

Unusual Nesting Habitat and Song of the Prairie Warbler on Georgian Bay

by
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Introduction

For some years, Prairie Warblers (*Dendroica discolor*) have been observed migrating through the Dillon Cove area of Carling Township in the District of Parry Sound. This is 47 km WNW of the town of Parry Sound and 12 km north of Snug Harbour on Georgian Bay. My first Prairie Warbler record at Dillon Cove was on 30 June 1981. Then, I had sightings in 1982 and 1985, during the Ontario Breeding Bird Atlas period and several more sightings during May and June in each of 1989, 1990 and 1991, during the Rare Breeding Bird Program. During 1994, I had one sighting in each of May, June, and July. I always hoped that one day I would find a nesting colony or at least a pair. The location being discussed in this paper is near the northern limit of its breeding range in Ontario.

The Prairie Warbler was designated as "Rare" by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) in 1985, but with recent declines across North America, including Ontario, it has been recommended that the status be changed from "Rare" to "Threatened" in Ontario (Austen et al. 1994). The Ontario population has been estimated at fewer than 500 pairs (Lambert and Smith 1984).

Unusual Nesting Habitat

The usual habitat for Prairie Warblers

along the southeastern Georgian Bay shoreline is rocky pine-oak-juniper scrub, with Common Juniper (*Juniperus communis*) being an important component (Lord 1955, Lambert and Smith 1984, Lambert 1987).

On 23 May 1996, I discovered a singing male close to Dillon Cove along the rocky shoreline of Georgian Bay. They sometimes sing for a few minutes up to several hours in this area before migrating, presumably farther up the coast. On 24 May, I rechecked the area and found a bulldozer and chainsaw working there, with no chance of hearing the bird. I tried again unsuccessfully on 25 May, but I persevered and finally found it again on 27 May. It sang on territory every day from 27 May to 1 June, when I found **two** singing males. Then, I was absent for one week and only found one male on territory from 8 June onwards. The habitat here had been vastly altered in the last 3 - 5 years. First, a road was built up for a new subdivision by clearing a swath 20 m wide, scarring the landscape. Then, during 1991 to 1996, a major outbreak of Introduced Pine Sawfly (*Diprion similis*) occurred at Dillon Cove. The larvae built to such numbers in 1993 that the White Pines (*Pinus strobus*) along the shoreline of Georgian Bay in this area were completely defoliated and died during

1993-1994. The Prairie Warbler sang in this desolate area using the dead White Pines as its singing perches (Figure 1). It sang from the top of a rocky knoll with Georgian Bay on one side and the new road beside a small marshy backwater on the other side. There were Red Oaks (*Quercus rubra*) and Common Juniper present, and much open space of bare rock (Figure 2). The second male occupied a similar adjacent territory and also sang from a perch in a dead White Pine next to the shoreline. I have birded this area regularly since 1972 and have never recorded Prairie Warblers at this location before, when the White Pines were alive. Was the dying of the pines the reason for attracting them to nest near Dillon Cove?

By 10 June, I found a female in the territory but observed that the male had shifted his territory slightly

to incorporate the area in which the female was found. She spent much time in the wetland, frequently flying into the Sweet Gale (*Myrica gale*) shrubs in the drier edges of the wetland. The male left the high rocky knoll and sang from high perches on both sides of the wetland. He sang from either the Red Oaks on the west side of the wetland or from the dead pines on the rocks on the east side of the wetland.

On 12 June, I observed the female on the side of a White Cedar (*Thuja occidentalis*) tree trunk pecking at the trunk as if she were gathering strips of cedar for a nest, although I was unable to see her carrying anything. However, on 13 and 14 June, she was gathering fluff from a willow (*Salix discolor*) for her nest. She gathered it only about 5 m from me and flew repeatedly into the same location in



Figure 1: Rocky ridge with dead White Pines used as singing perches by Prairie Warbler. Photo by Jean M. Niskanen.



Figure 2: Prairie Warbler nest was located in wet area in front of Red Maples (right), bordering the rocky ridge. Photo by *Jean M. Niskanen*.

the Sweet Gale shrubs at the edge of the wetland, undisturbed by my presence. Prairie Warblers are known to incorporate a fair amount of plant down into the body of their nests, not just as a nest lining (Harrison 1975, Nolan 1978). Since there was only one small willow in the marsh with the fluff, she kept returning to the same plant which was 2 m high. Nolan (1978) noted that willow catkins and strips of cedar bark had been recorded as nest components by other observers.

This nest location is unusual since the normal habitat for nests in the Georgian Bay area is the White Pine/Red Oak/Common Juniper habitat (Lambert and Smith 1984, Lord 1955). The area selected by the female is best described as a low, marshy area protected from the winds between two

rocky ridges, with the third side protected by the high road edge which has been built about 3 m higher than the wetland. The fourth side is a narrow neck of water of a small back bay off of Sand Bay. Almost half of the original marshy area was filled for the new road and the total size of this back bay (open water) and marsh is probably less than 1 ha. Both rocky ridges were vegetated with junipers and dead White Pines, while Red Oaks and a few Red Maples (*Acer rubrum*) were present at the edges of the road and wetland. A significant percentage of the emergent vegetation near the open water of the wetland was composed of Blue Flag (*Iris versicolor*), with a patch of albino plants among them. Sweet Gale and three species of grasses (*Glyceria canadensis*, *Calamagrostis canadensis*, *Phalaris arundinacea*)

dominated the drier edges in the vicinity of the nest.

The nesting attempt failed sometime after 26 June, which is the last date when the male was singing strongly. No Prairie Warbler activity was observed after that date and no call notes were heard either. The nest was approached for the first time and photographed on 5 July (Figure 3). The finished cup was lined with grasses and fine black rootlets, but was empty, with no egg shells found. The nest was attached to two different branches of Meadowsweet (*Spiraea alba* var. *latifolia*) which were hidden from view inside the Sweet Gale shrubs. This type of nest placement appears to be quite uncommon (Type VI, Nolan 1978). The nest was built at a height of 0.8 m above the ground,

but was well concealed under the upper canopy of the Sweet Gale. George Peck (pers. comm.) has documented only one other Prairie Warbler nest in Meadowsweet, in the Regional Municipality of Haldimand-Norfolk. The Dillon Cove nest was located about 6 m from the disturbed area of the new subdivision road edge (a wall of large boulders and fill about 3 m higher than the wetland) and about 3 m from the rocky ridge on the east side. All of the Sweet Gale shrubs in the marsh are in full sunlight by early morning, except the nest site, which lies in a shadow cast by four Red Maple trees until midday.

Unusual Song

On 10 June, I discovered that the male was singing a different song, like a



Figure 3: Prairie Warbler nest in Meadowsweet, after removal from patch of Sweet Gale, on 19 August 1996. Photo by Jean M. Niskanen.

Black-throated Green Warbler (*D. virens*). During the period from 10 June to 26 June, the male sang both his normal song and this alternate song and readily switched back and forth between the two songs. Many repetitions of the alternate song were tape recorded on 18 June and it is best described as *zee zee zoo zoo zee*, also *zee zee zoo zoo zoo zee*, and sometimes ending with an extra *zee zoo* sung quickly. The 'zee's are the higher buzzy notes and the 'zoo's are the lower notes. Sometimes the second *zee* was lower than the first but other times it was higher than the first note, similar to the sequence of Song 1 of the Cornell University (1983) tape, Song 3 of the Cornell University (1975) tape, and Song 3 of Borror and Gunn (undated), of the Black-throated Green Warbler.

He sang this alternate song particularly strongly when the female was busy with the nest building, which she does alone (Ehrlich et al. 1988). She was also observed flying out to him when he sang this song, so she appeared to respond to it. Prairie Warblers have a large repertoire of songs, but Nolan (1978) made no reference to a song similar to that of the Black-throated Green Warbler. Scott Connop (pers. comm.) heard and taped an alternate song in Rockton Tract, Regional Municipality of Hamilton-Wentworth, Ontario, on 1 June 1992. However, this song was not similar to the Black-throated Green Warbler song of the individual at Dillon Cove, since it was all on one pitch, except for the ending, which ascended the scale. I have heard Prairie Warblers sing at many times throughout the day at Dillon Cove, and this individual also sang through-

out the day, contrary to Lambert's (1987) statement that where breeding densities are low, they tend to sing only in the early morning. The typical song of this individual and all other Prairie Warblers heard at Dillon Cove is faster than the Cornell University (1983) songs, which were taped in Florida, and more like Song 1 of Borror and Gunn (undated), taped in Ohio.

Behaviour

I saw both male and female Prairie Warblers feeding on green larvae. They foraged in the Red Oaks and frequently in the Sweet Gale which formed a fringe around the wetland. At no time, however, did I witness the male performing any low 'mothlike' courtship display flight (Ehrlich et al. 1988). On 17 June, I did see the male and female close together in the Sweet Gale, eating larvae. The male caught a green larva but did not give it to the female in courtship feeding, instead eating it himself. Then, the two of them went to the nest site. Both birds were silent when together on this occasion, with no call notes or displays. Just prior to this, I observed a female Common Yellowthroat (*Geothlypis trichas*) at the Prairie Warbler nest site. Neither the male nor female Prairie Warbler defended the nest site by chasing her off. I witnessed no aggression on this occasion or any other occasion as the two species occupied the same habitat. On 20 June, I observed the pair of Prairie Warblers feeding together in the canopy of the Red Oak trees, this time uttering call notes. The female flew directly to the nest site without being secretive, and I saw a male Common Yellowthroat emerge from the same

bush, but again, without any chasing by the female Prairie Warbler.

Summary

This Prairie Warbler nest location appears to be the farthest north yet documented in Ontario. George Peck (pers. comm.) has documentation only as far north as Monument Island (District Municipality of Muskoka). In addition, the fact that two males were attracted to an area of recently dead White Pines, that a female built her nest at the edge of a wetland in this peculiar territory, and that the male sang an uncommon alternate song, all make this a most unusual nesting.

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