

White Ash

Fraxinus americana L.



Scott Youngblood/Arkansas Forestry Commission



Jeremy Jones/Arkansas Forestry Commission

Local Names: American and Cane Ash

Description: Tree may attain height of 100 feet or more and diameter of 3 to 4 feet under favorable conditions; in well-stocked stands straight and slender and clear of limbs to a considerable height; in the open low with a rounded, spreading crown; seldom in large stands. **Bark** light gray to gray-brown or darker, with narrow ridges separated by deep fissures, giving characteristic ridged appearance of ash bark. **Leaves** opposite, pinnately compound, 8 to 12 inches long, with 5 to 9 short-stalked, sharp-pointed, toothed or smooth-margined leaflets; dark green and smooth above, whitish beneath. **Flowers** of 2 kinds on different trees before leaves appear; male in dense reddish purple clusters, female in short, more open, drooping branches. **Fruit** winged, 1 to 2 inches long; seed plump, cylindrical, wing along only a third of its length. **Wood** heavy (41 pounds per cubic foot), hard, strong, close-grained but porous, tough; light brown with thick, lighter-colored sapwood.

Key Characteristics: Ashes are the only tree in eastern America, except boxelder, with opposite, pinnately compound leaves. The wing on white ash fruit extends only slightly up the plump seed. Leaflets whitish beneath.

Uses: Wood preferred for small and long tool handles, baseball bats, boat oars, skis, other athletic equipment, agricultural implements, refrigerators, furniture, trunks, plywood, and slack cooperage; valuable timber and shade tree.

Distribution: ARKANSAS: In small stream valleys, second terraces of larger streams, coves, ravines, and on moist north-facing slopes; associated with white, chinkapin and northern red oaks and shagbark hickory. ELSEWHERE: Nova Scotia west to eastern Minnesota; south through eastern Nebraska, Kansas, and Oklahoma to eastern Texas; east to northern Florida.

Green Ash

Fraxinus pennsylvanica Marshall

Local Name: Water Ash

Description: A medium-sized **Tree** from 40 to 60 feet high, 1 to 2 feet in diameter; slender spreading branches form a compact crown. **Bark** tinged with red, with narrow fissures separated by interlacing ridges. **Leaves** opposite, compound, of 7 to 9 short-stalked, smooth leaflets which are pointed at ends and toothed along margins; entire leaf 9 to 12 inches long; leaflets bright green or yellow-green on both sides. **Flowers** appearing before the leaves, unisexual, on separate trees, apetalous, dark red, borne in dense panicles. **Fruit** a winged samara, up to 2 inches long, wing usually narrower than on white ash; seed extremely slender with wing attached to more than half the length of the seed.

Wood heavy (40 pounds per cubic foot); light brown with thick, lighter-colored sapwood much like the white ash.

Key Characteristics: Leaflets usually narrower and more lanceolate than those of white ash, only slightly lighter green beneath than above. On young trees leaves often stand erect along upper branches. Wing on fruit narrower than on white ash, attached to more than half the length of the narrow seed.

Uses: Similar to those of the white ash; although wood is of somewhat poorer quality, usually cut and used with that of white ash.

Distribution: **ARKANSAS:** Essentially a wetland tree, but can occur in a wide variety of habitats from wet overflow land to rather dry, stony hillsides; in northern part of state found most commonly in small stream valleys. **ELSEWHERE:** Very wide range, from New Brunswick south to Florida, west to lower slopes of Rocky Mountains, from Alberta to New Mexico.



Mike Mowery/Arkansas Forestry Commission

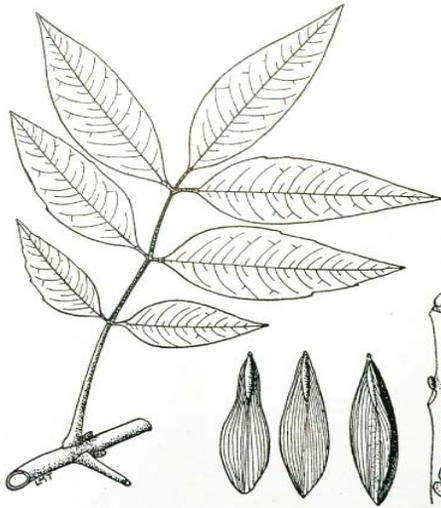


John Pressgrove/Arkansas Forestry Commission

Carolina Ash

Fraxinus caroliniana Mill.

Local Names: Water Ash, Swamp Ash



Description: The **Tree** is usually small, rarely over 40 feet high and is commonly found in relatively undisturbed stands as an understory tree. **Bark** is thin, gray with an irregularly scaly surface. The **Leaves** are opposite, odd-pinnately compound, 7 to 12 inches long with 5 to 7 long-stalked, often rounded leaflets with smooth or coarsely toothed margins, more or less hairy beneath. **Flowers** are unisexual about $\frac{1}{8}$ inch long. **Fruit** with broad wing $1\frac{1}{2}$ to 2 inches long and $\frac{3}{4}$ to 1 inch wide, surrounding the long narrow seed to its base.

The seed is frequently 3-vedged instead of 2-vedged, rounded or tapered at tip. **Wood** light (22 pounds per cubic foot), soft, weak, close-grained; nearly white, sometimes tinged with yellow, with thick, lighter-colored sapwood.

Key Characteristics: Can usually be distinguished from other ashes by its habitat and its wide, paddle-shaped, winged fruit, often with 3 wings. Trunks often several. Bark rather thin and scaly.

Uses: Of little economic importance although wood is sometimes used as that of other ashes, to which it is quite inferior.

Distribution: **ARKANSAS:** Found occasionally in swamps and inundated land in south; usually associated with water tupelo, baldcypress, water hickories, pumpkin ash, and wetland oaks, and in southeastern part of its general range with swamp bay. **ELSEWHERE:** Distinctly southern, from Virginia to Florida and eastern Texas in immediate Gulf region, north through Mississippi Valley to southern Arkansas.



Photos by Mike Weatherford/Ark Native Plant Society

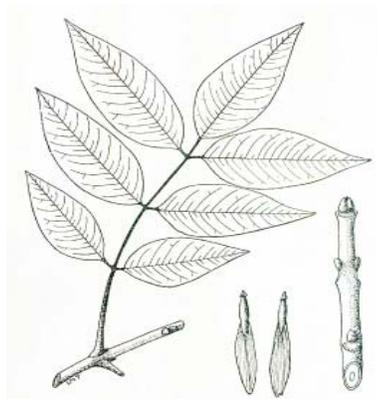


Pumpkin Ash

Fraxinus profunda (Bush) Bush

Local Name: Water Ash

Description: Tree may attain height of 100 feet or more and diameter of 3 feet, equaling any of its associated species in size; when submerged develops a rounded, swollen, buttressed base similar to that of water tupelo and baldcypress although not as exaggerated. **Bark** may resemble that of white ash or be less fissured and more scaly. **Leaves** opposite, pinnately compound with 5 to 9 short-stalked leaflets, leaflet margins smooth or with a few teeth; leaf stalks and robust branchlets downy, at least when young; leaflets dark green and smooth above, lighter green and usually densely velvety beneath. **Flowers** of 2 kinds on different trees, appear before the leaves; male in dense reddish purple clusters, female in short, more open, drooping branches. **Fruit** large to 2 ¾ inches long, ripening in September, more closely resembling that of green than white ash; slender, wing frequently notched at end and attached to ¼ to ½ the length of



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Arkansas Forestry Commission



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Pennsylvania Natural Heritage Program

the seed. **Wood** moderately heavy (36 pounds per cubic foot), brown with lighter-colored sapwood; quality inferior to that of white ash but resembling it.

Key Characteristics: Twigs and undersides of leaves velvety. Fruit more than 2 inches long.

Uses: Somewhat similar to uses of white or green ash.

Distribution: ARKANSAS: Confined to inundated areas of eastern Arkansas, where it is associated with baldcypress, water tupelo, swamp cottonwood, and water locust. ELSEWHERE: Southern Louisiana north through eastern Arkansas to Illinois, Indiana, and Ohio; south through western Kentucky, Tennessee, and eastern Mississippi to Florida; north along the Atlantic Coast to southern New York.

Blue Ash

Fraxinus quadrangulata Michx.



Local Names: Winged and Square-Stemmed Ash

Description: A medium-sized **Tree** 50 to 70 feet tall and 2 to 3 feet in diameter, often associated with limestone soils. **Bark** moderately thick, more or less scaly; not ridged as are other ashes. **Leaves** opposite, odd-pinnately compound, 8 to 12 inches long, with 5 to 11 stalked leaflets,

noticeably toothed and sharp-pointed. **Twigs** are conspicuously 4-angled and somewhat winged. The expressed sap will turn blue upon exposure. **Flowers** similar to those of white ash. **Fruit** an oblong samara 1 to 2 inches long, winged, notched at tip. **Wood** similar to that of white ash but more brittle and almost never as large; weight 49 pounds per cubic foot.

Key Characteristics: Twigs, especially those growing vigorously, quite definitely 4-angled, frequently with wings on the angles, hence the local name. Fresh twigs, if whittled to expose wood and inner bark, will impart a bluish color to glass of clear water, if stirred in it.

Uses: Wood used for small and long tool handles, baseball bats, boat oars, skis, other athletic equipment, agricultural implements, refrigerators, furniture, trunks, plywood, and slack cooperage; valuable timber and shade tree. Not as preferred as white ash.

Distribution: **ARKANSAS:** Commonly on slopes, ravines, and coves, associated with calcareous rocks and soils. **ELSEWHERE:** Ontario west through southern Michigan to southern Iowa and Missouri, to northern Oklahoma, across northern Alabama to eastern Tennessee.



Patti Erwin/Arkansas Forestry Commission



Linda S. Ellis/Ark Native Plant Society