

BREEDING BIRDS OF ONTARIO: NIDIOLOGY AND DISTRIBUTION

Volume 2: Passerines (First Revision - Part A: Flycatchers to Gnatcatchers)

by
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Another decade has elapsed since the publication of Volume 2 of *Breeding Birds of Ontario* (Peck and James 1987), and it has been four years since the revision of Volume 1 (Peck and James 1983) which appeared in three parts in *Ontario Birds* in 1993-4. During the decade, continuing changes in the breeding status and distribution of Ontario's passerine breeding species have made this present revision timely. Some species, eg. Acadian Flycatcher, Loggerhead Shrike, Wood Thrush, Prothonotary Warbler have continued to decrease, and Henslow's Sparrow has all but disappeared as a provincial breeding species. Conversely, the House Finch has rapidly expanded throughout southern Ontario and occurred in summer as far north as Nipissing and Rainy River Districts. Other changes include the confirmed 1987 nesting of Western Kingbird, local increases in breeding populations of Hooded Warbler and Orchard Oriole, and another sporadic nesting of Dickcissels in 1988. The latter species became the 87th host of the Brown-headed Cowbird in Ontario.

Our primary source of nidiological and distributional data, the Ontario Nest Records Scheme (ONRS), has expanded until it now contains more than 110,000 nest cards. In addition to the cards of current ONRS contributors, naturalists' field logs continue to be turned into the Royal Ontario Museum (ROM), and we are continuing to extract provincial nesting and breeding records from these journals. These field logs include historical records of L.H. Beamer, G. Boyer, R.C. Brooman, G. Clouts, O.E. Devitt, P. Harrington, J.A. Morden, H. Morris, E. Nasmith, R. Pickering, W.E. Saunders, W.W. Smith, J.D. Soper, and F. Starr. All other published sources of Ontario breeding bird data such as the *National Audubon Society Field Notes* are included in this revision.

All known new provincial nesting and breeding records appear in this revision. A 'nesting' record is an exact term involving the finding of an active nest, whereas a 'breeding' record, a less exact designation, usually implies the observation of an adult with flightless (precocial species) or flying stub-tailed (altricial species) young, away from the nest. For colonial species, the record (nest card) numbers may indicate the number of cards of colonies rather than nests. In non-colonial species, where more than one nest is listed on cards, the actual nest total is given in parentheses after the record (nest card) number. Brackets [] around a species' name indicate a hypothetical breeding species; brackets around a corresponding record [nest card] number indicate a nesting(s) lacking documentation. The egg numbers in bold print (eg. **4E**), indicate known, complete clutch sizes. Despite the various regional groupings that have occurred, such as the combining of counties Leeds/Grenville/Dundas, we have continued to list the 52 provincial regions as mapped and described in both volumes of *Breeding Birds*.

Changes in nesting and breeding distribution, nest data, clutch sizes, cowbird parasitism, incubation periods, and new early and late egg dates, are given if they have been acquired. The four symbols used to qualify records on the breeding distribution maps of both volumes still apply, and it is understood that these revisional changes may add symbols, or alter existing symbols if documentation has been received

with the record.

Recent supplements to the American Ornithologists' Union Check-list (A.O.U. 1989,1995) have resulted in some English and scientific name changes affecting the Ontario breeding passerines' list. The new English names are American Pipit replacing Water Pipit, Eastern Towhee replacing Rufous-sided Towhee, Nelson's Sharp-tailed Sparrow replacing Sharp-tailed Sparrow, and Baltimore Oriole replacing Northern Oriole. Currently, the forty-first and last supplement (A.O.U. 1997) prior to the seventh edition of the A.O.U. Check-list has made even more profound changes affecting one English name (Blue-headed_Vireo replaces Solitary Vireo), other scientific names, and the listing order of passerine species, which will be reflected in these revisions. Most of these latter changes are based on DNA-DNA hybridization studies.

Breeding Bird Species

Olive-sided Flycatcher, *Contopus cooperi*

20 nests representing 13 provincial regions. A documented nest from Sudbury District (1987) was the only new regional nesting.

Eastern Wood-Pewee, *Contopus virens*

298 nests representing 38 provincial regions. Recently acquired nest records from former counties of Lincoln (1939), Welland (1944), and a 1983 nest from Niagara, have established Niagara RM as a nesting region. A 1984 nesting was recently submitted for Prince Edward County.

Cowbird parasitism 165 nests with 9 parasitized (5.5%).

EGG DATES An extremely early egg date of 15 May from Wellington (1894) by Allan Brooks would seem to be in error, possibly due to a misidentification.

Yellow-bellied Flycatcher, *Empidonax flaviventris*

18 nests representing 10 provincial regions. A 1982 nest from Grey and a 1987 nest from Sudbury were the most recent additions. The Grey nest is the most southerly modern-day nesting record.

INCUBATION PERIOD 2 nests; 1 nest, at least 13 days; 1 nest of 15 days.

EGG DATES 13 nests, 8 June to 20 July (16 dates); 7 nests, 20 June to 27 June.

Acadian Flycatcher, *Empidonax virescens*

39 (42 nests) representing 7 provincial regions.

EGGS 23 nests with 1 to 4 eggs; **1E**(2N), **2E**(4N), **3E**(15N), **4E**(2N).

Average clutch range 3 eggs (15 nests).

Cowbird parasitism 25 nests with 3 parasitized (12%).

EGG DATES 20 nests, 10 June to 30 July (26 dates); 10 nests, 17 June to 6 July.

Alder Flycatcher, *Empidonax alnorum*

59 nests representing 17 provincial regions. A 1978 nest record has been added from Grey.

Cowbird parasitism 55 nests with 8 parasitized (14.6%).

EGG DATES 51 nests, 15 June to 28 July (64 dates); 26 nests, 23 June to 6 July.

Renestings were reported after failure of first nests, with second nests built in same territory.

Willow Flycatcher, *Empidonax traillii*

102 nests representing 22 provincial regions. New nest records have been received from Grey (1983), Niagara (1995), Simcoe (1978), and Wellington (1982).

A small nest from Hamilton-Wentworth had an outside diameter of 7.5 cm (3 inches), inside diameter 4.4

cm (1.7 inches), outside depth 6.4 cm (2.5 inches), and inside depth 5 cm (2 inches).

Cowbird parasitism 91 nests with 22 parasitized (24.2%).

INCUBATION PERIOD In a Durham nest there was a 6-day interval between the laying of the first and last egg in a 4-egg clutch. The incubation period in this nest was 14 days.

EGG DATES 68 nests, 13 June to 20 July (92 dates); 34 nests, 25 June to 6 July.

Least Flycatcher, *Empidonax minimus*

293 nests representing 36 provincial regions. Bruce (1985), Haldimand-Norfolk (1993), and Perth (1985), were the recent regional nestings.

In at least 7 provincial regions, nests in close proximity to each other have been reported, and as many as 7 or 8 nests have been noted in such proximity. These situations would seem to approximate a form of coloniality, as previously described (Davis, 1959).

Cowbird parasitism 143 nests with 5 parasitized (3.5%).

Eastern Phoebe, *Sayornis phoebe*

1993 (2034 nests) representing 50 provincial regions.

A double-bowled nest with eggs in each bowl, was found in Bruce in 1993. One of the clutches was being incubated.

Cowbird parasitism 1498 nests with 179 parasitized (11.9%).

INCUBATION PERIOD 45 nests, 13 to 18 days, with 23 averaging 14 to 15 days.

Great Crested Flycatcher, *Myiarchus crinitus*

413 nests representing 45 provincial regions. A 1988 nest from Thunder Bay was reported, and is one of the few northern breeding records.

EGGS 164 nests, 1 to 7 eggs; **1E** (3N), **2E** (7N), **3E** (13N), **4E** (43N), **5E** (60N), **6E** (60N), **7E** (1N).

Average clutch range 5 to 6 eggs (120 nests).

Cowbird parasitism 227 nests with 6 parasitized (2.6%).

INCUBATION PERIOD 10 nests, 12 to 14 days, with 8 nests from 13 to 14 days.

Western Kingbird, *Tyrannus verticalis*

3 nests representing 1 provincial region. The 3 nests were reported in 1987, 1988, and 1991, all from western Rainy River District.

One nest was in a farm yard near buildings, and another was in a small town residential area. The nest trees were a willow sp., Manitoba Maple, and a Bur Oak, and nests were at respective heights of 3m (9.8 ft), 6m (19.7 ft), and 10m (32.8 ft). Two of the nests were in large forks and the other on a lateral branch.

One nest was described as a grassy cup, and another as an untidy, elongated structure. Exteriors were formed of coarse grasses, weed stalks, fine twigs, string, and paperlike material.

On 7 June an adult was observed on one of the nests probably incubating eggs, and in another of the nests, 2 young near fledging were noted on 12 July.

A fourth nest in Kent County (1943) remains hypothetical due to unidentifiable documentation.

Eastern Kingbird, *Tyrannus tyrannus*

1801 (1806 nests) representing all 52 provincial regions.

Cowbird parasitism 1066 nests with 12 parasitized (1.1%). Since the Eastern Kingbird is a known rejector species, the percentage parasitism is probably higher than indicated.

A late egg date of 6 August was reported from Peterborough. The nest contained young on 20 August.

Northern Shrike, *Lanius excubitor*

Another breeding record (1993) from Kenora District, near the mouth of the Severn River, has been received. As yet, no occupied Ontario nest of this species has been discovered.

Loggerhead Shrike, *Lanius ludovicianus*

274 nests representing 35 provincial regions. Early nest records from Elgin (1952) and Norfolk (1938) have been acquired recently. A possible 1984 nesting or breeding record from Stormont was reported (Weir, 1984). The increase in nest card numbers is the result of recent, assiduous monitoring of this declining provincial breeding species.

In 1996, 16 nests from Lennox and Addington were in juniper (Eastern Redcedar).

EGGS 142 nests with 1 to 7 eggs.

Average clutch range 5 to 6 eggs (87 nests).

Several instances of renesting were noted, and a probable double brood was reported from Victoria in 1992 (Pittaway, 1993).

White-eyed Vireo, *Vireo griseus*

11 nests representing 3 provincial regions. A possible 1991 breeding record for Elgin involved an adult feeding a flying young bird.

A Haldimand-Norfolk nest had an outside diameter of 6 cm (2.4 inches), inside diameter of 5 cm (2 inches), outside depth of 6 cm (2.4 inches), and inside depth of 4 cm (1.6 inches).

EGGS 3E (1N), 4E (1N).

Cowbird parasitism 7 nests with 4 parasitized (57%).

INCUBATION PERIOD 1 nest, 11 to 12 days.

EGG DATES 4 nests, 15 May to 14 June (6 dates).

Blue-headed Vireo (Solitary Vireo), *Vireo solitarius*

71 nests representing 20 provincial regions. Elgin (1991) and Middlesex (1988) are new nesting regions.

EGGS 41 nests, 2 to 5 eggs.

Average clutch range 4 eggs (33 nests).

Cowbird parasitism 50 nests with 4 parasitized (8%).

Yellow-throated Vireo, *Vireo flavifrons*

94 (95 nests) representing 23 provincial regions. Added nesting regions are Haldimand-Norfolk (1987), Oxford (1988), Niagara (1993), and Sudbury (1996). The Sudbury nest is the most northerly to date. Two occupied nests were noted within 15m (50 ft) of each other in Oxford in 1988.

Cowbird parasitism 48 nests with 23 parasitized (47.9%).

An unusually short incubation period of 10 days for one of three eggs in a clutch was reported from Elgin. In this same nest there was a delay of at least 5 days between the first and third egg.

Warbling Vireo, *Vireo gilvus*

179 (180) nests representing 37 provincial regions. Recent nesting regions are Muskoka (1983), Perth (1985), Prince Edward (1995), and Sudbury (1989).

EGGS 54 nests with 1 to 4 eggs; 1E(2N), 2E (9N), 3E (18N), 4E (25N).

Average clutch range 3 to 4 eggs (43 nests).

The unusual incubation of a single, infertile egg was reported, in a nest which contained feathers in its exterior as well as its lining (James, 1996).

Cowbird parasitism 62 nests with 7 parasitized (11.3%). The eastern form of this vireo is now known to be a rejector of cowbird eggs (Sealy, 1996), thus the percentage parasitism may be higher than shown.

Philadelphia Vireo, *Vireo philadelphicus*

41 nests representing 8 provincial regions

Cowbird parasitism 14 nests with 2 parasitized (14.3%). A parasitized nest in the collection of the Western Foundation of Vertebrate Zoology, CA, purported to be of this species, was collected 15 June 1915 on the Humber River (York County?) (Friedmann et al, 1977). This record has been disregarded due to a lack of data, its southern location, and the possibility of a misidentification.

Red-eyed Vireo, *Vireo olivaceus*

568 nests representing 44 provincial regions

Cowbird parasitism 387 nests with 154 parasitized (40%). A study in Waterloo in 1996 reported 13 Red-eyed Vireo nests with 10 parasitized (76.9%), an extremely high rate.

Gray Jay, *Perisoreus canadensis*

82 nests representing 9 provincial regions. Muskoka (1994) and Timiskaming (1996) are recently-added nesting regions. A probable southern breeding record has been reported from Peterborough (Ridout, 1996).

Blue Jay, *Cyanocitta cristata*

472 nests representing 43 provincial regions. An historical nest record (1912) from Hastings has been acquired.

The number of coniferous nest trees as stated in Volume 2, should have been 7 spp. and not 76. Blue Spruce and Lilac are newly-reported nest trees.

Renestings and double broods have both been noted.

Black-billed Magpie, *Pica pica*

12 nests representing 1 provincial region. More nests continue to be reported from Curran and Worthington townships in western Rainy River District, thus far the species' only provincial nesting area.

A nest on the roof beams of an open hay shed, at a height of 5 m (16.4 ft), was occupied in 1986, 1987, and 1989. Four other recent nests were in willows at heights ranging from 2 to 3.5 m (6.6 to 10.7 ft).

One nest had an outside diameter of 50 cm (19.7 inches), inside diameter of 25 cm (9.8 inches), outside depth of 50 cm (19.7 inches), and inside depth of 15 cm (5.9 inches). Two other nests had outside depths of 30 and 80 cm (11.8 and 31.5 inches).

One nest contained at least 4 young on 9 June, and adults were seen at the 6 other new nests between 29 March and 9 June.

American Crow, *Corvus brachyrhynchos*

882 nests representing 45 provincial regions. A 1986 nest record from Haliburton has been added.

Common Raven, *Corvus corax*

252 (253 nests) representing 19 provincial regions. The three most recent nesting regions are Bruce (1993), Grey (1995), and Toronto (1987). These records emphasize the southern expansion of the breeding range of this species, and the Toronto record is the most southerly to date (Jefferson, 1989). The most northerly provincial nest record was submitted in 1990 from Kenora, near the mouth of the Shagamu River at Hudson Bay. Although breeding was previously indicated for Leeds County (Peck and James, 1987), a specific record has yet to be documented in the ONRS.

Outside diameters of 15 nests ranged from 40 to 152 cm (16 to 60 inches)., with 8 averaging 60 to 91 cm (24 to 36 inches); inside diameter of 2 nests were 15 and 25 cm (6 to 10 inches); outside depths of 11

nests ranged from 20 to 75 cm (8 to 30 inches), with 6 averaging 30 to 45 cm (12 to 18 inches); inside depth of 3 nests were 10, 15, and 20 cm (4, 6, and 8 inches).

EGGS 35 nests with 2 to 7 eggs; 2E (1N), 3E (7N), 4E (14N), 5E (10N), 6E (1N), 7E (2N).

Average clutch range 4 to 5 eggs (24 nests).

EGG DATES 20 nests, 10 March to 16 May (27 dates); 10 nests, 27 March to 16 April.

Renesting was reported at a Timiskaming site after the first nest was abandoned. The second nest was 183 m (600 ft) distant from the first nest.

Horned Lark, *Eremophila alpestris*

187 (189 nests) representing 39 provincial regions. Nest records from Grey (1992) and Prince Edward (1986) are the new additions.

A 1941 nest record from York was recently received and was the second nest described in the middle of railway tracks, in use at least twice daily.

Eight nests had outside diameters ranging from 7.5 to 11 cm (3 to 4.3 inches), inside diameters from 5 to 7.5 cm (2 to 3 inches), outside depths from 4 to 6 cm (1.6 to 2.4 inches), and inside depths from 2.5 to 4.5 cm (1 to 1.8 inches).

EGGS 175 nests with 1 to 6 eggs; 1E (2N), 2E (19N), 3E (70N), 4E (73N), 5E (10N), 6E (1N).

Average clutch range 3 to 4 eggs (143 nests).

Cowbird parasitism 185 nests with 4 parasitized (2.2%).

EGG DATES 156 nests, 23 March to 20 July (186 dates); 78 nests, 17 April to 29 May.

Purple Martin, *Progne subis*

870 (640 colonies, 50 single nestings, ca 5470 nests) representing 50 provincial regions.

EGGS 279 nests with 1 to 7 eggs; 1E (7N), 2E (13N), 3E (24N), 4E (79N), 5E (101N), 6E (53N), 7E (2N). *Average clutch range* 4 to 5 eggs (180 nests).

Tree Swallow, *Tachycineta bicolor*

6153 (ca 6485 nests) representing all 52 provincial regions.

Cowbird parasitism 4585 nests with 1 parasitized (0.02%).

Northern Rough-winged Swallow, *Stelgidopteryx serripennis*

456 (313 isolated nestings, 68 colonies, ca 572 nests) representing 42 provincial regions.

Bank Swallow, *Riparia riparia*

1497 (200 colonies, 48 isolated nestings, ca 9648 nests) representing all 52 provincial regions.

Later egg dates than 17 July are likely since adults were reported feeding young in burrows on 13 August, in Grey.

Barn Swallow, *Hirundo rustica*

4118 (ca 4830 nests) representing all 52 provincial regions.

Cowbird parasitism 3351 nests with 4 parasitized (0.03%).

Cliff Swallow, *Petrochelidon pyrrhonota*

985 (488 colonies, 109 single nestings, ca 7639 nests) representing all 52 provincial regions. Niagara (1991) was the final nesting region to be reported.

After completion, most nests had downward-sloping spouts.

Earlier and later egg dates than those given in Volume 2 (22 May to 2 August) were strongly suggested by birds on nests on 4 May (Simcoe), and the feeding of young in nests on 24 August (Haldimand-Norfolk).

Black-capped Chickadee, *Poecile atricapillus*

651 (658 nests) representing 46 provincial regions. Bruce (1993) and Prescott (1993) were the latest nesting regions to be added.

EGGS 176 nests with 1 to 11 eggs; 1E (2N), 2E (3N), 3E (6N), 4E (16N), 5E (20N), 6E (58N), 7E (42N), 8E (22N), 9E (5N), 10E (1N), 11E (1N).

Average clutch range 6 to 7 eggs (100 nests).

Two more double broods were reported.

Cowbird parasitism 247 nests with 6 parasitized (2.4%).

INCUBATION PERIOD 12 nests, 11 to 17 days; 10 nests, 12 to 13 days.

A late egg date of 20 July was submitted from Waterloo (1996).

Boreal Chickadee, *Poecile hudsonicus*

69 nests representing 7 provincial regions. Kenora (1985) was the most recently-added nesting region.

The large increase in numbers of nest records is largely due to a study project in Sudbury with nest boxes (39 nests), which this species uses readily.

EGGS 41 nests with 1 to 8 eggs; 1E (1N), 2E (2N), 4E (4N), 5E (5N), 6E (17N), 7E (11N), 8E (1N).

Average clutch range 6 to 7 eggs (28 nests).

INCUBATION PERIOD 9 nests, 11 to 14 days.

EGG DATES 44 nests, 22 May to 5 July (66 dates); 22 nests, 29 May to 4 June.

Tufted Titmouse, *Baeolophus bicolor*

11 nests representing 6 provincial regions. A nest from Haldimand-Norfolk (1996) was reported, and an unsuccessful nest in a bird box was found in 1997 in Manitoulin. The Manitoulin nesting in Howland Township (45 57'N, 81 56'W) was considerably north of all other provincial nests of this Carolinian Zone species.

Red-breasted Nuthatch, *Sitta canadensis*

99 (100 nests) representing 27 provincial regions. The 6 added regions since Volume 2 are Elgin (1989), Grey (1994), Hamilton-Wentworth (1991), Manitoulin (1990), Victoria (1990), and Waterloo (1989).

EGGS 16 nests with 1 to 7 eggs.

Average clutch range 5 to 6 eggs (9 nests).

A second brood in the same nest was reported from Nipissing.

EGG DATES 16 nests, 5 May to 13 June (18 dates); 8 nests, 21 May to 4 June.

White-breasted Nuthatch, *Sitta carolinensis*

117 nests representing 35 provincial regions. A 1952 nest from Waterloo was recently added.

A fourth nest in a bird box was reported from Durham.

Cowbird parasitism 26 nests with 1 parasitized (3.8%).

Brown Creeper, *Certhia americana*

103 nests representing 32 provincial regions. Bruce (1987), Elgin (1992), Haldimand-Norfolk (1981), and Waterloo (1986) were added nesting regions. A possible 1985 nesting in Prince Edward was reported (Weir, 1985).

A large Elgin nest had an outside diameter of 15 cm (5.9 inches), inside diameter of 7 cm (2.8 inches), outside depth of 25 cm (9.8 inches), and inside depth of 5 cm (2 inches).

EGGS 41 nests with 1 to 8 eggs; 1E (2N), 3E (3N), 4E (11N), 5E (11N), 6E (11N), 7E (2N), 8E (1N).

Average clutch range 4 to 6 eggs (33 nests).

EGG DATES 32 nests, 23 April to 13 July (39 dates); 16 nests, 26 May to 11 June. Young birds still in a nest on 9 August (Nipissing) suggest a later egg date than that shown.

Carolina Wren, *Thryothorus ludovicianus*

38 (39 nests) representing 11 provincial regions. A nest record from Elgin (1992), a probable breeding

record from Bruce (1993), and an undocumented 1989 breeding in Oxford (Weir, 1989) were reported.

Two recently-submitted nest records were in hanging flower baskets, another was in a bird box, another under eaves of a building, and a fifth was situated in duck-trap gear in a marsh.

Heights of 21 nests ranged from 0.5 to 4.5 m (1.7 to 14.8 ft), with 11 averaging 1.2 to 2.2 m (4 to 7 ft).

Eight nests had outside diameters ranging from 9 to 20 cm (3.5 to 7.9 inches), inside diameters from 6 to 9.5 cm (2.4 to 3.7 inches), outside depths from 8 to 14 cm (3.1 to 5.5 inches), and inside depths from 3 to 10 cm (1.2 to 3.9 inches). One nest was described as globe-shaped.

EGGS 22 nests with 3 to 9 eggs; **3E** (3N), **4E** (4N), **5E** (14N), **9E** (1N).

Average clutch range 5 eggs (14 nests).

INCUBATION PERIOD 4 nests: 2 of 14 days, 1 of at least 14 days, 1 of 15 days.

EGG DATES 15 nests, 5 April to 8 August (22 dates); 8 nests, 10 May to 29 May. Three young in an Essex nest on 29 August suggest a later egg date than the one shown.

Bewick's Wren, *Thryomanes bewickii*

5 nests representing 1 provincial region. No new breeding data has been received since 1957.

House Wren, *Troglodytes aedon*

1863 (ca 1938 nests) representing 50 provincial regions. Nest records were received from Glengarry (1994) and Timiskaming (1988).

Cowbird parasitism 1213 nests with 4 parasitized (0.3%).

An early egg date of 7 April was reported from Niagara in 1987.

Winter Wren, *Troglodytes troglodytes*

35 nests representing 19 provincial regions. Nest records were received from Haldimand-Norfolk (1988), Haliburton (1990), and Waterloo (1995). A possible breeding in 1986 in Elgin was noted (Weir, 1986).

New nest locations were: a nest built upon an old Eastern Phoebe nest, a nest on a woodshed beam, and a nest on a beam under a cottage eave. Five nests had outside diameters ranging from 8.5 to 15 cm (3.3 to 5.9 inches), inside diameters from 4 to 6 cm (1.6 to 2.4 inches), outside depths from 5.5 to 8 cm (2.2 to 3.1 inches), and inside depths from 3 to 5.5 cm (1.2 to 2.2 inches).

EGGS 11 nests with 1 to 6 eggs; **1E** (1N), **4E** (3N), **5E** (4N), **6E** (3N).

Average clutch range 5 to 6 eggs (7 nests).

EGG DATES 8 nests, 31 May to 12 July; 4 nests, 2 June to 17 June.

Sedge Wren, *Cistothorus platensis*

58 (67 nests) representing 21 provincial regions. An early nest record from Norfolk (1907) has been added.

EGGS 45 nests with 3 to 8 eggs; **3E** (3N), **4E** (6N), **5E** (10N), **6E** (9N), **7E** (14N), **8E** (3N).

Average clutch range 5 to 7 eggs (33 nests).

INCUBATION PERIOD 1 nest, 12 days.

EGG DATES 40 nests, 5 June to 22 July (43 dates); 20 nests, 12 June to 1 July.

Marsh Wren, *Cistothorus palustris*

499 (536 nests) representing 33 provincial regions. New nesting regions were Thunder Bay (1996), and Waterloo (1974).

A large, occupied nest in Niagara had an outside diameter of 14 cm (5.5 inches), outside depth of 25 cm (9.8 inches), and inner diameter of 11 cm (4.3 inches).

Golden-crowned Kinglet, *Regulus satrapa*

12 nests representing 9 provincial regions. Prince Edward (1996) and Sudbury (1988) were the recently-reported nesting regions. A possible breeding record was reported for Elgin in 1986 (Weir, 1986).

Nine of 11 nests were positioned in spruce spp., and 1 was in a hemlock. A nest in a 20 m (66 ft) White Spruce was in a lower branch fork at a height of 6 m (20 ft).. Heights of 9 nests ranged from 2.4 to 13 m (8 to 43 ft), with 5 averaging 2.4 to 10.7 m (8 to 35 ft).

Ruby-crowned Kinglet, *Regulus calendula*

26 (32 nests) representing 14 provincial regions. Algoma (1908), and Victoria (1986) were recently-added nesting regions.

A nest in a pine sapling in Victoria was only 0.4m (1.3 ft) above ground, and another nest in a large spruce in Cochrane was at a height of 15 m (50 ft).

EGGS 24 nests, 3 to 10 eggs; **5E** (2N), **6E** (3N), **7E** (3N), **8E** (7N), **9E** (7N), **10E** (2N).

Average clutch range 8 to 9 eggs (14 nests).

EGG DATES 21 nests, 2 June to 23 June (26 dates); 10 nests, 10 June to 14 June.

Blue-gray Gnatcatcher, *Polioptila caerulea*

156 (160 nests) representing 27 provincial regions. Grey (1985), Manitoulin (1994), and Ottawa-Carlton (1986) were recently-reported nesting regions.

Initial nest observations in 68 records (43%) were of nests under construction, apparently the time when nesting activities are most easily observed.

Three instances were reported of second nests being built using materials taken from first nests, abandoned nearby.

A Middlesex nest had an outside diameter of 5.5 cm (2.2 inches), an inside diameter of 3.3 cm (1.3 inches), an outside depth of 6 cm (2.4 inches), and an inside depth of 3.5 cm (1.4 inches).

EGGS 30 nests with 3 to 5 eggs; **3E** (8N), **4E** (11N), **5E** (11N).

Average clutch range 4 to 5 eggs (22 nests).

Cowbird parasitism 33 nests with 4 parasitized (12.1%).

INCUBATION PERIOD 2 nests: 1 of 12 days, 1 of 15 days.

EGG DATES 45 nests, 6 May to 1 July (53 dates); 23 nests, 25 May to 9 June.

Renestings were noted after failure of first nest.

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**BREEDING BIRDS OF ONTARIO:
NIDIOLOGY AND DISTRIBUTION**

Volume 2: Passerines
(First Revision - Part B: Thrushes to Warblers)

George K. Peck and Ross D. James

As was set forth in Part A (Peck and James 1997) of this revision of Volume 2 of Breeding Birds of Ontario (Peck and James 1987), we are again following the order and sequence as proposed in the forty-first supplement (A.O.U. 1997) and the seventh edition (A.O.U. 1998) of the American Ornithologists' Union Check-list. In this present revision the European Starling (Family *Sturnidae*) has been moved to immediately follow the Brown Thrasher (Family *Mimidae*).

Breeding Bird Species

Eastern Bluebird, *Sialia sialis*

6144 (ca 6436 nests) representing 46 provincial regions. The various nest box programs have continued to benefit this species and it remains fourth highest in nest card numbers in the Ontario Nest Records Scheme (ONRS).

Cowbird parasitism 5102 nests with 4 parasitized (0.1%)

Mountain Bluebird, *Sialia currucoides*

1 nest representing 1 provincial region. No new breeding data has been received since 1986.

Veery, *Catharus fuscescens*

448 nests representing 42 provincial regions. A 1989 nest in Haldimand-Norfolk was the only new regional nesting. Two Haliburton nests had outside depths of 5 and 6 cm (2 and 2.4 inches) and inside depths of 3 and 4.5 cm (1.2 and 1.8 inches).

Cowbird parasitism 429 nests with 82 parasitized (18.9%).

INCUBATION PERIOD 10 nests; 1 of 10 days, 3 of 11 days, 2 of not more than 11 days, 1 of not more than 12 days, 2 of 12 days, 1 of not more than 14 days.

EGG DATES A nest with eggs on 28 July in Lanark was the latest egg date reported.

Gray-cheeked Thrush, *Catharus minimus*

2 nests representing 1 provincial region. No new breeding information of this northern species has been received.

Swainson's Thrush, *Catharus ustulatus*

197 (200 nests) representing 18 provincial regions.

An unusual nest location and site were reported from Nipissing (Tozer *et al.* 1996), describing a deciduous forest location and a nest positioned on top of a bracket fungus growing on the trunk of a Sugar Maple.

EGGS 140 nests with 1 to 4 eggs; 1E (7N), 2E (11N), 3E (59N), 4E (63N).

Average clutch range 3 to 4 eggs (122 nests).

Cowbird parasitism 174 nests with 1 parasitized (0.6%).

INCUBATION PERIOD 5 nests: 2 of 12 days, 1 no more than 12 days, 1 ca 13 days, 1 at least 13 days.

Hermit Thrush, *Catharus guttatus*

206 nests representing 26 provincial regions. A 1993 nest in Prescott was a new regional nesting.

An unusual nest record was received from Muskoka DM, describing a 1991 nest built on top of an old nest of Eastern Phoebe, located on a nesting tray beneath the eaves of a cottage, at a height of 2.1 m (6.9

ft) (Tozer 1997). An elevated nest in Hastings (1997) was reported in an Eastern Hemlock at a height of 4.3 m (14 ft), and on a limb also 4.3 m (14 ft) from the trunk.

A 2-egg clutch in Timiskaming was incubated and hatched 2 young.

Cowbird parasitism 195 nests with 11 parasitized (5.6%).

INCUBATION PERIOD 7 nests, 11 to 13 days.

Wood Thrush, *Hylocichla mustelina*

452 nests representing 41 provincial regions. Newly-reported nesting regions were Glengarry (1996), Huron (1983), Northumberland (1992), Prescott (1993), and Prince Edward (1994). The big increase in nest records is due largely to a 1996-7 Canadian Wildlife Service (CWS) nest monitoring project, mainly involving woodlands in 3 provincial regions. This project resulted in the finding of 154 nests of which 30.5% were parasitized by Brown-headed Cowbird - an above average percentage. The nest card increase due to this intensive study should not cause undue optimism, because the Wood Thrush has suffered a marked decline in Ontario in recent decades.

Ten nests had outside diameters ranging from 11 to 14 cm (4.3 to 5.5 inches), inside diameters from 7 to 10 cm (2.8 to 3.9 inches), outside depths from 6 to 9 cm (2.4 to 3.3 inches), and inside depths from 2.5 to 6 cm (1 to 2.4 inches).

Cowbird parasitism 384 nests with 110 parasitized (28.6%).

INCUBATION PERIOD 8 nests: 2 of 10 days, 1 of 11 days, 2 of at least 11 days, 2 of 12 days, 1 of at least 12 days.

EGG DATES 216 nests, 4 May to 2 August (271 dates); 108 nests, 2 June to 20 June. The extremes of these dates strongly suggest second broods, and one instance was reported from Waterloo RM in 1996.

BREEDING DISTRIBUTION

Little change in distribution has been noted in the past decade. The species is experiencing a decline due, at least in part, to fragmentation of breeding woodlots. Possibly as a result, cowbird parasitism has increased overall by 1.4%. This small increase is unlikely to be a major factor in the decline.

American Robin, *Turdus migratorius*

7404 (ca 7450 nests) representing all 52 provincial regions.

A Niagara (1994) nest was built on top of an abandoned nest that contained 2 infertile eggs.

Cowbird parasitism 6004 nests with 17 parasitized (0.3%).

A 4 April (calculated) early egg date was recorded in York in 1943, and a nest with 1 egg was reported from Grey (1995) on 6 April. Both dates are earlier than our previous earliest egg date.

Gray Catbird, *Dumetella carolinensis*

1520 (1524 nests) representing 45 provincial regions. In Volume 2 (Peck and James, 1987) Kenora was included as a nesting region. The record was actually a breeding record, and thus the nesting regions have been reduced to 45.

Cowbird parasitism 1241 nests with 20 parasitized (1.6%).

Northern Mockingbird, *Mimus polyglottos*

101 (107 nests) representing 31 provincial regions. New nesting regions were Essex (1986), Lennox & Addington (1997), Renfrew (1987), Simcoe (1993), and Wellington (1987).

A low nest from Manitoulin was 0.3 m (1 ft) above ground in an apple tree. Ten nests had outside diameters ranging from 12 to 20.3 cm (4.7 to 8 inches), inside diameters from 6 to 16 cm (2.4 to 6.3 inches), outside depths from 5.1 to 12 cm (2 to 4.7 inches), and inside depths from 3 to 6 cm (1.2 to 2.4 inches).

Cowbird parasitism Although the Northern Mockingbird is reported to be an acceptor species (Rothstein 1975), the absence of parasitism in Ontario is noteworthy.

INCUBATION PERIOD 9 nests, 11 to 13 days.

Brown Thrasher, *Toxostoma rufum*

899 (904 nests) representing 45 provincial regions. Glengarry (1997) was a new nesting region.

A small, shallow nest from Victoria had an outside diameter of 14 cm (5.5 inches), inside diameter of 10 cm (3.9 inches), outside depth of 6 cm (2.4 inches), and an inside depth of 4 cm (1.6 inches).

Cowbird parasitism 768 nests with 18 parasitized (2.3%).

INCUBATION PERIOD 22 nests, 10 to 14 days; 19 nests ranged from 11 to 13 days.

A nest in York RM still contained 2 young on 7 August, suggesting a later egg date than that given in Volume 2.

European Starling, *Sturnus vulgaris*

3005 (3107 nests) representing all 52 provincial regions. No new information.

American Pipit (Water Pipit), *Anthus rubescens*

5 nests representing 1 provincial region. No recent breeding information has been received for this northern nesting species.

Bohemian Waxwing, *Bombycilla garrulus*

Although breeding has been confirmed, no provincial nests have yet been reported.

Cedar Waxwing, *Bombycilla cedrorum*

1184 (1189 nests) representing 48 provincial regions. A nest was reported from Glengarry in 1995.

EGGS 403 nests with 1 to 8 eggs; 1E (17N), 2E (19N), 3E (68N), 4E (167N), 5E (121N), 6E (10N), 8E (1N).

Average clutch range 4 to 5 eggs (288 nests).

The 8-egg clutch was discovered and photographed in Grey in 1991. Examination of the eggs indicated that the clutch was the product of two females (see Figure 3).

Cowbird parasitism 952 nests with 70 parasitized (7.4%).

INCUBATION PERIOD 31 nests, 10 to 13 days; 29 nests ranged from 11 to 13 days.

Blue-winged Warbler, *Vermivora pinus*

18 nests representing 5 provincial regions. Haldimand-Norfolk (1997) was a new nesting region; a possible Oxford breeding (Weir 1990) and a confirmed Northumberland (1994) breeding were reported.

In Elgin, 2 nests were at the base of goldenrod stalks, and a third at the base of a hawthorn. Three Elgin nests were lined entirely with pine needles. Seven nests had outside diameters ranging from 10 to 12 cm (3.9 to 4.7 inches), inside diameters from 5 to 6.5 cm (2 to 2.6 inches), outside depths from 6 to 14 cm (2.4 to 5.5 inches), and inside depths from 3 to 7 cm (1.2 to 2.8 inches).

EGGS 8 nests, 2 to 6 eggs; 2E (1N), 3E (1N), 4E (3N), 5E (2N), 6E (1N).

Average clutch range 4 to 5 eggs (5 nests).

Cowbird parasitism 12 nests with 3 parasitized (25%).

EGG DATES 6 nests, 19 May to 19 June (8 dates); 3 nests, 2 June to 18 June.

Golden-winged Warbler, *Vermivora chrysoptera*

35 nests representing 11 provincial regions. A 1991 nest added Elgin to the list of provincial nesting regions; this nest was attended by a Golden-winged ♂ and a Blue-winged Warbler ♀. A hybrid adult 'Lawrence's' Warbler was observed with a flying fledgling in 1988, in Haldimand-Norfolk, suggesting a possible local breeding (Graham and Wormington 1988).

A deep-cupped Elgin nest had an inside depth of 7 cm (2.8 inches)

Cowbird parasitism 33 nests with 13 parasitized (39.4%).

Tennessee Warbler, *Vermivora peregrina*

30 nests representing 6 provincial regions. Nipissing (1997) was a new nesting region.

EGGS 24 nests with 3 to 7 eggs; 3E (1N), 4E (6N), 5E (7N), 6E (9N), 7E (1N).
Average clutch range 5 to 6 eggs (16 nests).
EGG DATES 20 nests, 8 June to 21 July (24 dates); 10 nests, 12 June to 29 June.

Orange-crowned Warbler, *Vermivora celata*

1 nest representing 1 provincial region. No new breeding information.

Nashville Warbler, *Vermivora ruficapilla*

103 nests representing 27 provincial regions. A 1944 nest record was recently received by the ONRS and added York County as a provincial nesting region.

Cowbird parasitism 93 nests with 10 parasitized (10.8%).

Northern Parula, *Parula americana*

4 nests representing 3 provincial regions. No new breeding information has been received.

Yellow Warbler, *Dendroica petechia*

2003 nests representing 48 provincial regions.

Cowbird parasitism 1464 nests with 422 parasitized (28.8%).

INCUBATION PERIOD 23 nests, 9 to 14 days; 19 nests ranged from 11 to 13 days.

Chestnut-sided Warbler, *Dendroica pensylvanica*

282 nests representing 37 provincial regions. Essex (1993), Glengarry (1996), Haldimand-Norfolk (1997) and Prince Edward (1993) were recent new provincial nesting regions.

Cowbird parasitism 235 nests with 51 parasitized (21.7%).

INCUBATION PERIOD 26 nests, 10 to 13 days: 7 of 10 days, 12 of 11 days, 1 of at least 11 days, 5 of 12 days, 1 of 13 days.

Magnolia Warbler, *Dendroica magnolia*

139 (140 nests) representing 22 provincial regions. Haldimand-Norfolk (1997) was a new nesting region, and the most southerly to date.

A nest in Common Juniper in Parry Sound (1990), was the first report for this plant species.

Cowbird parasitism 122 nests with 12 parasitized (9.8%).

INCUBATION PERIOD 10 nests, 11 to 13 days. Another 12-day period was noted for a Sudbury nest.

EGG DATES A nest with 4 eggs on 30 May, indicated an earlier egg date than that in Volume 2.

Cape May Warbler, *Dendroica tigrina*

5 nests representing 3 provincial regions. No new breeding information.

Black-throated Blue Warbler, *Dendroica caerulescens*

36 nests representing 13 provincial regions. Haldimand-Norfolk (1987) was a recently-added nesting region, and is the most southerly to date.

EGGS 24 nests with 2 to 4 eggs; 2E (2N), 3E (3N), 4E (19N).

Average clutch range 4 eggs (19 nests).

Cowbird parasitism 26 nests with 4 parasitized (15.4%), INCUBATION PERIOD 3 nests, 12 days.

Yellow-rumped Warbler, *Dendroica coronata*

215 nests representing 26 provincial regions. A probable breeding record in Ottawa-Carleton was noted.

Outside diameters of 11 nests ranged from 7.5 to 15 cm (3 to 6 inches); inside diameters of 10 nests ranged from 4.4 to 6.3 cm (1.7 to 2.5 inches); outside depths of 11 nests ranged from 6 to 11 cm (2.4 to 4.3 inches); and inside depths of 10 nests ranged from 3.8 to 6 cm (1.5 to 2.4 inches).

EGGS 69 nests with 1 to 6 eggs; 1E (5N), 2E (5N), 3E (12N), 4E (35N), 5E (10N), 6E (2N).

Average clutch range 4 eggs (35 nests).

Cowbird parasitism 139 nests with 39 parasitized (28.1%).

A ♀ on a nest in Muskoka on 12 May 1976, suggests an earlier egg date than given in Volume 2.

Black-throated Green Warbler, *Dendroica virens*

60 nests representing 19 provincial regions. Regional nesting additions were Elgin (1990), and Peterborough (1991).

Heights of 55 nests ranged from 0.5 to 15 m (1.5 to 50 ft), with 27 averaging 2.3 to 7.6 m (7.5 to 25 ft). An Elgin nest had an outside diameter of 8.5 cm (3.3 inches), inside diameter of 4.5 cm (1.8 inches), outside depth of 10 cm (3.9 inches), and inside depth of 6 cm (2.4 inches).

EGGS 40 nests with 1 to 5 eggs; 1E (1N), 2E (3N), 3E (16N), 4E (17N), 5E (3N).

Average clutch range 3 to 4 eggs (33 nests).

Cowbird parasitism 42 nests with 11 parasitized (26.2%).

EGG DATES A Nipissing nest held 3E on 3 June, for our earliest egg date.

Blackburnian Warbler, *Dendroica fusca*

36 nests representing 14 provincial regions. Bruce (1986), Elgin (1991), and Haldimand-Norfolk (1997) were recent regional nesting additions.

A nest at a height of 10 m (33 ft) in an Eastern Hemlock was ca 5 m (16 ft) distant from the trunk.

Cowbird parasitism 12 nests with 4 parasitized (33.3%).

BREEDING DISTRIBUTION

The Elgin and Haldimand-Norfolk nestings were well south of the former southern breeding limit.

Pine Warbler, *Dendroica pinus*

17 (26 nests) representing 13 provincial regions. Elgin (1992), and Wellington (1994) were recent regional nesting additions. A 1985 breeding record from Bruce and another in 1995 from Waterloo, were reported.

The Wellington record described ca 10 nests in close proximity in a mature coniferous woods, primarily pine with some spruce. The nestings approximated a colonial situation. Heights of the observed nests ranged from 3.7 to 9 m (12 to 30 ft).

The Elgin record was of a nest with two young at a height of 20 m (65 ft) in a Red Pine. The nest had an outside diameter of 7.5 cm (3 inches), inside diameter of 5 cm (2 inches), outside depth of 5 cm (2 inches), and inside depth of 3 cm (1.2 inches).

Cowbird parasitism 8 nests with 4 parasitized (50%). The finding of more nests of this species will probably lower this high percentage parasitism as compared with that of other areas (Friedmann, Kiff and Rothstein 1977).

[Kirtland's Warbler], *Dendroica kirtlandii*

No additional information on this hypothetical breeding species.

Prairie Warbler, *Dendroica discolor*

45 nests representing 8 provincial regions.

Thirteen new nests were in juniper spp. (5N), hazel spp. (3N), viburnum spp. (2N), Downy Arrow-wood (1N), White Oak (1N), and sumac spp. (1N). Height of a low nest in Frontenac was 0.24 m (0.8 ft).

EGGS 33 nests with 1 to 6 eggs; 1E (2N), 2E (3N), 3E (6N), 4E (14N), 5E (7N), 6E (1N).

Average clutch range 4 to 5 eggs (21 nests).

Cowbird parasitism 37 nests with 10 parasitized (27%).

EGG DATES 26 nests, 17 May to 9 July; 13 nests, 11 June to 20 June.

Palm Warbler, *Dendroica palmarum*

21 nests representing 9 provincial regions. Prescott (1993), Sudbury (1976), and Timiskaming (1955), were new nesting regions.

A nest from Timiskaming was elevated at a height of 0.9 m (2.9 ft) (no details).
EGGS 17 nests with 3 to 5 eggs; 3E (1N), **4E** (10N), **5E** (6N).
Average clutch range 4 eggs (10 nests).
EGG DATES 12 nests, 25 May to 6 July (13 dates); 6 nests, 8 June to 20 June.

Bay-breasted Warbler, *Dendroica castanea*

19 nests representing 6 provincial regions.
EGGS 13 nests with 4 to 6 eggs; 4E (1N), **5E** (6N), **6E** (6N).
Average clutch range 5 to 6 eggs (12 nests).
EGG DATES 12 nests, 10 June to 3 July (13 dates); 6 nests, 18 June to 28 June.

Blackpoll Warbler, *Dendroica striata*

5 nests representing 1 provincial region. No new breeding information.

Cerulean Warbler, *Dendroica cerulea*

81 nests representing 12 provincial regions. Haldimand-Norfolk (1983) and Simcoe (1968) were newly-submitted nesting regions. A breeding record from Essex in 1986 was reported (Weir 1986). The considerable increase in card numbers of nests of this rarely-found nesting species was due largely to a 1994-5 study conducted in Frontenac County by Queen's University's Dept. Of Biology (Oliarnyk and Robertson 1996).

Nests were invariably in medium to large deciduous trees which, in order of preference were maple spp. (26 nests), oak spp. (22 nests), elm spp. (5 nests), basswood (4 nests), chestnut (1 nest), hickory (1 nest), and ironwood (1 nest). Heights of 65 nests ranged from 4.6 to 19.8 m (15 to 65 ft), with 33 averaging 8.8 to 13.1 m (29 to 43 ft).

Thirteen nests had outside diameters that ranged from 6 to 8 cm (2.4 to 3.1 inches), inside diameters from 4 to 5.3 cm (1.6 to 2.1 inches), outside depths from 3.2 to 7 cm (1.3 to 2.8 inches), and inside depths from 2.3 to 3 cm (0.9 to 1.2 inches).

EGGS 45 nests with 1 to 5 eggs; 1E (4N), 2E (2N), **3E** (15N), **4E** (21N), **5E** (3N).

Average clutch range 3 to 4 eggs (36 nests).

Cowbird parasitism 57 nests with 8 parasitized (14%).

INCUBATION PERIOD 9 nests, 11 to 13 days: 5 of 11 days, 1 of at least 11 days, 2 of 12 days, 1 of 12-13 days.

EGG DATES 42 nests, 24 May to 27 June (44 dates); 21 nests, 5 June to 14 June.

Black-and-White Warbler, *Mniotilta varia*

66 nests representing 27 provincial regions. Bruce (1989), Haliburton (1997), Renfrew (1993), and Waterloo (1957) were recently-added nesting regions. Early (1926, 1931) breeding records from Norfolk (Snyder 1931, Baillie & Harrington 1937) were overlooked in Volume 2.

EGGS 54 nests with 1 to 6 eggs; 1E (2N), 2E (1N), **3E** (10N), **4E** (23N), **5E** (17N), **6E** (1N).

Average clutch range 4 to 5 eggs (40 nests).

Cowbird parasitism 55 nests with 9 parasitized (16.4%).

EGG DATES 38 nests, 22 May to 30 July (46 dates); 19 nests, 5 June to 24 June.

American Redstart, *Setophaga ruticilla*

513 (514 nests) representing 47 provincial regions. Regional nesting additions were Grenville (1985), Lincoln (1939), Prince Edward (1993), and Waterloo (1957).

In 1995-6, among 55 submitted nest records from Bruce County, 49 nests were in coniferous trees: 42 in White Cedar, 5 in Balsam Fir, and 2 in Canada Yew. This is in marked contrast to the preferred deciduous nest tree selection reported from other regions.

Cowbird parasitism 364 nests with 61 parasitized (16.8%). In Bruce County, 47 nests in 1995-6 were not parasitized, lowering the percentage parasitism (Peck 1997) from the 20% reported in Volume 2.

INCUBATION PERIOD 17 nests, 10 to 13 days; 14 nests ranged from 11 to 12 days.

Prothonotary Warbler, *Protonotaria citrea*

118 (120 nests) representing 6 provincial regions.

Eight 1997 nests were located in nest boxes set out for this declining breeding species.

EGGS 40 nests with 1 to 6 eggs; 1E (1N), 2E (1N), 3E (4N), 4E (11N), 5E (16N), 6E (7N).

Average clutch range 4 to 5 eggs (27 nests).

Cowbird parasitism 48 nests with 13 parasitized (27.1%) (see Figure 7).

INCUBATION PERIOD 3 nests: 1 at least 10 days, 1 of ca 11 days, 1 of no more than 12 days.

EGG DATES 46 nests, 25 May to 3 July (55 dates); 23 nests, 9 June to 16 June. In 1997 a double brood was reported in different but adjacent sites.

BREEDING DISTRIBUTION

The status of this species was changed from vulnerable to endangered by COSEWIC (Page 1996). In 1996 it bred at only two sites in the regions of Haldimand-Norfolk and Kent, and it was estimated that no more than 13 pairs remained at these sites. In 1997, after a nest-box program was begun, 14 nestings occurred in 4 provincial regions.

** Note: The photograph at the bottom of p. 385 in Volume 2 was captioned incorrectly. The nest is not that of a Prothonotary Warbler, but rather that of a Song Sparrow with 1 egg of the host and 10 eggs of the Brown-headed Cowbird. The picture was made at Oakville, Halton County, 12 July 1968.

Ovenbird, *Seiurus aurocapillus*

331 nests representing 43 provincial regions.

EGGS 218 nests with 1 to 6 eggs; 1E (4N), 2E (4N), 3E (27N), 4E (96N), 5E (82N), 6E (5N).

Average clutch range 4 to 5 eggs (178 nests).

Cowbird parasitism 298 nests with 34 parasitized (11.4%).

Northern Waterthrush, *Seiurus noveboracensis*

109 (114 nests) representing 24 provincial regions. Elgin (1997) and Haldimand-Norfolk (1997) were new nesting regions. A probable breeding record for Ottawa-Carleton (1988) has been received.

A Sudbury nest was in the side of an old beaver dam, and hidden by grasses. Outside diameters of 9 nests ranged from 7.5 to 11.5 cm (3 to 4.5 inches), inside diameters from 4.5 to 8.3 cm (1.8 to 3.3 inches), outside depths from 4 to 7.5 cm (1.6 to 3 inches), and inside depths from 2 to 4 cm (0.8 to 1.6 inches).

EGGS 84 nests with 1 to 5 eggs; 1E (3N), 2E (3N), 3E (11N), 4E (44N), 5E (23N).

Average clutch range 4 eggs (44 nests).

Cowbird parasitism 94 nests with 11 parasitized (11.7%).

Louisiana Waterthrush, *Seiurus motacilla*

15 nests representing 9 provincial regions. Possible breeding in Halton (1979) has been reported (Eagles and McCauley 1982).

Two Elgin nests were in a mixed woods, dominated by Eastern Hemlock. One of the nests was positioned under live and dead fronds of Christmas Fern, on the slope of a creek 0.9 m (3 ft) above the creek surface. The other Elgin nest described a characteristic 'drift' or pathway of leaves (see Harrison 1984) in front of the nest.

EGGS 10 nests with 2 to 5 eggs; 2E (2N), 3E (2N), 4E (3N), 5E (3N).

Average clutch range 4 to 5 eggs (6 nests).

Cowbird parasitism 11 nests with 2 parasitized (18.2%).

EGG DATES 5 nests, 1 June to 8 July.

BREEDING DISTRIBUTION

The Louisiana Waterthrush in southern Ontario is currently listed as "Vulnerable" by COSEWIC (McCracken 1991, Page 1996). Difficulty in finding nests may account for the few provincial records.

[Connecticut Warbler], *Oporornis agilis*

1 nest (undocumented) representing 1 provincial region. To date, no documented nest of this northern-breeding warbler has been reported.

Mourning Warbler, *Oporornis philadelphia*

39 nests representing 21 provincial regions. Elgin (1987), and Middlesex (1963) (Darley and Scott 1988) were new nesting regions. A record from Bruce was removed because of a probable misidentification.

EGGS 30 nests with 1 to 5 eggs; 1E (2N), 2E (3N), 3E (6N), 4E (15N), 5E (4N).

Average clutch range 4 eggs (15 nests).

Cowbird parasitism 35 nests with 3 parasitized (8.6%).

EGG DATES 24 nests, 25 May to 20 July (32 dates); 12 nests, 15 June to 28 June.

Common Yellowthroat, *Geothlypis trichas*

206 nests representing 43 provincial regions. Elgin (1987), Grey (1988), Victoria (1993), and Waterloo (1954) were the added nesting regions.

Cowbird parasitism 187 nests with 36 parasitized (19.3%).

Hooded Warbler, *Wilsonia citrina*

120 (121) nests representing 6 provincial regions. Hamilton-Wentworth (1993), and Simcoe (1989) were recent regional nesting additions. Possible breeding (nesting?) in Oxford was noted by Weir (1988, 1989, 1990) but no data were given. The large increase in nest card numbers is due to an intensive nesting study from 1986 to date, mainly in Haldimand-Norfolk, and the new information follows.

Nests in mixed (47 nests), deciduous (44 nests), and rarely coniferous (2 nests) tree stands. Wooded areas were more often dry than wet, and all had characteristic understories of saplings, shrubs, and vascular plants. Deciduous saplings and shrubs (66 nests) were greatly preferred over coniferous (7 nests), and fern spp (7 nests). Three nests were in vascular plants (Horse-balm, May-apple and Sweet Cicely). Heights of 73 nests ranged from 0.2 to 1.5 m (0.7 to 4.9 ft), with 37 averaging 0.4 to 0.7 m (1.3 to 2.3 ft).

Five nests had outside diameters ranging from 7 to 10 cm (2.8 to 3.9 inches); inside diameters from 4 to 5.5 cm (1.6 to 2.2 inches); outside depths from 6 to 9 cm (2.4 to 3.5 inches); and inside depths from 3 to 5 cm (1.2 to 2 inches).

EGGS 46 nests with 1 to 5 eggs; 1E (1N), 2E (1N), 3E (17N), 4E (26N), 5E (1N).

Average clutch range 4 eggs (26 nests).

Cowbird parasitism 114 nests with 54 parasitized (47.4%).

INCUBATION PERIOD 6 nests, 11 to 12 days: 2 of at least 11 days, 2 of 12 days, and 2 of ca 12 days.

EGG DATES 53 nests, 1 June to 7 August (80 dates); 27 nests, 16 June to 6 July. One double brood was reported with both broods in the same nest.

BREEDING DISTRIBUTION

This species nests almost exclusively in the Deciduous Forest region of Ontario with the only exception being an unsuccessful nest in Simcoe County.

Wilson's Warbler, *Wilsonia pusilla*

15 nests representing 6 provincial regions. Manitoulin (1988) was the latest addition to regional nesting, and is the most southerly provincial nesting to date (Weir 1988).

Canada Warbler, *Wilsonia canadensis*

29 nests representing 18 provincial regions. No new nests have been reported since the publication of Volume 2.

Yellow-breasted Chat, *Icteria virens*

20 nests representing 8 provincial regions.

A Niagara nest was in a peat bog. One Essex nest was in a Ground Juniper and another was in an unspecified shrub at a low height of 0.3 m (1 ft).

EGGS 17 nests with 1 to 5 eggs; 1E (1N), 2E (3N), 3E (2N), 4E (7N), 5E (4N).

Average clutch range 4 to 5 eggs (11 nests).

Cowbird parasitism 19 nests with 4 parasitized (21.1%).

EGG DATES 16 nests, 2 June to 1 July (22 dates); 8 nests, 8 June to 16 June.

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ONTARIO BIRDS DECEMBER 1997

BREEDING BIRDS OF ONTARIO: NIDIOLOGY AND DISTRIBUTION

**Volume 2: Passerines
(First Revision - Part C: Tanagers to Old World Sparrows)**

George K. Peck and Ross D. James

In this, the final part of the current revision of Volume 2 of Breeding Birds of Ontario (Peck and James 1987), we are following the arrangement as proposed in the seventh edition (A.O.U. 1998) of the American Ornithologists' Union Check-list. In this part of the present revision, the Northern Cardinal and its allies (Family *Cardinalidae*) have been moved to follow Snow Bunting (Family *Emberizidae*), and precede Bobolink (Family *Icteridae*). The only other sequential change is the insertion of Harris's Sparrow between White-throated Sparrow and White-crowned Sparrow. Fifty breeding species are included in this part of the revision, 47 species with confirmed breeding status, and three (Snow Bunting, Pine Grosbeak, and Hoary Redpoll) still unconfirmed, as indicated by the use of brackets [] around their names in the species accounts.

Again, our primary data source is the Ontario Nest Records Scheme (ONRS), but all additional known published and unpublished data have been considered.

Breeding Bird Species

Scarlet Tanager, *Piranga olivacea*

84 nests representing 30 provincial regions. Nests from Haldimand-Norfolk (1997), Haliburton (1996), Lincoln (1936), and Sudbury (1988) were new regional additions. A nest photograph submitted from Manitoulin (1988) provided nesting documentation for that district.

Deciduous trees and saplings (12 spp., 43 nests) were favoured over coniferous (5 spp., 25 nests). One nest was in a grape vine tangle. The trees chosen most often were maple spp. (15 nests), hemlock (13 nests), beech spp. (10 nests), birch spp. (4 nests), elm spp. (4 nests), oak spp. (4 nests), pine spp. (4 nests), and spruce spp. (4 nests). Heights of 69 nests ranged from 1.8 to 20 m (6 to 66 ft), with 34 averaging 4.3 to 9.8 m (14 to 32 ft).

EGGS 35 nests with 1 to 4 eggs; 1E (3N), 2E (5N), **3E** (6N), **4E** (21N).

Average clutch range 4 eggs (21 nests).

Cowbird parasitism 44 nests with 7 parasitized (15.9%).

EGG DATES 33 nests, 24 May to 13 July (37 dates); 17 nests, 5 June to 12 June.

Eastern Towhee, *Pipilo erythrophthalmus*

165 nests representing 31 provincial regions. Elgin (1996), and Manitoulin (1986) were recent regional nesting additions, from the southern and northern limits of the species' provincial breeding range, respectively.

Outside diameters of 10 nests ranged from 7 to 17 cm (2.8 to 6.7 inches); inside diameters of 10 nests ranged from 4 to 9 cm (1.6 to 3.5 inches); outside depths of 5 nests ranged from 5 to 14 cm (2 to 5.5 inches); and inside depths of 8 nests ranged from 4.5 to 7.5 cm (1.8 to 3 inches).

EGGS 107 nests with 1 to 6 eggs; 1E (6N), 2E (9N), **3E** (29N), **4E** (53N), **5E** (6N), **6E** (4N).

Average clutch range 3 to 4 eggs (82 nests).

Cowbird parasitism 164 nests with 30 parasitized (18.3%).

American Tree Sparrow, *Spizella arborea*

13 nests representing 1 provincial region. Five nests were reported in 1990 a few kilometres east of the mouth of the Little Shagamu River, 1.5 to 2 km (.9 to 1.2 mi) from the Hudson Bay shoreline, on old beach ridges covered with lichen, herbs and small shrubs.. The new data is added and the following is presented.

Twelve nests were on the ground, usually under dwarf willow or stunted spruce; and one nest was on the lowest bough of a Black Spruce at a height of 30.5 cm (1 ft). In all instances where nest linings were described they contained feathers.

EGGS 10 nests with 1 to 6 eggs; 1E(1N), 4E(1N), **5E**(6N), **6E** (2N).

Average clutch range 5 eggs (6 nests).

EGG DATES 9 nests, 21 June to 9 July (10 dates); 5 nests, 24 June to 1 July.

Chipping Sparrow, *Spizella passerina*

1893 (1896 nests) representing 48 provincial regions.

Cowbird parasitism 1600 nests with 484 parasitized (30.3%). During the last decade only 33 of 188 nests with known contents were parasitized (17.6%), thus slightly lowering the overall percentage parasitism. In a 1995 Haldimand-Norfolk nest, a cowbird egg was covered over by the host (Peck 1996).

INCUBATION PERIOD Incubation often began with the penultimate egg, and ambient air temperatures were also probably responsible for those incubation periods of less than 10 days, listed in Volume 2 (Peck and James 1987).

Clay-colored Sparrow, *Spizella pallida*

42 nests representing 21 provincial regions. New regional nestings were Lanark (1985), Nipissing (1989), and Rainy River (1994).

EGGS 29 nests with 2 to 5 eggs; **2E** (2N), **3E** (8N), **4E** (18N), **5E** (1N).

Average clutch range 4 eggs (18 nests).

Cowbird parasitism 35 nests with 11 parasitized (31.4%).

EGG DATES 27 nests, 19 May to 20 July (36 dates); 14 nests, 10 June to 26 June.

Field Sparrow, *Spizella pusilla*

392 nests representing 34 provincial regions.

Outside diameters of 16 nests ranged from 4 to 11.4 cm (1.6 to 4.5 inches), with 8 averaging 6.3 to 9 cm (2.5 to 3.5 inches); inside diameters of 15 nests ranged from 3.5 to 7 cm (1.4 to 2.8 inches), with 8 averaging 4.5 to 5.6 cm (1.8 to 2.2 inches); outside depths of 14 nests ranged from 3 to 10 cm (1.2 to 3.9 inches), with 7 averaging 5 to 7.3 cm (2 to 2.9 inches); and inside depths of 13 nests ranged from 2.5 to 5 cm (1 to 2 inches), with 7 averaging 3.3 to 4.5 cm (1.3 to 1.8 inches).

Cowbird parasitism 378 nests with 63 parasitized (16.7%).

Vesper Sparrow, *Pooecetes gramineus*

528 (529 nests) representing 44 provincial regions. Kent (1967) was an added nesting region.

With the inclusion of measurements from 2 more nests, the outside diameter of 7 nests ranged from 7.6 to 10 cm (3 to 4 inches), inside diameters of 4 nests from 4 to 6.4 cm (1.6 to 2.5 inches), outside depths of 2 nests were 2 and 5 cm (0.8 and 2 inches), and inside depths of 2 nests were 1 and 5 cm (0.4 and 2 inches).

Cowbird parasitism 494 nests with 52 parasitized (10.5%).

Lark Sparrow, *Chondestes grammacus*

9 nests representing 4 provincial regions. No additional information.

Savannah Sparrow, *Passerculus sandwichensis*

662 (664 nests) representing 45 provincial regions. Hastings (1985) was a new nesting region.

Eggs were laid daily.

Cowbird parasitism 607 nests with 44 parasitized (7.2 %).

INCUBATION PERIOD Another 9-day period from a nest in Kenora near Hudson Bay, again suggested that true incubation begins before the clutch is complete, particularly in colder regions.

Grasshopper Sparrow, *Ammodramus savannarum*

86 nests representing 25 provincial regions. Niagara RM (1986), and Waterloo (1968) were the last nesting regions added.

Outside diameters of 6 nests ranged from 8 to 10 cm (3.1 to 3.9 inches), inside diameters ranged from 5 to 7 cm (2 to 2.8 inches), outside depths ranged from 4 to 8 cm (1.6 to 3.1 inches), and inside depths

ranged from 3 to 5 cm (1.2 to 2 inches).

EGGS 66 nests with 1 to 5 eggs; 1E (1N), 2E (4N), 3E (6N), 4E (25N), 5E (30N).

Average clutch range 4 to 5 eggs (55 nests).

Cowbird parasitism 83 nests with 7 parasitized (8.4%).

Henslow's Sparrow, *Ammodramus henslowii*

13 nests representing 11 provincial regions. No evidence of nesting in the last decade has been noted, and other than the occasional sighting of territorial males, eg. Prince Edward County in 1996, it is feared that the species may be all but extirpated from the province as a breeding species. It is listed as endangered by COSEWIC (Austen and Cadman 1993).

Le Conte's Sparrow, *Ammodramus leconteii*

8 nests representing 3 provincial regions. Cochrane (1983) was an added nesting region. A 1987 breeding record was reported from Dundas County (Weir 1987a). In 1988, males and females in breeding condition were collected in Kenora near Attawapiskat, and also in 1998 in Cochrane near Moosonee (J.D. Rising, pers. comm.).

Two new nest records have been received, the Cochrane District nest in a 'graminoid-dominated super-tidal marsh', and a Rainy River District nest in a wet meadow bordering a lake. The Cochrane nest was situated beneath a flattened *Juncus* spp. clump at a height of ca 17 cm (6.7 inches); the Rainy River nest was placed in stems of Blue-joint, *Calamagrostis canadensis*, and its exterior was formed of coarse grasses with a lining of fine grasses. The Rainy River nest had an outside diameter of 10 cm (3.9 inches), and an outside depth of 6 cm (2.4 inches).

EGGS 8 nests with 4 to 5 eggs; 4E (6N), 5E (2N).

EGG DATES 7 nests, 3 June to 18 June (8 dates).

Nelson's Sharp-tailed Sparrow, *Ammodramus nelsoni*

3 nests representing 1 provincial region. Only one nest, the third, has been reported since the publication of Volume 2 (Peck and James 1987). This nest was found on 5 July 1983 at North Point, 27 km NNE of Moosonee, Cochrane District, but details of the find have only recently been received. In addition males and females in breeding condition were collected in 1988 in Kenora near Attawapiskat, and also in 1998 in Cochrane near Moosonee (J.D. Rising, pers. comm.).

The 1983 nest was near James Bay as were also the two previously-discovered nests of this secretive and seldom-encountered provincial breeding species. It was located in a 0.3 to 0.4 m (1 to 1.3 ft) tall, dry, 'grass-sedge-forb' area. The nest was formed entirely of grasses and sedge stems and contained 4 eggs.

Fox Sparrow, *Passerella iliaca*

5 nests representing 2 provincial regions. No new information for this northern-breeding sparrow has been received.

Song Sparrow, *Melospiza melodia*

2128 (2132 nests) representing all 52 provincial regions.

A small Haliburton nest had an outside diameter of 7.8 cm (3.1 inches), inside diameter of 4.9 cm (1.9 inches), outside depth of 5 cm (2 inches), and an inside depth of 3.2 cm (1.3 inches).

Cowbird parasitism 2032 nests with 457 parasitized (22.5%). During the last decade only 37 of 220 nests with known contents were parasitized (16.8%), thus slightly lowering the overall percentage parasitism.

INCUBATION PERIOD 18 nests, 11 to 15 days, with 9 averaging 11 to 12 days.

A triple brood was reported in Haldimand-Norfolk in 1994, with the second and third broods in the same nest and both nests in the same small tree; the total observed nesting period ranged from 20 May to

7 August.

Lincoln's Sparrow, *Melospiza lincolni*

29 nests representing 8 provincial regions.

EGGS 26 nests with 3 to 5 eggs; 3E (2N), 4E (20N), 5E (4N).

Average clutch range 4 eggs (20 nests).

Cowbird parasitism 28 nests with 1 parasitized (3.6%).

Swamp Sparrow, *Melospiza georgiana*

269 nests representing 41 provincial regions. Nest records from Haliburton (1981), and Waterloo (1972) were added.

With the inclusion of measurements from 4 more nests, 10 nests had outside diameters ranging from 7 to 15 cm (2.8 to 6 inches), inside diameters from 5 to 8 cm (2 to 3.1 inches), outside depths from 7 to 11.4 cm (2.8 to 4.5 inches), and inside depths from 4 to 7.6 cm (1.6 to 3 inches).

Cowbird parasitism 257 nests with 34 parasitized (13.2%).

White-throated Sparrow, *Zonotrichia albicollis*

512 (514) nests representing 33 provincial regions.

Cowbird parasitism 449 nests with 24 parasitized (5.3%).

Harris's Sparrow, *Zonotrichia querula*

1 nest representing 1 provincial region. No new information for this northern breeder.

White-crowned Sparrow, *Zonotrichia leucophrys*

22 nests representing 2 provincial regions, and an adjacent island in James Bay (Akimiski Island, NWT). Five new nest records have been received and the following data includes the addition of the new records.

Three 1990 Kenora nests near Hudson Bay and 1 to 2 km (0.6 to 1.2 miles) east of Little Shagamu River were on raised tundra ridges covered with lichens, herbaceous plants, and scattered shrubs and small spruce. The 1995 Akimiski Island nest was also on a vegetated coastal ridge.

EGGS 20 nests with 3 to 5 eggs; 3E (1N), 4E (8N), 5E (11N).

Average clutch range 5 eggs (11 nests).

EGG DATES 19 nests, 8 June to 24 July (28 dates); 10 nests, 23 June to 30 June.

Dark-eyed Junco, *Junco hyemalis*

186 nests representing 25 provincial regions. A nest record from Manitoulin (1990) was added, and a 1986 breeding record from Haldimand-Norfolk was noted well south of the species' present breeding range (Weir 1986).

With the inclusion of measurements of 8 more nests, the outside diameters of 10 nests ranged from 6.8 to 16.5 cm (2.7 to 6.5 inches), inside diameters of 19 nests from 4 to 12 cm (1.6 to 4.7 inches), outside depths of 4 nests from 3.2 to 8.9 cm (1.3 to 3.5 inches), and inside depths of 18 nests from 2 to 6.5 cm (0.8 to 2.6 inches).

Cowbird parasitism 177 nests with 7 parasitized (4%).

Lapland Longspur, *Calcarius lapponicus*

14 nests representing 1 provincial region.

EGGS 13 nests with 3 to 6 eggs; 3E (3N), 4E (3N), 5E (5N), 6E (2N).

Average clutch range 4 to 5 eggs (8 nests).

EGG DATES 10 nests, 17 June to 21 July (14 dates); 5 nests, 27 June to 30 June.

Smith's Longspur, *Calcarius pictus*

16 nests representing 1 provincial region.

EGGS 14 nests with 3 to 5 eggs; 3E (1N), 4E (8N), 5E (5N).

Average clutch range 4 eggs (8 nests).

EGG DATES 9 nests, 22 June to 14 July (13 dates); 5 nests, 29 June to 2 July

[Snow Bunting], *Plectrophenax nivalis*

No further information on this possible but unconfirmed breeder has been received (Peck and James 1987, Cadman *et al* 1987).

Northern Cardinal, *Cardinalis cardinalis*

432 (434 nests) representing 29 provincial regions. Prince Edward (1993) was a recently added nesting region.

One nest was 8 m (26 ft) from an active nest of a Cedar Waxwing. A very unusually high nest was reported at a height of 22 m (72 ft) in a 27 m (89 ft) White Pine in Haldimand-Norfolk (A. Sandilands pers. comm.).

EGGS 308 nests with 1 to 8 eggs; 1E (20N), 2E (75N) - 24.4%, 3E (148N) - 48.1%, 4E (52N) - 16.9%, 5E (11N) - 3.6%, 6E (1N), 8E (1N).

Average clutch range 2 to 3 eggs (223 nests).

Cowbird parasitism 358 nests with 72 parasitized (20.1%).

Several double broods were reported.

Rose-breasted Grosbeak, *Pheucticus ludovicianus*

527 (530 nests) representing 43 provincial regions. A nest record was submitted in 1995 from Prince Edward.

A large nest from Haldimand-Norfolk had an outside diameter of 20 cm (7.9 inches), inside diameter of 15 cm (5.9 inches), outside depth of 12 cm (4.7 inches), and inside depth of 9 cm (3.5 inches).

Cowbird parasitism 367 nests with 28 parasitized (7.6%).

INCUBATION PERIOD 12 nests, 11 to 14 days: 2 of 11 days, 1 of no more than 11 days, 3 of at least 11 days, 2 of no more than 12 days, 2 of at least 12 days, 1 of ca 13 days, 1 of a least 14 days.

Indigo Bunting, *Passerina cyanea*

212 nests representing 36 provincial regions. Victoria (1986) was an added nesting region, and a breeding record for Dufferin (1996) was reported.

EGGS 144 nests with 1 to 6 eggs; 1E (4N), 2E (13N), 3E (72N), 4E (53N), 6E (1N).

Average clutch range 3 eggs (72 nests).

Cowbird parasitism 193 nests with 51 parasitized (26.4%).

EGG DATES A late egg date of 20 August was recorded at a 1937 nest from Lincoln County, and a nestling in pinfeathers was noted on 4 September in a 1987 nest from Bruce County, indicating an even later egg date.

Dickcissel, *Spiza americana*

30 (33 nests) representing 7 provincial regions. Kent, Lambton, Niagara, and York were all new nesting regions in 1988, the result of a sporadic breeding invasion into southern Ontario, that year. Also in 1988, nests were reported from Essex (mainland) and Pelee Island, and were the first for the county since 1884.

New and mostly well-detailed data from 29 nests were received following the 1988 invasion and are herein summarized.

The availability of suitable breeding habitat rather than a colonial formation would appear to explain the often relatively close proximity of nesting pairs during the 1988 breeding season.

Most nests were situated in old or abandoned fields of grasses, other herbaceous plants, and various shrubs. One nest was in a hay field. Nests at low elevations (23 nests) greatly out-numbered those on the ground (2 nests). Elevated nests were placed in herbaceous plants (5 species), and also in deciduous

shrubs and saplings (6 species). One ground nest was at the base of a plant and another was concealed in stalks of timothy. Heights of 20 nests ranged from 0.08 to 1 m (0.3 to 3.3 ft), with 10 averaging 0.3 to 0.6 m (1 to 2 ft).

Nests were described as neat cups, although one was flimsy and poorly constructed. Nest exteriors were of coarse grasses and herbaceous stalks. Linings were composed of fine grasses, leaves and fine rootlets. Outside diameters of 16 nests ranged from 6 to 12.1 cm (2.4 to 4.8 inches), with 8 averaging 8.9 to 11.2 cm (3.5 to 4.4 inches); inside diameters ranged from 5 to 7 cm (2 to 2.8 inches), with 8 averaging 5.7 to 6.4 cm (2.3 to 2.5 inches); outside depths ranged from 5 to 10.2 cm (2 to 4 inches), with 8 averaging 7 to 8.6 cm (2.8 to 3.4 inches); and inside depths ranged from 4 to 6.6 cm (1.6 to 2.6 inches), with 8 averaging 4.4 to 5.6 cm (1.8 to 2.2 inches).

EGGS 24 nests with 2 to 5 eggs; 2E (1N), 3E (6N), 4E (15N), 5E (2N).

Average clutch range 4 eggs (15 nests).

Cowbird parasitism 25 nests with 1 parasitized (4%).

INCUBATION PERIOD 4 nests: 2 of 9 days, 1 of 9 or 10 days, 1 of 10 days. These periods are shorter than usually stated (Baicich and Harrison 1997), and probably indicate that incubation commences before the clutch is complete.

EGG DATES 17 nests, 6 June to 27 July (27 dates); 9 nests, 12 July to 17 July.

Bobolink, *Dolichonyx oryzivorus*

156 (157 nests) representing 37 provincial regions. Haliburton (1988) was the only added nesting region.

EGGS 108 nests with 1 to 7 eggs; 1E (2N), 2E (3N), 3E (4N), 4E (21N), 5E (55N), 6E (22N), 7E (1N).

Average clutch range 5 eggs (55 nests).

Cowbird parasitism 149 nests with 8 parasitized (5.4%).

EGG DATES 109 nests, 19 May to 16 July (115 dates); 55 nests, 2 June to 12 June.

Red-winged Blackbird, *Agelaius phoeniceus*

7831 (ca 12 296 nests) representing all 52 provincial regions. The average size of 124 colonies was 18 nests.

A tree nest of this species was located on the same branch as an active nest of Mourning Dove, and at a distance of 1 m (3.3 ft).

In Kent County a nest with 1 egg was found on 23 June. A single young was noted on 25 June and was banded on 1 July. This record suggests that 1 egg may occasionally be a complete clutch.

Cowbird parasitism 6554 nests with 170 parasitized (2.6%).

Eastern Meadowlark, *Sturnella magna*

423 nests representing 38 provincial regions.

Cowbird parasitism 390 nests with 11 parasitized (2.8%).

Western Meadowlark, *Sturnella neglecta*

9 nests representing 9 provincial regions. No new nesting information has been received. While the northwestern Ontario population appears stable, occurrences of the Western Meadowlark have decreased in southeastern Ontario since the 1970s (Austen, Cadman and James 1994).

Yellow-headed Blackbird, *Xanthocephalus xanthocephalus*

42 (15 colonies, 55 nests) representing 4 provincial regions. A nest record was received from Thunder Bay in 1988, and a breeding record in 1996 was noted from Simcoe. At the Thunder Bay location 10 pairs were reported in 1989 (Weir 1989).

EGGS 33 nests with 1 to 5 eggs; 1E (3N), 3E (10N), 4E (18N), 5E (2N).

Average clutch range 4 eggs (18 nests).

EGG DATES 31 nests, 30 May to 9 July (40 dates); 16 nests, 7 June to 19 June.

Rusty Blackbird, *Euphagus carolinus*

38 nests representing 14 provincial regions. No new nesting or breeding information has been received in the past decade.

Brewer's Blackbird, *Euphagus cyanocephalus*

209 (56 colonies, 14 isolated nestings, ca 264 nests) representing 15 provincial regions. The average size of 56 colonies was 4 to 5 nests.

A compact nest from Bruce had an outside diameter of 12 cm (4.7 inches), inside diameter of 9 cm (3.5 inches), outside depth of 7 cm (2.8 inches), and inside depth of 5 cm (2 inches).

Cowbird parasitism 206 nests with 1 parasitized (0.5 %).

EGG DATES 130 nests, 6 May to 4 July (157 dates); 65 nests, 27 May to 1 June. The data continues to indicate a fairly short breeding season during which only one brood is raised, and especially show a narrow height of the season.

BREEDING DISTRIBUTION

New colony sites were reported in 1991 in Bruce and Parry Sound (Weir 1991a), and on 21 May 1993 more than 100 pairs were noted in the southern half of Bruce County (Ridout 1993).

Common Grackle, *Quiscalus quiscula*

2817 (2441 isolated nestings, ca 310 colonies, ca 5029 nests) representing all 52 provincial regions. The average size of 310 estimated colonies totalling 2588 nests was 8 nests.

A small colony of grackles were found nesting near nesting House Finches. Two Common Grackle nests in a marsh contained buried eggs of Red-winged Blackbirds, indicating that the grackles had built on occupied nests of that species.

A nest from Prince Edward contained 5 grackle eggs which hatched and 1 egg of American Robin which didn't.

Cowbird parasitism 2245 nests with 4 parasitized (0.2%).

Brown-headed Cowbird, *Molothrus ater*

RECORDS Eggs or young in 3508 hosts' nest, representing 50 provincial regions. With the addition in 1988 of the Dickcissel, the Brown-headed Cowbird has parasitized a total of 87 species in Ontario.

The eastern race of the Warbling Vireo, *Vireo g. gilvus*, is now known to be a rejecter of cowbird eggs, and the smallest of the 7 species which employ this strategy (Sealy 1996).

Orchard Oriole, *Icterus spurius*

75 nests representing 15 provincial regions. A nest record was received for York RM in 1990.

Outside diameters of 17 nests ranged from 7 to 10 cm (2.8 to 3.9 inches), inside diameters from 5 to 8 cm (2 to 3.1 inches), outside depths from 5 to 10 cm (2 to 3.9 inches), and inside depths from 3.5 to 7.7 cm (1.4 to 3 inches).

EGGS 24 nests with 1 to 5 eggs; **1E** (3N), **2E** (2N), **3E** (2N), **4E** (13N), **5E** (4N).

Average clutch range 4 eggs (13 nests). Eggs were laid at daily intervals.

Cowbird parasitism 32 nests with 10 parasitized (31.3%).

EGG DATES 21 nests, 24 May to 12 July (26 dates); 11 nests, 3 June to 19 June.

Baltimore Oriole, *Icterus galbula*

844 (848 nests) representing 44 provincial regions.

EGGS 130 nests with 1 to 6 eggs; **1E** (3N), **2E** (3N), **3E** (17N), **4E** (37N), **5E** (46N), **6E** (24N).

Average clutch range 4 to 5 eggs (83 nests).

Cowbird parasitism 181 nests with 10 parasitized (5.5%).

INCUBATION PERIOD 1 nest, of ca 14 days.

EGG DATES 128 nests, 18 May to 24 June (134 dates); 64 nests, 3 June to 11 June.
Only one brood is raised in the short breeding season.

[Pine Grosbeak], *Pinicola enucleator*

No new information on the status of this hypothetical breeding species has been received.

Purple Finch, *Carpodacus purpureus*

129 nests representing 30 provincial regions. Nestings apparently occurred in Oxford in 1990 (Weir 1990a) and 1993 (Ridout 1993a). A probable breeding was reported from Haldimand-Norfolk in 1997 (A. Davidson, pers. comm.).

EGGS 91 nests with 1 to 6 eggs; 1E (12N), 2E (10N), 3E (28N), 4E (27N), 5E (13N), 6E (1N).

Average clutch range 3 to 4 eggs (55 nests).

Cowbird parasitism 99 nests with 37 parasitized (37.4%).

EGG DATES 88 nests, 11 May to 5 August (115 dates); 44 nests, 8 June to 29 June.

BREEDING DISTRIBUTION

Purple Finches are decreasing as a breeding species in Ontario, particularly in the agricultural south. A 50% decline in breeding populations has been noted in the northeastern U.S. and southern Canada (Wootton 1996). Fewer provincial nest records have been received in the past decade and most of those were earlier or even historical records. It has been suggested that this decline is due, at least in part, to the huge increase of House Finches in southern Ontario, and the resulting interspecific competition (Wootton 1987, Shedd 1990).

House Finch, *Carpodacus mexicanus*

276 (280 nests) representing 26 provincial regions. Since the publication of Volume 2 (Peck and James 1987) many new nest records have been submitted for this rapidly expanding species. The following 19 regions have reported nest records: Brant (1986), Bruce (1988), Dufferin (1995), Essex (1989), Frontenac (1987), Grey (1988), Haldimand-Norfolk (1986), Halton (1993), Hamilton-Wentworth (1996), Middlesex (1988), Muskoka (1995), Oxford (1990), Peterborough (1986), Prince Edward (1993), Simcoe (1992), Victoria (1994), Waterloo (1991), Wellington (1986), and York (1990).

Although the majority of nests were near or on residences and buildings in both urban and rural areas, three nests were in conifer plantations, three in park woodlands, three in cemeteries, two in abandoned pastures, and one in a hawthorn meadow.

Many nests were in hanging flower pots. One unusual site was a space between bricks on a building and was used for two successive years. Another nest was located in a factory fan duct. Nests were also reported in old nests of Mourning Dove, Barn Swallow, Cliff Swallow, and House Sparrow. A nest was observed 1.5 m (4.9 ft) distant from an active nest of Chipping Sparrow, and another 1m (3.3 ft) distant from an active nest of House Sparrow.

EGGS 128 nests with 1 to 6 eggs; 1E (1N), 2E (5N), 3E (10N), 4E (49N), 5E (57N), 6E (6N).

Average clutch range 4 to 5 eggs (106 nests). Eggs were laid daily.

Cowbird parasitism 182 nests with 50 parasitized (27.5%). Since 1987, 23 of 95 nests were parasitized (24.2%). These substantial decreases in percentage parasitism from the 42.2% reported in Volume 2 (Peck and James 1987), may already be significant in light of the 100% mortality of cowbird nestlings in nests of this granivorous host (D. Koslovic, pers. comm.), and an indication of an adaptation by the brood parasite.

EGG DATES 159 nests, 22 March to 6 August (257 dates); 80 nests, 27 May to 19 June.

Re-nestings and second broods were frequently reported in both the same and in different nests. A triple brood was reported from Waterloo, and a third nesting attempt was noted in different but nearby nests in York. Nestlings fledged 16 days after hatching in a Northumberland nest.

BREEDING DISTRIBUTION

Nests were reported as far north as Bruce, and Muskoka. Spring and summering individuals in Nipissing, Rainy River, and Thunder Bay (Weir 1991, Ridout 1994) further indicate the continuing northern

expansion of the species.

Red Crossbill, *Loxia curvirostra*

8 nests representing 4 provincial regions. No new information has been received.

White-winged Crossbill, *Loxia leucoptera*

7 (9 nests) representing 6 provincial regions. New nesting regions were Haldimand-Norfolk (1993), Oxford (1989), and Sudbury (1992). Four more nest records of this sporadically-occurring fringillid have been submitted and their incorporated data are presented.

Two of the 9 nests were in coniferous forests (Nipissing), one was in a conifer plantation (Oxford), three were in a mixed second-growth forest (Sudbury), and another was in a mixed Carolinian Zone woods (Haldimand-Norfolk).

All 9 nests were in conifers: Black Spruce (2 nests), White Spruce (2 nests), Norway Spruce (1 nest), spruce spp. (1 nest), Balsam Fir (1 nest), Jack Pine (1 nest), and cedar spp. (1 nest). Nests were variously situated at the trunk (2 nests), and up to 2 m (6.6 ft) away from the trunk (3 nests). Heights of 8 nests ranged from 2.4 to 12.5 m (8 to 41 ft), with 4 averaging 5 to 10 m (16.4 to 32.8 ft).

Nests were described as cups (one flimsy), with exteriors of small spruce twigs. They were variously lined with grasses, feathers, plant down, animal hair, rootlets, plant fibres, moss, usnea lichen, and pine needles. One nest had an outside diameter of 9.5 cm (3.7 inches), inside diameter of 6 cm (2.4 inches), outside depth of 5 cm (2 inches), and inside depth of 3.5 cm (1.4 inches).

One nest contained 3 eggs, one contained 3 young, another contained an unspecified number of eggs, and a fourth contained an unspecified number of young.

The recorded dates for 4 occupied nests were 3 April, 19, 20, and 22 August.

Common Redpoll, *Carduelis flammea*

20 nests representing 2 provincial regions. Only one new record has been submitted describing a nest under construction just east of the Little Shagamu River, near Hudson Bay, Kenora District (1990). The nest was located in an open Black Spruce forest, and was situated in a Black Spruce at an unusually high height of 4 m (13.1 ft).

[Hoary Redpoll], *Carduelis hornemanni*

This species was listed as a probable breeder in 1985 in extreme northwestern Kenora District (Cadman *et al.* 1987). Until documented evidence of breeding is obtained its status must remain hypothetical.

Pine Siskin, *Carduelis pinus*

40 (43 nests) representing 24 provincial regions. New nesting regions were Elgin (1988), Haldimand-Norfolk (1986), Haliburton (1995), Middlesex (1988), and Niagara (1996). Probable breeding records were reported in 1987 from Frontenac, Ottawa-Carleton, and Waterloo (Weir 1987a, 1987b); and in 1990 from Oxford (Weir 1990a).

EGGS 21 nests with 1 to 5 eggs; 1E (1N), 2E (6N), 3E (3N), 4E (8N), 5E (3N).

Average clutch range 3 to 5 eggs (14 nests).

Cowbird parasitism 20 nests with 3 parasitized (15%).

EGG DATES 19 nests, March to 23 July (24 dates); 10 nests, 26 April to 14 May.

BREEDING DISTRIBUTION

As is typical of the appearances and nestings of some other fringillids, Pine Siskins are sporadic in the timing and distribution of their nestings. However, it is notable that almost all recent nestings and breeding records have been reported from southern Ontario, with a peak year occurring in 1987.

American Goldfinch, *Carduelis tristis*

1456 nests representing 44 provincial regions. Glengarry (1995) was a new nesting region.

Cowbird parasitism 1221 nests with 101 parasitized (8.3%). The relatively low rate of parasitism is due

in part to the lateness of the host's breeding season, and additionally may be influenced by an adaptation by the brood parasite to the almost 100% mortality suffered by its offspring in nests of this highly granivorous host (Middleton 1993).

An early egg date of 28 May was submitted from a nest in Wellington County in 1991. In addition, nests under construction on 21 May 1994 and 26 May 1962 were reported from Durham RM and Ontario County, respectively.

Evening Grosbeak, *Coccothraustes vespertinus*

12 nests representing 8 provincial regions. A nesting in Durham (1983), and an apparent nest in 1991 in Leeds were added reports.

The Durham nest contained four young, and three young fledged from the Leeds nesting.

House Sparrow, *Passer domesticus*

1528 (1658 nests) representing all 52 provincial regions.

EGGS 260 nests with 1 to 7 eggs; 1E (6N), 2E (13N), 3E (25N), 4E (75N), 5E (102N), 6E (35N), 7E (4N).

Average clutch range 4 to 5 eggs (177 nests).

Cowbird parasitism Brood parasitism of this species is only occasionally reported (Friedmann *et al.* 1977), and has never been reported in Ontario. This lack of noted parasitism could possibly be explained by a superficial resemblance of the eggs of the host to those of the parasite causing their presence to be overlooked.

EGG DATES Nests under construction on 3 February, 4 March, and 9 March in York; and on 29 March in Grey, indicate probable earlier egg dates than were recorded in Volume 2 (Peck and James 1987).

Adults feeding young in the nest on 3 November in York definitely imply a much later egg date than was previously reported.

On 8 December 1988, in York, at least two pairs were observed adding nest material to a site, but were possibly reacting to a mild spell of weather.

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