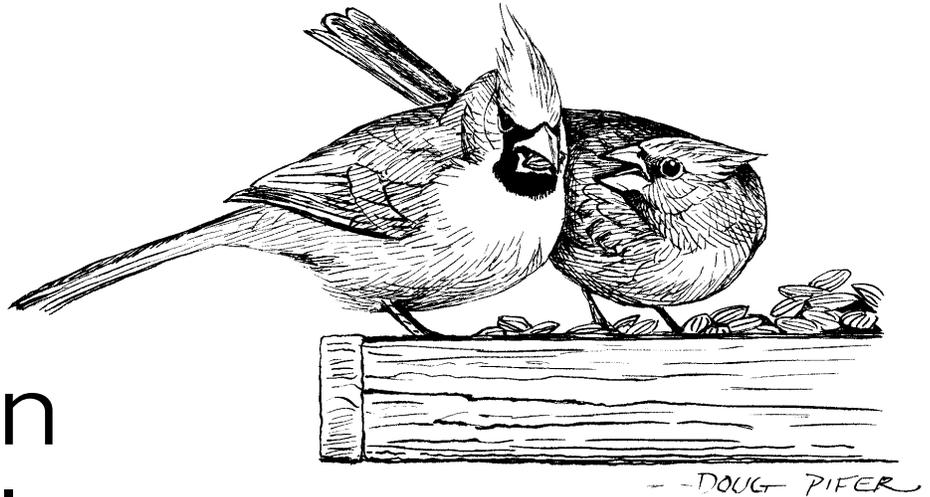




Wildlife Note — 54
LDR0103



Northern Cardinal

Northern Cardinal, Grosbeaks, Indigo Bunting and Dickcissel

by Chuck Fergus

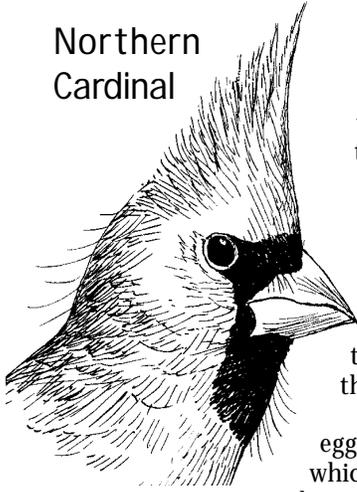
Cardinals, grosbeaks and indigo buntings are equipped with stout, strong bills to crush seeds. In addition to seeds and fruit (important fall, winter and spring foods), these birds eat protein-rich insects in summer and feed them to their young. They are attracted to thick cover including forests, woods edges, brushland, swamps and ornamental plantings in suburbs and cities. The dickcissel is a related species that breeds mainly in the Midwest but also nests in grassy habitats in Pennsylvania.

Northern Cardinal (*Cardinalis cardinalis*) — Adults are eight to nine inches long, slightly smaller than a robin. Both sexes have an orange-red bill and a prominent head crest. The male's plumage is an overall bright red; the female is yellowish brown with red tints on her wings, tail and crest. The cardinal is a common bird in the Southeastern United States. Before 1900, the species was rare in Pennsylvania, but over the last century cardinals have spread as far north as Maine and southern Canada. They now inhabit all of the Keystone State, except for areas of unbroken forest on the Allegheny High Plateau. Cardinals also breed across the Midwest and in Central America from Mexico to Guatemala. They are year-round residents throughout their range.

Cardinals live in thickets, hedgerows, brushy fields, swamps, gardens and towns and cities. They need dense shrubs for nesting; these can range from multiflora rose tangles sprawling between woodlots and fields, to hedges of privet and honeysuckle on shady streets. Hawthorns, lilac, gray dogwood and dense conifers also provide nesting cover. Mated pairs of cardinals use territories of three to 10 acres. Cardinals eat caterpillars, grasshoppers, beetles, bugs, ants, flies and many other insects; fruits of dogwood, mulberry and wild grape; and seeds of smartweeds and sedges, grains scattered by harvesting equipment, and sunflower seeds at birdfeeders. Cardinals are not particularly fearful of humans. One day a cardinal landed on a log about three feet from where I was. It furiously crushed a black beetle between its mandibles, discarded with a shake of its head the beetle's wing sheaths and spiny legs, swallowed the beetle, defecated and flew off: not just a flash of pretty color, I found myself thinking, but a fearsome predator in its own right.

Cardinals begin calling in February and March, signaling the onset of the breeding season. Males and females sing equally well. The song is a series of clear whistled notes, *whoit whoit whoit* (like a kid learning to whistle) or *wacheer wacheer*. Cardinals often countersing: males on adjacent territories, or pairs within their own territory, alternately match songs. As a part of courtship, the male will pick up a bit of food (such as a sunflower

Northern Cardinal



kernel at a feeder) in his bill and sidle up to his mate; the two touch beaks as she accepts the morsel. It takes the female three to nine days to build the nest, a loose cup woven out of twigs, vines, leaves, bark strips and rootlets, lined with fine grasses or hair.

Nests, rarely higher than six feet, are often placed in the thickest, thorniest scrub on the pair's territory.

The female lays two to five eggs (commonly three or four), which are whitish and marked with brown, lavender and gray. She does

most of the incubating, and the male brings her food. Young hatch after about 12 days. Their parents feed them regurgitated insects at first, then whole insects. The young fledge after 10 days; the male may continue to feed them for a few days while the female builds another nest and begins a second clutch. Cardinals can produce up to four broods per year. Nest predators include snakes, crows, blue jays, house wrens, squirrels, chipmunks and domestic cats. Brown-headed cowbirds often lay their eggs in cardinal nests, and the cardinals rear the cowbird nestlings. Cardinals compete with gray catbirds for food and nest sites; catbirds usually dominate in these interactions and may force cardinals to the fringe of usable habitat.

In fall the pair bond weakens between male and female. They stay together, however, and may join with other cardinals to form feeding groups that usually number 6 to 20 birds. In winter, white-footed mice sometimes move into old cardinal nests, stuff the cups with plant matter, and set up housekeeping. Cardinals are preyed on by hawks and owls, as well as foxes and other ground predators. The longevity record is 15 years.

Cardinal populations rose steadily in Pennsylvania through the 20th century. Several factors may have helped *Cardinalis cardinalis* over-spread the state during that period: an increase in edge habitats caused by rural development; a period of warm winters in the early 1900s; a similar warming trend in recent years; and an increase in backyard feeding stations dispensing high-energy seeds that help cardinals and other birds survive frigid weather.

Rose-breasted Grosbeak (*Pheucticus ludovicianus*) — Some outdoor enthusiasts believe that no thrush can hold a candle to the rich singing of the rose-breasted grosbeak, and that the latter is perhaps the handsomest bird in the woods. The male has a black

head, a massive ivory-colored bill ("grosbeak" means "big beak"), white patches on black wings that flash like semaphore signals when the bird flies, and a triangular bright red patch on the white breast. (The patch varies somewhat in size and shape from one individual to the next.) The female looks like a gargantuan brown sparrow. The song, given by both sexes, is robin-like but quicker, mellower, and full of life. Adults are about eight inches long.

Rose-breasted grosbeaks breed from Nova Scotia to western Canada and south in the Appalachians to Georgia. The species is found statewide in Pennsylvania: scarce in the developed and agricultural southeast, abundant across the northern tier. Grosbeaks favor second-growth deciduous or mixed woods and can also be found in old orchards, parklands and suburban plantings. They eat insects (about half the diet in summer), seeds (easily crushed by that formidable bill), tree buds and flowers and fruits.

Males arrive on the breeding grounds in April and May, about a week ahead of the females. Males sing to proclaim a two- to three-acre breeding territory and may attack other males who intrude. When courting a female, the male takes a low perch or lands on the ground, then droops his wings and quivers them, spreads and lowers his tail, and slowly rotates his body from side to side while singing. Rose-breasted grosbeaks often nest in thickets along the edges of roads, streams or swamps. The nest, built mostly by the female, is loose, bulky and made almost entirely of twigs. It is usually 10 to 15 feet above the ground in a small tree or shrub. Since both members of the pair do much calling (a short, metallic *chink* is often given) and singing in the vicinity, the nest is fairly easy to find.

The three to five eggs (typically four) are pale greenish blue, blotched with browns and purples. Both parents share in incubating them, and the eggs hatch after about two weeks. Both parents feed the young, which leave the nest 9 to 12 days after hatching. Should a female

Rose-breasted Grosbeak

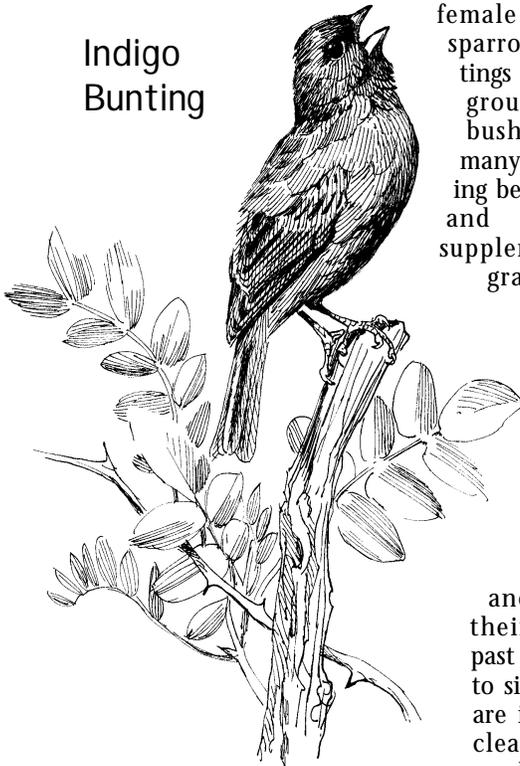


male start a second brood, she may leave the young while they're still in the nestling phase; the male assumes care of the first offspring while the female starts building a second nest, often less than 30 feet away from the first. Adults molt in August, and the male's new plumage includes brown and black streaks on the head, neck and back. In September rose-breasted grosbeaks start the migratory trek southward to wintering grounds in Central and South America.

Blue Grosbeak (*Guiraca caerulea*) — Like the cardinal, this is a southern species that has expanded northward over the last century. In the 1980s blue grosbeaks were found nesting in southern Fulton, Lancaster and Chester counties and along the border of Delaware and Philadelphia counties near the Tinicum National Environmental Center. Males are a deep dusky blue; females are brown and sparrow-like. Blue grosbeaks inhabit open areas with scattered trees, fencerows, roadside thickets, reverting fields, brush and forest edges. They often feed on the ground and eat many insects, as well as the seeds of weeds, grasses and other plants. Breeding males sing from treetops and utility wires. The female builds the nest, a compact open cup, three to 10 feet above the ground, in a shrub, tree or vine tangle. The usual brood is four. Cowbirds often parasitize this species. Blue grosbeaks winter mainly in Mexico and Central America.

Indigo Bunting (*Passerina cyanea*) — The indigo bunting breeds throughout the East and in parts of the Midwest and Southwest. The species is statewide and common in Pennsylvania. Adults are about five and a half inches long, slightly smaller than a house sparrow. The male is bright blue, although he may look almost black in deep shade; the female is drab like a sparrow. Indigo buntings find food on the ground and in low bushes. They eat many insects, including beetles, caterpillars and grasshoppers, supplemented with grass and weed seeds, grains and wild fruits.

Indigo Bunting



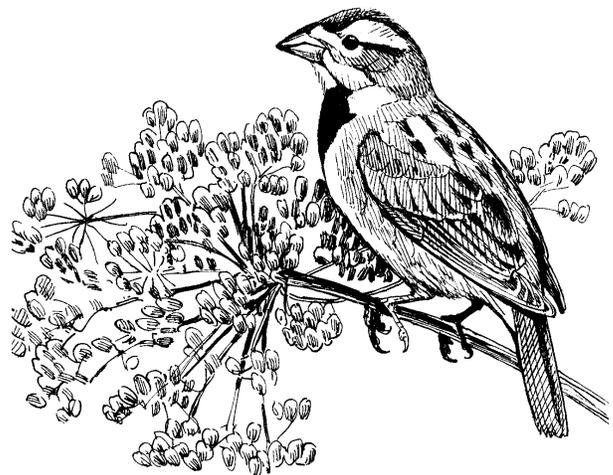
Males migrate north in late April and May, with older males preceding younger ones and returning to their territories of past years. The two- to six-acre territories are in brushy fields, clearings in woods, woods edges and along roadsides and powerline rights-of-way. Males make moth-like display flights along territorial boundaries, flying slowly with their wings fanned and tail and head held up, using rapid, shallow wingbeats while sounding a bubbly song. They also perch and broadcast a more complicated territorial/courtship song, a series of high, whistled notes described as *sweet-sweet-chew-chew-seer-seer-sweet*. Females, by contrast, are so shy and retiring that it's often hard to determine when they've arrived on the breeding range.

The male spends much time singing from prominent places, and little time helping with brood-rearing. The female builds a neat cup-shaped nest out of leaves, dried grasses, bark strips and other plant materials, one and a half to 10 feet up (usually no higher than three feet) in a dense shrub or a low tree, often an aspen. She lays three to four eggs, which are white or bluish white and unmarked. She incubates the clutch for 12 to 13 days, until the eggs hatch over a one- to two-day period. Some observers report that the male helps feed nestlings, while others say that he does not or that he gives food to the female who then carries it to the nest. Sometimes a male will have more than one mate nesting in his territory. Young indigo buntings leave the nest 10 to 12 days after hatching. In some cases, males take over the feeding of newly fledged young while females start a second brood. Males keep singing well into August. Most pairs raise two broods. Brown-headed cowbirds often parasitize the nests, and various predators — particularly the blue jay — eat eggs and nestlings. Some researchers believe that only 30 to 50 percent of indigo bunting nests are successful.

The adults molt in August. The male in his winter plumage looks much like the female, but he still has blue streaks in his wings and tail. Buntings migrate south from late August through October. Many individuals cross the Gulf of Mexico, reversing their spring passage. Indigo buntings winter in loose flocks in southern Florida, Central America, and northern South America. The longevity record is 10 years.

Dickcissel (*Spiza americana*) — The dickcissel is a bird of the prairies and a common resident of the Midwest. A rare breeding species in Pennsylvania, it has recently been found nesting in Clarion, Westmoreland, Somerset, Fayette, Franklin and York counties, mainly on reclaimed strip-mine sites, but also on cut hayfields, especially in years when drought stunts the regrowth of grasses. Nests are on or near the ground, hidden in dense grass, weeds or a shrub.

Dickcissel



Wildlife Notes

Allegheny Woodrat
Bats
Beaver
Black Bear
Blackbirds, Orioles, Cowbird and Starling
Blue Jay
Bobcat
Bobwhite Quail
Canada Goose
Chickadees, Nuthatches, Titmouse and Brown Creeper
Chimney Swift, Purple Martin and Swallows
Chipmunk
Common Nighthawk and Whip-Poor-Will
Cottontail Rabbit
Coyote
Crows and Ravens
Diving Ducks
Doves
Eagles and Ospreys
Elk
Finches and House Sparrow
Fisher
Flycatchers
Foxes (Red & Gray)
Gray Catbird, Northern Mockingbird and Brown Thrasher
Herons
Kingfisher
Mallard
Mice and Voles
Minks & Muskrats
Northern Cardinal, Grosbeaks, Indigo Bunting and Dickcissel

Opossum
Otter
Owls
Porcupine
Puddle Ducks
Raccoon
Rails, Moorhen and Coot
Raptors
Ring-necked Pheasant
Ruby-throated Hummingbird
Ruffed Grouse
Shrews
Snowshoe Hare
Sparrows and Towhee
Squirrels
Striped Skunk
Tanagers
Thrushes
Vireos
Vultures
Weasels
White-tailed Deer
Wild Turkey
Woodchuck
Woodcock
Wood Duck
Woodpecker
Wood Warblers
Wrens

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