

# The Outside Story

## Get to Know the Junco

By Susan Shea

Most winters, the dark-eyed junco is one of the most common birds at my feeder. While I rarely see juncos in summer, except when hiking in the mountains, small flocks of juncos typically appear soon after I hang my feeder in early December. Due to their sudden appearance in winter, John James Audubon called juncos “Snow Birds.”



Juncos are members of the sparrow family. While coloration varies widely by region, male juncos in the Northeast are easily recognizable by their dark gray backs, white breasts, and white outer tail feathers, visible in flight. Females are similar, but have a pale gray or brownish back. Both have pinkish bills.

Dark-eyed juncos nest from Alaska east to Labrador and south into the Great Lakes, the Northeast, and the Appalachians. They winter south of the Canadian border as far as the southeastern United States. Juncos that breed in the Northeast or southern Appalachians may migrate short distances or move to lower elevations for winter. In our region, these birds nest primarily in subalpine coniferous forests but may also breed in hardwood and mixed forests with a dense understory and ground cover.

Juncos forage mostly on the ground – often in groups – hopping around the bases of trees and shrubs where the snow may have melted, scratching in the snow or leaf litter, and flitting through shrubby thickets. During this time of year, juncos forage in brushy fields, gardens, and along woodland edges and roadsides. These birds are primarily seed-eaters, especially in winter, consuming the seeds of grass, weeds such as ragweed and chickweed, and trees including hemlock and birch. They’ll eat the seeds of flowers left standing in the garden, such as zinnias and cosmos. During the breeding season, they also consume insects and caterpillars, including spruce budworm during outbreaks.

Although juncos will perch on feeders, more often they are seen below, searching for dropped seed. They will eat millet and sunflower seeds, peanut hearts, cracked corn, and oats. Researchers have observed dominance hierarchies, or pecking orders, among flocks of juncos at feeders. The first juncos to arrive at the winter range usually have a higher dominance rank and receive preferred access to food sources.

At night, juncos roost in conifers, yew thickets, or brush piles, where they are less exposed to wind. The birds have been observed bathing in powdery snow.

One of the most interesting things about juncos is their regional color variation. There are five variants of junco in North America which were considered separate species until the 1970s. Our northeastern junco is appropriately called the slate-colored variant. I once spotted an Oregon junco in the Pacific Northwest, which had a black head, reddish-brown back and sides, and a smaller area of white on the breast. The white outer tail feathers (found in all variants) revealed its identity as a junco.

Color variations in juncos are tied to the bird's evolutionary history, discovered by DNA analysis. As continental glaciers melted 10,000 to 13,000 years ago, ancestral juncos moved north and spread across North America. Some populations were geographically isolated enough to evolve different-colored plumages. This is how new species begin, and according to Ellen Ketterson of Indiana University, who has studied juncos for over 40 years, this may be speciation at work, one of the most rapid examples among vertebrates. Different-colored juncos will interbreed where the ranges of variants overlap, however.

Juncos have also shown the capacity to change their migration patterns and breeding biology quickly. Trevor Price and Pamela Yeh of UCLA found that some juncos that originally nested in the mountains have become year-round residents on California college campuses and in coastal cities, and have changed their plumage and behavior. Ketterson and Daniel Becker have discovered a junco population in Ohio that abandoned its spring migration to Canada.

Ketterson considers the junco's ability to adapt hopeful amidst widespread bird population declines and a changing climate. (Though juncos are still considered common, their population declined by 50 percent across their range between 1966 and 2015, according to the North American Breeding Bird Survey.)

As the days lengthen in March and April, the juncos at my feeder will depart to breed and raise their young in the northeastern mountains or Canada's boreal forests. Until then, I'll enjoy watching them hop around my yard, their backs the color of a stormy winter sky, their breasts the color of snow.

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