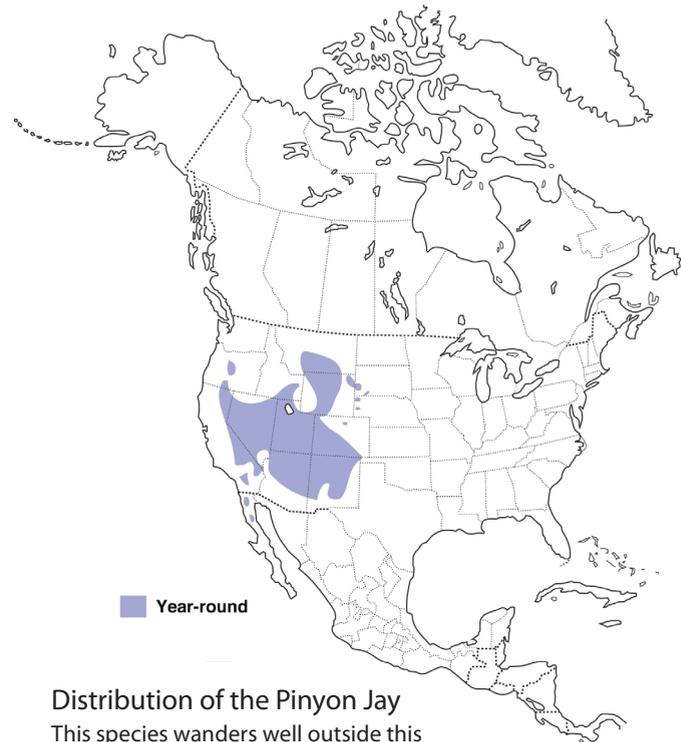


A FIELD GUIDE TO PINYON JAYS and PINYON & JUNIPER FORESTS



ABOUT PINYON JAYS

Pinyon Jay = *Gymnorhinus cyanocephalus*
(name means "naked nosed, blue headed")



Distribution of the Pinyon Jay

This species wanders well outside this range in years when cone crops fail.

Johnson, K. and R. P. Balda (2020). Pinyon Jay (*Gymnorhinus cyanocephalus*), version 2.0. In *Birds of the World* (P. G. Rodewald and B. K. Keeney, Editors). Cornell Lab of Ornithology, Ithaca, NY, USA. <https://doi.org/10.2173/bow.pinjay.02>

Appearance: About robin-sized, smaller than a crow, with a featherless, dagger-like bill (so sap doesn't get stuck on it when opening cones), short tail, dusky blue-gray color, no crest on head. Throat is whitish or light gray. Males and females are the same color and size.



ALAN D. WILSON



THOMAS A. BENSON. INSET: SEABAMIRUM

Behavior: Pinyon jays generally forage and flock in groups of 50-500 and move across lands in tightly packed flocks with quick wingbeats. Noisy! They roost in different areas from where they forage and will post sentinels to alert flock of dangers.

Breeding: Pairs are usually monogamous for about 2.5 years and generally lay 3-5 eggs per year. Nesting generally happens in Feb-April. Incubating females are fed by their mates. Eggs are incubated for about 17 days before hatching.



MARIE READ

Feeding: Pinyon jays target highly nutritious pinyon pine cones in the fall season. Each cone contains about 20 seeds. Jays can hold more than 50 seeds in an expandable throat pouch to transport from the foraging area to the caching area. Jays also eat ponderosa pine seeds, juniper berries, insects, and small lizards.



MARIE READ

Caching: Pinyon jays cache seeds up to 7.5 miles away for later consumption. A single jay can cache more than 20,000 seeds per season in dirt and bark crevices, often on south-facing sides of trees where snow melts faster. Excellent spatial memory helps them find buried seeds, but the seeds they don't locate can become new trees.

LOOK-ALIKE BIRDS

Woodhouse's scrub-jay

About the same size as a pinyon jay but with a longer tail and brighter blue on the head and back. Crestless head. Will pick ticks and parasites off the backs of deer and steal from other caching birds. Flight is underpowered and slow, with bouts of fluttering alternating with glides. They reside in pinyon and juniper woodlands.



WOODHOUSE'S SCRUB-JAY

JAMES ST. JOHN

Stellar's jay

Distinct crested head and dazzling azure blue color on wings. Larger than pinyon jays with harsher, more scolding kraawks. Common in Western forests and suburbs and at bird feeders. They are excellent mimics and can imitate birds, dogs, chickens, and squirrels.



STELLAR'S JAY

MIKE'S BIRDS WIKIMEDIA COMMONS

Mountain bluebird

Smaller than a pinyon jay (between a sparrow and a robin in size). Sky-blue color on wings and tails of males. Females are gray-brown with tinges of blue. Beaks are straight, thin, and all black. They can appear in large flocks, feasting on juniper berries and insect prey, and hover around while foraging.



MOUNTAIN BLUEBIRD, MALE

ELAINE R. WILSON

Western bluebird

Sparrow-sized bird with brilliant blue head, wings, and tail. Males have a rust-colored breast; females are blue-tinged and gray-brown. They gather in small flocks and feed on insects and berries. They nest in tree cavities and rely on other birds like woodpeckers to make nest sites.



WESTERN BLUEBIRD, MALE

KEVIN COLE

Townsend's solitaire

Robin-sized gray bird, with long tail, short bill, and small, rounded head. Buffy patch on wing and prominent white ring around eye. They live in pinyon and juniper woodlands and will eat juniper berries in winter and insects in summer. They often flick their wings in a nervous way while perched.



TOWNSEND'S SOLITAIRE

BLALONDE

Brown-headed cowbird

The females and juveniles are brown-gray, while the males are shiny, iridescent black with a brown head. They are between a sparrow and robin in size. Their bills are shorter, with a much thicker base than pinyon jays. They are brood parasites, relying on other birds to raise young cowbirds.



BROWN-HEADED COWBIRD

DFAULDER



BROWN-HEADED COWBIRD

LISELLE LEBAILLIF

PINYON AND JUNIPER FORESTS

Pinyon jays spend most of their time in woodlands where pinyon pine and juniper trees grow.

The abundance of pinyon pine vs. juniper trees varies by site, largely depending on elevation.



An older pinyon pine. AUDREY KRUSE



TOP: Pinyon pines often have needles in packets of two. BLAKE MCCORD

MIDDLE: There are about 20 pinyon seeds in a single cone. BLAKE MCCORD



BOTTOM: Juniper berries can be blue, pale gray, or even white. BLAKE MCCORD



Also look for jays near the edges of pinyon and juniper woodlands where they border shrublands (especially sagebrush).

Pinyon and juniper forest bordering sagebrush. ED MOSS

TREE AGE-CLASSES

younger trees

branches are smaller at the top of the tree compared to the bottom of the tree; conical shape with pointed tip

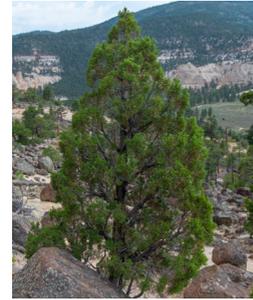
older trees

large trunk, branches the size of younger trees with flat, round, or uneven top



▲ LEFT: Young pinyon. BLAKE MCCORD RIGHT: Old pinyon. BLAKE MCCORD

▼ LEFT: Young juniper. BLAKE MCCORD RIGHT: Old juniper. AUDREY KRUSE



Remember, old pinyon and juniper trees may not be very tall.



BIOLOGICAL SOIL CRUSTS

3 types of well-developed biocrust



dark cyanobacteria

dark in color, pinnacled, lumpy, often seen in areas undisturbed by cattle grazing. MIKE POPEJOY



lichen

grows on top of dark cyanobacteria (and takes longer to develop); usually white, but can be green or orange. MARC COLES-RITCHIE



moss

can grow on top of dark cyanobacteria, or on its own; generally found in cooler or moister areas, such as on the shaded north sides of shrubs or trees. MIKE POPEJOY

PINYON JAY PROJECT PROTOCOL

*Your version of eBird might look slightly different than what is described here. Need help? Send us an email at volunteernow@grandcanyontrust.org. We're happy to help.

If you see or hear a pinyon jay, stop and take out cell phone, binoculars, and fact sheets, and be really QUIET.

1 Open eBird and tap Start checklist.

2 Tap the text "Add observation or find species" and search for "pinyon jay." Type number of pinyon jays seen or heard.

3 IF YOU SEE A FLOCK

- Note time. Stay where you are for at least 10 minutes.
- Record all jays you see or hear, grouping and counting by 10s.

4 IF YOU DON'T SEE A FLOCK

Observe until you've gone 1-2 minutes without seeing or hearing any birds.

5 Add the following details in the Details Box:

- Description of what the bird(s) is/are doing. If you only hear but do not see bird(s), type "Only heard."
- Dominant vegetation where you see bird(s). Choices:
 - mostly pinyon with some juniper
 - mostly juniper with some pinyon
 - about half and half pinyon and juniper
 - shrubland (e.g., sagebrush)
 - grassland
- Description of tree age-class at the site. Choices:
 - dominated by older trees (not necessarily in number)
 - older trees present, but scattered amid many young trees
 - only younger trees present
- Type of well-developed biocrust at the site. List any of the following that you observe:
 - dark cyanobacteria
 - lichen
 - moss
- Other animals seen during your observation time.
- Be sure to reread your comments for spelling and grammar.
- Leave the Breeding Code section blank.
- Tap Done.

6 When you no longer see or hear birds, or after at least 10 minutes of observing a flock, tap STOP in the lower right corner.

7 On the final screen

- Leave the location blank if you're not connected to data or Wi-Fi.
- Under the Location section, tap the word "INCIDENTAL" to display the choices: STATIONARY, TRAVELING, or INCIDENTAL. Choose the appropriate type of observation you made (usually INCIDENTAL).
- Enter "2" for number of observers so you can share the checklist with us.
- Share your checklist with "GCT Pinyon Jay."
- Ignore the question about a complete checklist.
- Tap the "X" in the upper right corner to save your checklist. You will upload it when you are back in service.