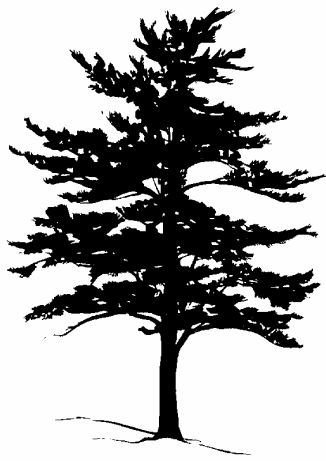


WHITE PINE *Pinus strobus* L.

Recognition: A tall tree with relatively few and horizontal large limbs. Needles 2"—5" long, slender, and occurring 5 to the bundle. Cones slender: tapering, thornless, 3"—10" long. Bark not scaly as in other pines but dark with deep furrows. A dwarf matted form occurs in windswept northern areas. Height 80'—110'; diameter 2'—3' (6'). **Similar species:** This is our only 5-needled pine. **Remarks:** One of the most important and tallest timber trees in the Northeast. So extensively lumbered that few virgin trees, which once grew to heights of 200' to 220', remain. In some areas reforestation is considerable. Wood light, soft, straight-grained, and generally not as resinous as in other pines: of great value for house construction. Plagued by white pine blister rust, a fungus attacking the inner bark, and white pine weevil, an insect that kills the topmost shoot, deforming the tree and limiting its value. The rust can be controlled by removal of currants and gooseberries — upon which the fungus spends a portion of its life cycle — from within a quarter-mile of the pines.



WHITE PINE
Tall dark trunk; spreading horizontal limbs; delicate spraylike foliage



RED PINE
Tall, erect trunk; stout right-angle branches, symmetrical crown; long dark green foliage, ascending tips



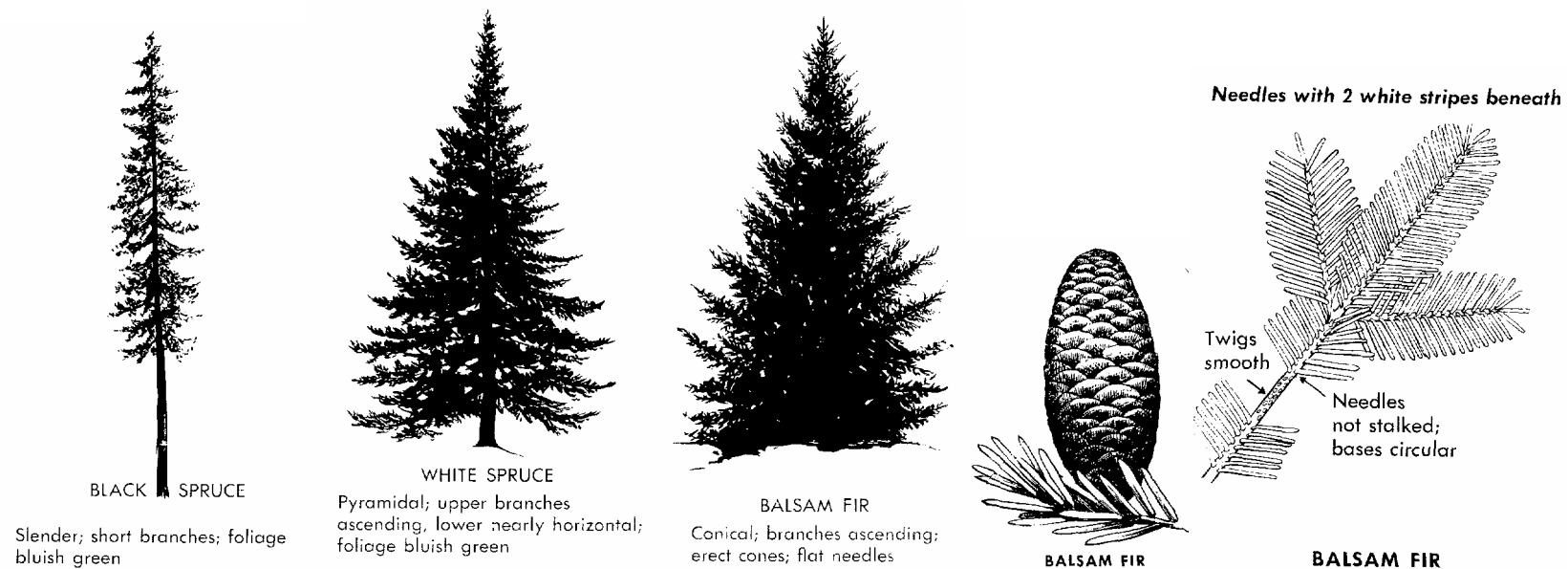
RED JACK

JACK PINE *Pinus banksiana* Lamb.

Recognition: A scrubby small or medium-sized northern tree with very short 2-needled clusters. Needles only 3/4"—1 5/8" long and more than 1/16" across. Cones usually curved or bulging on one side, 1 1/4"—2" long; scales either thornless or with tiny weak prickles. Height 15'—40'; diameter 9"—15". **Similar species:** No other pine in our area has such short needles or curved cones. **Remarks:** Produces poor timber, but widespread in some northern areas that otherwise would support no tree growth.

RED PINE *Pinus resinosa* Ait.

Recognition: A tall northern tree with 3"—8" needles in 2's. Needles less than 1/16" across. Twigs not whitened. Cones 1 1/2"—2 1/2" long; scales thornless, Bark plates somewhat red-dish. A dwarf form is rare. Height 50'—80' (85'); diameter 1'—2' (.3'). **Similar species:** Only (1) Loblolly and (2) Shortleaf Pines may have paired needles of similar length. Both are more southerly, overlapping of ranges being likely only for the Shortleaf, which is differentiated by whitened twigs and somewhat prickly cones. **Remarks:** A beautiful tree widely used in reforestation. Often called Norway Pine, but native only to N. America.



BLACK SPRUCE *Picea inariana* (Mill.) BSP.

Recognition: Twigs and buds *hairy*. Needles *short*. Needles mostly 1/4"–7/16" long, sometimes blue-green with a white powder. Cones only 3/4"–1 1/4" long, somewhat gray-brown, with scale edges rather ragged. Cones usually remain on tree for several years. Low mat-like forms are known from northern mountains, especially where exposed to severe winds and cold. Height 25'–30'; diameter 1'–2'. **Similar species:** (1) Red and (2) White Spruces have longer needles and cones and occur mostly on uplands. White Spruce has hairless twigs.

WHITE SPRUCE *Picea glauca* (Moench) Voss

Recognition: Twigs and buds are *hairless*; needles *blue-green*, 3/8"–3/4" long. Branchlets do not droop. Cones 1"–2" long; scales flexible, dropping soon after maturing. In Far North and on high mountains a low mat-like form occurs in exposed locations. Height 50'–60'; diameter 1'–2'. **Similar species:** Black Spruce has shorter needles, hairy twigs, and occurs more abundantly in swamps.

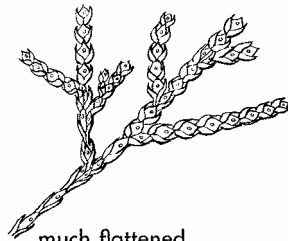
BALSAM FIR *Abies balsamea* (L.) Mill.

Recognition: A steeple-shaped evergreen tree with needles 3/4"–1 1/4" long and *whitened beneath*. Needles have a *broad circular base*; twigs rather *smooth* after needles are removed. Cones 1"–3" long, *upright and fleshy*, falling apart upon ripening and often leaving erect slender central cores. They are purplish to green, no bracts visible between scales. The plant may grow as a low mat-like shrub at timberline. Bark rather smooth, with resin blisters. Height 40'–60' (75'); diameter 1'–2' (3'). **Remarks:** A good Christmas tree that holds its needles. Soft, perishable wood of less value than spruce as lumber or pulp. Canada balsam is obtained from bark blisters, a gum used by woodsmen as a wound plaster and waterproof cement; sold in stores as a confection before advent of chicle chewing gum. Formerly used in cementing lenses and in mounting specimens on microscope slides. Fire-by-friction sets are often made of this wood, and resinous fir knots once were used as torches. Seeds are eaten by ruffed, spruce, and sharptail grouse; twigs eaten by snowshoe hare, whitetail deer, and moose; bark gnawed by porcupine.



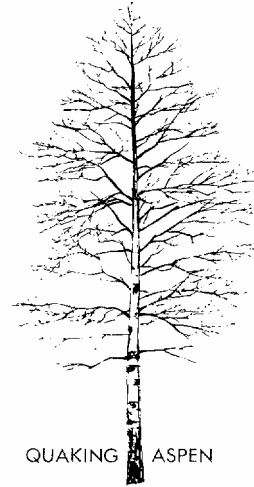
NORTHERN WHITE CEDAR

Dense conical head clothed almost to base; flat sprays



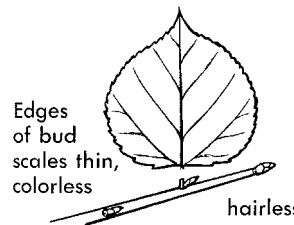
much flattened

NORTHERN WHITE CEDAR



QUAKING ASPEN

Upper bark whitish with dark blotches; reddish-brown twigs



Edges of bud scales thin, colorless

hairless

QUAKING ASPEN



almost hairless below

Twigs hairless or a bit silky; dark brown

BIGTOOTH ASPEN

NORTHERN WHITE CEDAR (ARBOR VITAE) *Thuja occidentalis* L.

Recognition: A medium-sized tree with leaves nearly all scale-like and 1/16" - 1/8" long. They occur in 4 rows around twigs but are flattened from the sides. Central leaves show tiny glands. Twigs and leaves occur in *flattened sprays* that typically are aligned vertically. Heartwood light-colored. Cones more or less bell-shaped, about 1/2" long. A prostrate, carpetlike form occurs in Quebec. Bark is fibrous with numerous cross-thatched ridges. Height 40'—50' (125'); diameter 2'—3' (5'). **Remarks:** An earlier, widely used name is Arbor Vitae, a latinized French name meaning "tree-of-life." It was so named after it cured the men of Jacques Cartier's Canadian expedition of a disease, probably scurvy. The incident resulted in this being the first tree to be imported from America into Europe. Over 50 varieties now in cultivation. Known also as Canoe-wood, it was used by the Indians. Thin slabs of the wood were prepared by pounding the ends of short logs until they separated along the annual rings. Wood is soft, light-colored, durable, and used for shingles and fire-by-friction sets. Outer bark supplies tinder. Cedar swamps provide favorite winter quarters and food for deer. Moose, snowshoe hares, and cottontail rabbits also eat the twigs and foliage; red squirrels and many songbirds consume the seeds.

QUAKING ASPEN *Populus tremuloides* Michx.

Recognition: A medium-sized tree; leaves with flattened leaf-stalks and edged with 20-40 pairs of fine teeth. Twigs hairless and dark brown; end buds shiny, 1/4"—3/8". Mature bark mostly smooth, chalk-white to yellow-green. Leaves 2"—8", appearing earlier in spring than leaves of Bigtooth Aspen. Height 20'-50' (75'); diameter 1'—2' (3'). **Similar species:** (1) Bigtooth Aspen has fewer and larger leaf teeth, hairy buds, and more yellowish bark. (2) Lombardy (and its parent form, the Black) Poplar has dark bark, yellow twigs, and more heart-shaped or triangular leaves.

BIRCH -- AMERICAN WHITE BIRCH *Betula papyrifera* Marsh.

Recognition: White birches grow from small brownish-barked saplings to be white-trunked small to medium-sized trees. These are our only trees with *clear white peeling bark* marked by narrow *horizontal stripes*. Height 70'—80' (120'); diameter 1"—2" (4"). Flowers spring. Fruits Aug.-Sept. **Remarks:** The various layers of bark have been used for canoe and wigwam coverings (tied in place with spruce rootlets), boxes, cups, makeshift shoes, and emergency snow goggles. Leaves have been used for tea, but are not as good as those of Black and Yellow Birches. White Birch lumber used for woodenware, pulp, and fuel. Seeds and buds eaten by ruffed and sharptail grouse. Twigs are cropped by moose, deer, and snowshoe hare.

SUGAR MAPLE *Acer saccharum* Marsh.

Recognition: A large tree with dark brown trunk bark marked with rough vertical grooves and ridges. Leaves mostly 5-lobed with moderately deep notches between lobes. Foliage pale green beneath but an uncommon form has whitened leaf under-sides. Leaves usually hairless. Leaf edges firm and not drooping. Leafstalk bases not much enlarged no stipules, or small ones that do not cover buds. Buds slender, sharp-pointed, brown. Side buds occur singly. Twigs glossy and reddish brown. Leaves 2"—10". Height 40'-60' (80'); diameter 1'—2' (3'). Flowers yellowish, April—June. Fruits June—Sept. **Remarks:** One of our most valuable hardwood trees. Neither sap nor wood is separated commercially from those of Black Maple. Both species supply maple syrup as well as birds-eye, curly, blister, and plain lumber. Wood is much used to make furniture.

