Interview With a Plant

Plant Adaptation Cards

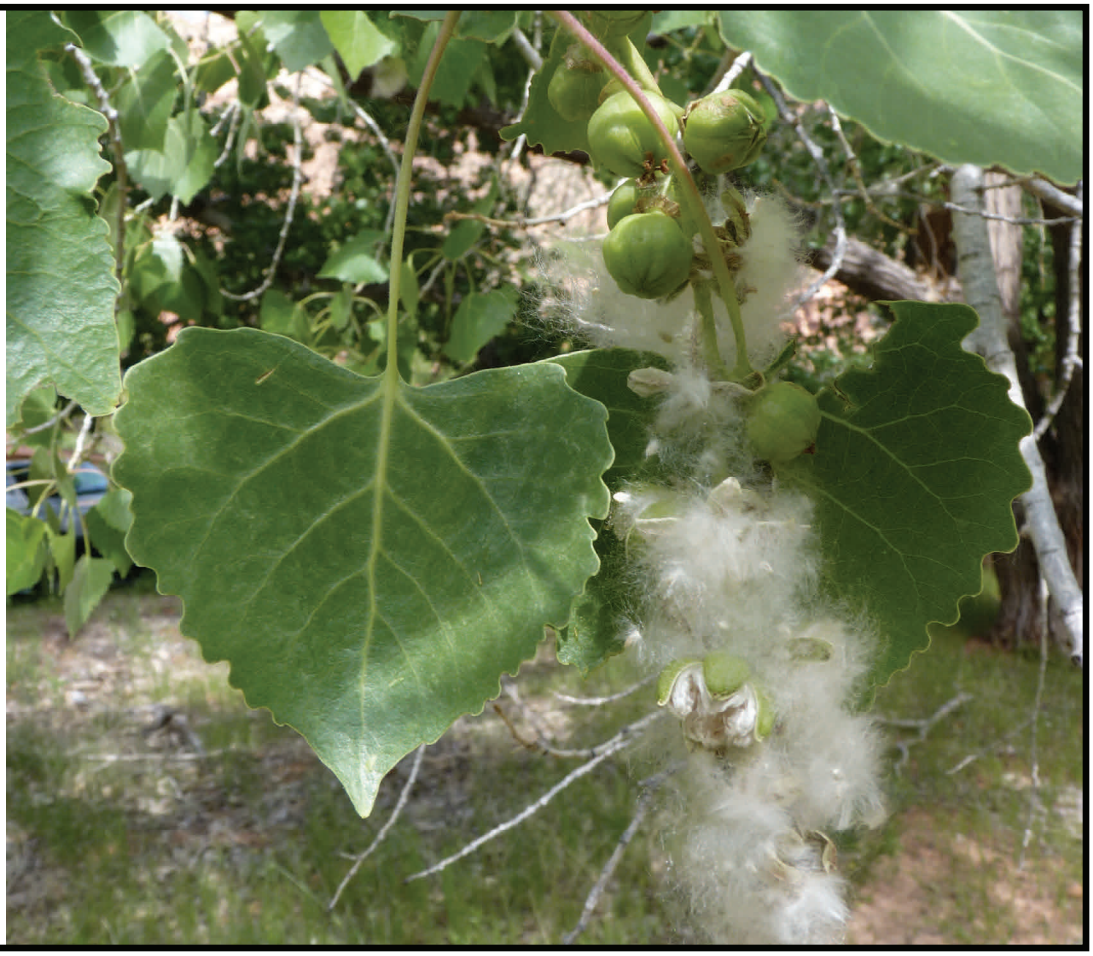
Pinyon Pine

Pinyon Pine

- This conifer has short, waxy needles that help prevent water loss.
- Large root systems with deep taproots (a large, main root) help get water in dry climates.
- A pinyon's nutritious nuts are favorites of birds and mammals. This helps move the seeds.

Utah Juniper

Fremont Cottonwood



Utah Juniper

- Juniper seedlings (young plants) grow very prickly leaves to protect them from being eaten.
- Self-pruning" (shutting off water flow to certain branches and allowing them to die) conserves water in droughts.
- This conifer has tiny, scale-like leaves that overlap and help moisture from being lost into the air.

Fremont Cottonwood

- Fluffy "cotton" seeds from this deciduous tree are spread by the wind.
- The seeds require moist soil to germinate making washes and riparian areas perfect places to grow.
- New tree trunks and branches can sprout from stumps and exposed roots.

Prickly Pear

Fourwing Saltbush

Prickly Pear

- The pads (which look like leaves but are really stems) store water the plant can use in times of drought.
- The pads are oriented vertically to shade each other from the sun.
- Rootlets (tiny roots) grow within hours of rainfall to quickly absorb moisture.

Fourwing Saltbush

- Tiny pouches on the leaf surface store salt absorbed from the soil. When the pouches erupt, salt spreads onto the leaf surface, protecting the plant from freezing in the cold.
- The salt on the leaves helps protect the plant from being eaten.
- The spiny twigs of this shrub also help protect it from being eaten.

Ponderosa Pine

Paintbrush

Ponderosa Pine

- The thick bark protects mature trees from fire.
- Seedlings grow taproots very quickly helping this conifer survive dry conditions.
- Narrow needles have a smaller surface area which reduces water loss.

Paintbrush

- Colorful red bracts surround the green flowers and attract pollinators like hummingbirds and butterflies.
- These plants are partial root parasites, taking water from other plants such as grasses.
- Many flowers grow on one plant.

Golden Columbine

Sacred Datura

Golden Columbine

- The nectar is contained at end of very long petals. Only animals with very long tongues like hawk moths and hummingbirds can reach it.
- The flower's bright color is attractive to pollinators.
- These plants can bloom multiple times in spring and summer, especially after rain.

Sacred Datura

- The large flowers open at night to avoid the heat of day and to attract night pollinators such as moths.
- The entire plant is poisonous which protects it from being eaten by animals.
- The flower's tube shape ensures moths are covered in pollen when they take out nectar.

Yucca

Claretcup

Yucca

- The thick, succulent leaves store water.
- The leaves' curved shape directs rainwater towards the plant's roots.
- Some yucca species have short flower stalks which are protected from being eaten by the sharp leaves.

Claretcup

- This is often the first cactus to bloom in spring.
- The many spines both shade the plant and protect it from being eaten.
- The stems grow in clumps to reduce surface area exposed to the drying desert wind and sun.

Rabbitbrush

Coyote Gourd

Rabbitbrush

- The plant is deciduous, meaning it loses its leaves in winter.
- The leaves and stems are covered with a felt-like layer that insulates in winter and conserves water in summer.
- The golden-colored flowers bloom in early fall.

Coyote Gourd

- The plant is a vine with tendrils (tiny, twisting stem-like parts) that help it grip and climb.
- The fruit pulp contains toxic, bitter chemicals to protect it from being eaten.
- The hairy leaves help reduce water loss from wind and sun.

Maidenhair Fern

Scouring Rush

Maidenhair Fern

- Ferns often have an special underground stem called a rhizome that stores extra food for the plant.
- Stiff stalks allow leaves to be held off the moist ground this plant occupies.
- Ferns reproduce with tiny spores (like seeds) blown by the wind.

Scouring Rush

- The hollow stems are jointed (reinforced) helping the plant stand in the damp soil it occupies.
- The cone used for reproduction is protected from the wet ground by growing at the top of the plant.
- This plant has no leaves and photosynthesizes inside its green stem.