



## **Recommendations for Avoiding Impacts to Pinyon Jay Colonies in Nevada**

A recent GBBO research project on Pinyon Jays gave important new insights on managing this species, which led to the following draft recommendations for avoiding impacts Pinyon Jays while implementing pinyon-juniper removal treatments or other active management. Each recommendation is explained in greater detail below.

- 1. Conduct clearance surveys for nesting colonies during March 1 – May 30.**
- 2. Buffer colony sites by 1,200 m (0.7 miles) of no disturbances or vegetation removal.**
- 3. Avoid removing high-priority pinyon pines elsewhere in the home range of Pinyon Jays, especially open, multi-aged, and mid-successional stands that reliably bear cones.**

### **Why the Pinyon Jay?**

Pinyon Jays are declining at a staggering rate of 4 – 4.7% per year in the Great Basin and rangewide. For comparison, the estimated decline of Greater Sage-Grouse is 3-3.5% per year (for more information on trends, see <http://www.mbr-pwrc.usgs.gov/bbs/spec11.html>). This trend estimate translates to the Pinyon Jay population being cut in half in 19 years (2036) and the species being rare or extirpated in the Great Basin in the next few decades. The causes for these declines are currently unknown. The Great Basin is the core of the species' range, and thus, stewardship of the remaining global population is particularly effective in this region. The Pinyon Jay is covered under the Migratory Bird Treaty Act (MBTA), but has no other legal status. It is also a BLM sensitive species and a priority species in most bird conservation plans for our region.

GBBO will continue to do its best to shed light on causes of Pinyon Jay declines and provide assistance as needed to avoid unnecessary impacts to this species during habitat management actions needed for other species.

### **Explanations for Recommendations**

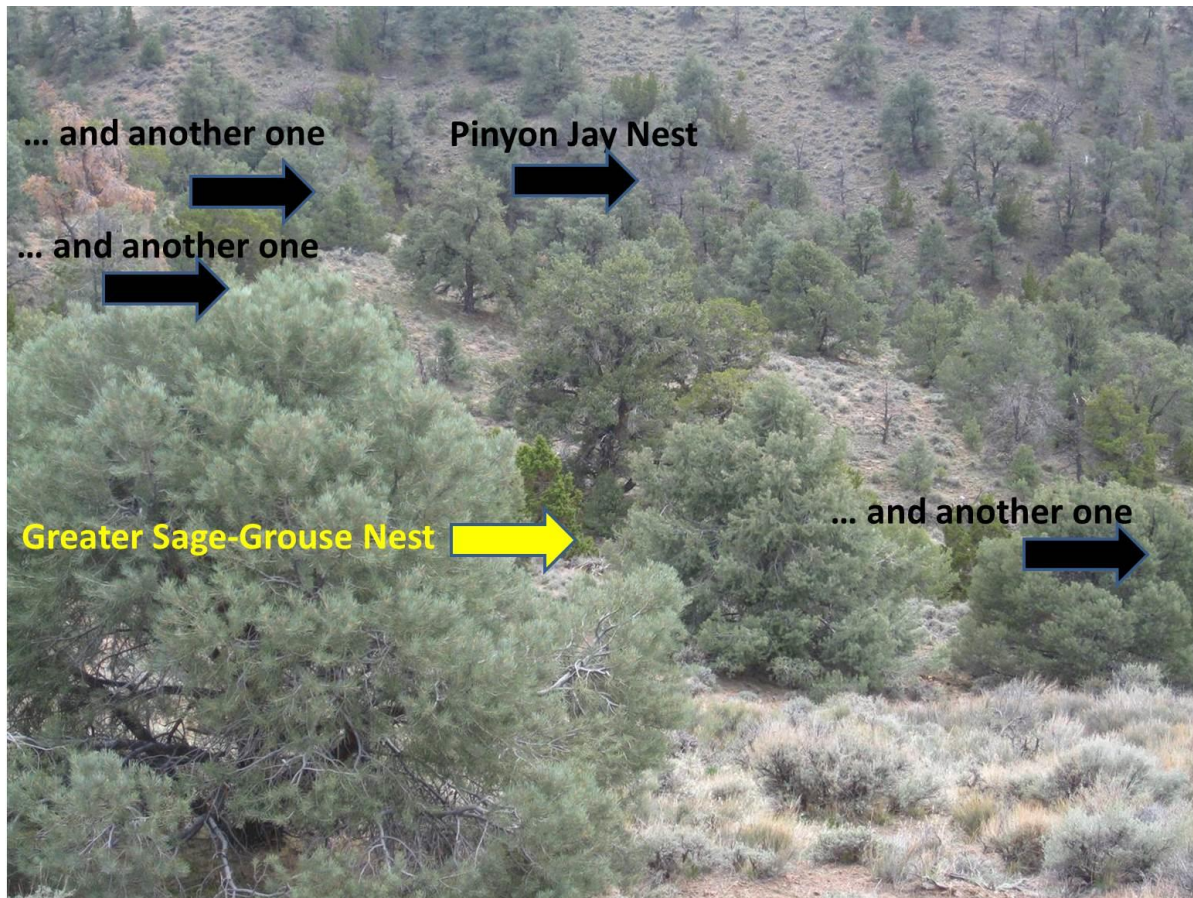
- 1. Conduct clearance surveys for nesting colonies year-round, or at least during March 1 – May 30.**

Pinyon Jays nest between March 1 and May 30 in Nevada. They nest in often-traditional colony sites with 30-60 nests that are tended to by a flock of 150-300 adults and immatures. Pinyon Jays are cooperative breeders, where the immatures from previous years learn to forage and nest successfully by helping raise the current brood. They are not sexually mature until their third year.



Colony sites may be traditional because, in some colonies, nests from previous years were found interspersed with active nests. However, we have also found that colony sites shift by as much as 500 or more meters from year to year (see below, buffer recommendation). Consequences for the population of losing colony sites are unknown, therefore we currently recommend avoiding impacts to colony sites year-round.

Clearance surveys are best conducted during the breeding season, even if the treatments are not planned to occur until other times of year. Colonies are in close proximity to traditional communal roost sites where the flock spends every night during breeding. If the birds are followed to their roost site at dusk during this time, the nesting colony is likely within 1,000 m (0.6 miles). Also during that time, we found that examining flying birds to determine whether they carry nest material (thin sticks) or food (large insects) can be one of the most effective ways of finding nest locations where they land. Nests and colony sites can also be discovered outside of the breeding season, if Pinyon Jays are known to use the area. Below is a photo of a typical Pinyon Jay colony, which also serves as a reminder that other species nest at this time of the year that may need clearance surveys (for a full list of species, for which we found nesting evidence during the Pinyon Jay nesting season, please contact GBBO, below).



Nest sites are discovered by examining mid-sized and large pinyon pines (about 12-30' tree height) for relatively large nests (about 12-18" in diameter, 10-12" tall). These nests are made mostly from thin sticks (see photos below). If even one such nest is found, time should be spent to examine all trees in the vicinity for similar nests, going out at least 200





yards from the original nest. If more nests are found, it is very likely a Pinyon Jay colony site. We do not consider it necessary to try to locate all nests of the colony, because it is time-consuming. Instead, we recommend a large no-impact zone around the area of the located nests, see below.



- 2. Buffer colony sites by 1,200 m (0.7 miles) for no disturbances during the breeding season, and for no vegetation removal any time of year.**

This recommendation is our best expert opinion on the minimum distance needed to preserve a colony site from being abandoned. We have currently limited information on what distances are needed, but the 1,200 m radius from a colony corresponds to our measured distances of the area used for roosting and other colony-related activities, as well as the distances of colony site shifts observed among years.

- 3. Avoid removing high-priority pinyon pines elsewhere in the home range of Pinyon Jays, especially open, multi-aged, and mid-successional stands that bear cones.**

We know that Pinyon Jays rely on pine seeds as a critical food resource year-round. The majority of their time is spent collecting, caching and eating pine nuts. One likely (but so far untested) cause for their decline is the decrease in pine seed availability due to environmental factors. Pinyon pines in the Great Basin are usually most productive when they are middle-aged or older, and when they grow in fairly open stands and have sufficient access to moist soils. These seed-bearing trees are extraordinarily important to Pinyon Jays. Based on current knowledge, junipers appear to be largely ignored by Pinyon Jays in Nevada, both for nesting and for foraging.



## Questions? Comments? Need More Info?

**Contact us at GBBO:**

[www.gbbo.org](http://www.gbbo.org)

Elisabeth Ammon, ammon –AT– gbbo.org

John Boone, boone –AT– gbbo.org