Fremont Cottonwood

Populus fremontii S.Watson

Taxonomic Classification

Domain: *Eukaryotes*
Kingdom: *Plantae*
Subkingdom: *Tracheobionta*
Super Division: *Spermatophyta*
Phylum/Division: *Magnoliophyta*
Class: *Magnoliopsida*
Order: *Dilleniidae*
Family: *Salicaceae*
Genus: *Populus*
Species: *fremontii*
[1]


[2] Tree


[3] Leaves


[4] Fruits, unopened

Botanical Description

Large trees 10-25 meters tall, the overall tree sometimes broader than tall. Bark smooth and aspen-like when young, becoming grayish-brownish and deeply furrowed when older. Branchlets, petioles, and leaf blades sparingly to densely white hairy. Petioles (leaf stalks) to 10 cm long, flattened, and lack glands. Leaves to 10 cm long and 12.5 cm wide; margins coarsely to finely crenate (wavy) or serrate and have glandular teeth, leaf shape deltoid-ovate (triangular) with truncate, cuneate, or obcordate bases with acuminate tips. Flowers appear before or with the leaves, in aments (long cylindrical clusters, unisexual catkin) that hang down. Trees dioecious, (having only either male or female flowers on one tree), male flowers with red anthers, female flowers yellow/green, pedicels to 5 mm long. Fruit a capsule to 9 mm long. Seeds with a dense, apical tuft of white hairs, hence cottonwoods [5].

Identification Tips

Fremont cottonwood can be confused with Black Poplar (*Populus nigra*). *Populus fremontii* has bud scales and twigs that are hairless with their leaf blades having 5–10 toothed margins on each side, whereas the Black poplar bud scales and twigs are hairy with their leaf blades having more tooths on the margins (15–25) on each side.

Fun Fact!

The name *Populus fremontii* honors naturalist and early explorer of the American west, John Charles Fremont. He first collected the tree in 1845 on his third expedition along the Sacramento River in California [6]. However, on his second expedition he wrote of his encounter with the tree in southern Utah: "the stream is prettily wooded with sweet cottonwood trees -- some of them of large size" [7].

[8] Male flowers

[8] Furrowed bark

[8] Cotton-like hairs attached to seeds

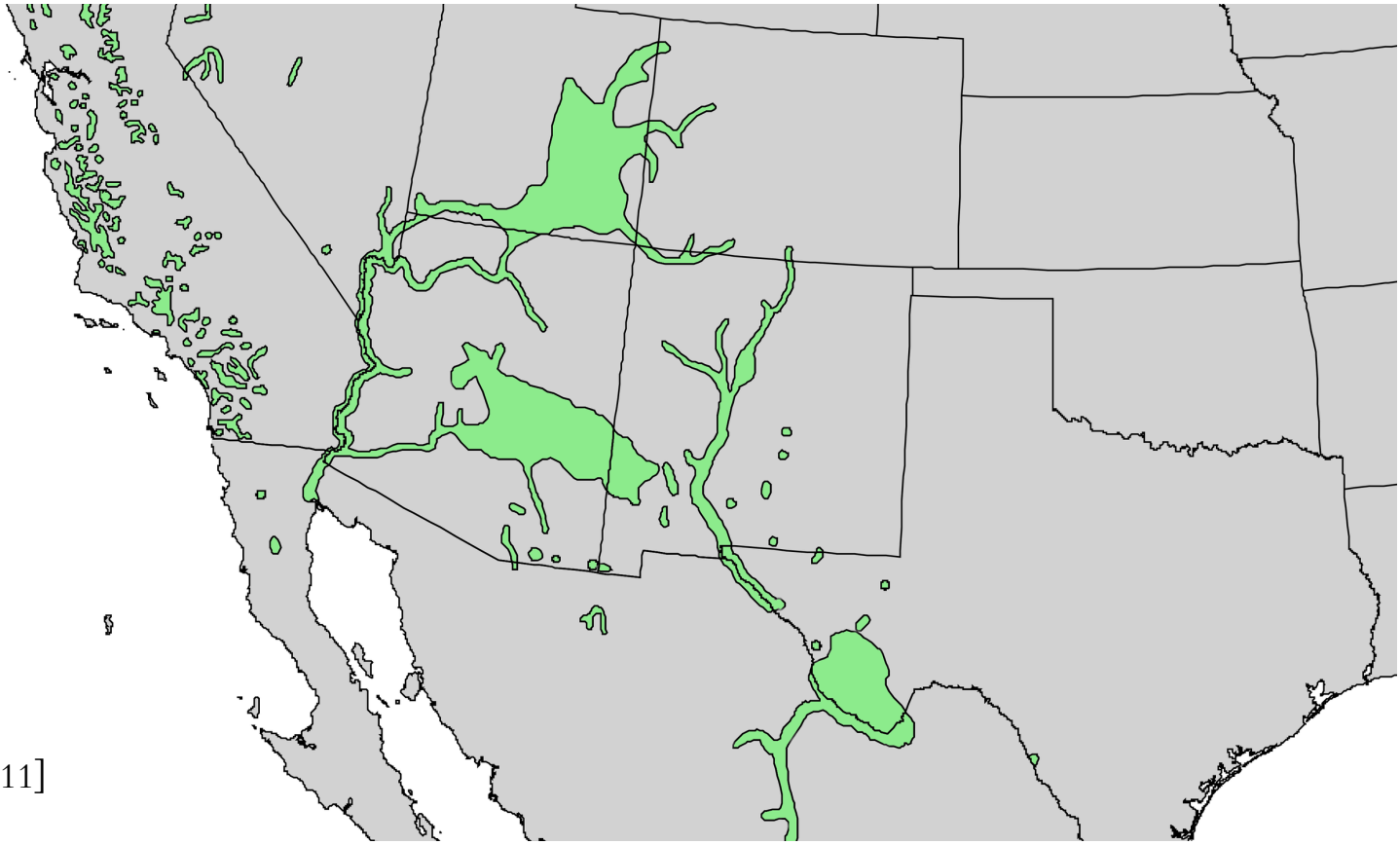
Ethnobotanical and Other Uses

Populus fremontii has had a variety of uses for ingenious peoples, including infusion of the bark and leaves to treat headaches and colds, wood used for fencepost and cooking tools, veterinary aid for horses with saddle sores and swollen legs, and to treat wounds and sores on humans as well [3].

The aments (long unisexual, pendulous clusters that resembles a cat's tail) can be consumed raw or cooked. The seed pods can be chewed like gum when they are young and green [9].

An extract of the shoots can be used as a rooting hormone for all types of cuttings. It is extracted by soaking the chopped up shoots in cold water for a day [10].

Habitat Range



[11]

[4]

Conservation Status

On a global scale, Fremont cottonwood is considered a secure species!

Plant Ecology

Fremont cottonwood grows at 760-1860 meters elevation along washes, floodplains of rivers, and irrigation ditches. [5]. They are most abundant by water and dominate riparian areas in central, eastern, and southern Utah. They flower March to June before leaves and with young leaves.

References:

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[10] Schofield, J.J, Eaton J.S., Discovering Wild Plants: Alaska, Western Canada, the Northwest. Alaska Northwest Books, 1989.

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