



## Capulin Volcano National Monument

## Piñon-Juniper Habitat

Piñon pine (*Pinus edulis*) and Rocky Mountain juniper (*Juniperus scopulorum*) (piñon-juniper) is one of the major habitat types found within Capulin Volcano National Monument and comprises approximately 59% of the monument's total area. Piñon-juniper habitats have considerable value to wildlife by providing cover, particularly during the winter for large mammals such as mule deer (*Odocoileus hemionus*) and elk (*Cervus elaphus*), and food in the form of piñon nuts and juniper berries for many bird species, including the Pinyon Jay (*Gymnorhinus cyanocephalus*). Piñon-juniper habitats also contribute to biological diversity in other ways. For example, along the monument's east crater rim a distinctive community of well-developed foliose lichens grow. These lichens are relatively uncommon and are only found on a few isolated mountain tops in New Mexico where clouds and mist provide moisture to support the growth of these lichens.

### Status and Trends

There are four types of piñon-juniper habitat throughout the monument including persistent piñon-juniper woodland, piñon-juniper shrubland, piñon-juniper savanna, and piñon-juniper persistent woodland patches interspersed among grassland. Through repeat photography analysis of photos from the early 1900s to present day, as well as interviews with long-time local residents, it is evident that piñon-juniper habitats were present on the cone, and even well established in some areas (for example on the south and east sides of the cone), at least since the turn of the century. A fire study conducted within the monument revealed that out of seven trees examined along the cinder cone, no fire scars for a 250-year period (1790-2004) could be found. In fact, some trees sampled were  $\geq 485$  years old, indicating the presence of piñon for some time. Piñon-juniper experts visited the monument to assess the overall condition of all four piñon-juniper habitat types. They determined the overall condition was good, and that the species present, age class distributions, stand densities, and current level of insects or diseases were all within the normal range of variability for the monument's piñon-juniper habitats.

### Discussion

Piñon-juniper habitat, in general, has often been misunderstood as being an “unnatural” habitat that has degraded other habitats, such as grasslands, by infilling previously unoccupied areas. This has been the prevailing view for some time for the monument's piñon-juniper habitat, but based upon recent



Piñon-juniper and grasslands at Capulin Volcano National Monument.

information and discussions with researchers who have studied this plant community throughout the United States, it is believed that the piñon-juniper habitat types throughout the monument are healthy systems, supporting a wide variety of native plants and animals that helps make the monument a truly unique area.