

# Red-breasted Nuthatch, *Sitta canadensis*, Dies Stuck in Resin at Entrance to a Nest-box

CLIVE F. STRAUSS

975 Ridgeway Street, Victoria, British Columbia V8X 3C2 Canada; e-mail: cstrauss@islandnet.com

Strauss, Clive F. 2007. Red-breasted Nuthatch, *Sitta canadensis*, dies stuck in resin at entrance to a nest-box. Canadian Field-Naturalist 121(4): 428-429.

I document a female Red-breasted Nuthatch (*Sitta canadensis*) found dead and stuck to resin in the opening of a nest-box in an urban setting. This is the second reported occurrence of such mortality and the first involving a nest-box. This species applies resin to its nest openings to deter predators and reduce competition or parasitism from other species. Red-breasted Nuthatches infrequently utilize nest-boxes. At necropsy this female nuthatch was found to be carrying a fully-formed egg with shell and this increase in abdominal girth may have contributed to her demise.

Key Words: Red-breasted Nuthatch, *Sitta canadensis*, mortality, resin, nest-box, British Columbia.

On 12 April 2007 I found a dead female Red-breasted Nuthatch (*Sitta canadensis*) stuck in the opening of a nest-box about 5 m above the ground under the west-facing eaves of a city residence in Victoria, British Columbia (48°20.0'N, 123°22.0'W). The entrance of the nest-box was covered by a hard transparent acrylic plate, measuring 6.7 × 6.0 cm with an oval entrance hole of diameter 3.4 × 3.0 cm, designed to exclude House Sparrows (*Passer domesticus*). Earlier a Chestnut-backed Chickadee (*Poecile rufescens*) was seen building a nest in this nest-box, and it was often interrupted by a Red-breasted Nuthatch pecking at the opening and calling persistently.

Extraction of the dead nuthatch resulted in numerous chest and abdominal feathers remaining stuck in the entrance hole of the nest-box (Figure 1). It was observed that the acrylic plate was irregularly covered in sticky resin that had an odor suggestive of a coniferous tree. The interior of the box revealed a newly built chickadee nest made out of moss but devoid of eggs. Subsequent to the removal of the dead bird, a pair of Red-breasted Nuthatches was seen "excavating" this nest-box by removing moss. In previous years, Violet-green Swallows (*Tachycineta thalassina*) successfully raised broods in this nest-box. The acrylic plate was added only after House Sparrows killed several swallow nestlings.

Several observers in British Columbia (Campbell et al. 1997) and elsewhere (Bent 1948; Ghalambor and Martin 1999) have reported Red-breasted Nuthatches daubing resin around the entrance of their nest holes,

it is thought, to protect the nest against competition from other cavity-nesting birds or mice, as well as against predation by other species or insect parasitism. In most cases this seems to pose little risk to the nuthatch itself but seems to deter competitors (Ghalambor and Martin 1999). Daubing nest entrances and cavities with mud or insects is known for other *Sitta* species (Pasquet 1998).

A literature search of the nesting behaviour of the Red-breasted Nuthatch revealed only one previous report of death at the entrance of nest hole: Kilham (1972) reported a dead female Red-breasted Nuthatch found stuck to the resin in the entrance of a tree cavity. Red-breasted Nuthatches infrequently utilize nest-boxes. Dunn et al. (1975) described two nest-boxes utilized out of 100 designed for Black-capped Chickadees (*Poecile atricapillus*) in a pine plantation on the north shore of Lake Erie. Those nest-box entrances were also heavily daubed with pine (*Pinus* sp.) resin. Nest-box sites were utilized in only two out of 143 nests in British Columbia reported by Campbell et al. (1997). The Cornell Laboratory of Ornithology recommends a circular nest-box entrance hole with a diameter of 3.2 cm for Red-breasted Nuthatches (Cornell Lab of Ornithology, The Birdhouse Network. Habitat Requirements Available: [www.birds.cornell.edu/birdhouse/bios/nestrequire/habitat](http://www.birds.cornell.edu/birdhouse/bios/nestrequire/habitat). [Accessed 1 May 2007]). The hole in the cover plate in this instance measured 3.4 × 3.0 cm.

The dead Red-breasted Nuthatch was found to contain a complete egg with shell as well as three develop-



FIGURE 1. Photograph of the acrylic nest-hole cover (removed from the nest-box) with an oval entrance hole of diameter  $3.4 \times 3.0$  cm, showing the Red-breasted Nuthatch feathers stuck to sticky resin on the lower half.

ing ova in the ovary. It is possible that the increased abdominal girth of this gravid female nuthatch contributed to her getting trapped and subsequent demise

### Acknowledgments

My thanks to A. E. Burger of the Department of Biology, University of Victoria, for performing the necropsy of the dead bird and for his helpful assistance in the preparation of the manuscript.

### Literature Cited

- Bent, A. C.** 1948. Life Histories of North American Nuthatches, Wrens, Thrashers and their Allies. Order Passeriformes. U.S. National Museum Bulletin (195), Washington, D.C.
- Campbell, R. W., N. K. Dawe., I. McTaggart-Cowan., J. M. Cooper., G. W. Kaiser., M. C. E. McNall, and G. E. J. Smith.** 1997. The birds of British Columbia. Volume 3.

University of British Columbia Press, Vancouver, British Columbia.

- Dunn, E. H., H. F. Howkins, and R. V. Cartar.** 1975. Red-breasted Nuthatches breeding in nest boxes in pine plantations on the north shore of Lake Erie. *Canadian Field-Naturalist* 89: 467-468.
- Ghalambor, C. K., and T. E. Martin.** 1999. Red-breasted Nuthatch (*Sitta canadensis*). In *The Birds of North America*, No. 459 (Edited by A. Poole and F. Gill). The Birds of North America, Inc., Philadelphia, Pennsylvania.
- Kilham, L.** 1972. Death of a Red-breasted Nuthatch from pitch around nest hole. *Auk* 89: 451-452.
- Pasquet, E.** 1998. Phylogeny of the Nuthatches of the *Sitta canadensis* group and its evolutionary and biogeographic implications. *Ibis* 140: 150-156.

Received 11 May 2007

Accepted 11 August 2008