

RED-BREASTED NUTHATCH - SITTA CANADENSIS

Taxonomy: Kingdom: Animalia Phylum: Chordata Class: Aves Order: Passeriformes Family: Sittidae Genus: Sitta Species: S. canadensis

Habitat:

Biomes: Red-breasted Nuthatches live mainly in coniferous forests of spruce, fir, pine, hemlock, larch, and western red cedar. Eastern populations use more deciduous woods, including aspen, birch, poplar, oak, maple, and basswood. During irruptive winters, nuthatches may use habitats such as orchards, scrub, parks, plantations, and shade trees.

Distribution:

In US: It breeds in coniferous forests across Canada, Alaska and the northeastern and western United States. Though often a permanent resident, it regularly irrupts further south if its food supply fails. There are records of vagrants occurring as far south as the Gulf Coast and northern Mexico.

In Other Countries: NONE

Holistic Description: An intense bundle of energy at your feeder, Red-breasted Nuthatches are tiny, active birds of north woods and western mountains. These long-billed, short-tailed songbirds travel through tree canopies with chickadees, kinglets, and woodpeckers but stick to tree trunks and branches, where they search bark furrows for hidden insects. Their excitable yank-yank calls sound like tiny tin horns being honked in the treetops.

Species Richness: NO SUBSPECIES

Population Dynamic: CHECK THREATS

Evolution and Systematics:

Evolution: Modern form reported from late Pleistocene in Carpinteria, Santa Barbara Co., CA.

Systematics: Often recognized as the only New World representative of a larger group of conifer-dwelling nuthatches that appear similar in plumage, voice, and behavior (e.g. typically excavate their own nest cavities)

Number of Species: NO SUBSPECIES

Number of Genera: NO SUBSPECIES

Physical Characteristics:

Size and Length: Length: 4.3 in (11 cm) Weight: 0.3-0.5 oz (8-13 g)

Wingspan: 7.1-7.9 in (18-20 cm)

Coloration: Red-breasted Nuthatches are blue-gray birds with strongly patterned heads: a black cap and stripe through the eye broken up by a white stripe over the eye. The underparts are rich rusty-cinnamon, paler in females.

General Body Features: A small, compact bird with a sharp expression accentuated by its long, pointed bill. Red-breasted Nuthatches have very short tails and almost no neck; the body is plump or barrel-chested, and the short wings are very broad.

Special Features of the Body: NONE

Special Features of the Head and Sensory Organs: Wedges hard-shelled nuts in a bark crevice and then hammers them with its bill. Carries spruce or pine pitch, often from some distance, in its bill to smear on the entrance of its nest cavity.

Dentition: BEAK/LAMELLAE/GIZZARD

Special Features of the Limbs and Digits: They have very sturdy toes and claws that allow them to climb down trees headfirst or hang upside down from branches. Has a greatly enlarged hind toe and a stubby tail, which are probably both adaptations for climbing downwards

Any Special Internal Anatomy: The Red-breasted Nuthatch has a greatly enlarged hind toe and a stubby tail, which are probably both adaptations for climbing downwards; the toe provides secure footing, and a long, floppy tail could get in the way.

Sexual Dimorphisms: Sexes are similarly plumaged, though females and youngsters have duller heads and paler underparts. Adult female similar, but top of head dark gray-blue, not black; eye-stripe never as wide or black as on male; and underparts paler.

Differences Between Juvenile Stage and Adult: Juveniles similar to adults of their sex, but head-markings and underparts duller; upperparts may show some faint black fringes, and wing coverts may be tipped buff.

Behavior:

Diurnal, Nocturnal, or Crepuscular: Diurnal

Activity: Red-breasted Nuthatches move quickly and in any direction across tree trunks and branches. When moving downward they typically zigzag, keeping their grip by relying on the large claw on their one backward-pointing toe on each foot. Red-breasted Nuthatches are aggressive birds that sometimes dominate larger birds at feeders. Nuthatches are among the few non-woodpeckers that excavate their own nest cavities from solid wood. Agitated males may call at each other while

pointing their heads up, fluttering their wings, and swiveling back and forth. Males court females by turning their backs to them, singing, and swaying from side to side with crest feathers raised, or by flying together in an exaggerated display of slowly fluttering wings or long glides. Males feed females while the females excavate nest cavities. Red-breasted Nuthatches join foraging flocks of chickadees and other small songbirds. Nuthatches sometimes store seeds and insects to help them get through the winter, shoving the food into bark crevices and often covering them with pieces of bark, lichen or pebbles. They typically fly only short distances at a time, with an undulating pattern.

Locomotion: Capable of walking along many surfaces oriented in any plane. Characteristic walking behavior seen on trunks of trees, in which individuals can walk either head down or head up on vertical tree trunks. Ability to walk up and down is facilitated by laterally compressed claws, with a relatively large hallux directed posteriorly and the other 3 digits directed forward. Irregular, bounding, or undulating flight that is rarely sustained. Flights typically are swift and short, often between trees. Undulations are more apparent as the bird travels longer distances.

Communication and Perception: Red-breasted Nuthatches sing a fast series of nasal, hornlike notes that sound like yank-yank. Songs can have 6 or more of these notes each, and the songs themselves can be repeated up to 16 times per minute. It's unmated males that sing this most frequently. Males and females sometimes sing a similar but slower and harsher version of this song when they are defending their territory.

Home Range: All populations are territorial during breeding season. Winter territoriality is highly variable; pairs that remain resident may maintain same territory year-round. Individuals that migrate are least likely to be territorial during winter; otherwise, both resident and migratory individuals may become solitary, form small flocks, or join mixed-species flocks during nonbreeding season.

Degree of Sociality: Generally solitary, but also in pairs and small flocks. In resident populations, pairs stay on territory together year-round and may also join other species in mixed flocks.

Level of Aggression: Can be highly aggressive during breeding season, and may chase conspecific males that approach territory boundaries. Aggression is particularly high during excavation and building of nest, when males chase any species that approaches nest cavity. Relatively few conflicts between individuals during nonbreeding season; most of these were short-distance displacements without prolonged chases or physical fighting.

Migration: Resident, short-distance migrant, or irruptive species. Northernmost populations migrate south each year, but other populations may not migrate at all. Red-breasted Nuthatches can be irruptive, moving southward in great numbers in years when cone production is poor on their breeding grounds. This happens on a roughly 2-year cycle, and in some years Red-breasted Nuthatches show up as far south as the Gulf Coast.

Predators:

Predators: Sharp Shinned Hawk, Cooper's Hawk, Merline, Owls, Spotted Owl, Squirrels, Weasels.

Anti-Predator Defenses: Predators that enter nests must cope with conifer pitch, which accumulates around cavity entrance; this pitch may exclude various nest predators and competitors, such as other birds, mammals, and ants. Nuthatches may join other species in mobbing Northern Pygmy-Owls, Sharp-shinned Hawks, and Steller's Jays.

Diet and Nutrition:

Adult Diet: In summer, Red-breasted Nuthatches eat mainly insects and other arthropods such as beetles, caterpillars, spiders, ants, and earwigs, and they raise their nestlings on these foods. In fall and winter they tend to eat conifer seeds, including seeds they cached earlier in the year. During outbreaks of spruce budworm, a forest pest, Red-breasted Nuthatches respond strongly to the plentiful food supply. They also eat from feeders, taking peanuts, sunflower seeds, and suet. When given the choice they tend to select the heaviest food item available; if these are too large to eat in one piece they typically jam them into bark and then hammer them open.

Juvenile Diet: Young are fed exclusively insects. Midges.

Special Adaptations for Getting Prey: Like other nuthatches, characteristically walks up or down tree trunks and large branches, probing crevices in bark for insects. Also commonly forages on small branches, probing beneath flakes of bark, at bases of needle clusters on conifer branches, and on conifer cones, where it extracts seeds. Less commonly forages in leaf litter on the ground for fallen seeds and arthropods, in rocky outcrops, and on undersides of leaves.

Reproduction:

Mode of Reproduction: Monogamous

Mating System: Socially monogamous. No direct data on sex ratio, but experimental removal of females suggests there is an adequate nonbreeding cohort; 1 male remated within 4 d of having his mate removed.

Mating Season: January to May

Courtship: Aggressive-Male Courtship Pose. Male lowers wings, cocks tail, holds head high with crest-feathers raised, and puffs out feathers of lower back and rump. May sing Courtship Song (see Sounds: vocalizations, above) and at same time

sway from side to side. Courtship Flights. Exaggerated types of flight, whether a slow flutter of wings or floating glide on outstretched wings; appear energetically challenging. Male often engages female in courtship flights before copulation by nudging or poking female with bill or breast. Female usually chases male in flight, and both sexes may give grr notes as they fly. Courtship flights most commonly occur when males or females leave or are bound for the nest hole at times of excavation and nest-building. Courtship-Feeding. Female crouches with bill up and wings quivering, while giving whistle-like purp . When about to be fed, she may give we-we-we notes and harsher chirr or whirr, which sound exactly the same as Food Solicitation Calls.

Territoriality: HOME RANGE

Mating: Male mounts female on her back, flutters wings, and may peck lightly on her head. Copulations usually last ≤ 2 s.

Nest Placement: Female Red-breasted Nuthatches usually choose the nest site, though males without mates may begin excavating several cavities at once in an attempt to attract a female. They may reuse existing holes in trees, but they rarely use nest boxes. Red-breasted Nuthatches often use aspen trees when available, as these trees have softer wood than many conifers. Nests are usually built in completely dead trees, dead parts of live trees, and trees with broken tops.

Nest Description: Both sexes excavate the nest, but the female does more than the male. Excavation can take up to 18 days and yields a cavity between 2.5 and 8 inches deep. The female then builds a bed of grass, bark strips, and pine needles and lines it with fur, feathers, fine grasses or shredded bark. Both males and females apply conifer resin to the entrance, sometimes applying it with a piece of bark, a remarkable example of tool use.

Egg-Laying: Clutch Size: 2-8 eggs Number of Broods: 1 brood Egg Length: 0.6-0.7 in (1.5-1.7 cm) Egg Width: 0.4-0.5 in (1.1-1.3 cm) Incubation Period: 12-13 days Nestling Period: 18-21 days Egg Description: White, creamy, or pinkish white and speckled with reddish brown.

Hatching and Incubation/Gestation: Naked and helpless.

Development: Altricial and nidicolous. Young birds become fully independent about 2 wk after fledging.

Parental Care: Both parents feed young. Following hatching, parents enter nest cavity with food when feeding young. Parents feed from outside of cavity later as young get larger. Parents may forage together or separately when collecting food for young. Occasionally, both parents arrive simultaneously at cavity entrance with food and enter cavity together.

Lifespan: 6 years

Conservation:

Official Federal Status: Least Concern

Special Statuses in Individual States: NONE

Threats: Red-breasted Nuthatches are common and their populations increased throughout most of their range between 1966 and 2014, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 20 million with 64% spending some part of the year in the U.S., and 62% in Canada. The species rates a 6 out of 20 on the Continental Concern Score. Red-breasted nuthatch is not on the 2014 State of the Birds Watch List. As with all birds that nest in holes in trees, it's important to leave some dead wood (dead trees or dead parts of trees) standing in forests to provide places for nests.

Conservation Efforts: ^^^^^

Extra Facts:

1. The Red-breasted Nuthatch collects resin globules from coniferous trees and plasters them around the entrance of its nest hole. It may carry the resin in its bill or on pieces of bark that it uses as an applicator. The male puts the resin primarily around the outside of the hole while the female puts it around the inside. The resin may help to keep out predators or competitors. The nuthatch avoids the resin by diving directly through the hole.
2. During nest building, the Red-breasted Nuthatch is aggressive, chasing away other hole-nesting birds such as the House Wren, White-breasted Nuthatch, and Downy Woodpecker. A particularly feisty nuthatch may go after Yellow-rumped Warblers, House Finches, Violet-Green Swallows, and Cordilleran Flycatchers.
3. Red-breasted Nuthatches migrate southward earlier than many irruptive species. They may begin in early July and may reach their southernmost point by September or October.
4. Red-breasted Nuthatches sometimes steal nest-lining material from the nests of other birds, including Pygmy Nuthatches and Mountain Chickadees.
5. The oldest known Red-breasted Nuthatch was 7 years, 6 months old.

Notable Species: NONE