves** rounded, less than $\frac{1}{2}$ inch long, often broader than long, round at apex, glossy dark green above, net-veined beneath. Female **catkins** erect, $\frac{1}{3}$ inch long, scales of about equal length, upper ones usually entire, lower ones 3-lobed; nutlets with very narrow wings.

Distribution: Widespread in Alaska over coasts and in mountains of interior from northern part of south-east Alaska to western end of Alaska Peninsula and Bering Sea, north to Arctic coast, not reaching United States.

Habitat and landscape use: Thrives best in moist locations. A low, graceful shrub for rockeries or rocky slopes.

Caragana microphylla, Lam.
LITTLELEAF PEASHRUB

Other names *C. arborescens* var. *arenaria*, Hort. *C. altagana*, Poir.

Shrub 4 to 6 feet, wide-spreading, often wider than high, young bark light gray, branches long, slender, few branchlets. **Leaves** $1\frac{1}{2}$ to 3 inches long, of 6 to 9 paired leaflets $\frac{1}{2}$ to $\frac{3}{8}$ inch long, oval to rounded-oval, dull grayish-green, silky at first, smooth later. **Flowers** yellow, $\frac{3}{4}$ inch long, pea-like, often in pairs. **Fruit** a pod about $1\frac{1}{4}$ inch long, $\frac{1}{6}$ inch wide, green, becoming brown and splitting to shed seeds.

Distribution: Siberia and northern China



Dwarf peashrub used as a doorway planting

Habitat and landscape use: Widely adapted but prefers very well-drained light, sandy loams. Tolerant of alkali. Has proved hardy over period of four years in Matanuska Valley. Valued for its locust-like foliage, bright yellow blossoms and graceful habit. Useful for foundation plantings, specimens or for low windbreaks and borders.

Caragana pygmaea DC.
DWARF PEASHRUB

Other name *C. gracilis*, Hort.

Shrub 1 to 3 feet, with slender, pendulous or sometimes prostrate branches. **Leaves** $\frac{1}{2}$ inch long, of 2 pair of leaflets on central axis. **Leaflets** $\frac{1}{2}$ to $\frac{1}{4}$ inch long, reverse egg-shape, short pointed. **Stipules** short, spiny. **Flowers** yellow, pea-like, $\frac{3}{4}$ inch long, single, on stalk $\frac{1}{2}$ inch long. **Pod** $\frac{3}{4}$ to $1\frac{1}{4}$ inch long, smooth.

Distribution: Caucasus to Siberia and Tibet.

Habitat and landscape use: Widely tolerant but prefers well-drained sandy loam. Is tolerant of alkali. Has proved hardy at Matanuska over period of 8 years. Grown for its golden yellow, pea-like flowers arranged along slender, pendulant branches in early spring. Excellent for foundation planting, low hedges or for groups on lawn.

LOW SHRUBS

Cotoneaster integerrima Medic.
EUROPEAN COTONEASTER

Other names *C. vulgaris* Lindl.,
Red-berried cotoneaster

Shrub 3 to 6 feet, bushy, rounded, horizontal branches with dense wool-like hairs on young growth. Leaves egg-shaped to oval, $\frac{3}{4}$ to $1\frac{1}{2}$ inches long, sharp pointed or rounded at end; smooth or nearly so above, wooly-haired beneath. **Flowers** 2-4 in nodding clusters, about $\frac{1}{4}$ inch across, white with rose tint. **Fruit** globular, $\frac{1}{4}$ inch in diameter, bright red.

Distribution: Europe, western Asia, Siberia

Habitat and landscape use: Adapted to wide range of conditions but prefers a rich, well-drained soil. Well suited to group plantings, borders, or partially shaded sites.

Juniperus communis L.
COMMON JUNIPER

Other names Prostrate juniper, Old field common juniper, Mountain common juniper, *J. communis* var. *saxatilis* Pall., Syn. *J. communis* var. *montana* Ait.

Shrub low, wide-spreading, nearly prostrate or trailing, forming patches to 10 feet in diameter, rarely a tree to 30 feet in United States. **Leaves** in whorls of 3, erect or spreading, $\frac{3}{8}$ to $\frac{1}{2}$ inch long, sharp and prickly, whitish and grooved above, shiny yellow beneath. **Fruit** dark blue, covered with light bluish to whitish bloom, $\frac{1}{4}$ to $\frac{1}{2}$ inch in diameter.

Distribution: Throughout most of Alaska. From southeast Alaska north in central Alaska to Porcupine, Yukon and Koyukuk rivers and west to Bering Sea and west side of Cook Inlet.

Habitat and landscape use: Thrives best in sandy and loamy, moderately moist soil, but grows well even

in rather dry, rocky and gravelly ground. It prefers sunny, open situations. Of value for borders and ground cover for sandy and rocky soil. May also be used for foundation or entrance plantings but is rather wide for these latter uses.

Juniperus horizontalis (Moench)
CREEPING JUNIPER

Other names *J. prostrata*, Pers. *J. sabina* var. *procumbens*, Pursh. *J. repens*, Nutt.).

Shrub prostrate, usually with long trailing branches having numerous short branchlets, sometimes to 4 feet high. **Leaves** are paired; older leaves mostly scale-like, $\frac{1}{16}$ inch long, blue green, forming 4-angled stems $\frac{1}{16}$ inch broad; **young leaves** needle- or awl-shaped less than $\frac{1}{4}$ inch long, aromatic odor. **Fruit** blue with slight grayish bloom, about $\frac{1}{2}$ inch across, pendulous.

Distribution: Southeastern interior along Chitina and Copper rivers, northwest to Mount McKinley Park.

Habitat and landscape use: Rocky or sandy banks, mossy bogs, but will do well even in rather dry, gravelly soil. It prefers sunny, open situations. Of value for borders and as ground cover for rocky and sandy soils. Is also used in foundation and entrance plantings, but is rather wide-spreading for these latter uses.

Ledum groenlandicum Oeder
LABRADOR TEA

Other names *L. latifolium*, Ait.

Shrub 1 to 3 feet, upright, evergreen, covered with rust-colored wooly hairs when young. **Leaves** evergreen, rounded to narrow-oblong, 1 to 2 inches by $\frac{1}{4}$ to $\frac{1}{2}$ inch wide, dark green and slightly hairy above, with dense, rust-colored wooly hairs beneath. **Flowers** white, in 2 inch clusters at tips of branches. **Fruit** oblong, to $\frac{1}{4}$ inch in length.

Distribution: Greenland and Labrador to Alaska and south to northern United States.

Habitat and landscape use: Usually in bogs or low, wet soils where but few plants survive. It is adapted for borders of evergreen plantings or for low, swampy sites. It thrives in both sunny and partly shady locations. Best transplanted with ball of soil.

Loiseleuria procumbens Desv.
ALPINE AZALEA

Other names *Azalea procumbens*, Linn. *Chamaecistus procumbens*, Kuntze.

Shrub or ground cover to 6 inches, prostrate, forming a mat. **Leaves** evergreen, oval to narrowly oblong, $\frac{1}{8}$ to $\frac{1}{4}$ inch long, smooth. **Flowers** small, pink, or white with pink tinge, in clusters at tips of branches.

Distribution: Alpine arctic regions of North America, Europe and Asia.

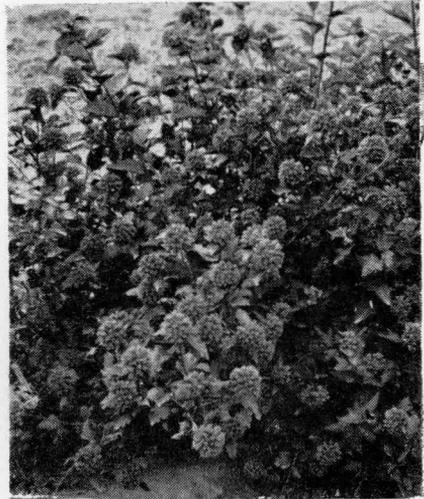
Habitat and landscape use: Thrives best in sunny or partially shaded positions in porous, peaty and sandy, well-drained soils. Is adapted for rock gardens, or other similar locations. It is considered difficult to establish.

Physocarpus intermedius, Schneid.
DWARF ILLINOIS
NINEBARK

Other names *Opulaster intermedius*, Rydb. *O. Ramaleyi*, Nelson.

Shrub to 5 feet, dense, upright. **Leaves** nearly circular, 3-lobed with rounded lobes and double, rounded teeth on margins, slightly hairy or smooth beneath, 1 to 2½ inches long. **Flowers** in flat-topped dense clusters, whitish or sometimes pinkish, long bloom period. **Pods** 3 to 5 in number, inflated, in dense clusters, becoming bright reddish yellow in autumn.

Distribution Illinois and Missouri to Colorado and South Dakota.



Dwarf Illinois ninebark valued for bloom and brilliant seed pod clusters in fall

Habitat and landscape uses Thrives best in moist, well-drained, loam soils but is widely tolerant. Is well adapted for shrub masses or as low, natural hedges. Fall coloration is outstanding. Has proved hardy for a period of eight years in the Matanuska Valley.

Physocarpus monogynus (Torr.)
Coul.
WESTERN NINEBARK

Other names *Opulaster monogynus*, Kuntze. *Spiraea monogyna*, Torr., *Neillia torreyi*, Wats.

Shrub 2 to 3 feet in height, erect, dense. **Leaves** $\frac{3}{4}$ to 1½ inches long, broadly oval to kidney-shaped, sharply divided into 3 or 5 rounded lobes with sharp saw-toothed teeth on margins, usually smooth. **Flowers** white or often pinkish, in dense, umbrella-shaped clusters. **Pods** usually 2, densely hairy.

Distribution: South Dakota and Wyoming to Texas and New Mexico.

LOW SHRUBS

Habitat and landscape use: Thrives best in moist, well-drained loam soils but is widely tolerant. Adapted to shrubberies or low, natural dividing hedges. Has proved hardy over period of eight years in the Matanuska Valley.

Potentilla fruticosa L.
BUSH CINQUEFOIL

Other names Five finger, Shrubby cinquefoil, *Dasiphora fruticosa* Rydb.

Shrub 1 to 4 feet, shrubby, much branched with shreddy bark. **Leaves** pinnate or arranged along common axis, grayish-green, silky. **Leaflets** 3 to 7, long oblong, $\frac{1}{2}$ to 1 inch, sharp-pointed. Flowers numerous, bright yellow, $\frac{3}{4}$ to 1 $\frac{1}{4}$ inches across, solitary or in small clusters on ends of branchlets, long bloom period.

Distribution: Circumpolar, south to New Jersey, Minnesota, New Mexico and California.

Habitat and landscape use: Widely adapted from bogs to dry, limy soils. Grown for its bright yellow flowers from late June until autumn. Useful in large shrub masses but not very desirable for small ones.

Prunus besseyi Bailey
WESTERN SANDCHERRY

Other names *P. pumila* var. *besseyi* (Bailey) Waugh, *P. prunella* Daniels, Sandcherry, Bessey cherry

Shrub 1 to 4 feet, spreading, nearly prostrate to semi-erect. **Leaves** oval to elongated-oval, tapering to stem end, tip blunt or short-pointed, 1 to 3 inches long, smooth, glossy above, lighter-colored beneath. **Flowers** profuse about $\frac{1}{2}$ inch across, white, on slender stems, appearing with early foliage. **Fruit** nearly globular, often with short point, about $\frac{1}{2}$ inch in diameter or occasionally slightly larger, black or somewhat mottled, sweet but somewhat astringent.

Distribution: Manitoba to Wyoming, south to Kansas and Colorado.

Habitat and landscape use: Best adapted to very well-drained, deep, fertile soils but is drought resistant and grows well in a wide range of soil types. The bright, glossy foliage, profuse white flowers followed by the edible, black fruits make this a desirable ornamental for use in front-line planting in the shrub border. It also offers possibilities as a ground cover to prevent erosion on steep hillsides.

Ribes alpinum L.
ALPINE CURRANT

Other names Mountain currant, *R. opulifolium*, Hort.

Shrub 4 to 7 feet, upright, dense, spreading. **Leaves** usually 3-lobed, broadly egg-shaped 1 to 2 inches across, smooth, bright green. **Flowers** small, yellowish-green, inconspicuous, male and female on separate plants. **Fruit** slightly flattened globe, scarlet, smooth. There are several varieties, some dwarf, some with deeply lobed leaves and some with yellowish foliage.

Distribution: Native of the Alps of Europe. Long cultivated.

Habitat and landscape use: Thrives in moist loam soils and is very tolerant of shade. Much used for hedges especially in shady sites. Valued for its bright green foliage and scarlet berries.

Rosa acicularis Lindl.
PRICKLY ROSE

Shrub 1 to 3 feet, with densely prickly stem. **Leaflets** 3 to 7, long oval to oblong, $\frac{3}{4}$ to 2 inches long, usually sharply pointed, smoothly toothed, dull green and smooth above, hairy beneath; stipules broad. **Flowers** usually solitary, deep-rose, 1 $\frac{1}{2}$ to 2 inches across,

LOW SHRUBS

fragrant; sepals entire and nearly smooth. **Fruit** $\frac{1}{2}$ to $\frac{3}{4}$ inch long, red somewhat pear-shaped.

Distribution: Alaska to Ontario, south to Colorado, northern Europe, northern Asia, Japan.

Habitat and landscape use: Widely adapted but prefers the heavier soil types or clayey loams and sunny locations. This is not a very attractive rose but may be used in foundation plantings or in borders.

Rosa rubrifolia, Vill.

REDLEAF ROSE

Other names *R. glauca*, Pourr. *R. ferruginea*, Desegl., not. Vill.

Shrub 4 to 6 feet, upright with slender, arching, purplish branches.

Prickles few, small. **Leaflets** 7-9, long oval to broadly lance-shaped, $\frac{3}{4}$ to $1\frac{1}{2}$ inches long, simply toothed, bluish- to reddish-green, smooth.

Flowers 1 to 2 inches, rather few, single, light rose, inconspicuous, very faintly fragrant. **Fruit** slightly flattened globe about $\frac{1}{2}$ inch long, bright red.



Redleaf rose prized for the contrast of its dusky-red foliage

Distribution: Mountains of central and southern Europe.

Habitat and landscape use: Widely adapted but prefers heavier soil types or clayey loams. Of value for its purplish branches and leaves to add color to borders or for accent in foundation plantings.

Rosa rugosa, Thunb.

RUGOSA ROSE

Other names *R. ferox*, Lawr. *R. regeliana*, Andre' & Lind. *R. coruscans*, Waitz.

Shrub 4 to 6 feet, with stout arching branches densely covered with prickles and bristles. **Leaflets** 5 to 9, oval to oblong, 1 to 2 inches long, toothed, wrinkled, bright green and smooth above, softly hairy with slight bloom beneath; stipules broad, leafy. **Flowers** usually solitary, red or white, single or semi-double, $2\frac{1}{2}$ to 3 inches across, fragrant. **Fruit** slightly flattened globe shape, large, nearly 1 inch in diameter, bright red with long, bright green, spreading sepals persisting to frost.

Distribution: North China, Korea, Japan.

Habitat and landscape use: Widely adapted but prefers heavier types of soils. Very popular for both natural and trimmed hedges, for border plantings and as accent shrubs. Valued for yellow fall coloration of leaves and large, bright red, showy fruits, often used in conserves.

Sorbaria sorbifolia (L.) A. Braun
FALSE SPIREA

Other names Ural false-spirea, *Schizonotus sorbifolia*, Lindl.)

Shrub 3 to 6 feet, spreading freely by suckers. **Leaves** with paired leaflets along central axis. **Leaflets** 13-23, lance-shaped, long-pointed, sharply and deeply toothed, hairy when young, 2 to 4 inches long.

LOW SHRUBS

Flowers white, in clusters of 4 to 12 inches or more, long.

Distribution: Northern Asia from Ural to Japan. Also in northern United States.

Habitat and landscape use: Widely adapted to soil types but thrives best in moist, well-drained loams. Is best in groups or in wide borders where its profuse suckering habit will not be objectionable.

Spiraea billiardii, Herincq.

BILLIARD SPIREA

Origin *S. douglasii* x *S. salicifolia*

Shrub 4 to 6 feet, erect with brown, hairy branches, **Leaves** oblong to narrow-oblong, pointed at both ends, 2 to 3 inches long, sharply toothed on upper two thirds. grayish and thinly hairy beneath when young, becoming nearly smooth. **Flowers** small, bright rose, in long, hairy, rather dense clusters, 2 to 5 inches.

Distribution: Originated as a hybrid under cultivation.

Habitat and landscape use: Widely tolerant of soil conditions or of light and shade but thrives best in moist, loam soils in full or nearly full sunlight. Often used in massed plantings where its tendency to spread will not be objectionable.



Common chokecherry provides shelter, beautiful, fragrant bloom and fruit for jellies or food for song and game birds

MEDIUM SHRUBS & SMALL TREES

Acer glabrum var. *douglasii* (Hook.)
Dipp.
DOUGLAS MAPLE

Other names Douglas rocky mountain maple (SPN), Dwarf maple, Mountain maple.

Usually a **shrub** 4 to 6 feet, occasionally a tree 20 to 30 feet in height. **Leaves** paired, 2 to 4 inches long and broad, 3-lobed with middle lobe largest, long pointed, deeply, sharply, and irregularly toothed, dark green and shiny on the upper surface paler on the lower surface with conspicuous veinlets. **Petioles** 1½ to 4 inches long, stout, grooved, reddish tinged. **Twigs** and buds reddish, smooth. **Flowers** ¼ inch long, greenish yellow, in clusters; male and female usually produced separately on different plants. **Fruit** smooth, with broad, nearly erect or slightly spreading wings ¾ to 7/8 inch long, usually red. **Bark** thin, smooth, dark reddish brown. **Wood** close-grained, hard, light brown, with lighter colored sapwood.



Douglas maple. Note airy, graceful growth habit

Distribution: Southeast Alaska along coast to head of Lynn Canal at Skagway.

Habitat and landscape use: Found in rich moist soils on forested slopes. It is a handsome maple, with graceful, shining foliage which contrasts well with the red petioles and branches.

Alnus sinuata (Reg.) Rydb.)
SITKA ALDER

Other names *Alnus crispa* (Ait.) Pursh. subsp. *sinuata* (Reg.) Hult; *A. fruticosa* Rupr. var. *sinuata* (Reg.) Hult., *A. sitchensis* (Reg.) Sarg.

Shrub 4 to 6 feet forming dense thickets from sea beaches to timber line, sometimes 30 feet or more and 8 inches in trunk diameter.

Leaves ovate, 2½ to 5 inches long, short-pointed, edges with many shallow, wavy lobes; sticky when young, speckled yellow green and shiny above, lighter shiny and smooth beneath. **Young twigs** slightly hairy with resinous specks, orange brown and shiny. **Male flowers** in narrow catkins 3 to 5 inches long. **Cones** in clusters, long-stalked, ½ to ¾ inch long, the seeds with 2 broad wings. **Bark** dark blue gray, smooth and thin.

Distribution: Southeast and southern Alaska along coast; northwest to head of Lynn Canal, west along coast to Kodiak, Alaska Peninsula and eastern Aleutian Islands; also on Bering Sea.

Habitat and landscape use: Prefers moist soils and partial shade. Not well adapted to landscape uses because of its thicket-forming habit, but might be used as a hedgerow in moist sites.

MEDIUM SHRUBS

Amelanchier alnifolia Nutt.

SASKATOON SERVICEBERRY

Other name Northwestern serviceberry.

Shrub low, dwarf, 4 to 6 feet, thick-
et-forming. **Leaves** nearly round,
thick, firm, coarsely toothed above
the middle, 1 to 1½ inches long.
Flowers small, ½ inch in diameter,
white, in small, dense, elongated
clusters or racemes, very fragrant;
May. **Fruit** ¼ to ⅓ inch in diameter,
nearly round, purple, covered with
bloom, edible, sweet.

Distribution: Interior Alaska from
Chitina River and head of Cook In-
let north to central Yukon River.
Also at northern end of southeast
Alaska.

Habitat and landscape use: Rich,
moist soils especially near streams
also in open land and drier locations.
Responds to cultivation. Much culti-
vated for its fruit and for border-
like plantings throughout northwest-
ern states and Canada, but less at-
tractive than *A. laevis* Wieg., a re-
lated variety.

Amelanchier florida Lindl.

PACIFIC SERVICEBERRY

Other names Western serviceberry,
June-berry

Shrub to 16 feet in height and 5
inches in trunk diameter. **Leaves** 1
to 2 inches long, oval or oblong,
rounded at apex and base, coarsely
toothed above middle, dark green
becom^g smooth above, pale green
and smooth or slightly hairy be-
neath. Young **twigs** reddish brown.
Flowers about 1 inch across, white,
fragrant, many on short, dense, up-
right racemes. June. **Fruit** round,
⅔ to ½ inch in diameter, smooth,
nearly black, covered with bloom,
sweet, edible, August or September.

Bark brown or gray thin, smooth
or slightly fissured. **Wood** light
brown, fine grained, hard.

Distribution: Pacific coast of south-
east and southern Alaska from Hy-
der to head of Lynn Canal and west
to Cook Inlet and Katmai region.

Habitat and landscape use: Occur-
ring in open stream banks and mead-
ows. Makes an excellent fruiting
hedge where adapted.

Caragana arborescens Lam.

SIBERIAN PEASHRUB

Other name Siberian peatree

Shrub 15 to 20 feet, upright growth
habit, rather fine textured.

Leaves pinnate with four to six pairs
of leaflets arranged along common,
spiny-pointed axis. **Leaflets** small,
entire, usually oblong, rounded at
tip. **Twigs** angled by small wings of
the bark, somewhat spiny. **Flowers**
yellow, pea-like, borne singly. **Pod**
pea-like, 1 to 2 inches long, sharply
pointed, brown and smooth when
ripe. **Seeds** 6 or more, oblong or
nearly round, reddish brown.



**Siberian peashrub, hardy and
quick-growing for shelterbelts or
screening hedges**

MEDIUM SHRUBS

Distribution: Hardy throughout south, west and interior Alaska.

Habitat and landscape use: Thrives best in rich, well-drained soils in open sites. Not adapted to wet poorly drained soils. Recommended mainly for shelterbelts and rather tall hedges and screen plantings.

Cornus stolonifera Michx.
REDOSIER DOGWOOD

Other names American dogwood, Kinnikinnik, Squawbush.

Shrub 6 to 10 feet, occasionally to 15 feet, bearing stolons (or branches touching ground take root at their tips). **Leaves** paired or opposite, elliptical or lance-shaped, 2 to 4 inches long, edges smooth, dark green above, whitish beneath. **Twigs** and **branches** red, finely hairy or smooth.

Flowers small, dull white, in compact clusters. **Fruits** white $\frac{1}{4}$ inch in diameter with stone as broad as high and rounded at the base.



Redosier dogwood has attractive bloom and pleasing contrast of leaves with red-barked twigs

Distribution: Southeast and interior Alaska north and west to central and lower Yukon River districts.

Habitat and landscape use: Common along streams and moist half-shaded locations. Its smooth stems become bright purplish-red in winter, making it an attractive shrub for the landscape border.

Cotoneaster acutifolia Turcz.
PEKING COTONEASTER

Other name *C. pekinensis* Zab.

Shrub 6 to 12 feet with slender, spreading branches. **Leaves** $1\frac{1}{2}$ to 2 inches long, dark, shiny, rather smooth, usually sharp-pointed, lighter green beneath, slightly hairy becoming smooth at maturity. **Flowers** 2-5 in clusters, nodding. **Fruits** black, egg-shaped, $\frac{1}{2}$ inch long, usually with 2 stones.

Distribution: Northern China

Habitat and landscape use: Hardy in southern, central and interior Alaska. Adapted to poor soils. An excellent shrub for borders or foundations because of its compact growth habit, its black fruits and beautiful shiny, green foliage which turns bright red and yellow after frost.

Elaeagnus commutata Bernh.
SILVERBERRY

Other names *E. argentea* Pursh. not Moench. Wolfberry.

Shrub 3 to 13 feet, upright, thicket forming or suckering, with reddish-brown branchlets. **Leaves** oval-oblong with undulating margins, silvery on both sides, often with scattered brown scales beneath, 1 to 3 inches long. **Flowers** 1 to 3 in cluster, silvery outside and yellow within, fragrant but not showy. **Fruit** oval or roundish-oval, densely covered with silvery scales, sweet, mealy, $\frac{1}{2}$ inch long.

Distribution: Canada south to Quebec, Minnesota, Utah. Central Alaska.

MEDIUM SHRUBS



Silverberry. Its silvery-gray foliage provides striking contrast with other shrubs or backgrounds

Habitat and landscape use: Grows well in almost any well-drained soil. One of the most silvery shrubs in cultivation. Its use as an ornamental is somewhat limited by its suckering habit. Useful as foundation planting, in borders or for shelter-belts.

Lonicera tatarica L.

TATARIAN HONEYSUCKLE

Other name Twin honeysuckle

Shrub 8 to 10 feet in height, young shoots sometimes slightly hairy. **Leaves** egg-shaped to long egg-shaped, 1 to 2½ inches, sometimes hairy beneath. **Flowers** pink, crimson or white, ¾ to 1 inch long, in pairs on slender stalks arising from axils of leaves, tubular portion of flower swollen; color of pink and white flowers not turning yellow as in some other species. **Berries** red or amber yellow, late spring and summer.

Distribution: Southeastern Russia and Siberia. Hardy in Alaska to Tanana Valley.



Honeysuckle, both in bloom and in fruit, is one of the most attractive shrubs

Habitat and landscape use: Thrives under a wide range of conditions and is reasonably drought resistant. Tall and upright habit make it useful in rear of border plantings, as a screen. Selected plants make good specimens for medium-sized lawns.

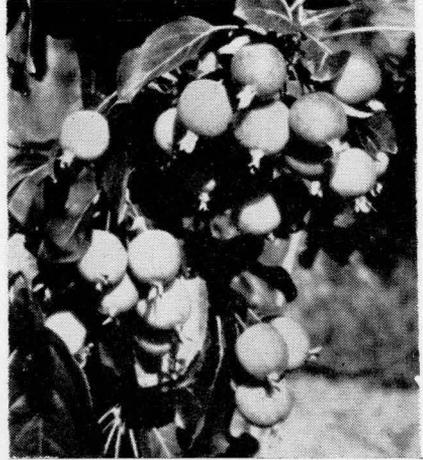
Malus baccata (L.) Borkh.

SIBERIAN CRAB APPLE

Other names *M. baccata* var. *sibirica* (Maxim.) Schneid., *Pyrus baccata* L., Siberian crab.

Tree 15 to 25 feet in height, usually strong, wide-topped but variety **pyramidalis** is a narrow upright form with a spread of about 4 to 5 feet. **Branches** wiry, non-hairy. **Leaves** oval to egg-shaped or long egg-shape, 2½ to 4 inches, tapering gradually to the tip, rather thin, smooth. **Petioles** long, slender. **Flowers** white, about 1½ inches across on smooth, green stems 2 to 3 inches long. **Fruit** from pea-size to 1 inch in diameter, nearly round, yellow or red, waxy or shiny, on long, slender stems, the calyx lobes falling away from mature fruit.

MEDIUM SHRUBS



Siberian crab, beautiful and fragrant in bloom, provides fruits both attractive and useful for jellies and food for birds

Distribution: Siberia to Manchuria and northern China. Hardy in Alaska to Tanana Valley.

Habitat and landscape use: Prefers a rich, well-drained loam soil, fairly drought resistant and will not tolerate wet, poorly-drained soils. Wide-spreading types best suited for windbreaks and screen plantings. Narrow-headed types make excellent specimens.

Prunus padus L.

EUROPEAN BIRDCHERRY

Other names *P. racemosa* Lam., *Padus racemosa* Schneid., *Cerasus padus* (L.) DC.

Tree small to medium-sized, becoming 30 feet tall. **Leaves** oval to egg-shaped, broad at base, 2 to 4 inches long, rather abruptly pointed, finely and closely saw-toothed, dull green above, smooth beneath except on veins. **Flowers** white, fragrant, about ½ inch across, on drooping or wide-spreading long clusters, from 3 to 6 inches long. **Fruit** globe shaped, about ¼ inch in diameter, red turning black, rather bitter. **Stone** rough or strongly sculptured into ridges and crossridges.

Distribution: Europe and northern Asia to Korea and Japan.

Habitat and landscape use: Adapted to a wide range of conditions but prefers a rich, well-drained loam. Hardy in Alaska to Tanana Valley. Its long loose clusters of very fragrant flowers are produced in May or early June followed by the fruit which turns from red to black. This is the May Day tree of literature. Its large size restricts it for use to large parks or large plantings where it is valuable as a specimen or in the border.

Prunus virginiana var. *melanocarpa* (A. Nels.) Sarg.

COMMON CHOKECHERRY

Other names Chokecherry, Black chokecherry, California chokecherry, Eastern chokecherry, Western chokecherry, Caupulin.

Plant a bush or sometimes a small tree to 30 feet, with a rough speckled bark and a strong odor when bruised. **Leaves** thin oval-oblong, abruptly pointed, very sharply toothed.

MEDIUM SHRUBS



Common chokecherry loaded with fruit, Matanuska Experiment Station Farm

Flowers in short, dense, elongated clusters in spring with leaves. **Fruit** size of pea, red or amber-colored, puckery, stone smooth.

Distribution: Generally over northern North America to the Arctic Circle, also in Mexico.

Habitat and landscape use: Thrives best in a rich, well-drained loam soil but is tolerant of a wide range of conditions. Probably best suited as a fruiting hedge or windbreak.

Sorbus scopulina Greene GREENE MOUNTAIN ASH

Other names *S. alaskana* G. N. Jones, not Hollick, *S. andersonii* G. N. Jones, Western mountain ash

Shrub from 3 to 13 feet in height, with showy white flowers in spring followed by clusters of bright red fruits in the fall. **Leaves** compound with 11 to 15 shiny, short-pointed, oblong or lance-shaped leaflets attached along common stem. **Leaflets** toothed almost to base. Young **twigs** and winter buds more or less white, hairy. **Flowers** about $\frac{1}{2}$ inch across, many, in rather loose, flat to round-

ed clusters. **Fruit** round, red, $\frac{1}{4}$ to $\frac{1}{2}$ inch diameter, ripening in August.

Distribution: Southeast and southern Alaska, west to Katmai, north in interior to central Yukon River and westward to Bering Sea.

Habitat and landscape use: Thrives best in protected locations on rich well-drained soils but also found under sub-alpine conditions. Not as attractive as European mountain ash, but because of smaller growth habit can be used as specimens, in border plantings or even as accent shrubs, if properly trained.

Sorbus sitchensis Roem. SITKA MOUNTAIN ASH

Other names Western mountain ash, Pacific mountain ash; *S. americana sitchensis* (Roem.) Sndw.

Shrub from 15 to 20 feet in height and 5 inches in diameter with a handsome, round-topped head. Smaller at higher elevations. **Leaves** compound, 4 to 8 inches long. **Leaflets** usually 9 to 11, oval or oblong, $1\frac{1}{2}$ to $2\frac{1}{2}$ inches long, rounded or slightly pointed at apex, with edges coarsely and sharply toothed above the middle, dull blue green and smooth above, paler and smooth or nearly so beneath. Young **twigs** and winter bud rusty-hairy. **Flowers** small $\frac{1}{4}$ inch across, white, 15 to 60 in cluster 2 to 4 inches broad. **Fruit** rounded and berry-like, $\frac{3}{8}$ to $\frac{1}{2}$ inch in diameter, ripening in early fall, overwintering. **Wood** pale brown, fine-grained.

Distribution: Pacific coast of southeast and southern Alaska. From Ketchikan northwest to head of Lynn Canal, Glacier Bay, and Yakutat Bay, west to Prince William Sound, Cook Inlet and Katmai region.

Habitat and landscape use: Thrives well in most loam soils and is also found under sub-alpine conditions. It is often cultivated as an ornamental in southeast Alaska, but is usually less regular or refined in growth habit than the European mountain ash.

MEDIUM SHRUBS



Common lilac, one of the most sought-after of all shrubs for its fragrant beautiful blooms

Syringa villosa Vahl.

LATE LILAC

Other names *S. bretschneideri*, Ledmoine; *S. emodi* var. *rosea*, Cornu., Villosa lilac

Shrub 10 to 15 feet in height, A coarse upright, round-headed shrub of rather coarse texture. **Leaves** broad oval to oblong, pointed, at both ends, dark green and dull above, hairy only near midrib, usually slightly hairy beneath, 3 to 7 inches long. **Flowers** pinkish lilac or whitish, short stemmed, clustered, in rather narrow panicles 4 to 7 inches long, slightly fragrant. Later blooming than common lilac.

Distribution: China to Himalayas.

Habitat and landscape use: Lilacs are adapted to a wide range of soil types and conditions but can be considered as only half-hardy in the Matanuska and Tanana Valley areas. For this reason they should be planted in sites having an easterly or northeasterly exposure and protected from severe winter winds. Southerly or westerly sites expose them to the direct rays of the winter sun which may cause alternate freezing and thawing with consequent injury to the plants. Lilacs may be used as specimens, as accent shrubs around buildings or as borders and windbreaks.

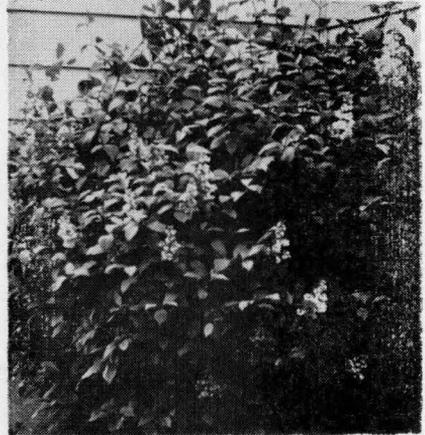
Syringa vulgaris L.

COMMON LILAC

Shrub or small tree to 20 feet in height. **Leaves** heart-shaped to egg-shaped, pointed, 2 to 6 inches long, smooth. **Blooms** pyramidal in shape, 6 to 8 inches long, usually in pairs at ends of shoots. **Flowers** very fragrant, 'lilac' color in the type variety but also varieties with white, blue, violet, purple or rose colors, $\frac{1}{2}$ to $\frac{5}{8}$ inch long.

Distribution: Southeastern Europe to Caucasus and Afghanistan, sometimes escaped from cultivation in the eastern United States.

Habitat and landscape use: Lilacs are adapted to a wide range of soil types and conditions. However they can be considered as only half-hardy in the Matanuska and Tanana Valleys of Alaska. For this reason they should be planted only in protected locations having an easterly or northeasterly exposure. This protects them from warm winter sunshine which may cause injurious alternate freezing and thawing. Lilacs make fine specimens or accent trees near buildings. They may also be used in border plantings and as windbreaks.



Five year old Pochontas lilac in bloom, Palmer

MEDIUM SHRUBS

Note: Some of the named varieties that have proved to be worthy of trial in the Matanuska Valley are: **Belle de Nancy.** Double. Light purple, with bluish tinge. **Chas. Jolly.** Double. Dark reddish-purple. **Chas. X.** Single. Fine bloom. Dark reddish-purple. **Mme. Lemoine.** Double. White flowers in large blooms. **Pres. Grevy.** Double. Pale blue flowers in large clusters. **Pocahontas. (S. vulgaris x S. dilatata)** Single. Dark purple, large clusters.

Taxus brevifolia Nutt. WESTERN YEWE

Other names *T. baccata* var. *brevifolia* (Nutt.) Koehne. Pacific yew.

Shrub or small tree to 30 feet, with straight, conical trunk 6 to 12 inches in diameter and horizontal or drooping branches, usually much smaller. **Leaves** (needles) in 2 rows, flat, slightly curved, stiff or soft, abruptly pointed but not prickly, $\frac{1}{2}$ to $\frac{3}{4}$ inch long, shiny dark green above, pale beneath, not resinous. **Leaf-stalks** yellow, extending down the twigs, twisting to produce even, comb-like arrangement of needles. Distinct male and female trees.

Seeds single, $\frac{3}{8}$ inch long, in scarlet cup-like disk or "berry". **Bark** purplish brown, thin, scaly, ridged and fluted. **Wood** bright red with thin, light yellow sapwood, fine grained.

Distribution: Southern tip of south-east Alaska.

Habitat and landscape use: Is found in dense forests near streams and moist canyons. Of doubtful value as an ornamental except in native habitat in extreme southeast Alaska.

Viburnum dentatum L. ARROWWOOD

Shrub 5 to 15 feet in height upright, bushy, with smooth shoots.

Leaves broadly egg-shaped to roundish $1\frac{1}{2}$ to 3 inches long, pointed, coarsely and sharply toothed, glossy green and smooth

above, often hairy in axils of veins beneath. **Flowers** in clusters 2 to 3 inches across, white. **Fruit** roundish egg shape, $\frac{1}{4}$ inch long, blue-black, October.

Distribution: New Brunswick to Minnesota, south to Georgia.

Habitat and landscape use: Thrives best in moist soil and partial shade. It makes an excellent border shrub where it is attractive for its white flowers followed by purple fruit and bright red and purple fall color.

Viburnum lantana L. WAYFARING TREE

Shrub 8 to 10 feet, sometimes to 15 feet in height with very stout, scurfy young branches. **Leaves** 2 to 4 inches long, egg-shaped with heart-shaped base, wrinkled, rough, coarsely toothed, hairy beneath, turning red in the autumn. **Flowers** white, $\frac{1}{4}$ inch across in flat-topped, usually 7-rayed clusters 2 to 3 inches



Wayfaring tree, outstanding for its velvety grayish green foliage and distinctive twig growth

MEDIUM SHRUBS

broad. **Fruit** ripens in late summer or early autumn, red changing slowly to blackish purple.

Distribution: Europe and western Asia. Frequently grown as an ornamental in northern United States where it occasionally escapes from cultivation in eastern states.

Habitat and landscape use: Prefers moist, well-drained soils but is also somewhat adapted to drier soils and partial shade. It is valued for its bright fall coloration and for the large clusters of bright red fruit which turn to blackish-purple in the fall. It is useful for border plantings and in groups. It has proved hardy for a period of seven years in the Matanuska Valley.

Viburnum lentago L. NANNYBERRY

Other names Nannyberry viburnum, SPN; Sheepberry, Sweet viburnum, Black haw

Shrub 18 to 20 feet sometimes to 30 feet in favorable sites, with slender branches. **Leaves** are oval or elliptical, 2 to 4 inches long, sharp-pointed, rounded or wedge-shaped at the base, finely toothed, often scurfy on veins beneath. **Petioles** with wavy wings. **Branchlets** smooth. **Flowers** fragrant, in large, flat-topped clusters, 4 to 5 inches across. **Fruits** oval, bluish-black with bluish bloom, remaining until spring; they are mealy, sweet, edible.

Distribution: From Quebec to Saskatchewan, south to Georgia and

Colorado. Native in Black Hills of South Dakota and in Minnesota.

Habitat and landscape use: Thrives best in rich, moist soils. It is useful as a background and screen for its beautiful shiny leaves, rather showy flowers and bluish-black fruit in autumn. Sometimes used as lawn specimen. Reported as hardy in southeastern and southern Alaska.

Viburnum trilobum Marsh AMERICAN CRANBERRY- BUSH VIBURNUM

Other names *V. americanum* auth., not Mill.; *V. opulus* var. *americanum* Ait. American cranberrybush, Pembina cranberry, High cranberry

Shrub 8 to 10 feet in height, rather open and spreading in growth habit. **Leaves** 2 to 5 inches long, three-lobed, coarsely toothed or nearly entire, nearly smooth beneath except for hairs on veins. **Petioles** shallowly grooved, with small stalked glands. **Flowers** white, in flat clusters ringed with large, showy, sterile flowers. **Fruit** bright orange scarlet, globe-shaped $\frac{1}{4}$ to $\frac{1}{2}$ inch long, remaining on branches till following spring. Edible.

Distribution: From Newfoundland to British Columbia, south to New York and Oregon.

Habitat and landscape use: Swamps and low ground so not suited for dry, exposed sites. Makes an attractive border plant for its scarlet, edible berries.

TREES

Alnus rubra Bong.

RED ALDER

Other names Western alder; *A. oregona* Nutt. Oregon alder

Tree to 35 or 40 feet in height and to 16 inches in diameter. **Leaves** oval or elliptical, 3 to 6 inches long, short-pointed, both coarsely and finely toothed, dark green and nearly smooth above, grayish green or rusty green beneath. Young **twigs** slightly hairy, becoming dark red with light dots. **Buds** dark red, covered with scaly down. **Cones** $\frac{1}{2}$ to 1 inch long, maturing in late fall and early spring. **Seeds** smooth. **Bark** mottled, light gray to whitish, smooth, thin. **Wood** nearly white soon turning light reddish brown after cutting, soft.

Distribution: Throughout southeast Alaska northwest to Yakutat Bay.

Habitat and landscape use: Common on stream bottoms with rich, rocky, moist soils and along beaches where creeks enter the ocean. Of questionable use as an ornamental except for moist sites.

Betula papyrifera, Marsh. var. *commutata* (Reg.) Fern.)

WESTERN PAPER BIRCH

Other names *B. papyrifera* var. *occidentalis* auth.

Tree 60 to 75 feet tall and 8 to 14 inches in diameter. **Leaves** alternate, simple, oval, 3 to 4 inches long, long pointed, rounded at base, coarsely and doubly toothed with unequal teeth, dark green above, lighter beneath with angles of veins hairy. **Petioles** stout, slightly hairy and glandular. Young **twigs** with few hairs and slightly resinous, becoming smooth and orange brown. Male **catkins** 3 to 4 inches long, slender, brownish. **Cones** 1 to $1\frac{1}{2}$ inches long with scales hairy on margin, ripen in autumn. **Bark** usually red-

dish-brown, or whitish, separating easily into thin, papery layers.

Wood light brown tinged with red, close grained.

Distribution: Along mainland coastal river drainages and lakes in the northern part of southeast Alaska near Lynn Canal from Juneau to Skagway where it is separated from other Alaskan tree birches.

Habitat and landscape use: Prefers rich moist hillsides, borders of streams, lakes and swamps. Its yellow autumn coloration, white bark on main tree and reddish-brown twigs make it attractive the year around. Particularly effective with



Western paper birch in Fairbanks. This attractive three-stemmed group provides ample shade

TREES

spruce or as clumps with three or four stems—either singly or from one root. Not recommended for dry, exposed sites.

Betula papyrifera Marsh. var. *humilis* (Reg.) Fern. and Raup.)

ALASKA PAPER BIRCH

Other names White birch, Canoe birch

Tree slow growing, usually 30 to 50 feet and 6 to 12 inches in diameter, with a maximum of 75 feet and 2 feet in diameter. **Leaves** oval $1\frac{1}{4}$ to $2\frac{1}{2}$ inches long, rather long-pointed, sharply to broadly wedge-shaped at base, coarsely toothed, yellow green and smooth above, pale yellow green beneath and dotted with glands. Angles of lower veins usually hairy. **Petioles** smooth. **Twigs** with conspicuous resinous spots. Male **catkins** 1 inch long, thick, greenish brown. **Cones** 1 to $1\frac{1}{4}$ inch long, smooth, pendant. **Bark** whitish or sometimes reddish, papery and peeling off. **Wood** fine textured, sapwood white, heart wood light reddish brown.

Distribution: From eastern border north and west to limit of trees. Common in spruce-birch interior forest but not in southeast Alaska. Reaches maximum development in Cook Inlet area.

Habitat and landscape use: Is found near streams and on warm slopes having warm porous soils in mix-

tures with white spruce. It has been used for landscaping and street planting in Alaska. Not recommended for dry, exposed sites.

Betula papyrifera, Marsh. var. *kenaica* (W. H. Evans) Henry)

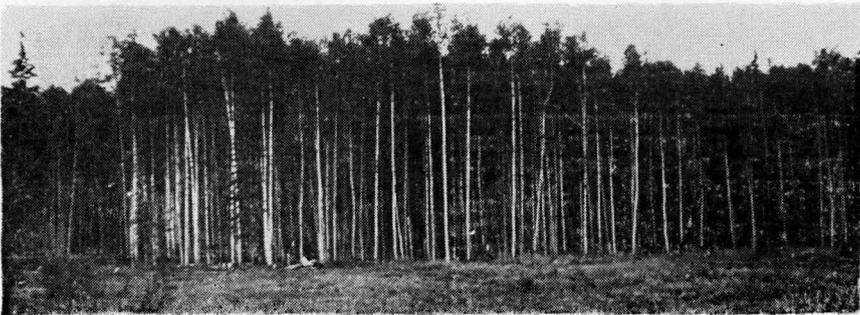
KENAI BIRCH

Other names Kenai paper birch, Black birch, Red birch

Tree 30 to 40 feet tall, 6 to 12 inches, sometimes 18 inches in diameter. **Leaves** oval, $1\frac{1}{2}$ to 2 inches long, rather thick, usually short-pointed, broadly wedge-shaped or rounded at base, coarsely and often doubly toothed, dull green and often slightly hairy above, pale green beneath and dotted with glands; leaf edges hairy. **Young twigs** reddish brown and resinous spotted. Male **catkins** 1 inch long, narrow, dark brown. **Cones** about 1 inch long, smooth, not pendant. **Bark** usually dark brown, or grayish white, papery.

Distribution: Southern and interior Alaska but not in southeast Alaska. This variety is restricted to Alaska.

Habitat and landscape use: It thrives best in rich moist loam soils on hillsides or near streams, lakes and swamps. It is not recommended for dry, exposed locations. Satisfactory for landscape use where a tree of medium crown and having brown bark is acceptable.



Native Alaska paper birch in the Tanana Valley, near Harding Lake

TREES

Betula pendula Roth.

EUROPEAN WHITE BIRCH

Other name European weeping birch

Tree 40 to 60 feet tall and 6 to 10 inches in trunk diameter, with pendulous secondary branches. **Leaves** alternate, diamond shaped, 1 to 2½ inches long, squared to wedge shaped at base, tapering at the tip; doubly and unequally toothed, sticky when young, becoming smooth at maturity. **Petioles** slender, about 1 inch long. Male **catkins** 1¼ to 3½ inches long. **Cones** on slender stalk usually pendulous, ¾ to 1½ inches long. **Bark** white, readily peeling off in layers; on older trees becoming broken by deep black clefts.

Distribution: N. S. to Ont., S. to N.E., Pa., Mich., Wisc. and Ia.

Habitat and landscape use: Usually under cultivation but occasionally escaped to thickets. Useful in clump form or as specimens on informal lawns. It is frequently planted among evergreens for contrast. Not recommended for dry, exposed sites. Other varieties of the European White Birch are those having deeply cut leaves, such as the Cutleaf Weeping Birch; those with purplish leaves and with growth habits varying from erect to pendulous. Of these, the cutleaf variety is known to be semi-hardy in Anchorage.

Chamaecyparis nootkatensis (D. Don.) Spach.)

ALASKA CEDAR

Other names Alaska yellow cedar, Nootka false-cypress, Yellow cedar, Alaska cypress, Sitka cypress, Yellow cypress.

Tree a medium sized, slow-growing tree 60 to 100 feet tall and 2 to 4 feet in diameter, with drooping branches and twigs. **Leaves** scale-

like 1/16 to 1/8 inch long, pointed and spreading at tips of leading shoots, dark blue green, distinguished from western red cedar by their bluish tinge and spreading, pointed or prickly tips. **Leafy twigs** 4-angled or slightly flattened, in flat, spreading sprays on drooping branches. **Cones** nearly spherical, less than 1/2 inch in diameter, hard, ashy gray, each scale with a pointed projection, maturing in two years. **Bark** shreddy, ash gray and lacking brown tinge of western red cedar. **Heartwood** distinctive sulphur yellow with narrow band of lighter colored sapwood. **Wood** with sweet odor and taste.

Distribution: Southeast Alaska, north to Lynn Canal and Yakutat Bay, and west to Port Wells on Prince William Sound.

Habitat and landscape use: It is scattered or in small groups from sea level to timber line but thrives best between 500 to 1,200 feet in ele-



Green ash seedlings four years old, grown from seedling in open ground

TREES

vation on moist, well-drained soils where it is protected from winds. It has only limited use for landscape purposes and then only in southeast and extreme southern Alaska.

Fraxinus pennsylvanica var. *lanccolata* (Borkh.) Šarg.)

GREEN ASH

Other names *F. lanccolata* Borkh., *F. viridis* Michx. Swamp ash, Water ash.

Tree to 50 feet tall and 12 to 18 inches in diameter. **Leaves** paired, compound, 10 to 12 inches long, with 7 to 9, stalked, oval or lanceshaped leaflets 2 to 6 inches long, long-pointed, slightly toothed, smooth or hairy beneath, bright green on both sides. **Flowers** borne in May, with the leaves. **Fruit** in early autumn, 1½ to 2¼ inches long, ¼ inch or more in width, with wing extending nearly to base. **Bark** gray, fissured. **Wood** heavy, hard, brittle, coarse-grained, light brown.

Distribution: Que. to Sask. and Mont., S. to N.E., Ga., Ala., La. and Tex.

Habitat and landscape use: Wet or moist, rich loam; river banks, swampy lowlands. However, it does well under dry land conditions.

Useful and attractive for mixed plantation but not highly prized as specimens if better shaped trees will grow. Worthy of trial in favorable sites in southeast and southern Alaska but may not prove entirely hardy to Anchorage on Cook Inlet.

Larix decidua Mill.

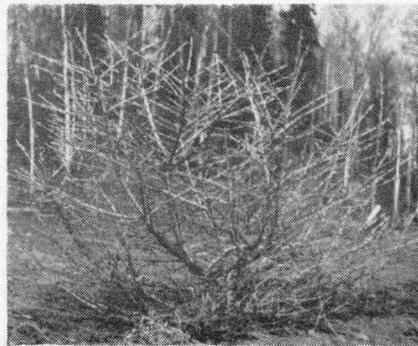
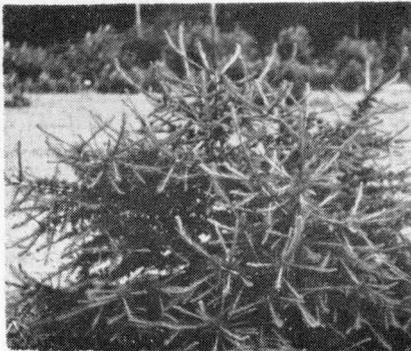
EUROPEAN LARCH

Other names *L. europaea* DC., *L. larix* Karst.

Tree 75 to 100 feet, sometimes taller, 3 to 4 feet in diameter. **Leaves** (needles) triangular, blunt tipped, bright green, shedding in fall. They are borne in clusters on short spur branches and singly along leading twigs. **Cones** ¾ to 1½ inches long, with many nearly round scales straight and often with fine hairs on back. **Bark** dark grayish-brown. Pendulous (var. *pendula*) and pyramidal (var. *pyramidalis*) forms are known.

Distribution: Native to north and central Europe.

Habitat and landscape use: It prefers a moist, well-drained soil and an open site. In this it differs from *L. laricina* (Tamarack) which grows well even in swamps. Because of its height and wide spread, European larch is best suited to large estates



European larch, showing contrast of summer foliage and unique pattern of bare winter branches

TREES

and parks where it makes a pleasing contrast with the darker pines and spruces. It does not survive transplanting when in leaf.

Larix laricina (Du Roi) K. Koch) TAMARACK

Other names Eastern larch, Hackmatack, Alaska larch; *L. alaskensis* W. F. Wight, *L. laricina* var. *alaskensis* (W. F. Wight) Raup., *L. americana* Michx.)

Tree to 30 feet in height with a straight, tapering trunk to 8 inches in diameter; forming a thin crown of foliage and horizontal branches which usually extend to the ground. **Leaves** (needles) shedding in fall (deciduous), in clusters of 12 to 20 on short spur branches or twigs and singly on leading spurs, $\frac{3}{8}$ to 1 inch long, narrow, triangular, blue-green. **Cones** upright, rounded, $\frac{3}{8}$ to $\frac{3}{4}$ inch long, light brown, maturing in early fall. **Twigs** dull tan in winter. **Bark** ashy brown, thin and scaly. **Wood** light brown, hard, heavy, elastic.

Distribution: Interior Alaska but absent from southeast Alaska; east across Canada to Labrador and Newfoundland and south to New Jersey, Illinois, and Minnesota.

Habitat and landscape use: It grows in muskegs and moist soils of the interior in open stands with balsam poplar, black spruce, alder, and willow. The only Alaskan conifer shedding its leaves in winter. It withstands great changes in temperature. Easily transplanted after needles have fallen. Its soft lacy appearance in spring and summer makes it an attractive ornamental for group planting.

Larix sibirica Ledeb. SIBERIAN LARCH

Other names *L. europaea* var. *sibirica*, Regel, and var. *rossica*, Regel), Russian larch

Tree to 120 feet with straight slender stem and rather short ascending branches. **Branchlets** yellow. **Leaves** linear, 1 to $1\frac{1}{2}$ inches long. **Cones** long egg-shaped, usually $1\frac{1}{2}$ inches long, ripening in September. **Scales** fewer and larger than in European larch, finely hairy on back, half-spreading at maturity.

Distribution: Northeastern Russia to Siberia.

Habitat and landscape use: Same as for European larch and Tamarack (Eastern larch).

Picea abies (L.) Karst. NORWAY SPRUCE

Other names *P. excelsa* Link., European spruce

Tree 70 to 80 feet tall, occasionally to 150 feet, with spreading branches and usually pendulous branchlets. **Leaves** (needles) 4-angled, $\frac{3}{8}$ to 1 inch long, dark green. **Cones** 4 to 6 inches long, light brown, with thin, slightly pointed, irregularly toothed scales. **Bark** reddish-brown, scaly. There are numerous horticultural forms.

Distribution: Native of northern and central Europe. Widely planted in northeastern United States, Rocky Mountains, Pacific coast, Ontario.

Habitat and landscape use: Thrives best on well-drained loams but is successful on a wide variety of soils. It is one of the fastest growing spruces and is most frequently used for windbreaks and hedges but when young makes a satisfactory specimen tree.

Picea engelmanni Parry. ENGELMANN SPRUCE

Other names White spruce, Mountain spruce, Silver spruce.

TREES

Tree to 150 feet with slender branches in closely arranged whorls, forming a dense and narrow pyramid in young trees. **Leaves** (needles) 4-angled, $\frac{5}{8}$ to $1\frac{1}{2}$ inches long, sharp-pointed, dark or pale blue green of disagreeable odor when crushed. **Cones** $1\frac{1}{2}$ to $2\frac{1}{2}$ inches long, light brown, with long, thin, flexible scales irregularly toothed and more or less pointed. **Bark** grayish or purplish brown, thin, with loosely attached scales.

Distribution: High altitudes of British Columbia, the Rocky Mountains and Pacific coast regions including adjacent Canada.

Habitat and landscape use: It thrives best in clay loam soils and not so well in sandy soils unless well supplied with moisture. By many it is considered to be superior to either the Colorado blue spruce or to White spruce as an ornamental.

Picea glauca (Moench) Voss) WHITE SPRUCE

Other names *P. canadensis* (L.) B. S. P. not Link; *P. alba* Link. Eastern spruce, Canadian spruce, Skunk spruce, Single spruce.

Tree, medium-sized, slow-growing, 30 to 50 feet tall and commonly 6 to 8 inches in diameter or in better stands 12 to 24 inches and 50 to 80 feet tall. **Leaves** (needles) 4-angled, $\frac{1}{2}$ to $\frac{3}{4}$ inch long, stiff, pointed, blue green, standing out on all sides of the twigs except near the ends where they mass on top. Leaves and twigs have an offensive odor when crushed. **Twigs** not hairy. **Cones** slender, $1\frac{1}{4}$ to $2\frac{1}{2}$ inches long, with scales thin and flexible, rounded, smooth margined; red tinged in autumn turning light brown and

falling. **Bark** gray or brown, thin, of small scales, usually rough. **Wood** white, of fine but somewhat uneven texture, moderately light weight.

Distribution: In interior Alaska north and west to limit of tree growth but not in southeast Alaska. From Alaska east across Canada to Labrador and Newfoundland, south in northeastern United States and west from New York to Minnesota, in Black Hills, and in Montana.

Habitat and landscape use: Although not exacting as to habitat, this species grows best on sandy soils along the edges of lakes and rivers and forms the densest forests along the large river valleys. It thrives under the light shade of poplar and birch. It is used as a windbreak and for specimens, and also on sides of hills and for tall backgrounds.

Picea glauca var. *albertiana* (S. Brown) Sarg.)

WESTERN WHITE SPRUCE

Other names *P. albertiana* S. Brown. (Black Hills spruce, Alberta white spruce, SPN) considered by some to be a geographic strain or variety of *P. glauca* (Moench) Voss)

Tree to 100 or occasionally 150 feet, of narrow pyramidal habit. **Branchlets** sometimes minutely hairy. **Leaves** more crowded than in *P. glauca*, **leaf cushions** longer. **Cones** shorter with more rigid rounded scales. There are also dwarf forms and varieties with yellow and silvery foliage.

Distribution: Alaska and British Columbia, south to Montana and the Black Hills.

Habitat and landscape use: Same as those of White spruce.

TREES

Picea mariana (Mill.) B.S.P.)

BLACK SPRUCE

Other names *P. nigra* (Ait.) Link. *P. brevifolia*, (Peck). Bog spruce, Swamp spruce

Tree small, often scrubby, tree of the interior forest, from few to 15 feet in height or rarely 20 to 30 feet. **Branches** are short, sparse, and often slightly drooping at the ends. **Leaves** (needles) $\frac{1}{4}$ to $\frac{5}{8}$ inch long, 4-angled, pointed, dull or dark green with grayish bloom on upper side, standing out from all sides of the hairy twigs. **Twigs** hairy. **Cones** short, $\frac{5}{8}$ to $1\frac{1}{4}$ inches long, dull gray brown, with scales rigid and brittle, rounded and slightly toothed; remaining on trees several years, often in dense clusters at tops. **Bark** thin, composed of gray brown scales. **Wood** yellowish white, fine-grained, soft.

Distribution: Interior Alaska in central Yukon and Tanana River Valleys west to Elim on Bering Sea; also in smaller area around Cook Inlet but absent from southeast Alaska.

Habitat and landscape use: Usually found in cold, wet flats, muskegs, and lake margins. Besides the different habitat, smaller size and more compact branching, Black spruce is distinguished from White spruce by shorter, blunter needles, hairy twigs and smaller cones with brittle, slightly toothed scales. Not recommended for landscape use except possibly for windbreaks in low swampy sites.

Picea pungens Engelm.

BLUE SPRUCE

Other names *P. parryana* Sarg., Colorado spruce, Colorado blue spruce, Silver spruce.

Tree 80 to 100 feet with stout, horizontal branches in rather widely-spaced whorls, forming a broad,

regular pyramid. **Leaves** (needles) 4-angled, $\frac{3}{4}$ to $1\frac{1}{8}$ inch long, sharp pointed, bluish green to silvery blue. **Cones** $2\frac{1}{2}$ to 4 inches long, light brown, with long, thin, flexible scales irregularly toothed and more or less pointed.

Distribution: Wyoming to Colorado and Utah.

Habitat and landscape use: Thrives best in moist, well-drained loams but is fairly tolerant as to soil types. The variety **glauca** 'Colorado Blue Spruce', are usually selected specimens from mixed blue and bluish-green stands. Though Blue spruce is very commonly considered to be more attractive, Black Hills spruce might be substituted where hardiness is of prime consideration.

Picea sitchensis (Bong.) Carr.)

SITKA SPRUCE

Other names Yellow spruce, Tideland spruce, Western spruce, Silver spruce, Coast spruce.

Tree from 100 to 200, or more feet, having a straight, evenly tapering trunk above the much enlarged base and an open conical crown. **Leaves** (needles) flattened and thin, $\frac{5}{8}$ to 1 inch long, sharp-pointed, slightly keeled or angled above and rounded or slightly keeled beneath, dark green with two whitish bands on each side, standing out on all sides of the smooth twigs. **Cones** cylindrical and narrow, 2 to $3\frac{1}{2}$ inches long, light orange brown, with long, stiff scales, rounded and irregularly toothed, hanging down, falling at maturity. **Bark** dark purplish brown, thin scaly but relatively smooth, the inner bark whitish with brown dots. **Wood:** heartwood light reddish brown and sapwood nearly white.

Distribution: Coastal forests of southeast Alaska north to head of Lynn Canal, west to Prince William Sound, south shore of Kachemak Bay in Cook Inlet and Kodiak Island.

Habitat and landscape use: Maximum growth is found on deep, rich, moist, but well-drained soils at altitudes below 1,500 feet. Rather narrowly adapted to the southern coastal regions where it would be acceptable as a specimen tree on large estates or for park use.

Populus tacamahaca Mill.

BALSAM POPLAR

Other names Tacamahac, Tacamahac poplar, Cottonwood, Balm-of-gilead.

Tree 50 feet, sometimes 80 to 100 feet in height, with a straight trunk and long, thin open crown. **Leaves** oval or broadly lance-shaped, 2½ to 5 inches long, long- or short-pointed, finely toothed with rounded teeth, smooth or nearly so, shiny dark green above, pale green and rusty brown beneath, larger and longer than leaves of quaking aspen. **Leafstalks** 1 to 2 inches long, not flattened. Young **twigs** shiny red. **Buds** large, long and pointed, sticky, covered with a pungent balsam. **Flowers** in long cylindrical catkins from base of buds on twigs of previous year's growth. **Seed capsules** ¾ inch long, pointed, smooth, splitting into 2 parts, in long catkins to 5 inches long, with cottony seeds maturing in early spring. **Bark** deeply furrowed, gray brown. **Wood** with light brown heartwood and thick, whitish sapwood.

Distribution: Interior Alaska, north and west to the limits of trees, south to Kodiak Island and northern end of southeast Alaska.

Habitat and landscape use: It is common in river valleys and sandy bottoms throughout the interior except near the coasts. Male trees make excellent and fast growing windbreaks where moose are not a problem. Male trees are also used as specimen trees or to establish picnic areas in parks.



Seven year old poplar provides summer shade for a Palmer lawn

Populus tremuloides Michx.

QUAKING ASPEN

Other names American aspen, Trembling aspen, Popple; *P. tremuloides* var. *aurea* (Tidestr.) Daniels.

Tree small, 20 to 40 feet, with straight trunk and short, irregularly bent limbs forming a narrow dome-like crown. **Leaves** nearly round, 1 to 2 inches long, short-pointed, finely toothed with rounded teeth, smooth, shiny green above, pale beneath. **Leafstalks** 1 to 3 inches long, slender, flattened at right angles to leaf blade causing leaves to tremble in the slightest breeze. Young **twigs** reddish, becoming dark gray, with prominent, raised leaf scars. **Seed capsules** less than ¼ inch long, smooth, in catkins to 4 inches long, with cottony seeds maturing in early spring. **Bark** whitish or pale yellow green, smooth, thin, with characteristic curved scars and black knots. **Wood** of broad white sapwood and light brown heartwood.

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Distribution: Interior Alaska, north and west to the limits of trees, absent along the coasts and from southeast Alaska.

Habitat and landscape use: It is common on south slopes, well-drained benches and creek bottoms throughout the interior of Alaska up to altitudes of 3,000 feet. This poplar suckers badly and its roots near the surface often destroy the sod.

Populus trichocarpa Torr. & Gray BLACK COTTONWOOD

Other names Cottonwood, Balsam cottonwood, Northern black cottonwood, Pacific poplar; *P. trichocarpa* var. *hastata* (Dode) Henry.

Tree: The largest broadleaf tree in Alaska, 80 to 90 feet and 3 feet in diameter. **Leaves** broadly oval, 2½ to 5 inches long, long- or short-pointed, finely toothed with rounded teeth, smooth or nearly so, dark shiny green above, whitish with rusty specks beneath. **Leafstalks** 1½ to 2 inches long, finely hairy, not flattened. **Seed** capsules rounded, hairy, splitting into 3 parts, in long, narrow catkins up to 8 inches long, with cottony seeds maturing in early spring. **Bark** gray, smooth at first, becoming deeply furrowed with flat ridges. **Wood** grayish white to light brown.

Distribution: Along the coast of southeast Alaska, scattered toward southern end, west to Prince William Sound, Cook Inlet, and Kodiak Island.

Habitat and landscape use: It is best developed at lower levels on river bottoms and sand bars. In southeast Alaska it occurs in quantity only on the valley floors of a few large streams. Not recommended for small grounds or near buildings. Main usefulness in large plantings, windbreaks and parks where a tall, fast growing tree is required.

Sorbus aucuparia L.

EUROPEAN MOUNTAIN ASH

Other names *Pyrus aucuparia* (L.) Gaertn. Rowan-tree.

Tree 25 to 45 feet in height, symmetrical, round headed. **Leaves** compound 4 to 8 inches long. **Leaflets** 9 to 17, oblong or lance-shaped, 1 to 2 inches long, short-pointed, with edges coarsely toothed except near base, dull green and becoming smooth above, pale and whitish hairy beneath. Young **twigs** and winter buds densely white-hairy or woolly. **Flowers** ¾ inch across, white, 75 to 100 in a cluster, 4 to 6 inches broad. **Fruit** round and berry-like, ¾ inch in diameter, bright red, ripening in August. **Bark** smooth and aromatic.

Distribution: Naturalized in southeast Alaska, where it is planted as an ornamental tree. Native of Europe and Asia but widely planted and naturalized in many places across Canada and northern United States.

Habitat and landscape use: It is planted as an ornamental tree along the coast of southeast Alaska. Usually used as specimens for their showy fruit and foliage color in the fall. It may also be grown as a large shrub for backgrounds. Not recommended for dry, exposed sites.

Thuja plicata Donn.

WESTERN REDCEDAR

Other names *T. gigantea* Nutt., *T. menziesii* Dougl., *T. lobbii* Hort., Western arborvitae, Giant arborvitae, Canoe cedar, Shingle-wood, Pacific redcedar, Arborvitae.

Tree large 100 to 130 feet or more in height and 3 to 6 feet in diameter, rather slow growing, having swollen or buttressed base, tapering trunk, conical crown and branches curving upwards at the tips.

TREES

Leaves scalelike, flattened, $1/16$ to $1/8$ inch long (or pointed $1/4$ inch long on leading twigs), shiny, yellow, green above and dull below, arranged on slender twigs in flat, fan-like sprays. **Cones** clustered near ends of branches, and becoming erect, $1/2$ inch long, brown, with tough, leathery scales. **Bark** reddish or cinnamon brown, thin and fibrous, stringy, becoming thick and ridged with age. **Heartwood** reddish brown and the narrow sapwood white. **Wood** with the distinctive odor of cedars.

Distribution: Southern half of Alaska, north in decreasing numbers beyond Wrangell to Petersburg and Frederick Sound.

Habitat and landscape use: It prefers moist but well-drained soil and thrives best on the west slopes of the Coast Range at altitudes below 500 feet. It is very tolerant of shade. It is most often used for specimen planting.

Tsuga heterophylla (Raf.) Sarg.
WESTERN HEMLOCK

Other names *T. mertensiana* auth., not (Bong.) Carr. Pacific hemlock, SPN).

Tree usually 100 to 150 feet in height and 2 to 4 feet in diameter, but larger trees to 190 feet and 5 feet or more in diameter. With long, slender trunk and short, narrow crown. The branches are horizontal or drooping. **Leaves** (needles) in 2 rows, short-stalked, flat, $1/4$ to $7/8$ inch long, roundish at tips, shiny, dark green above and with two whitish bands on lower surface. **Cones** small, $3/8$ to 1 inch long, brown, pendant on tips of twigs. **Bark** reddish brown,

hard, furrowed and thick on old trees. **Wood** pale reddish brown, non-resinous.

Distribution: Coastal forests throughout southeast Alaska, north to head of Lynn Canal, Glacier Bay and Yakutat Bay, west to Prince William Sound and Portlock on Kenai Peninsula.

Habitat and landscape use: It prefers moist soils and thrives best at low altitudes. Because of its potential large size, it is not well adapted for landscape use on small areas.

Tsuga mertensiana (Bong.) Carr.
MOUNTAIN HEMLOCK

Other names *T. hookeriana* Carr.; *T. pattoniana* Senecl. Alpine hemlock, Black hemlock.

Tree small to medium-sized, 30 to 60 feet and 10 to 12 inches in diameter, with marked taper, and horizontal or drooping branches. **Leaves** (needles) short-stalked, rounded or slightly angled, $1/4$ to 1 inch long, blue green, stouter and blunter than in Western hemlock and lacking the whitish lower surface. **Cones** cylindrical, $1\frac{1}{2}$ to $2\frac{1}{2}$ inches long and $3/4$ inch thick, purplish turning brown, usually pendant. **Bark** blue gray or brown, thick deeply furrowed and ridged. **Wood** pale reddish brown.

Distribution: Southeast Alaska from the southern end to head of Lynn Canal at Skagway, Glacier Bay, and Yakutat Bay, west to Prince William Sound and Cook Inlet.

Habitat and landscape use: It grows in low muskegs, as well as on alpine slopes on the ocean side of the Coast Range in southeast Alaska. Suitable for specimens on moist but well-drained, well-protected sites.

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WOODY LANDSCAPE MATERIALS
On test or tested in Alaska since 1949

- Abies amabilis* (Pacific silver fir)
balsamea (Balsam fir)
concolor (White fir)
- Acanthopanax divaricatus*
- Acer ginnala* (Amur maple)
glabrum (Douglas maple)
griseum
negundo (Box elder)
platanooides (Norway maple)
rubrum (Red maple)
saccharinum (Silver maple)
saccharum (Sugar maple)
tataricum (Tatarian maple)
- Ailanthus altissima* (Tree-of-heaven)
- Alnus incana* (Speckled alder)
- Amelanchier alnifolia* (Saskatoon serviceberry)
canadensis (Shadbush)
oblongifolia (Thicket shadbush)
ovalis
- Amorpha canescens* (Lead plant)
fruticosa (Indigobush amorpha)
- Amygdalus communis* (Almond)
nana (Russian almond)
- Arctostaphylos uva-ursi* (Bearberry)
- Aronia prunifolia* (Chokecherry)
- Artemisia absinthium* (Wormwood)
frigida (Mountain fringe)
pedemontana
- Atraphaxis buxifolia*
- Betula papyrifera* (Paper birch)
pendula (European white birch)
- Buddleia alternifolia*
davidi (Orange-eye butterfly bush)
davidi (Orange white birch)
lindleyana (Butterfly bush)
- Calluna vulgaris* (Scotch heather)
- Caragana arborescens* (Siberian peashrub)
boissii
jubata
maximowiczii
microphylla (Littleleaf peashrub)
pygmaea (Dwarf peashrub)
- Carya ovata* (Shagbark hickory)
- Ceanothus americanus* (Jersey tea)
- Celastrus orbiculatus* (Japanese bittersweet)
- Celtis occidentalis* (Hackberry)
- Cladrastis lutea* (Yellowwood)
- Columnea arborescens* (Bladder senna)
- Cornus alba* (Tatarian dogwood)
alba argenteo-marginata (Variegated-leaved dogwood)
officinalis (Japanese cornelian-cherry)
racemosa (Gray dogwood)
stolonifera (Redosier dogwood)
stolonifera var. *baileyi* (Baileyi dogwood)
stolonifera flaviramea aurea (Golden dogwood)
- Cotoneaster acuminata*
acutifolia (Peking cotoneaster)
apiculata
divaricata (Spreading cotoneaster)
foveolata
integerrima (European cotoneaster)
lucida
melanocarpa
racemiflora

- Crataegus ambigua*
monogyna
oxyacantha (English hawthorn)
rivularis
- Deutzia scabra* (Deutzia)
- Elaeagnus angustifolia* (Russian olive)
argentea
commutata (Silverberry)
- Euonymus alatus* (Winged euonymus)
europaeus (Spindle tree)
- Evodia hupehensis*
- Foresteria neo-mexicana*
- Forsythia suspensa* (Golden bell forsythia)
- Fraxinus americana* (White ash)
pennsylvanica lanceolata (Green ash)
- Gleditsia triacanthos* (Honeylocust)
- Halimodendron halodendron* (Salt tree)
- Hippophae rhamnoides* (Sea-buckthorn)
- Juglans cinerea* (Butternut)
nigra (Black walnut)
- Juniperus chinensis pfitzeriana* (Pfitzer's juniper)
communis depressa (Common juniper)
communis hibernica (Irish juniper)
sabina (Savin's juniper)
scopulorum (Rocky mountain juniper)
virginiana (Eastern redcedar)
- Kalmia angustifolia* (Sheep-laurel)
latifolia (Mountain-laurel)
- Kerria japonica* (Japanese rose)
- Kolkwitzia amabilis* (Beautybush)
- Larix decidua* (European larch)
leptolepis (Japanese larch)
sibirica (Siberian larch)
- Ligustrum vulgare* (Common privet)
- Lonicera alpigena*
bella alpida
bella candida
bella rosea
billiardi
caerulea
gibbiflora
gibbosa
involutocrata
korolkovii (Blue-leaf honeysuckle)
korolkovii zabelii
maxckii (Amur honeysuckle)
morrowii (Morrow honeysuckle)
nervosa
permixta
pseudochrysantha
tatarica (Tatarian honeysuckle)
tatarica elegans
tatarica grandiflora
tatarica lutea
tatarica rosea
tatarica sibirica
tatarica wheeleri
virginalis alba
xylosteoides
xylosteum (European fly honeysuckle)
- Maclura pomifera* (Osage-orange)
- Malus baccata* (Siberian crab apple)
- Myrtus communis* (Myrtle)
- Phellodendron amurense* (Amur cork tree)
- Philadelphus coronarius* (Mock orange)
nepalensis
pekinensis brachybotrys
pekinensis dasycalyx
virginalis (Virginal mock-orange)
 Snowflake Philadelphus (Patented hybrid - Minn.)
- Physocarpus amurensis*
bracteatus
intermedius (Dwarf Illinois nine-bark)

- opulifolius* (Common ninebark)
monogynus (Western ninebark)
Picea abies (Norway spruce)
glauca (White spruce)
glauca albertiana (Western white spruce)
mariana (Black spruce)
omorika (Servian spruce)
pungens (Blue spruce)
sitchensis (Sitka spruce)
Pinus aristata (Bristlecone pine)
banksiana (Jack pine)
cembra (Swiss stone pine)
contorta latifolia (Lodgepole pine)
flexilis (Limber pine)
griffithii (Himalayan pine)
mugo (Swiss mountain pine)
nigra (Austrian pine)
ponderosa (Ponderosa pine)
resinosa (Red pine)
sylvestris (Scotch pine)
thunbergii (Japanese black pine)
Populus alba (Silver-leaved poplar)
tacamahaca (Balsam poplar)
 sp. (Northwest poplar)
Poncirus trifoliata (Trifoliolate orange)
Potentilla fruticosa (Shrubby cinquefoil)
Prinsepia sinensis (Cherry prinsepia)
Prunus besseyi (Western sand-cherry)
tomentosa (Nanking cherry)
triloba (Rose tree of China)
Pseudotsuga taxifolia (Douglas fir)
Ptelea angustifolia
orophylla
Quercus macrocarpa (Bur oak)
Rhamnus cathartica (European buckthorn)
chlorophora
daurica (Dahurian buckthorn)
crythrocarpa
frangula (Glossy buckthorn)
oleoides
saxatilis
tinctoria
Rhododendron canadense
Rhus aromatica (Fragrant sumac)
copallina (Shining sumac)
glabra (Smooth sumac)
glabra cismontana
trilobata (Western sumac)
Robinia neo-mexicana (New Mexican locust)
pseudoacacia (Black locust)
pseudoacacia var. umbraculifera (Thornless locust)
Rosa albertii
altaica (Altaica rose)
bradwardina
coriifolia froebeli
laxa
lheritierana
maximowicziana
moschata grandiflora (Musk rose)
moseyii
multiflora (Japanese rose)
nitida
pendulina ozydon
pisocarpa
platyacantha
pratensis (Dakota prairie rose)
rubrifolia (Redleaf rose)
rugosa (Rugosa rose)
setigera (Prairie rose)
spinosissima (Scotch rose)
woodsii (Woods rose)
Rosa
 sp. Agnes rose
 sp. Amelia Gravereaux rose
 sp. Belle Poitevine rose
 sp. Betty Bland rose
 sp. Grootendorst rose
 sp. Hansa rose
 sp. Harr'son's Yellow rose
 sp. Sarah Van Fleet rose
 sp. Sir Thomas Lipton rose

- Salix*
 sp. Golden willow
 sp. Laurel-leaved willow
 sp. Niobe Weeping willow
 sp. White English willow
- Salvia officinalis* (Sage)
- Sambucus canadensis* (American elder)
canadensis aurea (Golden-leaved elder)
canadensis laciniata (Cut-leaved elder)
nigra (European elder)
pubens (Scarlet elder)
- Shepherdia argentea* (Silver buffalo-berry)
- Skimmia japonica* (Skimmia)
- Sorbaria sorbifolia* (False spirea)
stellipila
- Sorbus americana* (American mountain ash)
aria (Whitebeam)
aucuparia (European mountain ash)
decora (Showy mountain ash)
scopulina (Western mountain ash)
sitchensis (Sitka mountain ash)
- Spiraea froebeli* (Froebelli spirea)
tomentosa (Opulifolia spirea)
vanhouttei (Van Houttei spirea)
- Staphylea bumalda*
- Symphoricarpos albus* (Common snowberry)
occidentalis (Western snowberry)
orbiculatus (Indian currant)
- Syringa amurensis* (Amur lilac)
henryi
josikaea (Hungarian lilac)
oblata
pekinensis
persica (Persian purple lilac)
- velutina*
villosa (Late lilac)
vulgaris (Common lilac)
- Syringa*
 sp. Belle de Nancy lilac
 sp. Charles X lilac
 sp. Chas. Jolly lilac
 sp. Congo lilac
 sp. Edith Cavell lilac
 sp. Ludwig Spaeth lilac
 sp. Mme. Casimir Peirier lilac
 sp. Pocahontas lilac
 sp. Pres. Grevy lilac
 sp. Rouen or Rothomagensis lilac
- Tamarix gallica* (French tamarisk)
 sp. Dr. Yeager's Hardy Amur
- Taxus cuspidata* (Japanese yew)
- Teucrium chamaedrys*
- Thuja occidentalis* (Northern white cedar)
plicata (Western redcedar)
- Tilia americana* (American basswood)
- Tsuga heterophylla* (Western hemlock)
mertensiana (Mountain hemlock)
- Ulmus americana* (American elm)
pumila (Siberian elm)
 sp. Hybrid elm
- Vaccinium angustifolium* (Lowbush blueberry)
canadense (Canadian blueberry)
myrtilus (Whortleberry)
- Viburnum dentatum* (Arrowwood)
lantana (Wayfaring tree)
lentago (Nannyberry)
opulus (European cranberrybush)
pubescens (Downy viburnum)
tomentosum (Japanese snowball)
trilobum (American cranberrybush)
- Vitis riparia* (Riverbank grape)

TERMINOLOGY

The terminology used in these descriptions is largely descriptive, rather than botanical, in order that it may perhaps be more easily understood by a greater number of readers. The more commonly used terms that have been employed are as follows:

- Acuminate**—with a long tapering point
Acute—with a short, tapering point
Ament—catkin
Apiculate—with a short, sharp point
Campanulate—bell-shaped
Ciliate—with hairs along margin
Cordate—heart-shaped
Corymb—flat or umbrella-shaped flower cluster
Crenate—round-toothed or scalloped margin
Cuneate—wedge-shaped
Cuspidate—sharp-pointed
Dentate—toothed
Emarginate—notched at top
Glabrous—smooth
Glaucous—with whitish or bluish bloom
Globose—globe-shaped
Habitat—site or location
Hastate—spear-shaped
Hirsute—coarsely hairy
Incised—sharply, deeply toothed
Indigenous—native
Laciniate—margin deeply, narrowly cut
Lanceolate—lance-shaped
Mucronate—short, sharp point
Ob lanceolate—reverse lance-shaped
Obovate—reverse egg-shaped
Opposite—arranged in pairs along central stem or axis
Ovate—egg-shaped
Ovoid—reverse egg-shaped
Pilose—softly hairy
Pinnate—compound with leaflets arranged along common stem
Pubescent—hairy
Racemes—long flower clusters
Rhizome—underground stem
Rugose—wrinkled or creased
Serrate—saw-toothed
Spike—flowers in long, narrow clusters
Stoloniferous—trailing branches taking root
Tomentose—wool-like hairs
Umbel—umbrella-shaped cluster