

# **Guidelines to Minimize Impacts of Data-Gathering Activities on Pinyon Jays**

## **Pinyon Jay Working Group**

### **February 2021**

**Audience and Purpose:** These guidelines are intended for anyone planning to conduct field research, monitoring, or nest searching activities to gather information about Pinyon Jays. The purpose of these guidelines is to provide recommendations to minimize unintended impacts on Pinyon Jays that can result from these activities. The guidelines are based on the combined experience of multiple researchers from the Pinyon Jay Working Group who have conducted many years of research on this species. More information about Pinyon Jay biology, conservation, and status is available at (<https://partnersinflight.org/resources/pinyon-jay-working-group/>).

**Applicability:** With increasing interest in Pinyon Jays and multiple new efforts underway to collect data on this declining species, it is important that biologists take appropriate precautions to avoid inadvertently causing negative impacts. These impacts are most likely to occur when conducting nest searches or attempting to delineate nesting colonies. Data currently available suggest that during the breeding season, Pinyon Jays may abandon nests or nesting colonies as a result of excessive human disturbance. Further, the potential for an entire nesting colony to fail due to nest predation is high, and human activity can easily provide clues or indications of nest locations to nest predators such as ravens. There is also potential to cause unintended harm when trapping and handling Pinyon Jays. Specific recommendations to minimize any of these issues are provided below.

**Exclusions:** These guidelines describe how to minimize the impacts of data-gathering activities on Pinyon Jays. The guidelines have the following limitations:

- 1) They do not provide guidance for finding Pinyon Jay nests to inform clearance surveys or for other purposes where confirmation of nesting is desired. This information is presented in a different document from the Pinyon Jay Working Group entitled “Guidance for Locating Pinyon Jay Nests and Confirming Breeding” (see link above).
- 2) They do not contain recommendations about more general survey methodologies or research approaches. A Pinyon Jay Working Group document entitled, “Data Standards and Survey Protocols for Pinyon Jays” includes a comprehensive set of recommendations for Pinyon Jay survey protocols to inform spatial distribution models, impact monitoring, habitat studies, and other applications. Document available at link above.

## **Guidelines**

### **1. Nest searches, nest studies, and nest colony delineation.**

Spending too much time in or near nesting colonies can disturb nesting birds and lead to nest abandonment. It can also provide clues about nest locations to observant nest predators, such as ravens and crows, which are extremely adept at interpreting human actions and can also provide

scent trails to nests for mammalian predators. To avoid these impacts, follow the guidance below, keeping in mind that the active breeding season typically occurs from March-May in most regions.

**Dos:**

- Surveyors should walk quietly and at an even pace while conducting nest searches, without ever stopping to record data, examine nests closely, point at nests, or directly observe nests any longer than necessary.
- If a nest is detected during the breeding season, the surveyor should keep walking slowly in the original direction without stopping, pointing, or recording data near the nest. A handheld GPS should be used to mark a waypoint as the surveyor walks past, and all waypoint processing and data recording should be done at a minimum of 50 m away from the nest, while facing away from the nest.
- Surveyors should immediately vacate the area if ravens or other nest predators are present.
- To obtain precise nest coordinates or measurements, delineate colony boundaries, or to make habitat assessments within the colony, it is preferable to conduct most of these activities after the breeding season has concluded.
- Any necessary monitoring or observation of nests should be conducted from a distance, preferably 50 m or more if on foot. Nest activities that can be observed from a road can be monitored using a vehicle as a blind, with little impact to nesting Pinyon Jays.
- During the breeding season, collect the minimum amount of data that are sufficient for immediate purposes. As an example, it is not necessary to find more than a few nests to confirm the presence and approximate extent of a breeding colony. Attempting to find more nests places the colony at additional risk.
- Use surveyors who are familiar with Pinyon Jay biology and field work, or obtain advice and guidance from researchers who have previously worked with the species in your area.

**Don'ts:**

- Do not survey if other corvids are present near a suspected colony site. Spending extra time in a particular location almost guarantees that observing corvids will investigate the site more closely after you leave.
- Nests should never be approached more closely than necessary to confirm their presence.
- Don't approach a nest, stand under it, look into it with a mirror pole, touch the nest tree or disturb the foliage near a nest. All these behaviors attract attention from nest predators who interpret human behaviors effectively by observation (corvids) or by the scent trail left behind on the ground and foliage (mammals).

Once a nest predator finds one jay nest, that one individual can wipe out an entire colony.

- Don't walk straight to the nest and return by the same path, to avoid leaving a "dead-end" scent trail for mammals. Instead, walk a straight line through the woodland.
- If you happen upon a nest unexpectedly, avoid any unusual excitement, gestures, exclamations, or other activities. Instead, continue to walk in the original direction without altering your behavior. This minimizes the risk of alarming a bird in the nest and of alerting a potential nest predator.

## **2. Trapping, Handling, Banding, and Telemetry**

Pinyon Jays are a species of conservation concern and any unnecessary mortality or stress should be avoided. Therefore, it is important that non-invasive, observational techniques be used whenever possible to obtain desired information. When direct handling of Pinyon Jays is required, it is important that handling is conducted only by experienced and properly permitted individuals.

### **Dos:**

- Ensure that personnel involved in Pinyon Jay trapping, handling, banding, and attachment of radio transmitters are fully trained and/or experienced in proper bird handling and permitted for these activities by USGS's Bird Banding Lab ([https://www.usgs.gov/centers/pwrc/science/bird-banding-laboratory?qt-science\\_center\\_objects=0#qt-science\\_center\\_objects](https://www.usgs.gov/centers/pwrc/science/bird-banding-laboratory?qt-science_center_objects=0#qt-science_center_objects)).
- Pinyon Jays are highly social, and may be less stressed if trapped, held, and released in groups rather than individually.
- Process the bird(s) as efficiently and quickly as possible. Avoid requests for extra handling time for instruction and learning (these should happen at a banding station on less sensitive species). Regardless, attaching auxiliary markers and bands takes time and should be done carefully to avoid injury and future risk of injury to the bird.
- Hold captured birds in breathable lightweight cloth bags or in cardboard boxes while awaiting processing. Pinyon Jays can be safely held for up to an hour in a cool place without undue stress.
- In hot weather, hold captured birds in the shade or a vehicle with air conditioning to avoid heat stress.
- Follow Bird Banding Lab ([https://www.usgs.gov/centers/pwrc/science/bird-banding-laboratory?qt-science\\_center\\_objects=0#qt-science\\_center\\_objects](https://www.usgs.gov/centers/pwrc/science/bird-banding-laboratory?qt-science_center_objects=0#qt-science_center_objects)) guidelines on weight of transmitters to be used on birds. Always use the lightest

possible transmitters which will be effective, as no research has been conducted on the impacts of transmitters on Pinyon Jay stress or survival.

**Don'ts:**

- Don't ever leave traps or mist nets unattended. Approach of a predator can result in Pinyon Jays crashing into the sides of the trap and being injured or being killed in a mist net. Even without predators being present, birds left in a trap can injure themselves when trying to escape.
- Don't place traps or mist nets in the full sun. Birds exerting effort while trying to escape can suffer heat stress.
- Don't allow inexperienced personnel to handle captured birds excessively, or outside the direct supervision of an experienced and properly permitted individual.

**Additional Information and Assistance**

The following webinar provides an overview of Pinyon Jay survey methods.

<https://www.youtube.com/watch?v=4dc6W-SLiGQ>

The individuals listed below are experienced Pinyon Jay biologists who can provide additional information and clarification about nest searching and research questions.

Elisabeth Ammon, Great Basin Bird Observatory ([ammon@gbbo.org](mailto:ammon@gbbo.org))

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