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Birds of the Great Plains: Family Sittidae (Nuthatches)

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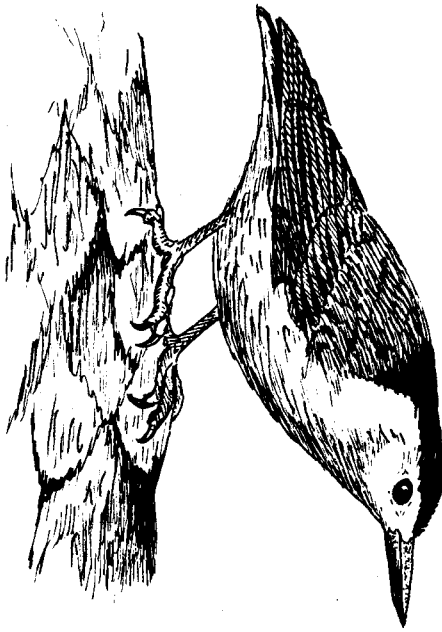
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Johnsgard, Paul A., "Birds of the Great Plains: Family Sittidae (Nuthatches)" (2009). *Birds of the Great Plains (Revised Edition, 2009)* by Paul Johnsgard. 43.

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FAMILY SITTIDAE
(NUTHATCHES)



White-breasted Nuthatch

White-breasted Nuthatch *Sitta carolinensis*

Breeding Status: Breeds nearly throughout the region in suitable habitats, but considerably more common in the eastern half. In western North Dakota it is largely limited to the Missouri and Little Missouri valleys, in western South Dakota it is common only in the Black Hills, in western Nebraska it breeds uncommonly in the Pine Ridge area, and in Kansas it is not known to breed west of a line from Douglas to Montgomery County. In Oklahoma it regularly breeds west to Osage, Lincoln, and Comanche counties, infrequently to Alfalfa County, and rarely to Texas County. There are no nesting records for the Texas panhandle.

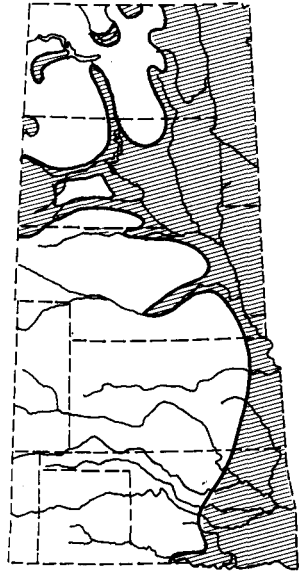
Breeding Habitat: Deciduous or mixed forests, orchards woodlots, or trees in urban areas are the usual breeding sites. In the upper Missouri Valley the species is associated with late successional stages of floodplain forest.

Nest Location: Nests are in natural tree cavities ranging from 15 to 50 feet above the ground, or in old woodpecker holes, rarely in birdhouses. Knotholes often serve as cavity entrances, or natural crevices may be used. Strips of bark, hair, and other materials line the cavity.

Clutch Size and Incubation Period: From 5 to 10 eggs, frequently 8. The eggs are white with numerous brown to lavender spots. The incubation period is probably 12 days. Single-brooded.

Time of Breeding: North Dakota nest-building or egg dates range from April 13 to May 3, and dependent young have been seen as late as August 5. Egg dates in Kansas are March and April, and nest-building or eggs have been reported in Oklahoma from February 28 or March 27, with flying young seen as early as April 29.

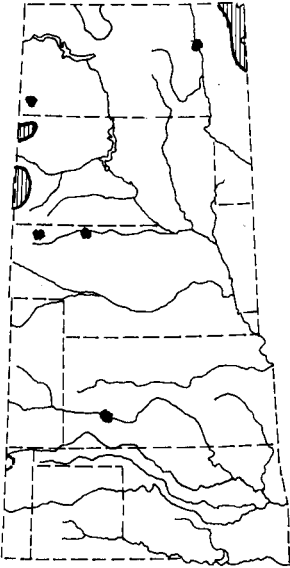
Breeding Biology: Apparently white-breasted nuthatches maintain their pair bonds throughout most of the year and perhaps permanently, although during winter the birds roost in different areas and maintain little contact with each other. The male begins to sing in late winter, uttering early-morning "rendezvous songs" from tall trees to attract the female. Males also sing and display directly to their mates when they arrive and may keep in touch with them during foraging by uttering a series of *wurp* notes. The female takes the initiative in choosing a nest site and does all the nest-building, but both sexes participate in "bill-sweeping" in and around the nest. This behavior is of uncertain significance, but consists of arclike movements of the bill near the tree or cavity surface, sometimes while holding an insect or other object. It has been suggested that the odors thus spread may repel squir-



rels. The female does the incubating, but the male feeds her during egg-laying and incubation, and males later help feed the young. The fledging period is approximately 2 weeks.

Suggested Reading: Kilham 1968, 1972.

Red-breasted Nuthatch *Sitta canadensis*



Breeding Status: Breeds locally in northwestern Minnesota (probably at least Clearwater County), commonly in the Black Hills of South Dakota, and probably also in the central Niobrara Valley and Pine Ridge areas of Nebraska (*Nebraska Bird Review* 35:30). Probably also breeds on Sierra Grande, New Mexico (Hubbard, 1978).

Breeding Habitat: In the Black Hills this species breeds in coniferous (pine and spruce) forests, and it is also closely associated with conifers in Minnesota.

Nest Location: Nests are made in abandoned woodpecker holes or excavated in the rotting wood of stubs or snags. The nest may be from 5 to 40 feet above the ground but is usually less than 20 feet up. The entrance is typically about 1½ inches in diameter and always is surrounded by sticky resin placed there by the adults. The nest is lined with shreds of bark and other soft materials.

Clutch Size and Incubation Period: From 4 to 7 eggs, usually 5-6. The eggs are white with variable amounts of brown spotting. The incubation period is about 12 days. Single-brooded.

Time of Nesting: Nest preparation has been observed in Minnesota in late May, and fledglings have been seen in early July. Likewise, the breeding season in the Black Hills is from May through July, with young birds observed in early July.

Breeding Biology: During the winter, red-breasted nuthatches may remain paired if the food supply is good or if the birds are close to a feeding station. At this season the birds maintain contact by uttering location calls, but by late winter unpaired males begin singing a series of plaintive *waa-aans* from tall trees, which probably serve both territorial and courtship functions. A major behavior during pair-formation is courtship feeding of the female by her mate, which continues through the incubation period. Pairs seek out nesting sites together, with the female making the final choice and also doing the initial excavating. Courtship chases of the female are frequent during nest-building

and may end in copulation. When the nest excavating is nearly finished, both members of the pair bring resin in their bills, land in the nest entrance, and spread the resin above and below the hole. This sticky material probably deters other animals from entering the hole. The female does all the incubation but both sexes feed the young, which fledge in periods that have been estimated to range from 14 to 21 days.

Suggested Reading: Kilham 1973; Bent 1948.

Brown-headed Nuthatch

Sitta pusilla

Breeding Status: Limited to southeastern Oklahoma, where it has been reported breeding only in McCurtain County.

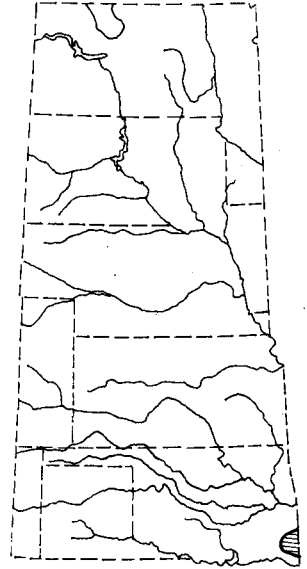
Breeding Habitat: Large short-leaf pines are the habitat of this species in Oklahoma, and it generally is found in open pine woods, particularly in burned-over areas or clearings where there are dead trees or old stumps.

Nest Location: Nests are usually in self-excavated holes, although birds occasionally use natural cavities or old woodpecker holes. They are often less than 5 feet above the ground, in dead trees or fire-blackened stumps. The cavity is excavated 6-8 inches and is partially filled with inner bark strips, strips of corn husks, and similar materials. The lining tends to be of pine seed wings.

Clutch Size and Incubation Period: From 3 to 9 eggs, often 5-6. The eggs are white with a covering of dark reddish brown spots. The incubation period is about 14 days. Single-brooded.

Time of Breeding: In Oklahoma, nest excavation has been observed in early March, and young recently out of the nest have been seen in late April.

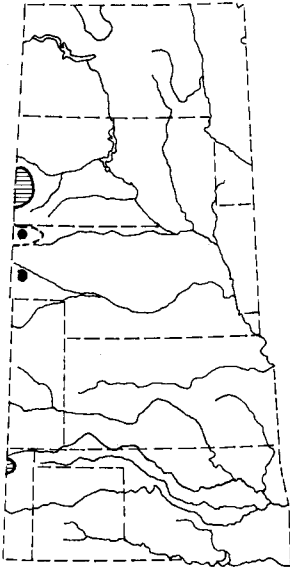
Breeding Biology: Male brown-headed nuthatches probably maintain rather permanent territories, which average 7 to 8 acres. The territory includes one or more potential nest sites, which are chosen by the male, as well as food sources. Cavity excavation begins early and may take the pair a month or more. Threesomes have been observed excavating nest sites, as also noted in the pygmy nuthatch. The female does all the incubating. Where threesomes have been observed, the extra male has not been seen roosting with the incubating female. The young are fed by both parents and by any nest helpers that may be present, and the fledging period averages 18-19 days. The period of parental dependence is about 45 days. Apparently families tend to remain together through fall and



winter, and they have been found roosting together in nesting boxes close to their place of breeding.

Suggested Reading: Norris 1958; Bent 1948.

Pygmy Nuthatch *Sitta pygmaea*



Breeding Status: Probably breeds uncommonly to rarely in the Black Hills of South Dakota (no specific nesting records) and periodically also in the Pine Ridge area of Nebraska (one state nesting record in Sioux County (*Nebraska Bird Review* 40:70)). It is probably also a rare local breeder in northeastern New Mexico (Capulin Mountain National Monument) and is a possible resident in Cimarron County, Oklahoma (Sutton 1974).

Breeding Habitat: The species is generally associated with ponderosa pines, in the lower coniferous forest zone, especially in open, parklike forests.

Nest Location: Nests are in dead trees or in stubs, about 5-60 feet above the ground and often at least 25 feet up. They are often near the tops of larger snags, where the wood is well rotted, and have irregular openings 1¼-2 inches in diameter. The cavity is excavated to a depth of 8-9 inches and lined with bark shreds, feathers, moss, hair, and other soft materials.

Clutch Size and Incubation Period: From 4 to 9 eggs, usually 6-8. The eggs are white with variable reddish brown spotting. The incubation period is 15-16 days. Single-brooded.

Time of Breeding: There is no specific information on nesting in our region, except that adults carrying food to young were reported in northwestern Nebraska in late June. In Colorado, eggs have been found as early as May 5, and numerous clutches have been reported for May and June.

Breeding Biology: Pygmy nuthatches are more or less permanently territorial; males hold small territories and limit most defense to the nest site. This may be an existing cavity, or the pair may excavate a new one. Sometimes three or more birds have been seen excavating a single site, and at least in some cases the extra birds are males. Up to a month or more may be needed for excavation, and it takes one day to lay each egg. Only females incubate, but both sexes sleep in the cavity at night, and in the observed threesomes all the birds roosted there. Females are fed on or off the nest by the male or males. The eggs typically hatch within a 24-hour span, and the young are fed by both adults and,

when present, additional helpers. The young fledge in 20–22 days but do not gain independence from the adults until they are approximately 45–50 days old.

Suggested Reading: Norris 1958; Bent 1948.

