



### *Populus fremontii* Fremont cottonwood

### Capitol Reef National Park

#### Why Observe?

*Populus fremontii* is one of the major overstory trees in riparian areas of the southwestern United States. These trees support a variety of wildlife as a food source for elk, rabbits, and beavers, and a shelter for insects, birds, and bats. Their roots stabilize stream banks, thereby preventing erosion and protecting aquatic habitats.

#### Tips for Identification

*Populus fremontii* is a deciduous tree that grows up to 75 feet tall and 5 feet in diameter. Young trees have smooth, light colored bark. Older trees have grayish-brown and deeply furrowed bark. The leaves are triangular to heart-shaped with serrated edges. The leafstalk (petiole) is flattened, causing the leaves to flutter in the breeze. Male and female reproductive parts occur on different trees and begin to grow before leaf buds appear in spring. Flowers lack petals and are held in dropping catkins, up to 6 inches long. Male catkins are red while female catkins are yellow-green. After pollination, male catkins turn brown and fall off. Female catkins produce dark green fruit that turn brown and split open to reveal small seeds covered in cotton-like fluff for wind dispersal.

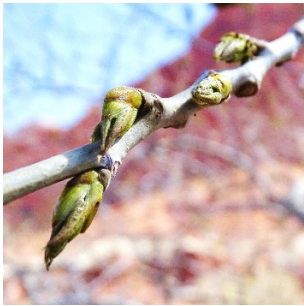
Be aware there is variation from individual to individual within a species, so your plant may not look exactly like the one pictured. If you are uncertain whether or not a phenophase is occurring, report a “?” for its status until it becomes clear what you are observing after subsequent visits.



National Park Service. Public Domain



National Park Service. Public Domain



### Breaking leaf buds

One or more breaking leaf buds are visible on the plant. A leaf bud is considered "breaking" once a green leaf tip is visible at the end of the bud, but before the first leaf from the bud has unfolded to expose the leaf stalk (petiole) or leaf base.



### Leaves

One or more live, unfolded leaves are visible on the plant. A leaf is considered "unfolded" once its entire length has emerged from a breaking bud, stem node or growing stem tip, so that the leaf stalk (petiole) or leaf base is visible at its point of attachment to the stem. Do not include fully dried or dead leaves.



### Increasing leaf size

A majority of leaves on the plant have not yet reached their full size and are still growing larger. Do not include new leaves that continue to emerge at the ends of elongating stems throughout the growing season.



### Colored leaves

One or more leaves show some of their typical late-season color, or yellow or brown due to drought or other stresses. Do not include small spots of color due to minor leaf damage, or dieback on branches that have broken. Do not include fully dried or dead leaves that remain on the plant.



### Flowers or flower buds

One or more fresh open or unopened flowers or flower buds are visible on the plant. Include flower buds or inflorescences that are swelling or expanding, but do not include those that are tightly closed and not actively growing (dormant). Do not include wilted or dried flowers. For *Populus fremontii*, both the male and female inflorescence is a catkin which is initially compact, but eventually unfolds to become longer and hang loosely from the branch. Once the flowers wilt, male catkins turn gray and dry up, and female catkins turn green and lengthen as the fruit develop.



### Open flowers

One or more open, fresh flowers are visible on the plant. Flowers are considered "open" when the reproductive parts (male stamens or female pistils) are visible between or within unfolded or open flower parts (petals, floral tubes or sepals). Do not include wilted or dried flowers. For *Populus fremontii*, the flowers will open once the initially compact catkin has unfolded and is hanging loosely.



### Fruits

One or more fruits are visible on the plant. For *Populus fremontii*, the fruit is a tiny capsule that changes from bright green to dull green or greenish-brown and splits open to expose seeds with white fluff. Do not include empty capsules that have already dropped all of their seeds.



### Ripe fruits

One or more ripe fruits are visible on the plant. For *Populus fremontii*, a fruit is considered ripe when it has turned dull green or greenish-brown and has split open to expose seeds with white fluff. Do not include empty capsules that have already dropped all of their seeds.

All photos: National Park Service. Public Domain

**Phenophases not pictured:** Falling leaves, Pollen release, Recent fruit or seed drop