

nature's , notebool

A project of the USA-NPN

Nature's Notebook Phenophase Photo Guide

Juniperus ashei Ashe's juniper, mountain cedar



Why Observe?

Ashe's juniper (*Juniperus ashei*) is one of the most important causes of seasonal allergies in Texas. We don't know yet how much pollen people are exposed to in their daily lives. If we were able to predict airborne pollen concentrations, we could warn people about pollen hotspots in advance and help people to maximize the benefits from their allergy medication.

Your observations as part of the Pollen Trackers campaign will help to predict when people are exposed to this highly allergenic pollen. These data will lay the foundation for a regional pollen alert system for "cedar fever."

Tips for Identification

Grows as a small coniferous tree as tall as 30'. Grows in both open areas and in closed canopy forests. Its scale-like leaves are green year-round and the shoots are rounded but not flattened. It has blue seed cones and pollen cones reach maturity in December to February. This species is most common in central Texas. Reaches reproductive maturity at heights as short as 4'. Its bark is reddish-brown and peels into long strips.

Male trees have small green or brown pollen cones. Female trees have blue juniper "berries."

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.



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This Phenophase Photo Guide has been vetted by the USA-NPN NCO. It is appropriate for use as a supplement to the Nature's Notebook phenophase definition sheet for this species.

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Pollen cones

One or more fresh, male pollen cones (strobili) are visible on the plant. Cones have overlapping scales that are initially tightly closed, then spread apart to open the cone and release pollen. Include all cones that are unopened or open. *For the intensity question, estimate how many cones (opened and unopened) are present on the tree.*



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Open pollen cones

One or more open, fresh, male pollen cones (strobili) are visible on the plant. Cones are considered "open" when the scales have spread apart to release pollen.

For the intensity question, estimate what percentage of all of the cones on the tree are open.



Unripe seed cones

One or more unripe, female seed cones are visible on the plant. For *Juniperus ashei*, an unripe seed cone is berry-like and green, turning pinkish, often covered with a whitish film that rubs off.



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Ripe seed cones

One or more ripe, female seed cones are visible on the plant. For *Juniperus ashei*, a berry-like seed cone is considered ripe when it has turned dark blue or purple, often covered with a whitish film that rubs off.

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