

The Northern Cardinal: The Neighborhood Show-off¹

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Overview

The Northern Cardinal (*Cardinalis cardinalis*) is a widely recognized songbird in Florida and across most of the eastern United States. Its vivid red coloration, clear whistled songs, and year-round presence have made it a common species of backyards, forest edges, and city parks across much of Florida. Northern Cardinals add color and voice to even the quietest corners of urban areas. As an iconic backyard bird, they offer many opportunities for bird watching. This fact sheet explores how to identify a cardinal, the cardinal's distribution, habitat ecology, diet and foraging strategies, communication, territoriality, reproduction, and interactions with humans. Our objective in this publication is to educate the public about this conspicuous bird.

Identifying Cardinals

The cardinal is a medium-sized passerine, typically 8.2–9.3 inches (20.8–23.6 cm) long, with a large, reddish-orange, conical bill, which is specialized for eating seeds. The most striking feature is the brilliant red plumage of the male. This red plumage is a visual signal involved in mate attraction and territorial displays.

- **Male:** Bright red with a sharp crest, black mask and throat, and heavy reddish-orange bill (Figure 1).
- **Female:** Brownish or buff-toned with reddish wings, crest, and tail; also has a dark facial mask, though less so than adult males (Figure 2).

This sexual dimorphism (i.e., males look different from females) is primarily rooted in sexual selection. Females appear to prefer males with more intense red coloration, which may accurately signal foraging ability, health, and parasite resistance.

Juvenile cardinals resemble females but have a gray-black bill that transitions to red as they reach maturity.



Figure 1. A male Northern Cardinal.

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Figure 2. A female Northern Cardinal.

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Distribution and Range Expansion

Historically, the Northern Cardinal's range was primarily the southeastern United States and parts of Mexico. However, over the past two centuries, the species has expanded northward. Today, cardinals occur from the Gulf

Coast to portions of southern Canada and westward into the Great Plains and parts of the Southwest.

Several factors facilitated this range expansion:

- **Human-altered landscapes:** Increases in the extent of urban and suburban yards and forest edges near agriculture fields provide abundant food and nesting locations.
- **Bird feeding:** Widespread use of feeders stocked with sunflower seeds supports winter survival in colder regions.
- **Climate warming:** Milder winters lessen thermal stress and increase cold-season food availability.

Cardinals are non-migratory, remaining in or near their territories year-round. Winter flocking does occur, yet individuals generally remain near their home range across seasons.

Habitat Ecology

Northern Cardinals thrive in **dense, shrubby vegetation**. Their preferred habitats include:

- Forest edges and second-growth woodlands
- Riparian (i.e., along rivers and streams) corridors
- Hedgerows, tangles, and suburban bushy areas
- Backyard gardens with thick understory and food sources such as birdfeeders

Cardinals typically are found on understory and mid-story vegetation. This is where they place nests, avoid predators, and feed on fruiting shrubs. They feed on seeds and fruits of many species of trees and bushes such as hackberry (*Celtis occidentalis*), red mulberry (*Morus rubra*), and blackberry (*Rubus spp.*). They also eat many different types of insects.

Cardinals are territorial throughout much of the year, so habitats that offer high structural complexity allow neighboring pairs to coexist within smaller spatial boundaries because there are fewer opportunities for direct visual contact.

Diet and Foraging Behavior

The cardinal's beak morphology reflects its primary dietary niche: **seeds**. However, its diet is both varied and seasonally flexible.

Primary Dietary Components

- **Seeds:** Sunflower, grasses, weeds, and commercial birdseed
- **Fruit:** Hackberry, beautyberry, blackberry, sumac, mulberry, and many ornamental shrubs
- **Insects:** Beetles, caterpillars, grasshoppers, and other arthropods, which are especially important during breeding season
- **Flower buds:** many ornamental shrubs

During the breeding season, adults shift to a more protein-rich diet to support chick development. This includes frequent searches for insects in vegetation and ground litter.

Cardinals are largely gleaners, plucking items from branches or the ground, though they occasionally engage in short flights to capture insects. Their foraging behavior is generally solitary but sometimes performed in small, loosely associated groups in winter.

Communication and Vocal Behavior

The Northern Cardinal is a very vocal species, and **both sexes sing**, which is a relatively uncommon trait among North American songbirds. Their vocal repertoire includes clear, whistled notes such as “cheer-cheer-cheer-cheer” or “birdy-birdy-birdy-birdy,” as well as metallic chips, used to signal contact with other cardinals, and alarm calls ([Northern Cardinal sounds](#) at AllAboutBirds.org). The male sings more frequently and loudly than the female. Sometimes the female does a duet with the male.

Functions of Vocalizations

- **Territorial defense:** Males use long, loud songs to signal territory occupancy.
- **Mate communication:** Duetting between males and females strengthens pair bonds.
- **Alarm signaling:** Sharp chip calls warn mates or fledglings of predators.
- **Courtship feeding cues:** Females may give subtle calls and sometimes more complex songs (from the nest), prompting mate feeding during early nesting stages.

Interestingly, Northern Cardinals exhibit evidence of song learning, with regional dialects and individual variation. Juveniles learn songs from the adults.

Territoriality and Social Organization

Cardinals maintain territories primarily during the breeding season. However, home territories may be defended during the winter, an unusual strategy among temperate songbirds. A mated pair typically defends its territory together, and territorial boundaries remain stable across seasons unless habitat is disturbed.

Aggressive Displays

- Crest raising
- Forward body posturing
- Wing flicks
- Loud singing or chip calls

A well-known behavior in cardinals is **window fighting**, where individuals attack their own reflection during the breeding season, perceiving it as a territorial intruder. This

can be quite annoying to homeowners. Males show this behavior most, though females occasionally participate. You can reduce the reflection of the problematic window with soapy water. You only need to do this during the summer breeding season as territorial aggression decreases in fall and winter.

Reproduction and Nesting Ecology

Northern Cardinals typically form **long-term monogamous pair bonds**, with many pairs staying together for multiple seasons. Some evidence suggests occasional extra-pair copulations, but social monogamy is strong.

Courtship Behavior

Courtship involves visual displays, singing, and ritualized feeding. The iconic behavior of a male feeding a seed to a female, sometimes described as “beak-kissing,” helps strengthen the pair bond and may allow the female to assess male foraging skill. Males also perform upright postures, crest elevation, and short flights near the female to advertise territory ownership and physical condition.

Nest Construction

- **Builder:** Primarily the female, although the male will bring nesting material to her
- **Location:** Dense shrubs or small trees, usually one to three meters above the ground
- **Materials:** Twigs, grasses, leaves, bark strips, and rootlets; lined with soft plant fibers

The nest is a deep cup and loosely constructed to contain the eggs. Cardinals typically raise **two to three broods per season**, beginning in early spring and sometimes continuing into August. Often the male is feeding the recently fledged chicks while the female is incubating the next clutch of eggs.

Eggs and Incubation

- Clutch size: two to five eggs, pale blue or greenish with brown speckles
- Incubation: About two weeks, performed solely by the female
- Male role: Provides food to the incubating female and guards the territory

Chick Development

Hatchlings are blind, naked, and fully dependent on parental care. Both parents feed the nestlings insects, an

essential protein source for rapid growth. Fledging (i.e., able to fly and leave the nest) occurs around nine to thirteen days after hatch, though fledged young continue to rely on adults for food for several weeks.

Seasonality and Molt

Northern Cardinals undergo a **complete annual molt**, replacing all feathers after the breeding season. During late summer, cardinals may look patchy or unkempt as old feathers are shed. Some individuals temporarily lose all head feathers, resulting in a bald appearance, likely due to molting or sometimes feather mites.

Attracting Cardinals to a Yard

Attracting Northern Cardinals to a yard involves creating habitat conditions that meet their needs for food, cover, and water. These birds prefer areas with dense, shrubby vegetation, so planting native species such as wax myrtle (*Morella cerifera*) or American holly (*Ilex opaca*) provides both protective cover and potential nesting sites. Reliable food sources are equally important. Cardinals are strong consumers of black oil sunflower and safflower seeds, which should be offered in platform or hopper feeders placed near vegetation rather than in open, exposed locations. Avoid placing feeders too close to vegetation as squirrels will raid the feeders! Also, maintaining a clean, shallow water source year-round can further increase Northern Cardinal presence. Reduce pesticide use to support natural insect prey during the breeding season, and, most crucially, *keep cats indoors*. Cats may discourage cardinals from nesting in your yard because of their instinct to prey on vulnerable cardinal chicks that have recently fledged and are just beginning to leave the nest. When these elements are combined, a yard can function as a suitable habitat that encourages consistent cardinal visitation.

Additional Information

Online Resource

[Northern Cardinal Life History](#) at AllAboutBirds.org

Field Guides

Peterson, R. T. 2008. *Peterson Field Guide to Birds of North America*. Houghton Mifflin Co. Chicago.

Sibley, D. 2003. *The Sibley Field Guide to Birds of Eastern North America*. Knopf. New York.

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