

for preparing the illustrations, and Dr. Richard L. Zusi for critically reading the manuscript.

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The distribution of the Cerulean Warbler in the Province of Quebec, Canada.

—The A.O.U. Check-list (fifth edit., pp. 496-497, 1957) and several authors state that the Cerulean Warbler (*Dendroica cerulea*) breeds north to southeastern Nebraska, southeastern Minnesota, southern Wisconsin, southern Michigan, southern Ontario, western and southeastern New York, and northern New Jersey. In recent years, however, this species seems to have extended its range northward and eastward. E. H. Forbush (*Birds of Massachusetts and other New England states*, vol. 3, Boston, Massachusetts Dept. Agric., 1929; see p. 247) states that it is rare or accidental in New England and that it is "extremely rare east of the Appalachian ranges." Members of the species have been known to breed in the state of New York for some time (A. C. Bent, "Life histories of North American wood warblers," *U. S. Natl. Mus., Bull.* 203, 1953; see p. 330), and have been recorded recently as far north as Syracuse (*Aud. Field Notes*, 15: 454, 1961). There are also breeding records from southern Ontario (Bent, *op. cit.*: 330-331).

There has now been a considerable incidence of sight records in the Province of Quebec (see Figure 1). (All references herein to published reports cited by date alone refer to the *Annual Reports of the Province of Quebec Society for the Protection of Birds*.) The species was first reported in the province in 1950, when Brother Victor Gaboriault heard and saw a male on 26 and 27 May on St. Helen's Island, near the city of Montreal (1950, p. 43). L. M. Terrill saw an adult male at Senneville on 5 August 1951 (1951, p. 38). On 24 and 31 May 1952, one individual was observed

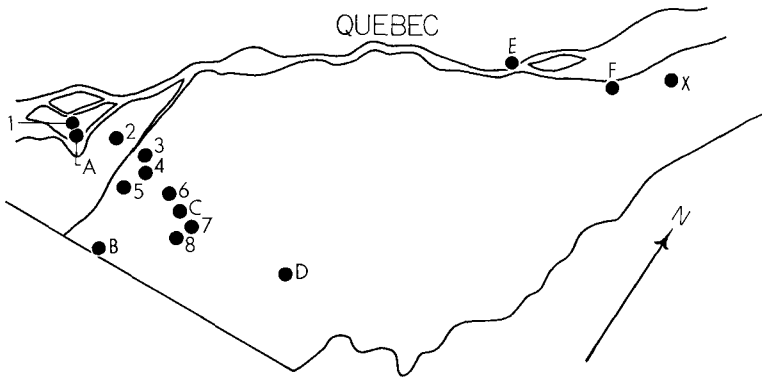


Figure 1. Localities of sight records of the Cerulean Warbler, in Quebec. 1, Mont Royal; 2, Mont St. Bruno; 3, Mont St. Hilaire; 4, Mont Rouge; 5, Mont Johnson; 6, Mont Yamaska; 7, Mont Brome; 8, Mont Shefford; A, Montreal; B, Phillipsburg; C, Granby; D, Sherbrooke; E, Quebec; F, Montmagny; X, Lac Trois-Saumons.

at Phillipsburg, on Lake Champlain, in a mature and rather open stand of hardwoods (1952, p. 31). In 1953, two singing males were noted at Phillipsburg on 7 June and a pair near Orford Lake on 17 May (1953, p. 29). On 19 June 1957, L. A. Lord, an experienced observer, saw a singing male at Lac Trois-Saumons, on the lower St. Lawrence River, about 200 miles northeast of Montreal and 10 miles south of St. Jean Port Joli (*Bull. Ornithologique*, 2 [4]: 14, 1957). In 1961, D. E. Sergeant observed a singing male at Mont St. Hilaire, about 20 miles southeast of Montreal, on the Richelieu River, on 24 May and 9 and 15 June (1961, p. 31). At the same place, he observed one bird on 13 May and one on 10 June 1962 (1962, p. 31); he also heard one there in full song on 15 May 1963 (1963, p. 31; *Bull. Ornithologique*, 8 [3]: 7, 1963, and 8 [4]: 4, 1963).

In 1965, while doing field work on the birds of the Monteregian Hills near Montreal, I observed Cerulean Warblers (all males) as follows: *Mont St. Hilaire*, one singing, 1 June; three singing, 2 June; three, 4 June; two, 6 June; three, 8 June; two, 16 June; two, 19 June; one, 20 June; and two, 28 June; *Mont Rouge*, one singing, 12 and 23 June; *Mont Yamaska*, one singing, 3 June and 2 July. I collected two individuals and these constitute the first specimen records for this species for Quebec. The first was taken on Mont St. Hilaire on 2 June 1965 and the other on Mont Yamaska on 23 June 1965. Both were adult males in breeding condition; their respective weights were 10.4 and 10.2 g. A very small amount of fat was found underlying the pteryxae.

I visited all the Monteregian Hills in the breeding season of 1965 but in spite of a careful search found this warbler on only three of them. The hills where the species was not recorded appeared to lack suitable habitat. My observations agree with Bent's (*op. cit.*: 329-331) statement that the Cerulean Warbler is usually found in the upper canopy of mature deciduous stands. The birds found in 1965 were in the uppermost part of the tallest trees in rather damp, mature deciduous stands where the dominant trees were sugar maple (*Acer saccharum*), red oak (*Quercus rubra*) and beech (*Fagus grandifolia*). On Mont Royal, Mont St. Bruno, Mont Johnson, Mont Shefford, and Mont Brome the mature deciduous forest has

been almost entirely removed by logging, and this may account for the absence of the Cerulean Warbler.

The records obtained in the Monteregian Hills and farther south suggest that this warbler moved into Quebec rather recently by way of the Lake Champlain and Hudson River lowlands and that it is now breeding in at least the southwestern part of the Province. I think that the records obtained elsewhere in the Province represent stragglers. However, the species might breed as far north as Lac Trois-Saumons, since mature stands of deciduous trees occur commonly in that part of the Province.—HENRI OUELLET, *Redpath Museum, McGill University, Montreal 2, Canada.*

A case of polygamy in the Black-capped Chickadee.—In the spring of 1964, while working on a color-banded population of Black-capped Chickadees (*Parus atricapillus*) in Vancouver, British Columbia, Canada, I found that one male was mated with two females, each having her own nest. The male's territory was approximately twice that of neighboring males, and the two nests were well separated, being roughly 100 yards apart. The territory seemed to be divided approximately in half by the females, and until the young fledged neither female was observed in the half of the territory where the other nested. Under normal conditions females often take part in territorial defense, and may even take the lead in it. However, since I saw no invasion by either female into the other's side, I do not know if the two females defended against each other or not.

The male accompanied both females while they gathered nesting material. He came regularly to feed both females during incubation and helped feed both broods after they hatched. One nest had a clutch of three eggs, and the other had five eggs. All eight hatched and the young fledged successfully. After the fledging period the two families combined into one flock. Although the male fed all of the young, the females were only observed to feed their own young.

All three adults had been in the same winter flock prior to the breeding season. After the break-up of winter flocks the trio was always observed together, and neither female was ever seen with any other male that spring.

Both the male and one of the females disappeared before the next spring. The other female survived and bred again in the same area, this time being the only mate of the new male. I saw no other case of polygamy during this study.

I have been unable to find any other published records of polygamy in this species.—SUSAN M. SMITH, *Department of Zoology, University of British Columbia, Vancouver, Canada.* Present address: *Department of Zoology, University of Washington, Seattle, Washington.*

Occurrence of *Vireo bellii medius* in southern Mississippi.—Earlier (*Occas. Papers* no. 20, Mus. Zool., Louisiana State Univ., p. 434, 1944) I recorded a female specimen of Bell's Vireo, *Vireo bellii*, taken on Deer Island, 18 September 1939. At the time it was collected it was considered the nominate race, and was so listed in my paper. Recently Allan R. Phillips, while at the National Museum, in Washington, D.C., had occasion to examine this specimen, and writes me that rather to his surprise it proved to be "not *V. b. bellii*, but clearly the duller *V. b. medius*." I am indebted to Dr. Phillips for his identification of this bird, and for the privilege of recording the apparent occurrence of this race for the first time east of the Mississippi River.—THOMAS D. BURLEIGH, 7737 *E. Meadowbrook Avenue, Scottsdale, Arizona.*