

= Northern cardinal =

The northern cardinal (*Cardinalis cardinalis*) is a North American bird in the genus *Cardinalis* ; it is also known colloquially as the redbird or common cardinal . It can be found in southern Canada , through the eastern United States from Maine to Texas and south through Mexico . It is found in woodlands , gardens , shrublands , and swamps .

The northern cardinal is a mid @-@ sized songbird with a body length of 21 ? 23 cm (8 @.@ 3 ? 9 @.@ 1 in) . It has a distinctive crest on the head and a mask on the face which is black in the male and gray in the female . The male is a vibrant red , while the female is a dull reddish olive . The northern cardinal is mainly granivorous , but also feeds on insects and fruit . The male behaves territorially , marking out his territory with song . During courtship , the male feeds seed to the female beak @-@ to @-@ beak . A clutch of three to four eggs is laid , and two to four clutches are produced each year . It was once prized as a pet , but its sale as a cage bird was banned in the United States by the Migratory Bird Treaty Act of 1918 .

= = Taxonomy = =

The northern cardinal is one of three birds in the genus *Cardinalis* and is included in the family *Cardinalidae* , which is made up of passerine birds found in North and South America .

The northern cardinal was one of the many species originally described by Linnaeus in his 18th @-@ century work , *Systema Naturae* . It was initially included in the genus *Loxia* , which now contains only crossbills . In 1838 , it was placed in the genus *Cardinalis* and given the scientific name *Cardinalis virginianus* , which means " Virginia cardinal " . In 1918 , the scientific name was changed to *Richmondia cardinalis* to honor Charles Wallace Richmond , an American ornithologist . In 1983 , the scientific name was changed again to *Cardinalis cardinalis* and the common name was changed to " northern cardinal " , to avoid confusion with the seven other species also termed cardinals .

The common name , as well as the scientific name , of the northern cardinal refers to the cardinals of the Roman Catholic Church , who wear distinctive red robes and caps . The term " northern " in the common name refers to its range , as it is the northernmost cardinal species .

= = = Subspecies = = =

There are 19 subspecies :

- C. c. *cardinalis* (Linnaeus , 1758)
- C. c. *affinis* Nelson , 1899
- C. c. *canicaudus* Chapman , 1891
- C. c. *carneus* (Lesson , 1842)
- C. c. *clintoni* (Banks , 1963)
- C. c. *coccineus* Ridgway , 1873
- C. c. *flammiger* J.L. Peters , 1913
- C. c. *floridanus* Ridgway , 1896
- C. c. *igneus* S.F. Baird , 1860
- C. c. *littoralis* Nelson , 1897
- C. c. *magnirostris* Bangs , 1903
- C. c. *mariae* Nelson , 1898
- C. c. *phillipsi* Parkes , 1997
- C. c. *saturatus* Ridgway , 1885
- C. c. *seftoni* (Huey , 1940)
- C. c. *sinaloensis* Nelson , 1899
- C. c. *superbus* Ridgway , 1885
- C. c. *townsendi* (van Rossem , 1932)
- C. c. *yucatanicus* Ridgway , 1887

== Description ==

The northern cardinal is a mid-sized songbird with a body length of 21 ? 23 cm (8 ? 9 in) and a wingspan of 25 ? 31 cm (9 ? 12 in) . The adult weighs from 33 ? 65 g (1 ? 2 oz) , with an average 44 g (1.58 oz) . The male averages slightly larger than the female . The adult male is a brilliant crimson red color with a black face mask over the eyes , extending to the upper chest . The color becomes duller and darker on the back and wings . The female is fawn , with mostly grayish-brown tones and a slight reddish tint on the wings , the crest , and the tail feathers . The face mask of the female is gray to black and is less defined than that of the male . Both sexes possess prominent raised crests and bright coral-colored beaks . The beak is cone-shaped and strong . Young birds , both male and female , show coloring similar to the adult female until the fall , when they molt and grow adult feathers . They are brown above and red-brown below , with brick-colored crest , forehead , wings , and tail . The legs and feet are a dark pink-brown . The iris of the eye is brown . The plumage color of the males is produced from carotenoid pigments in the diet . Coloration is produced from both red pigments and yellow carotenoid pigments . Northern cardinal males possess the ability to metabolize carotenoid pigments to create plumage pigmentation of a color different from the ingested pigment . When fed only yellow pigments , males become a pale red color , rather than a yellow . However , there are rare " yellow morph " cardinals , where all feathers (except for black face mask) and beak are a moderate yellow color . During the winter months , both male and female will fluff up their down feathers in order to trap warm air next to their body and keeping cold air from reaching their body . The down feathers are small and hairlike at the base of each flight feather . The legs and feet of almost all birds are thin and lack feathers , and so are vulnerable to rapid heat loss . Therefore , many take turns tucking one leg at a time into their body to keep them warm while still using the other to stand .

== Distribution and habitat ==

Northern cardinals are numerous across the eastern United States from Maine to Texas and in Canada in the provinces of Ontario , Quebec , New Brunswick and Nova Scotia . Its range extends west to the U.S. - Mexico border and south through Mexico to the Isthmus of Tehuantepec , northern Guatemala , and northern Belize . An allopatric population is found on the Pacific slope of Mexico from Jalisco to Oaxaca ; note that this population is not shown on the range map . The species was introduced to Bermuda in 1700 . It has also been introduced in Hawaii and southern California . Its natural habitat is woodlands , gardens , shrublands , and swamps .

== Ecology ==

== Song ==

The northern cardinal is a territorial song bird . The male sings in a loud , clear whistle from the top of a tree or another high location to defend his territory . He will chase off other males entering his territory . He may mistake his image on various reflective surfaces as an invading male , and will fight his reflection relentlessly . The northern cardinal learns its songs , and as a result the songs vary regionally . Mated pairs often travel together .

Both sexes sing clear , whistled song patterns , which are repeated several times , then varied . Some common phrases are described as cheeer a dote , cheeer a dote a dote , purdy , purdy , purdy ... whoit , whoit , whoit , whoit , what cheer , what cheer ... wheet , wheet , wheet , wheet and cheer , cheer , cheer , what , what , what , what . The northern cardinal has a distinctive alarm call , a short metallic chip sound . This call often is given when predators approach the nest , in order to give warning to the female and nestlings . In

some cases it will also utter a series of chipping notes . The frequency and volume of these notes increases as the threat becomes greater . This chipping noise is also used by a cardinal pair to locate each other , especially during dusk hours when visibility wanes .

=== Predators ===

Northern cardinals are preyed upon by a wide variety of predators native to North America , including falcons , all Accipiter hawks , shrikes , and several owls , including long @-@ eared owls , and eastern screech owls . Predators of chicks and eggs include milk snakes , coluber constrictors , blue jays , eastern gray squirrels , fox squirrels , eastern chipmunks , and domestic cats .

=== Diet ===

The diet of the northern cardinal consists mainly (up to 90 %) of weed seeds , grains , and fruits . It is a ground feeder and finds food while hopping on the ground through trees or shrubbery . It will also consume insects , including beetles , cicadas , grasshoppers , and snails ; it feeds its young almost exclusively on insects . Other common items include corn (maize) and oats , sunflower seeds , the blossoms and bark of elm trees , and drinks maple sap from holes made by sapsuckers , an example of commensalism . During the summer months it shows preference for seeds that are easily husked , but is less selective when food is scarce during winter .

=== Reproduction ===

Pairs mate for life , and stay together year @-@ round . Mated pairs sometimes sing together before nesting . During courtship they may also participate in a bonding behavior where the male collects food and brings it to the female , feeding her beak @-@ to @-@ beak . If the mating is successful , this mate @-@ feeding may continue throughout the period of incubation .

Males sometimes bring nest material to the female , who does most of the building . She crushes twigs with her beak until they are pliable , then turns in the nest to bend the twigs around her body and push them into a cup shape with her feet . The cup has four layers : coarse twigs (and sometimes bits of trash) covered in a leafy mat , then lined with grapevine bark and finally grasses , stems , rootlets , and pine needles . The nest typically takes three to nine days to build ; the finished product is 5 @. @ 1 ? 7 @. @ 6 cm (2 @. @ 0 ? 3 @. @ 0 in) tall , 10 @. @ 1 cm (4 @. @ 0 in) across , with an inner diameter of about 7 @. @ 6 cm (3 @. @ 0 in) . Cardinals do not usually use their nests more than once . The female builds a cup nest in a well @-@ concealed spot in dense shrub or a low tree 1 ? 3 m (3 @. @ 3 ? 9 @. @ 8 ft) off the ground . The nest is made of thin twigs , bark strips , and grasses , lined with grasses or other plant fibers . Eggs are laid one to six days following the completion of the nest . The eggs are white , with a tint of green , blue or brown , and are marked with lavender , gray , or brown blotches which are thicker around the larger end . The shell is smooth and slightly glossy . Three or four eggs are laid in each clutch . Eggs measure approximately 26 mm x 19 mm (1 @. @ 02 in x 0 @. @ 75 in) in size . The female generally incubates the eggs , though , rarely , the male will incubate for brief periods of time . Incubation takes 12 to 13 days . Young fledge 10 to 11 days after hatching . Two to three , and even four , broods are raised each year . The male cares for and feeds each brood as the female incubates the next clutch of eggs .

The oldest wild cardinal banded by researchers lived at least 15 years and 9 months , although 28 @. @ 5 years was achieved by a captive bird . Annual survival rates for adult northern cardinals have been estimated at 60 to 65 % ; however , as with other passerine birds , the high mortality of juveniles means that the average lifespan is only about a year .

=== Relationship with humans ===

The northern cardinal is found in residential areas throughout its range . Backyard birders attract it

using feeders containing seeds , particularly sunflower seeds and safflower seeds . Although some controversy surrounds bird feeding , an increase in backyard feeding by humans has generally been beneficial to this species . It is listed as a species of least concern by the IUCN Red List , with an estimated global range of 5 @,@ 800 @,@ 000 km² (2 @,@ 200 @,@ 000 sq mi) and a global population of some 100 million . Populations appear to remain stable and not threatened to reach the threshold of inclusion as a threatened species , which requires a decline of more than 30 % in ten years or three generations . It was once prized as a pet due to its bright color and distinctive song . In the United States , this species receives special legal protection under the Migratory Bird Treaty Act of 1918 , which also banned their sale as cage birds . It is also protected by the Convention for the Protection of Migratory Birds in Canada . It is illegal to take , kill , or possess northern cardinals , and violation of the law is punishable by a fine of up to US \$ 15 @,@ 000 and imprisonment of up to six months .

In the United States , the northern cardinal is the mascot of numerous athletic teams ; however , most teams portray the bird with a yellow beak and legs . In professional sports , it is the mascot of the St. Louis Cardinals of Major League Baseball 's National League and the Arizona Cardinals of the National Football League . In college athletics , it is the mascot of many schools including Ball State University , The Catholic University of America , Illinois State University , Iowa State University , Lamar University , the Massachusetts College of Pharmacy and Health Sciences , North Idaho College , Saint John Fisher College , the State University of New York at Plattsburgh , the University of Louisville , the University of the Incarnate Word , Wesleyan University , and Wheeling Jesuit University .

= = State bird = =

The northern cardinal is the state bird of seven states , more than any other species : Illinois , Indiana , Kentucky , North Carolina , Ohio , Virginia , and West Virginia . It was also a candidate to become the state bird of Delaware , but lost to the Delaware Blue Hen .