

RED-HEADED WOODPECKER - MELANERPES ERYTHROCEPHALUS

Taxonomy: Kingdom: Animalia Phylum: Chordata Class: Aves Order: Piciformes Family: Picidae Genus: Melanerpes
Species: M. erythrocephalus

Habitat:

Biomes: Red-headed Woodpeckers breed in deciduous woodlands with oak or beech, groves of dead or dying trees, river bottoms, burned areas, recent clearings, beaver swamps, orchards, parks, farmland, grasslands with scattered trees, forest edges, and roadsides. During the start of the breeding season they move from forest interiors to forest edges or disturbed areas. Wherever they breed, dead (or partially dead) trees for nest cavities are an important part of their habitat. In the northern part of their winter range, they live in mature stands of forest, especially oak, oak-hickory, maple, ash, and beech. In the southern part, they live in pine and pine-oak. They are somewhat nomadic; in a given location they can be common one year and absent the next.

Distribution:

In US: Their breeding habitat is open country across southern Canada and the eastern-central United States.

In Other Countries: NONE

Holistic Description: The gorgeous Red-headed Woodpecker is so boldly patterned it's been called a "flying checkerboard," with an entirely crimson head, a snow-white body, and half white, half inky black wings. These birds don't act quite like most other woodpeckers: they're adept at catching insects in the air, and they eat lots of acorns and beech nuts, often hiding away extra food in tree crevices for later. This magnificent species has declined severely in the past half-century because of habitat loss and changes to its food supply.

Species Richness: NO SUBSPECIES

Population Dynamic: The red-headed woodpecker is rated as least concern on the International Union for Conservation of Nature (IUCN)'s Red List of Endangered species. It was formerly rated as near threatened, having been reclassified from Least Concern in 2004 after it appeared to have experienced a 65.5% decline in population over 40 years; from 1966-2015 there was a greater than 1.5% annual population decline throughout the Mississippi and Ohio River valleys, and in central Florida. Increased habitat management, however, has caused its numbers to stabilize, thus leading to its downlisting.

Evolution and Systematics:

Evolution: Several fossil records, the earliest being 4 specimens tentatively referred to this species, *Melanerpes* cf. *M. erythrocephalus*, from the late Pliocene Inglis 1C locality (1.6–2.0 million years old) in Florida.

Systematics: The woodpeckers constitute a well-resolved evolutionary unit, the family Picidae, characterized by zygodactyl feet, a lack of down feathers at all ages, stiffened rectrices, and chisel-like bills. Birds from the Great Plains and Rocky Mountains average larger and more frequently have the belly tinged red than birds of the Atlantic slope, although populations in the Mississippi Valley are intermediate.

Number of Species: NO SUBSPECIES

Number of Genera: NO SUBSPECIES

Physical Characteristics:

Size and Length: Length: 7.5-9.1 in (19-23 cm) Weight: 2.0-3.2 oz (56-91 g)

Wingspan: 16.5 in (42 cm)

Coloration: Adults have bright-red heads, white underparts, and black backs with large white patches in the wings, making the lower back appear all white when perched. Immatures have gray-brown heads, and the white wing patches show rows of black spots near the trailing edge.

General Body Features: Red-headed Woodpeckers are medium-sized woodpeckers with fairly large, rounded heads, short, stiff tails, and powerful, spike-like bills.

Special Features of the Body: **The woodpecker's beak is strong and sturdy, with a chisel-like tip for drilling holes in wood.** Woodpeckers use their stiff tail as a prop while climbing in order to balance themselves.

Special Features of the Head and Sensory Organs: Woodpecker tongues, however, vary based on their diet. Some species have a tongue that is longer than their bill in order to extract insects from a hole. Woodpeckers also have a lengthened hyoid apparatus (bones, muscle, cartilage connected to the tongue), allowing their tongue to extend incredible lengths. Red-bellied woodpeckers, for example, have a tongue extending up to three times the length of its bill! Woodpeckers have bristly feathers over their nostrils to prevent inhalation of wood particles as they chisel.

Dentition: BEAK/LAMELLAE/GIZZARD

Special Features of the Limbs and Digits: Their strong "zygodactyl" feet are specifically adapted to cling and grasp onto trees. Two toes face forward, and two face backward. Most songbirds have three forward-facing toes, and one

backward-facing. They may peck a total of 8,000-12,000 pecks per day! Luckily, a woodpecker's skull is built to absorb this shock. Sinewy attachments at the base of a woodpecker's bill and around the brain help to minimize damage to the brain.

Any Special Internal Anatomy: Woodpeckers are often characterized as "chisel-billed" because they peck into living or dead wood to find grubs or build a nest. Cells in the tips of their beaks are constantly replaced, preventing them from wearing down over time. The woodpecker's long tongue has a barbed tip and is covered in sticky saliva. These features help the bird capture and extract insects from the holes the bird drills.

Sexual Dimorphisms: Adult males and females are identical in plumage.

Differences Between Juvenile Stage and Adult: Immatures distinguishable in first fall and winter by having head, neck, and upper breast varying from entirely grayish brown to crimson red. Juveniles have very similar markings, but have an all grey head

Behavior:

Diurnal, Nocturnal, or Crepuscular: Diurnal

Activity: Red-headed Woodpeckers climb up tree trunks and main limbs like other woodpeckers, often staying still for long periods. They are strong fliers with fairly level flight compared to most woodpeckers. They often catch insects on the wing. Prospective mates play "hide and seek" with each other around dead stumps and telephone poles, and once mated they may stay together for several years. Both males and females perform aggressive bobbing displays by pointing their heads forward, drooping their wings, and holding their tails up at an angle. They are territorial during the breeding season and often aggressive and solitary during the winter. Red-headed Woodpeckers are quick to pick fights with many other bird species, including the pushy European Starling and the much bigger Pileated Woodpecker. Their predators include snakes, foxes, raccoons, flying squirrels, Cooper's Hawks, Peregrine Falcons, and Eastern Screech-Owls.

Locomotion: Climbs upward along trunks and limbs of trees in a manner typical of woodpeckers. Generally more sluggish than other species, however, often remaining in a single spot for long periods of time. Flight not so constantly undulatory as that of other woodpeckers; more of a powerful flapping, reminiscent of the flight of Ivory-billed Woodpeckers.

Communication and Perception: Red-headed Woodpeckers give all kinds of chirps, cackles, and other raucous calls. Their most common call is a shrill, hoarse tchur, like a Red-bellied Woodpecker's but higher-pitched and less rolling. When chasing each other they make shrill charr-charr notes.

Home Range: Aggressive against conspecifics and other species during the breeding season, intraspecific aggression peaking in early April and again in July when second nests are initiated. Suggestion that monochromatism may be helpful during aggressive encounters in the breeding season since both sexes participate in territory defense. Boundaries between overwintering territories are defended and easy to map owing to vertical as well as horizontal components needed for storage and roosting in dead trees; may have 1 main roost hole and several alternatives.

Degree of Sociality: Usually solitary in winter, although many of this species may occur together in small woodlots because overwintering territories are so small. Pairs associate during the breeding season. Migrate in fall in loose flocks, which could be family groups.

Level of Aggression: Like other woodpeckers, both sexes regularly use highly aggressive Bobbing or Bowing displays, with head pointed forward, wings drooped, and tail erect at an angle. When excited around the nest cavity, Bowing Displays and also Wing-Spreading and Tail-Spreading displays are often seen. At that time, calls may become high-pitched, although pairs rarely fight each other. Individuals may chase one another, male doing most chasing in the Flight Display.

Migration: Irregular short-distance or partial migrant. Red-headed Woodpeckers usually leave the northern and western parts of their range for winter, but where they go depends on acorn and beech nut crops. During migration seasons they may wander widely in loose flocks (possibly family groups), moving during daytime in the fall and nighttime in the spring.

Predators:

Predators: Cooper's Hawks, Sharp-shinned Hawks, Peregrine Falcons, Eastern Screech-Owl, Red Foxes, Pileated Woodpecker, Raccoons, Snakes, Black Rat Snake, Flying Squirrels, Red-Shouldered Hawk.

Anti-Predator Defenses: Predators are scolded at the nest, and churring calls are given to low-flying Cooper's and Red-Shouldered hawks near the nest. Avian predation, especially by Cooper's and Sharp-shinned hawks, is lower in areas with more tree cover, especially for females; adult female woodpeckers with few available cover patches have lower survival than do males and females with more cover patches.

Diet and Nutrition:

Adult Diet: Red-headed Woodpeckers eat insects, fruits, and seeds. Overall, they eat about one-third animal material (mostly insects) and two-thirds plant material. Their insect diet includes beetles, cicadas, midges, honeybees, and grasshoppers. They are one of the most skillful flycatchers among the North American woodpeckers (their closest competition is the Lewis's Woodpecker). Red-headed Woodpeckers cache food by wedging it into crevices in trees or under shingles on houses. They

store live grasshoppers, beech nuts, acorns, cherries, and corn, often shifting each item from place to place before retrieving and eating it during the colder months.

Juvenile Diet: ^^^^^

Special Adaptations for Getting Prey: They typically catch aerial insects by spotting them from a perch on a tree limb or fencepost and then flying out to grab them. Red-headed Woodpeckers eat seeds, nuts, corn, berries and other fruits; they sometimes raid bird nests to eat eggs and nestlings; they also eat mice and occasionally adult birds. They forage on the ground and up to 30 feet above the forest floor in summer, whereas in the colder months they forage higher in the trees. In winter Red-headed Woodpeckers catch insects on warm days, but they mostly eat nuts such as acorns, beech nuts, and pecans.

Reproduction:

Mode of Reproduction: Monogamous

Mating System: Generally considered monogamous; birds may pair for several years.

Mating Season: May to August

Courtship: Courtship activities focus on the nest site and include a horizontal pose with the neck stretched forward, plumage sleeked, shoulders humped. Female usually inspects the nest cavity. Male and female spend much time playing “hide and seek” around dead stubs and telephone poles, with individuals on opposite sides alternately looking at each other around one side and then the other. Also often chase one another from tree to tree.

Territoriality: HOME RANGE

Mating: Copulatory behavior, like courtship, is closely associated with the nest limb. In the early stages of breeding, male and female assumed sexual poses with bodies in line and pointing in one direction, then reversing to the opposite direction in almost military fashion, often after Mutual Tapping. As the breeding season progresses, female may hop or flutter on the male's back in reverse mounting. The male then moves to mount her, with behavior of the 2 being almost identical. Full copulation, with male falling to the left in establishing contact with female, lasts about 7 s, often accompanied by Wing-Fluttering by male. Pair often copulates after a territorial fight with an intruder.

Nesting: The male selects a site for a nest hole; the female may tap around it, possibly to signal her approval. They nest in dead trees or dead parts of live trees—including pines, maples, birches, cottonwoods, and oaks—in fields or open forests with little vegetation on the ground. They often use snags that have lost most of their bark, creating a smooth surface that may deter snakes. Red-headed Woodpeckers may also excavate holes in utility poles, live branches, or buildings. They occasionally use natural cavities. Unlike many woodpeckers, Red-headed Woodpeckers often reuse a nest cavity several years in a row. Both partners help build the nest, though the male does most of the excavation. He often starts with a crack in the wood, digging out a gourd-shaped cavity usually in 12–17 days. The cavity is about 3–6 inches across and 8–16 inches deep. The entrance hole is about 2 inches in diameter.

Egg-Laying: Clutch Size: 3-10 eggs Number of Broods: 1-2 broods Egg Length: 1.0 in (2.5 cm) Egg Width: 0.8 in (1.9 cm) Incubation Period: 12-14 days Nestling Period: 24-31 days Egg Description: Pure white.

Hatching and Incubation/Gestation: Naked, with eyes closed.

Development: Young naked. Well-developed white egg-tooth on both upper and lower mandibles that disappears about 1 mo after hatching; may also serve to direct adult feeding efforts in the dark cavity. Altricial.

Parental Care: Both sexes; male seemed to do all brooding at night. Both parents participate in feeding young and in nest defense. Male and female feed equally for the first 12 d, after which the female does nearly 75% of the feeding until young fledge.

Lifespan: Up to 9 years and 11 months.

Conservation:

Official Federal Status: Least Concern

Special Statuses in Individual States: NONE

Threats: Red-headed Woodpeckers declined by over 2% per year from 1966 to 2014, resulting in a cumulative decline of 70%, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 1.2 million, with 99% spending part of the year in the U.S., and 1% in Canada. The species rates a 13 out of 20 on the Continental Concern Score. Red-headed Woodpecker is on the 2014 State of the Birds Watch List, which lists bird species that are at risk of becoming threatened or endangered without conservation action. The species is also listed as Near Threatened on the IUCN Red List. These woodpeckers were common to abundant in the nineteenth century, probably because the continent had more mature forests with nut crops and dead trees. They were so common that orchard owners and farmers used to pay a bounty for them, and in 1840 Audubon reported that 100 were shot from a single cherry tree in one day. In the early 1900s, Red-headed Woodpeckers followed crops of beech nuts in northern beech forests that are much less

extensive today. At the same time, the great chestnut blight killed virtually all American chestnut trees and removed another abundant food source. Red-headed Woodpeckers may now be more attuned to acorn abundance than to beech nuts. Though the species was common in towns and cities a century ago, it began declining in urban areas as people started felling dead trees and trimming branches. After the loss of nut-producing trees, perhaps the biggest factor limiting Red-headed Woodpeckers is the availability of dead trees in their open-forest habitats. Management programs that create and maintain snags and dead branches may help Red-headed Woodpeckers. Although they readily excavate nests in utility poles, a study found that eggs did not hatch and young did not fledge when the birds nested in newer poles (3–4 years old), possibly because of the creosote used to preserve them. In the middle twentieth century Red-headed Woodpeckers were quite commonly hit by cars as the birds foraged for aerial insects along roadsides.

Conservation Efforts: ^^^^^^

Extra Facts:

1. The Red-headed Woodpecker is one of only four North American woodpeckers known to store food, and it is the only one known to cover the stored food with wood or bark. It hides insects and seeds in cracks in wood, under bark, in fenceposts, and under roof shingles. Grasshoppers are regularly stored alive, but wedged into crevices so tightly that they cannot escape.
2. Red-headed Woodpeckers are fierce defenders of their territory. They may remove the eggs of other species from nests and nest boxes, destroy other birds' nests, and even enter duck nest boxes and puncture the duck eggs.
3. The Red-headed Woodpecker benefited from the chestnut blight and Dutch elm disease outbreaks of the twentieth century. Though these diseases devastated trees they provided many nest sites and foraging opportunities for the woodpeckers.
4. The striking Red-headed Woodpecker has earned a place in human culture. Cherokee Indians used the species as a war symbol, and it makes an appearance in Longfellow's epic poem *The Song of Hiawatha*, telling how a grateful Hiawatha gave the bird its red head in thanks for its service.
5. The Red-headed Woodpecker has many nicknames, including half-a-shirt, shirt-tail bird, jellycoat, flag bird, and the flying checker-board.
6. Pleistocene-age fossils of Red-headed Woodpeckers—up to 2 million years old—have been unearthed in Florida, Virginia, and Illinois.
7. The Red-headed Woodpecker was the “spark bird” (the bird that starts a person's interest in birds) of legendary ornithologist Alexander Wilson in the 1700s.
8. The oldest Red-headed Woodpecker on record was banded in 1926 in Michigan and lived to be at least 9 years, 11 months old.

Notable Species: NONE