



U.S. Department of the Interior  
Bureau of Land Management



U.S. Department of Agriculture  
Forest Service

## Pinyon-Juniper Woodlands

The Bureau of Land Management manages 19 million acres of pinyon and juniper woodlands, mostly in Utah, Nevada, Colorado, New Mexico, Oregon, Arizona and California. There are many different types of pinyon-juniper ecosystems, with multiple pinyon and juniper species growing in the West. While different types of pinyon-juniper ecosystems have many characteristics in common, there are some distinctions that can have implications for management strategies.

Climate change is already impacting pinyon-juniper ecosystems, and is expected to continue having significant impacts on the health and distribution of woodlands and the species that inhabit them. Related stressors include insect and disease outbreaks, wildfire, and the expansion of invasive annual grasses. The BLM is working to manage pinyon and juniper woodlands for increased landscape health and ecosystem resilience, including by building scientific knowledge of this resource on the public lands.

### *How does the BLM manage pinyon and juniper woodlands?*

The BLM manages pinyon and juniper woodlands for forest health, wildlife habitat, recreation, grazing and other multiple uses. Outdoor recreation activities are popular in pinyon and juniper woodlands such as hunting, mountain biking and camping. Uses that are most common in pinyon and juniper woodlands include firewood collection, fence posts and rails, pinyon nut harvesting and Christmas tree harvesting. Pinyon and juniper woodlands are generally not suitable for harvest for dimension lumber.

In some areas on public lands, pinyon and juniper woodlands are expanding due to factors such as climate change and altered fire regimes. BLM actively manages pinyon and juniper to improve rangeland conditions and habitat for sagebrush dependent species such as greater sage-grouse. Natural fire regimes in some pinyon and juniper woodlands have been disrupted, leading to increasingly dense forests that can be at risk to catastrophic fire. BLM conducts fuels reduction projects in pinyon and juniper woodlands as necessary to reduce the risk of severe wildfire where appropriate.

### *How do pinyon and juniper woodlands fit into EO 14072?*

Pinyon and juniper woodlands are the most abundant forest type in the federal inventory of mature and old-growth forests, with 9 million acres of old-growth pinyon-juniper across BLM and Forest Service lands and an additional 14 million acres of mature pinyon-juniper.

Old-growth pinyon and juniper woodlands have distinct characteristics that develop over centuries. Intervals between stand-replacement events in some woodlands can be hundreds of years, allowing for development of old-growth characteristics. Some juniper species can exceed ages of 1,500 years, and pinyon species over 900 years. The oldest known western juniper is nearly 1,650 years old. The working definitions developed by BLM and the Forest Service in response to EO 14072 define old-growth pinyon-juniper woodlands to be 150-250 years old, depending on site productivity, the geographic location, and other factors.

Unlike old-growth forest, “mature forest” as outlined in EO 14072 is a relatively new concept for the Forest Service and BLM. It is expected that a continual adaptive management process integrating new

science, local conversations, and social processes will refine mature forest definitions over time, just as old-growth forest definitions have evolved over the past three decades.

***What role do pinyon and juniper woodlands play in wildlife habitats?***

A multitude of species are found in pinyon and juniper woodlands, including some sensitive and at-risk species. These ecosystems provide habitat for ferruginous hawk, juniper titmouse, mountain bluebird, American kestrel, blackthroated gray warbler, dusky flycatcher, fringed myotis, pallid bat, white-tailed antelope squirrels, Apache pocket mice, desert woodrats, kit foxes, ringtails, white-backed hog-nosed skunks, northern sagebrush lizard and dozens more. Additionally, pinyon and juniper woodlands are important habitat for many big game species, including mule deer, elk, pronghorn and white-tailed deer. Low elevation forests such as pinyon and juniper woodlands provide critical habitat connectivity that supports seasonal migration patterns of big game species.

Pinyon Jays live in pinyon trees year-round and can facilitate dispersal of seeds for pinyon pine regeneration. Long-term drought, climate change, and habitat loss pose a significant threat to Pinyon Jay populations.

***What are the cultural and social values of pinyon and juniper woodlands?***

Pinyon and juniper woodlands have significant values to Tribes, both as sacred sites and sources of pinyon nuts. There is evidence that pinyon nuts have been a staple food source for Native Americans for thousands of years. Pinyon and juniper woodlands have and continue to sustain human communities with wood for fuel and development.

Additionally, pinyon and juniper woodlands store carbon in live and dead biomass and soils. While woodland carbon is lower than other forest types, pinyon and juniper woodlands cover a vast geography, making their contribution to carbon storage considerable.

***How are the BLM and the USDA Forest Service going to manage pinyon-juniper ecosystems for climate resiliency?***

This summer, the Forest Service and the BLM will be co-hosting public workshops focused on sustaining resilient pinyon-juniper ecosystems. The workshops are intended to ensure robust public engagement and scientific expertise and knowledge are underpinning the approaches taken to fulfill EO 14072 and other management strategies for ensuring healthy, resilient pinyon and juniper woodlands. Through a series of workshops in western locations, the Forest Service and the BLM will engage with science and knowledge experts, Tribes, land managers, stakeholders, and the public in informed discussion around management issues, threats, trends and opportunities for climate-smart management and conservation of pinyon-juniper ecosystems on federal lands.