Red-breasted nuthatches: newcomers on the Peninsula work hard to raise offspring

by Ted Bailey

Red-breasted nuthatches appear to be relatively newcomers as nesting birds on the Kenai Peninsula. I did not see a red-breasted nuthatch in the Soldotna area until sometime in the mid- to late-1980s. The first time they were recorded during the annual spring North American Breeding Bird Survey (BBS) on the Kenai National Wildlife Refuge was 1995, thirteen years after the BBS was first initiated on the refuge.

Curious about their recent appearance, I examined other BBS survey data from the northwestern United States, Canada and Alaska to see when nuthatches were first recorded in these surveys. I found that the data indeed suggest a northward expansion of nuthatches into Alaska from Canada during the past 20 years.

Breeding bird surveys have been conducted in northwestern states and Canadian provinces since 1968, with red-breasted nuthatches reported in Washington and in neighboring British Columbia in very first surveys. But nuthatches were not reported on a BBS in the more northern Yukon Territory until 1974.

Eleven years later—in 1985—nuthatches were first reported on a BBS in Alaska. Furthermore, reports of nuthatches doubled in Washington in 1981, rapidly increased in British Columbia in 1990, in the Yukon in 1993, and in Alaska from 1994 through 1996, the same period we first began recording them on the Kenai refuge. Observers in Kachemak Bay and at Hope first reported them in 1992 and 1993, respectively.

Some of these increased reports may have been due to more observers and routes added each year, but the years of first reports suggest a northward expanding population. Nuthatches thus appear to be a relatively new breeding species on the Kenai Peninsula, perhaps nesting here only during the last decade or two.

It is remarkable that one can witness the establishment of a new species in an area within one's lifetime. With predicted trends in global warming, however, we may see more unfamiliar species arriving on the Kenai Peninsula in the future. Let's hope that they are all as benign as nuthatches! Since nuthatches nest in cavities in trees, I have over the years attempted to attract nuthatches to nest boxes near our house. These attempts have always been unsuccessful; nuthatches apparently rarely use nest boxes, preferring to construct their own cavities in trees.

This spring I was rewarded with an unexpected event; a pair of red-breasted nuthatches reared their young in an old birch snag at the edge of our yard. At first I thought they were merely storing food behind some loose bark about eighteen feet high on the far side of the snag. Then I discovered that they were already busy excavating a cavity where a large branch had broken off during a previous windstorm. Even more surprising was the fact that the wood they chose was solid and hard, not decayed and soft, at least at the surface.

Starting around March 15, the nuthatches began removing "BB"-sized or smaller bits of wood at a rate of about one piece every five seconds, hour after hour. Later, as they moved deeper into the center of the snag, the rate of wood removal slowed. After removing tiny pieces of wood for at least 35 continuous days, the nesting cavity appeared to be completed by April 18. A very rough calculation suggests that they made somewhere between 3,700 to 10,000 "wood removal actions" to excavate the cavity deep inside the birch snag.

Incubation appeared to have started by at least May 7, when I observed the male bringing food to the female inside. The nuthatches were very pugnacious and drove away any other bird that came within 20 feet or more of their nesting cavity. I have read that red-breasted nuthatches line their cavity entrance with sticky sap or resin to ward off predators, but at this stage I could see no resin around the cavity entrance. I thought this might not always occur. Then by May 14 until at least May 19, I observed the nuthatches bringing small bits of sap and resin and smearing it around the entrance to the cavity. By time they completed this phase of protecting their eggs and young, the thick clear sap could be seen running a couple of inches down the tree trunk from the cavity entrance. At an observed rate of one sap trip per one to five min-

utes, I roughly estimate that lining the cavity entrance with sap required 600 to 3,000 trips.

Diverse sources provided small pieces of sap. Some pieces came from nearby black spruce trees and other pieces from the sticky buds of cottonwood trees.

With the cavity entrance now lined with sticky sap, I wondered how the nuthatches would avoid getting themselves stuck. When I first observed the parents feeding the young on May 23, I noted that they would briefly hover—like a hummingbird—in front of the cavity and then dive into the opening without touching the sap-smeared edge. When they left, they burst out like a rocket from deep inside, again avoiding the sap-smeared edge of the cavity.

The young were fed insects and spiders. It was not uncommon to see the large dangling legs of a spider sticking out of a nuthatch's bill as it briefly perched on a nearby limb before delivering the food to the young inside. On a few occasions the adults attempted to catch moths in mid-air. On the first day that I observed the parents feeding their young, they made an estimated 100-300 trips with food.

Then suddenly after 14 days of feeding young and sometime in the early rainy morning of June 5, the nuthatches were all gone. The previous day I saw one of the youngsters inside with its head near the cavity entrance. I never determined how many young were inside, but nuthatches typically lay from 4 to 7 eggs. I was surprised that during the feeding period the young apparently never made a sound, perhaps another adaptation to minimize drawing the attention of predators.

I will probably never again have the opportunity to observe red-breasted nuthatches rear their young—from the beginning with excavating a nest cavity—to fledging the young. I feel privileged to have conveniently witnessed such an event in our backyard.

I once considered cutting the old birch snag down, but my wife convinced me to leave it as long has it had a few live branches on it. In theory, I knew that snags of old trees were valuable for cavity-nesting birds such as tree swallows, black-capped chickadees, and woodpeckers. However, I now place even more value on these snags after witnessing the role they play in insuring the continuation of a species. And further, I have a great admiration for the tremendous amount of work, ingenuity, and resolve that nesting red-breasted nuthatches must apply in order to raise their young.

Mark your calendars for August 2, 2003, when Kenai NWR and Alaska Maritime NWR host a Centennial Celebration of the National Wildlife Refuge System. The event is free to the public at the Alaska Fairgrounds in Ninilchik and lasts from 10 a.m. to 8 p.m. Attractions include speakers, movies, displays, and kid's activities sharing Alaska's refuges and wildlife. Live music and delicious food will also be provided.

Ted Bailey is a retired Kenai National Wildlife Refuge wildlife biologist who has lived on the Kenai Peninsula for over 27 years. He is an adjunct instructor at the Kenai Peninsula College and maintains a keen interest in the Kenai Peninsula's wildlife and natural history. Previous Refuge Notebook columns can be viewed on the Web at http://kenai.fws.gov.