Short Communications

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Breeding Range Extension of the Northern Saw-whet Owl in Quebec

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ABSTRACT.—Although the breeding range of the Northern Saw-whet Owl (*Aegolius acadicus*) is restricted to North America, the northern limits of its range are still unclear. In Quebec, the most northerly confirmed breeding records had come from the Saguenay area (Chicoutimi; 48° 25′ N, 71° 03′ W) in balsam fir- (*Abies balsamea*) white birch (*Betula papyrifera*) forest and on the Gaspé Peninsula (Amqui; 48° 28′ N, 67° 25′ W) in balsam fir-yellow birch (*B. alleghaniensis*) forest. Between 1998 and 2003, however, we documented nine Northern Saw-whet Owl nests in balsam fir-black spruce (*Picea marina*) forest in boreal Quebec on the Mingan Terraces. These records extend the species' known breeding range northward to >50° N. *Received 8 August 2005, accepted 24 March 2006.*

The breeding range of the Northern Saw-whet Owl (*Aegolius acadicus*) is restricted to North America (Cannings 1993), and includes most of the southern Canadian forested areas, the mountainous regions of the United States, and the mountains of Mexico south to Oaxaca. The northernmost distribution of this species occurs along the Pacific coast, extending northward from British Columbia to south-central Alaska (American Ornithologists' Union 1998). However, the northern limit of its range remains unclear (Godfrey 1986, Cannings 1993). In Quebec, Northern Saw-whet Owls breed in all forested areas south of 49° N, with the exception of the Abitibi region (Côté and Bombardier 1996). Previously, the most northerly breeding records confirmed in Quebec came from the Saguenay area (Chicoutimi; 48° 25′ N, 71° 03′ W) in balsam fir- (*Abies balsamea*) white birch (*Betula papyrifera*) forest and on the Gaspé Peninsula (Amqui; 48° 28′ N, 67° 25′ W) in balsam fir-yellow birch (*B. alleghaniensis*) forest (Côté and Bombardier 1996). Seventeen records, however, in the 1979–1998 regional database housed at the Étude des populations d'oiseaux du Québec indicated that Northern Saw-whet Owls breed farther north in the Baie-Comeau area (49° 13′ N, 68° 09′ W) than what was published in the literature as their confirmed breeding range in Quebec (Côté and Bombardier 1996).

Between 1998 and 2003, we documented a northerly extension of the known breeding range of the Northern Saw-whet Owl in balsam fir-black spruce (*Picea marina*) forest in boreal Quebec, north of 50° N. During the 1997–1998 winter, we had erected 22 nest boxes for Boreal Owls (*Aegolius funereus*) in the Magpie River area (50° 19′ N, 64° 27′ W) and, during the 1998–1999 winter, we erected 51 nest boxes between the Manitou River (50° 19′ N, 65° 14′ W) and Longue-Pointe-de-Mingan (50° 17′ N, 64° 03′ W). From 1998 to 2003, we documented 9 Northern Saw-whet Owl nests (Table 1), as well as 15 Boreal Owl and 11 American Kestrel (*Falco sparverius*) nests, in the nest boxes. On 11 June 1998, we discovered the first Northern Saw-whet Owl nest, which contained a 1-year-old female brooding four young. That day, we banded the female at her nest, located at Rivière-Saint-Jean (50° 18′ N, 64° 22′ W); on 29 February 2000, the bird was recaptured in the United States at Port Elizabeth on Cape May, New Jersey (39° 18′ N, 74° 58′ W) (Patuxent Bird Banding Laboratory, Maryland). In 1999, we found three nest boxes occupied by Northern Saw-whet Owls. In one nest, egg-laying occurred in early April, and in two others it occurred at the beginning of May. On 15 December 1999, we captured a hatching-year male by using an audio lure and, on 24 June 2000, we found two partially hatched clutches, indicating that egg-laying had occurred between 22 and 26 May. No breeding attempts

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TABLE 1. Nesting records for Northern Saw-whet Owls in the Mingan Region, Quebec (1998–2003).

Year	No. eggs	No. fledged	Location	Latitude (N)	Longitude (W)
1998	≥4	2	Rivière-Saint-Jean	50°20′31″	64°26′38″
1999	≥4	4	Rivière-Saint-Jean	50°18′03″	64°21′57″
1999	6	5	Longue-Pointe-de-Mingan	50°16′24″	64°08′44″
1999	4[a]	2	Longue-Pointe-de-Mingan	50°16′25″	64°08′45″
2000	3	2	Rivière-Saint-Jean	50°18′03″	64°21′55″
2000	3	3	Magpie River	50°19′12″	64°28′07″
2001[b]	—	—	—	—	—
2002[c]	≥1	≥1	Longue-Pointe-de-Mingan	50°16′06″	64°12′49″
2002	≥1	≥1	Longue-Pointe-de-Mingan	50°15′40″	64°09′41″
2003	6	6	Rivière-Saint-Jean	50°18′03″	64°21′55″

[a] Two eggs abandoned.
[b] No nesting attempts.
[c] In 2002, four other owl nesting attempts were recorded, but species was not determined (Association Le Balbuzard, Rivière-Saint-Jean, Quebec).

were recorded in 2001. During a post-breeding check of nest boxes in 2002, we found six *Aegolius* nests, including two Northern Saw-whet Owl nests—identified by the abandoned eggs and dead nestlings inside. Finally, on 23 July 2003, one partially hatched Northern Saw-whet Owl clutch (six eggs) was recorded at Rivière-Saint-Jean, suggesting that egg-laying likely occurred 21–26 June; on 24 August, three young had fledged and three were still in the nest box. Overall, the Northern Saw-whet Owl nests we found contained 4.4 eggs ± 1.5 SE (range = 3–6, n = 5) and fledged 3.4 young ± 1.6 SE (range = 2–6, n = 7). All nest boxes were located in forested habitats within 5 km of the St. Lawrence River. The area is underlain by old marine deposits and characterized by bogs, conifer forests (balsam fir-black spruce and balsam fir-white birch), and igneous rocky hills and terraces rarely >300 m in elevation. Egg-laying dates ranged from early April to late June, indicating variable breeding conditions between years.

The discovery of a Northern Saw-whet Owl nesting population on the north shore of the St. Lawrence River extends the species' known breeding range to >50° N latitude (Fig. 1). We have no data indicating that this represents a recent expansion of the owl's range; more likely, our observations are refinements of what is known about the limits of its nor-

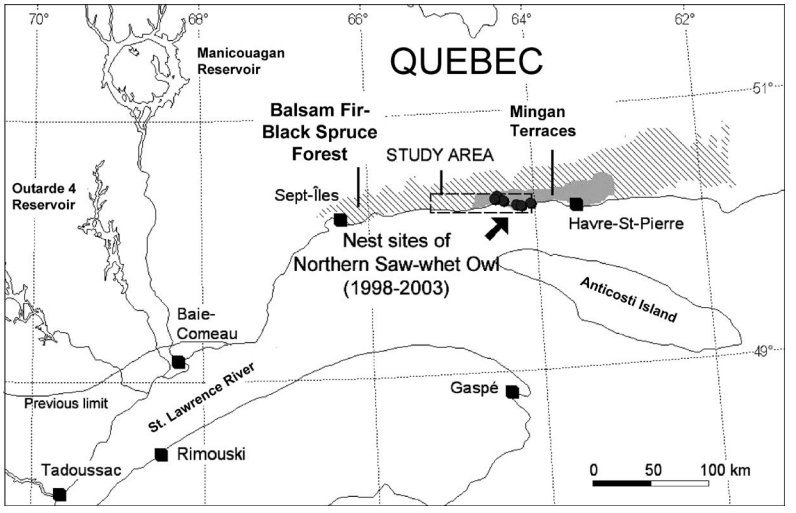

FIG. 1. Previous northern limit of known breeding range, and nest-site locations, of Northern Saw-whet Owls in the Mingan Region, north shore of the St. Lawrence River, Quebec (1998–2003).

mal range. The Mingan Terraces were thought to be inhabited primarily by Boreal Owls, although, both Boreal and Northern Saw-whet owls use coastal areas and even nest in similar habitats. Each fall, however, southern movements of Northern Saw-whet Owls are observed along the north shore of the St. Lawrence, whereas southern movements by Boreal Owls occur only about every 4 years (Observatoire d'oiseaux de Tadoussac: http://www.explos-nature.qc.ca/oot/index_f.htm).

In North America, the breeding ranges of Northern Saw-whet and Boreal owls overlap broadly in western mountain ranges, although Boreal Owls tend to occupy the higher elevations (Palmer 1986, Cannings 1993). In some years, Northern Saw-whet Owls establish territories adjacent to those of Boreal Owls at higher elevations in British Columbia (R. J. Cannings pers. comm.), and territorial overlap between the two species has been documented along the southern edge of the boreal forest in Minnesota (Lane and McKeown 1991). Clearly, the cohabitation of these closely related species in Quebec deserves further study.

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Carolina Wren Nest Successfully Parasitized by House Finch

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ABSTRACT.—We report the first observation of a House Finch (*Carpodacus mexicanus*) successfully parasitizing a Carolina Wren (*Thryothorus ludovicianus*) nest. On 24 May 2005, we found a Carolina Wren nest in south-central Oklahoma containing four Carolina Wren eggs and two House Finch eggs. The House Finch eggs hatched and nestlings grew rapidly. The Carolina Wren eggs hatched but the young did not survive. We observed a House Finch fledgling with the adult Carolina Wrens the day after fledging. *Received 29 August 2005, accepted 14 March 2006.*

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House Finches (*Carpodacus mexicanus*) expanded their range into central Oklahoma by the 1990s (Reinking 2004). Typically,

House Finches nest near human habitation and lay an average of four eggs; the incubation period is 13–14 days, and young fledge 11–14 days after hatching. This species has been documented as an occasional interspecific brood parasite; however, there are no records of House Finches successfully parasitizing another species (i.e., a host species fledging House Finch young; Shepardson 1915, Holland 1923, Woods 1968). Therefore, our observation of a Carolina Wren (*Thryothorus ludovicianus*) pair successfully fledging two House Finch young is noteworthy.

The Carolina Wren is a regular breeding species in south-central Oklahoma (Reinking 2004) and builds a nest of various materials in a wide variety of nest sites. Typically, Carolina Wrens lay four eggs that hatch in approximately 15 days (Haggerty and Morton 1995). Brown-headed Cowbirds (*Molothrus ater*) occasionally parasitize Carolina Wrens in Oklahoma (Bent 1948), and Carolina Wrens have successfully incubated cowbird eggs and fledged cowbird young (Grzybowski 1995, Haggerty and Morton 1995).

On 24 May 2005 at 16:15 CST, we flushed a Carolina Wren from a nest located northeast of Ada, Pontotoc County, Oklahoma (34° 49′ N, 96° 36′ W). The nest was 1.87 m above the ground, nestled between a branch and the wall of a chimney, semi-domed, and constructed of twigs, leaves, and grass. In 2003 and 2004, the same nest site was used by a pair of Carolina Wrens that were banded in 2003. The nest contained four Carolina Wren eggs (mean size = 19.5 × 15 mm) and two House Finch eggs (23 × 16 mm and 21 × 16 mm). We determined that they were House Finch eggs based on size, blue color, and maculation pattern (Baicich and Harrison 1997). One desiccated Carolina Wren egg was found just outside the nest and was not present the following day.

The House Finch eggs hatched on 3 June and two Carolina Wren eggs hatched on 6 June. By 7 June, a third Carolina Wren egg had hatched and, on 8 June, only two House Finch nestlings and one unhatched Carolina Wren egg remained in the nest. We removed the remaining unhatched wren egg and determined that it was infertile; we found no embryo in the contents. Prior to banding the nestlings, we definitively identified them as House Finches based on size, plumage, bill shape, and general morphology (Hill 1993).

We observed the adult wrens feeding insects and insect larvae to the finch nestlings. We did not observe adult House Finches feeding the nestlings, although adult finches used nearby feeders with black oil sunflower seeds. Typically, House Finch nestlings are raised on a diet composed of seeds (Beal 1907); however, our observation suggests that House Finch nestlings can be raised on a diet of primarily soft-bodied insects and insect larvae. On 13 June, both House Finch nestlings fledged and remained within 10 m of the nest. We observed the adult wrens feed the fledglings and give alarm calls when we approached. On 14 June, we observed the adult wrens foraging and feeding one House Finch fledgling 50 m from the nest site; we did not observe the House Finch fledglings after that day.

House Finches have been documented as interspecific brood parasites of Black Phoebe (*Sayornis nigricans*), Cliff Swallow (*Petrochelidon pyrrhonota*), and Hooded Oriole (*Icterus cucullatus*) (Shepardson 1915, Holland 1923); to our knowledge, however, our report is the first to document House Finch nestlings fledging from a host species' nest. Although House Finches intentionally parasitize and usurp the nests of other species, we cannot exclude the possibility that egg dumping may be an alternate explanation for our observation. Interspecific egg dumping has been documented for a variety of passerines. Wiens (1971) reported egg dumping by a Grasshopper Sparrow (*Ammodramus savannarum*) in a Savannah Sparrow (*Passerculus sandwichensis*) nest, and Sealy (1989) documented egg dumping by a House Wren (*Troglodytes aedon*) in a Yellow Warbler (*Dendroica petechia*) nest. Hamilton and Orians (1965) speculated that egg dumping is the first step towards facultative brood parasitism and, eventually, obligate brood parasitism.

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American Coot Parasitism on Least Bitterns

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ABSTRACT.—American Coots (*Fulica americana*) are known for laying eggs in the nests of conspecifics, but there is little evidence that they regularly parasitize the nests of other species. I found 13 Least Bittern (*Ixobrychus exilis*) nests, 2 of which were parasitized by coots. These are the first records of coots parasitizing Least Bitterns, and the first records of any form of brood parasitism on Least Bitterns. Nests of Least Bitterns also were parasitized experimentally with a variety of nonmimetic eggs and 27% were rejected (n = 11 nests). This indicates that Least Bitterns may possess some egg recognition abilities. *Received 15 August 2005, accepted 21 March 2006.*

Facultative avian brood parasites build nests and raise their own young, but they also lay eggs in the nests of conspecifics (conspecific brood parasitism; CBP) and sometimes in the nests of other species (interspecific brood parasitism; IBP). CBP has been documented in at least 236 bird species (Yom-Tov 2001) and appears to be relatively common in colonial birds, waterfowl, and cavity-nesters (MacWhirter 1989, Rohwer and Freeman 1989, Yom-Tov 2001). One of the best-studied conspecific brood parasites is the American Coot (*Fulica americana*; Arnold 1987; Lyon 1993a, 1993b, 2003). CBP appears to be a relatively common reproductive strategy among coots. For example, Lyon (1993a) found that 13% of all coot eggs over a 4-year period were laid parasitically and more than 40% of nests were parasitized by conspecifics. The parasites are females with nesting territories that lay parasitically prior to laying eggs in their own nests, and floater females that are unable to acquire nesting territories of their own (Lyon 1993a).

On rare occasions, coots have been known to lay eggs in the nests of other species. To date, three host species have been recorded: Franklin's Gull, (*Larus pipixcan*; Burger and Gochfeld 1994), and Cinnamon Teal (*Anas cyanoptera*) and Redhead (*Aythya americana*) (Joyner 1973). It is unknown whether any of these cases of parasitism were successful, although coot chicks are dependent on their par-

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TABLE 1. Responses of Least Bitterns to natural and experimental brood parasitism in Warren County, Iowa, 2003–2004.

Nest	Host's clutch size when parasitized	Nesting stage when parasitized	Egg type added	Accepted or rejected
03–3	5	Incubation	Plaster cowbird egg	Rejected
03–16	5	Incubation	Least Bittern egg colored black	Accepted
03–18	6	Unknown	Two naturally laid coot eggs	Accepted?[a]
03–19	6	Incubation	Wooden egg colored black	Rejected
03–20	3	Laying	Least Bittern egg colored black	Accepted
03–22	4	Unknown	One naturally laid coot egg	Accepted
03–31	5	Laying	One coot egg placed in the nest	Accepted
03–32	6	Incubation	Wooden egg colored black	Accepted
03–34	6	Incubation	One coot egg placed in the nest	Accepted
04–49	2	Laying	One coot egg placed in the nest	Accepted
04–55	4	Incubation	Wooden egg colored black	Rejected

[a] One of two coot eggs disappeared from this nest along with two Least Bittern eggs.

ents for food and typically perish without their assistance (Brisbin et al. 2002); thus, it is unlikely that these instances of parasitism were successful (B. E. Lyon pers. comm.). I report the first records of American Coot parasitism on Least Bitterns (*Ixobrychus exilis*). I also experimentally parasitized Least Bittern nests to determine whether bitterns possess defenses, such as egg rejection, against parasitism.

METHODS

This study was conducted in a restored wetland in Warren County, Iowa, just north of Indianola (41° 4′ N, 93° 6′ W), in 2003 and 2004. The dominant vegetation consisted of cattails (*Typha* spp.) and willows (*Salix* spp.), and water depth was <1.5 m. Nests of Least Bitterns, American Coots, Pied-billed Grebes (*Podilymbus podiceps*), and passerines such as Great-tailed Grackles (*Quiscalus mexicanus*), Yellow-headed Blackbirds (*Xanthocephalus xanthocephalus*), Red-winged Blackbirds (*Agelaius phoeniceus*), and Marsh Wrens (*Cistothorus palustris*) were monitored every 1–3 days.

I also experimentally parasitized Least Bittern nests with a variety of egg types during laying and incubation to determine their responses to parasitism. These eggs included (1) the Least Bittern's own eggs (31 × 24 mm; Baicich and Harrison 1997) colored black with permanent-ink markers to make them nonmimetic, (2) real coot eggs (49 × 34 mm; Baicich and Harrison 1997), (3) wooden eggs colored black (34 × 22 mm), and (4) plaster eggs (21 × 16 mm) made to look like those of the Brown-headed Cowbird (*Molothrus ater*; Table 1). The latter two egg types have been used in similar egg-recognition experiments (Rothstein 1975, Peer and Bollinger 1998, Peer and Sealy 2001). Only one egg type was added to each nest. Experimentally parasitized nests were checked every 1–3 days to determine the responses of Least Bitterns. Eggs were considered rejected if they were missing from the nest after it was parasitized.

RESULTS

Coots parasitized 18.2% ($n = 11$) of Least Bittern nests in 2003 and no nests ($n = 3$) in 2004. The first parasitized nest contained six bittern eggs and two coot eggs when found. Four bittern eggs hatched, and two bittern eggs and one coot egg disappeared. The second parasitized bittern nest was found containing four young bitterns and a coot egg that never hatched. Both parasitized nests were located near the water level, whereas the unparasitized bittern nests were at least 30–60 cm above the water level. Seven Pied-billed Grebe nests, 15 coot nests, and 1 unidentified duck nest also were monitored, but there was no evidence of parasitism on these nests.

The single artificial cowbird egg that was added to a bittern nest was rejected the following day, as were two of three black wooden eggs (10 and 13 days; Table 1). None of the colored bittern eggs was rejected ($n = 2$) and only one coot egg may have been rejected

within 8 days after it was found ($n = 5$; Table 1).

DISCUSSION

These are the first reported instances of American Coot parasitism on Least Bitterns (see Gibbs et al. 1992) and the first record of any form of brood parasitism on Least Bitterns. The Least Bittern is likely an unsuitable host for the coot because the bittern's incubation period is 17–20 days (Gibbs et al. 1992) and the coot's is 23–27 days (Brisbin et al. 2002); thus, any coot eggs laid in bittern nests would not have sufficient time to develop and hatch. Indeed, two of the parasitic coot eggs did not hatch and the fate of the third egg was unclear (see discussion below). It is also unlikely that a coot would be fed properly or receive adequate parental care from a Least Bittern, in which case it would probably die if the egg did hatch (Brisbin et al. 2002).

Why would coots lay their eggs in a potentially unsuitable host's nest? It is possible that the coot eggs I observed were laid by floater females (B. E. Lyon pers. comm.), as floater females are unable to obtain their own nesting territories and presumably attempt to make the best of a bad situation by practicing CBP (Lyon 1993a). Such females may be unable to locate and successfully parasitize other coots and are forced to parasitize the nests of unsuitable hosts (e.g., bitterns). Interestingly, the two parasitized nests that I observed were very near water level—similar to the floating platform nests used by coots. The coots that parasitized the bittern nests, or other coots in the population, also may have been practicing CBP. Lyon (1993a) found that the reproductive success of floater females was only 6% of that of nesting females, and only 3.6% of parasitic eggs produced by floaters produced young. The reasons for the lower reproductive success of floaters were the anti-parasite behavior of hosts (rejected 38% of floater eggs) and the timing of laying: floaters tended to lay late in the host's nesting cycle (Lyon 1993a). CBP in general is not a very successful strategy among coots, as only 7.7% of all parasitic eggs produced young that survived (Lyon 1993b); however, territorial females can increase their reproductive success by laying eggs in the nests of neighbors. Brood reduction is common in coots; thus, by laying eggs in the nests of conspecifics, they maximize their reproductive success (Lyon 1993a).

Least Bitterns rejected some of the foreign eggs placed into their nests. One of the naturally laid coot eggs disappeared from a nest, but it is unclear whether this was due to rejection, partial predation, or the coot chick hatching and leaving the nest. Bitterns rejected two of three wooden eggs and the artificial cowbird egg. The latter may have been so small that the bitterns viewed it as debris and removed it from the nest; however, the wooden eggs were approximately the same size as the bittern eggs, indicating that bitterns may possess some recognition abilities. Bitterns did not remove any of their own, colored eggs or any coot eggs. Egg recognition in this species deserves further study.

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Brown-headed Cowbird's Fatal Attempt to Parasitize a Carolina Chickadee Nest

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ABSTRACT.—On 5 June 2003, a female Brown-headed Cowbird (*Molothrus ater*) was found dead in a Carolina Chickadee (*Poecile carolinensis*) cavity nest near Bucyrus in Crawford County, Ohio. The cowbird had little room in the cavity and likely could not remove itself after laying an egg. Carolina Chickadee nests are rarely parasitized by brood parasites, and the size of their cavity entrances likely limits parasitism by Brown-headed Cowbirds. This is the first known instance of a Brown-headed Cowbird mortality after laying an egg in the cavity nest of a host species. *Received 6 September 2005, accepted 21 March 2006.*

More than 220 avian species reportedly have been parasitized by Brown-headed Cowbirds (*Molothrus ater*; Lowther 1993). Whereas the Carolina Chickadee (*Poecile carolinensis*) is an uncommon host species, there are a few records of Brown-headed Cowbirds parasitizing that species (Friedmann 1938, Goertz 1977). The closely related Black-capped Chickadee (*P. atricapillus*) also has been parasitized, and individuals have been observed feeding Brown-headed Cowbird fledglings (Lowther 1983). Such observations suggest that these chickadee species are capable of raising the young of Brown-headed Cowbirds, but that some mechanism may be limiting Brown-headed Cowbirds from taking advantage of these potential host species more often. Cavity nesting seems to offer some protection from brood parasites, as cavity nesters have been found to have low levels of parasitism (Strausberger and Ashley 1997). Female Carolina Chickadees cover their eggs during the egg-laying stage (Brewer 1961), which also may offer protection against parasitism. Studies have revealed lower levels of parasitism among some host species because they reject cowbird eggs (Strausberger and Ashley 1997) or because they do not provide adequate nutrition to cowbird young (Mills 1988).

During 2003, we monitored a pair of color-banded Carolina Chickadees nesting in natural cavities in a 2.63-ha woodlot located in Crawford County, Ohio (40° 46′ N, 82° 58′ W). The landscape is dominated by agriculture, with woodlots scattered throughout the county. On 5 June 2003, we discovered a Carolina Chickadee nest cavity from which most of a dead female Brown-headed Cowbird's tail was protruding. The cowbird appeared to have died only a day or two before we found the nest and appeared cramped in the cavity. The cavity entrance dimensions were 38 mm high × 42 mm wide, similar to average dimensions previously reported for Carolina Chickadee cavity entrances (Brewer 1961, Albano 1992, Mostrom et al. 2002). The cavity was 155 mm deep, and the nest was made with grass, hair, feathers, and plant down. We did not measure the female cowbird, but her size appeared to be normal. Inspection of the nest confirmed that the cowbird had laid one egg, but we found no chickadee eggs in the nest. Given the depth of the nest cavity, we can only as-

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sume that the cowbird died after laying the egg because she had no room to move inside the cavity and remove herself after entering the nest.

The chickadees' cavity appeared to have been freshly excavated and the nest inside was intact. The cavity was located in a dead branch (130 mm in diameter at the cavity entrance, broken but still barely attached to the tree) that was hanging 1.2 m above ground, and the opening was oriented north-northeast. The nest tree was located about 22 m from the northern edge of the woodlot. Two adult chickadees were heard nearby, but if they were the original cavity occupants, it appeared they had already abandoned the nest. This was the third known nesting attempt by this pair of chickadees in 2003. The first nest was discovered on 18 April, when one of the chickadees was observed entering a cavity. On 24 April, their nest appeared to be complete and covered, suggesting they had laid at least one egg. On 28 April, the nest was gone and a few sticks were found in the cavity. A House Wren (*Troglodytes aedon*) eventually completed a nest and laid eggs in the same cavity. On 4 May, again the chickadee pair was observed building a new nest in a freshly excavated cavity. On 13 May, the nest had been removed by a House Wren and sticks were placed in the cavity. There was no indication that the chickadees had laid eggs in the nest.

The small entrances of chickadee nest cavities likely prevent most Brown-headed Cowbirds from even attempting to parasitize their nests. Pribil and Picman (1997) showed that the size of cavity entrances could limit a Brown-headed Cowbird's ability to parasitize House Wren nests. They proposed that a 38-mm-diameter hole was the smallest that a Brown-headed Cowbird could voluntarily exit; however, they had placed the cowbirds in a nesting box (12 × 10 × 20 cm), which provided enough room for the birds to orient themselves toward the exit hole. If a cowbird is cramped in a cavity—as we observed—it may not be able to turn and face the cavity opening, making it more difficult to remove itself from the cavity. One record of a parasitized Black-capped Chickadee nest indicated that the cavity entrance was larger than normal, allowing intrusion by a cowbird (Packard 1936). Whereas some cavities may permit entry by Brown-headed Cowbirds, most cowbirds may not attempt to parasitize such nests because of the difficulty in removing themselves from the nests after they have completely entered the cavities. This is the first reported instance of a Brown-headed Cowbird mortality after egg-laying in the nest of a cavity-nesting species.

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