

The Status and Distribution of the Prairie Warbler in Ontario

by

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The Prairie Warbler (*Dendroica discolor*) has been considered a relatively rare breeding species in Ontario, but one whose exact status was rather poorly known. This led the Nongame Program of the Ontario Ministry of Natural Resources to commission a study of its status in Canada, and early in 1984 a report was prepared (Lambert and Smith 1984). The Status Report detailed information available up to 1983, based on the literature and communications with knowledgeable birders, while this paper summarizes those data. Additional information obtained during the 1984 season has also been included, when available.

Overview

In Canada, the Prairie Warbler has been reported in five provinces but has been proved to breed only in Ontario. It is a very rare spring migrant in Quebec (7 or 8 records), and a rare but regular fall migrant in New Brunswick and Nova Scotia (mainly on offshore

islands), where over one hundred have been recorded. There are also three fall records from Newfoundland.

In Ontario, the Prairie Warbler was first recorded in 1900 (Samuel 1900; Ames 1901) and was first proved to breed in the province in 1922 (Harrington 1922). Historically, breeding has been confirmed in ten Counties/Districts (Lambton, Haldimand-Norfolk, Waterloo, Dufferin, Bruce, Simcoe, Muskoka, Parry Sound, Peterborough, Frontenac) and suspected in six more (Middlesex, Manitoulin, Hastings, Prince Edward, Leeds and Grenville, Lanark). Presently, however, breeding occurs on a regular basis in only six Counties or Districts (Lambton, Simcoe, Muskoka, Parry Sound, Peterborough, and Frontenac). The main stronghold of the Ontario population is concentrated along the eastern shore of Georgian Bay in the Districts of Muskoka and Parry Sound, with smaller numbers in Frontenac and

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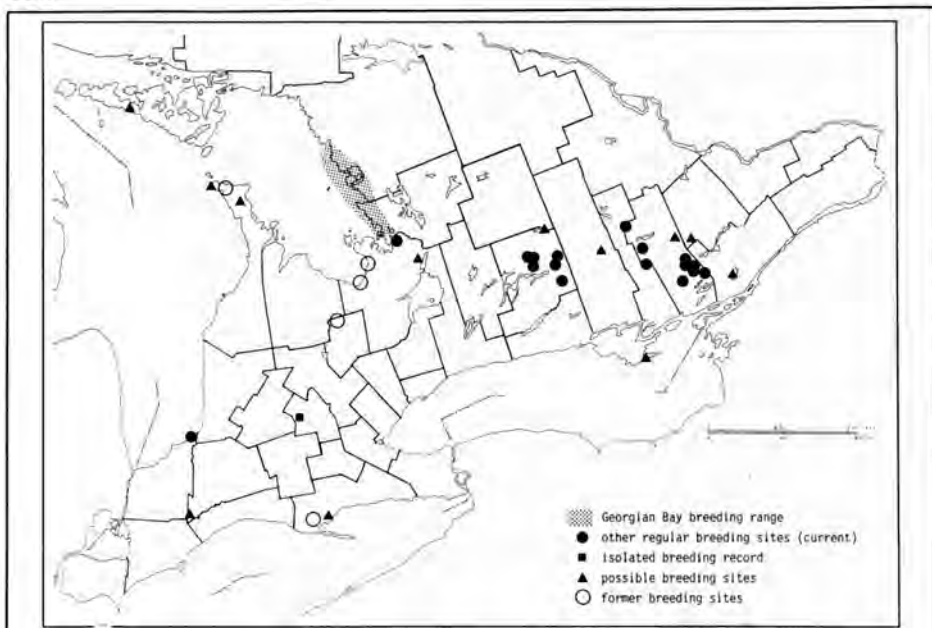


Figure 1. Breeding distribution of the Prairie Warbler in Ontario: 1900–1984.

Peterborough (Fig. 1). In these areas the population appears to be stable, although a slight increase may have occurred in Frontenac. However, in Simcoe and Lambton Counties substantial declines have been documented.

Breeding Habitats

At least three distinct habitat types have been occupied in Ontario, all characterized by open, scrubby vegetation and usually zeric conditions. The most important habitat is the pine-oak-juniper scrub found along the Georgian Bay shoreline and at scattered locations along the southern edge of the Canadian Shield (e.g. in Peterborough and Frontenac Counties). This open, rocky habitat (often only 50% vegetated)

is typically dominated by mature but stunted white pine (*Pinus strobus*), white and red oak (*Quercus alba*, *Q. rubra*), and by patches of common juniper (*Juniperus communis* var. *depressa*). Prairie Warblers most frequently select these low junipers for nest sites (Lord 1955; D.A. Sutherland, pers. comm.). Recently, use of a similar habitat along some hydro line rights-of-way in Frontenac Co. has also been reported (R.D. Weir, pers. comm.).

The second important Ontario habitat is a sand dune habitat exemplified by the Lake Huron dunes at Pinery Prov. Park (Lambton Co.) and, formerly, at Wasaga Beach (Simcoe Co.), once the site of a large 'colony'. At the

Pinery, the 'interdunal meadows' frequented by Prairie Warblers comprise a fairly open habitat with "scattered mature black oak; low shrubs of juniper, fragrant sumac, wild grape, choke cherry and red cedar—all low vegetation with clumping evident" (T. Crabe, pers. comm.). A detailed description of this habitat has been provided by Sparling (1965).

In the Turkey Point/St. Williams area (Haldimand-Norfolk R.M.), sandy plains with planted pines and/or deciduous scrub comprise a third habitat type. This open, successional habitat typically includes pin cherry (*Prunus pensylvanica*), sapling oaks (*Quercus* spp.) and other deciduous species. The plantations only remain suitable as nesting habitat for 10 to 20 years (A. Wormington, pers. comm.), but sequential plantings by the Provincial Forestry Station have provided a virtually continuous supply of habitat since the early 1930s. Second growth deciduous scrub is used much more frequently within the Prairie Warbler's United States range, the only other Ontario examples being a single case of breeding in Waterloo R.M. in 1982 and one of possible breeding in Middlesex Co. in 1983. An instance of possible breeding has also been recorded in old fields regenerating to red cedar (*Juniperus virginiana*) in Prince Edward Co. in 1979.

Detailed Breeding Distribution

Lambton County. Prairie Warblers

were first recorded at Port Franks in 1915, and during the 1930s at least 26 singing males were noted over an 8 km length of dunes (Saunders 1934, *in litt.*). At this density there could have been 50 pairs or more in the entire area of habitat between Ipperwash and Grand Bend. Indeed, after the Royal Ontario Museum's collecting trip to the area in 1935, Snyder was said to have described the Prairie Warblers there as "positively abundant" (J.L. Baillie notes, *ex ROM* files). However, cottage development has probably contributed to a decline in the population since the 1930s, and within Pinery Prov. Park the planting of pines on some secondary and tertiary dunes during the 1950s may have led to some reduction in habitat (J.D. McCauley, pers. comm.). In recent years, increasing visitor pressures could also have had some effect (T. Crabe, pers. comm.).

In 1969 the population was estimated at 17-22 males (J. Lamey, *vide* T. Crabe, pers. comm.), but since then there appears to have been a slow decline. Figures for some intervening years are not available, but from 1977 onwards the numbers of singing males were estimated as follows: 1977 - 10 to 20; 1978 - 11+; 1979 - 7?; 1980 - between 4 and 8, probably 6; 1981 - between 6 and 8, probably 8; 1982 - 5+; and 1983 - 5 (T. Crabe, pers. comm.; J.D. McCauley, pers. comm.). The present Pinery population seems to be stable at between 5 and 8 singing males, and the total

population for the entire area between Grand Bend and Kettle Point has been estimated at 10 pairs (T. Crabe, pers. comm.).

Middlesex County. The Prairie Warbler has never been proved to breed in Middlesex, but two summer records in the London area in 1930 and 1931 raised the possibility that breeding might have occurred (Saunders and Dale 1933). More recently, a singing male was observed in the 'Skunk's Misery' area, Mosa Twp. on 1, 4 and 14 July 1983, again suggesting the possibility of breeding. This bird was occupying a successional habitat described as a mixture of low pines, birch and aspen, interspersed with clearings (S. Connop, pers. comm.).

Haldimand-Norfolk Regional Municipality. Published and unpublished records indicate that in the early 1930s a small breeding population was discovered in the Turkey Point-St. Williams area, in pine plantations established by the St. Williams Forestry Station. In 1936 a 'colony' of six males was reported at Turkey Point by G. W. North (Toronto Ornithological Club records, *per ROM files*) and breeding was confirmed on 15 July 1942, when a nest with three young was found in South Walsingham (now Norfolk) Twp. (F. North 1943, *in litt.*). A small population persisted in the St. Williams Forestry Station through the next few decades as phased plantings kept a supply of suitable habitat available for about 50 years, but by 1971 it was noted

that suitable habitat was disappearing (Goodwin and Rosche 1971). Although complete counts or censuses were not conducted, the numbers involved were probably quite small. The highest recorded count of eight singing males was made in 1972 (A. Wormington, pers. comm.), and the slow decline since that time can be attributed to the increasing maturity of the pine plantations. The last year in which singing males (2 or 3) were recorded was 1979 (R.J. Curry, pers. comm.; C.J. Risley, pers. comm.), but in 1984 a pair and an additional singing male were located by the authors at a site near Turkey Point. Although breeding was not confirmed, this find suggests that the Prairie Warbler may yet persist as a breeding species in Haldimand-Norfolk R.M.

Waterloo Regional Municipality. There is a single, unprecedented breeding record from 1982, when a nest with eggs was found near Bamberg, Wilmot Twp. by R. Pickering (P.F.J. Eagles, pers. comm.). The habitat was described as "second growth forest with nesting Golden-winged Warblers as well".

Dufferin County. The single record concerns a nest with 5 eggs found on 11 June 1927 on Shrigley Creek, Melancthon Twp. by Dr. P. Harrington (Ontario Nest Record Scheme - hereafter ONRS). The nest was located in juniper, but it is not known

whether appropriate habitat exists in this area today.

Bruce County. Observations of singing males suggest that breeding may have occurred at the following locations: near Cameron Lake, St. Edmunds Twp. in 1905 (Saunders 1906); at Colpoys Bay, Albemarle Twp. in 1908 and 1909 (Klugh 1909, 1910); at McVicar, St. Edmunds Twp. in 1928, 1930 and 1934, at Stokes Bay, Eastnor Twp. in 1928, and at Oliphant, Amabel Twp. in 1933 (J.L. Baillie notes, *ex ROM files*). Collectively, these records suggest that small breeding populations may have been present along the Bruce Peninsula; but it was not until 1953 that breeding was confirmed. Previously unpublished information supplied by B. Krug (*pers.*



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comm.) indicates that he located a 'colony' of about 8 pairs in St. Edmunds Twp. in 1952. In 1953 he found a nest with young, but there were fewer breeding pairs, and in the following years the colony continued to decline, finally disappearing after 1958.

More recently, the late George North is reported to have seen Prairie Warblers at Miller Lake, Lindsay Twp. in the 1950s and 1960s (J. Miles, *pers. comm.*), while occasional sightings of singing males have occurred during the years 1975 to 1982 (near Cape Hurd, St. Edmunds Twp.; Chief's Point Indian Reserve; and Red Bay, Amabel Twp.). Although 1981-1983 Ontario Breeding Bird Atlas fieldwork has failed to provide any records (M. Parker, *pers. comm.*), areas of apparently suitable habitat still exist, particularly along the western side of the peninsula (T. Cheskey, *pers. comm.*; D.A. Sutherland, *pers. comm.*). Hence the possibility remains that the occasional pair may yet be found breeding on the Bruce Peninsula.

Manitoulin District. Confirmed breeding records are lacking, but two instances of singing males in June and July have indicated the possibility of breeding. In 1970, two singing males were present in Burpee Twp., 29 June to 16 July, while in 1974 three singing males were noted in suitable habitat at Belanger Bay (Dawson Twp.) on 22 May. However, these birds had moved away by the following week (Goodwin and Rosche 1974; Nicholson 1981). In addition to these records on Manitoulin



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Island, there are three spring records (2 in 1978; 1 in 1979) of single males elsewhere in the District. However, these probably represent 'overshooting' spring migrants, and none have been reported during 1981-1983 Atlas fieldwork (D. Ferguson, pers. comm.).

Simcoe County. In 1915 a large 'colony' of Prairie Warblers was found amongst the sand dunes with scattered oaks, pines and juniper bordering Nottawasaga Bay (Wasaga Beach). "Upwards of 200 birds" were seen by Dr. P. Harrington (J.L. Baillie notes, *ex ROM files*), while in 1919 it was estimated that 150 pairs were occupying the three miles from Oakview to the mouth of the Nottawasaga River (Devitt 1967). In 1921, it was found that the birds "were localized and followed the shoreline for about 15 miles, never further than 200 yards inland" (Harrington 1922), hence there could have been considerably more than 150 pairs. Whatever its

exact size, this population must have represented the largest and most concentrated group of breeding Prairie Warblers ever known in Ontario.

On 19 June 1922, the first Prairie Warbler nest for Canada (containing 2 young and a young cowbird) and three additional nests were found at Wasaga Beach by P. Harrington and F.A.E. Starr (Harrington 1922). However, following World War I, the colony declined rapidly as "the extensive building of summer cottages along this beach encroached upon its breeding territory" (Devitt 1967). By 1933 only a small population remained in the vicinity of Allenwood Beach and by the early 1940s this too had disappeared. In 1948 Devitt found a remnant population of at least five singing males at the nearby Bluewater Beach, but in a subsequent survey on 23 June 1967, Devitt failed to find any Prairie Warblers.

Two other breeding sites are known in Simcoe Co. One is along the rocky banks of the Severn

River in Matchedash Twp., where in June 1938 "many singing males were observed from Hydro Glen, near the entrance of Sparrow Lake down to Tea Lake", a distance of 14 km (Devitt 1967). The other is at Burrows Bay on Gloucester Pool, where Mr. and Mrs. A.G. McVicar (pers. comm.) have observed two or three pairs of Prairie Warblers annually for the last 10 or 15 years, and have found several nests.

Another possible breeding site is located 2 km west of Lake Couchiching in Orillia Twp., where W.E. Cattley (pers. comm.) has found singing male Prairie Warblers during the breeding season. The site is a small area of limestone outcropping, and common juniper is the dominant vegetation.

Muskoka District Municipality.

The earliest known locations are Go Home Bay, where an immature male was collected on 1 August 1904; Beausoleil Island, where six birds were observed on 12 August 1929 (Dingman 1929, *in litt.*); and Honey Harbour, where two were collected in June 1931. P. Saniford (1933, *in litt.*) wrote of having seen pairs of Prairie Warblers at Go Home Bay "during the last 20 years", and J.B. Armstrong confirmed breeding there in 1933, 1934 and 1936 (D.M. Fraser, pers. comm.).

It was not until 1955, however, that any observations concerning the Georgian Bay population were published (Lord 1955). Later, the Gibson River became known as another possible breeding location, and directions to this site, where

"up to a dozen" singing males have been observed, were given by Brewer (1972). The north shore of McCrae Lake was also identified as a breeding site (Brewer 1972; Hanna 1979), while Mills (1981) added Go Home Lake to the list of published Muskoka breeding sites. In addition, extensive but unpublished personal data, representing a compilation of about 15 years' observations, were made available by D.A. Sutherland and D.M. Fraser (pers. comm.). Based on these data (as opposed to specific counts or censuses), the present coastal Muskoka population was estimated at around 152 singing males. The birds seem to prefer sites close to water (often on islands, peninsulas and bays), but even in these preferred areas, Prairie Warblers are absent from some areas of apparently suitable habitat, and there are often gaps between individual territories (D.A. Sutherland, pers. comm.).

In the southern sector of Muskoka, the range indicated by Sutherland and Fraser extends from Honey Harbour and the north end of Beausoleil Island, north amongst the islands (e.g. Minnicognashene Island, Maxwell Island) to Franceville and Hangdog Islands, with 51 singing males being estimated in this sector. In the Go Home Bay area, which extends from High Rock Island north to the Tadenac Peninsula and as far east as Go Home Chute, 80 singing males were estimated. Another two birds were noted at O'Donnell Point, but the only known 'inland' sites were at Go Home Lake, McCrae Lake, Gibson River and Baxter

Lake (together accounting for another 27 singing males). However, additional birds (about 7 singing males) were found in 1984 at previously unreported sites on Twelve Mile Bay and near Moon River in Georgian Bay Twp. (H. Currie, pers. comm.).

In summary, recent estimates indicate a present population of about 167 territorial males in Muskoka D.M. In the Go Home Lake Area, J.B. Falls (pers. comm.) considered that there had been a slow decline since the late 1950s/early 1960s, but elsewhere the population appears to be stable (D.A. Sutherland, pers. comm.).

Parry Sound District. The situation in Parry Sound is much less well known than in Muskoka, but breeding populations extend north to at least Franklin Island and possibly as far as Pointe au Baril. The first record occurred on 6 June 1918, when W.E. Saunders observed 3 singing males at Snug Island, northwest of Parry Sound, but most present information on the species comes from a biological study of the Blackstone Harbour-Moon Island Provincial Park Reserve (Simpson and Simpson 1973). This extensive area is situated southwest of the town of Parry Sound, in Archipelago Twp., and extends from Woods Bay, Moon River Bay and the south end of Moon Island northwards to include Spider and Cowper Lakes. The Simpsons found a substantial population of Prairie Warblers in this region, and identified extensive areas of potential habitat.

Other known locations for

Prairie Warblers include Loon Island (off Twelve Mile Bay); Ouimet Point and Davey Island in Killbear Prov. Park; Franklin Island; and Oastler Lake (Mills 1981); while R.L. Bowles (pers. comm.) added Crane Lake and the area "as far east as Hwy 69 around Lake Joseph".

The status in northern Parry Sound District, i.e. northwest of the town of Parry Sound, is still poorly known. The most northerly location where breeding has been confirmed is in 10 km square 17NA44, located northwest of Brooks Landing (M.D. Cadman, pers. comm.), but there is also a June 1933 record from Frank's Bay on Lake Nipissing (Ricker and Clarke 1939). Hence it is possible that additional fieldwork could extend the known range in this area, perhaps even as far north as the "French River Study Area" (between Killarney Prov. Park and Lake Nipissing), where Brunton (1979) noted "excellent habitat" and felt that the species "should be looked for". However, during summer 1984, brief checks of several areas from Pointe au Baril northwards (Bayfield Harbour, Byng Inlet, Key Inlet, French River Station and Pickerel River) yielded negative results (D.A. Sutherland, pers. comm.).

As regards numbers, D.A. Sutherland and D.M. Fraser (pers. comm.) estimated 37 singing males in southern Parry Sound District, south of a line from Wreck Island to the southern end of Moon Island. Most were concentrated around Loon Island and the north side of the entrance to Twelve Mile Bay. For the Blackstone

Harbour-Moon Island area, Simpson and Simpson (1973) estimated 200 pairs, but based on the amount of habitat they identified, and extrapolation from known Muskoka areas, we obtained revised estimates of between 62 and 162 pairs. In areas north of Parry Sound we arrived at tentative estimates of 53 to 159 pairs, after examining 1:50,000 topographic maps.

When the known and estimated figures are combined, a provisional estimate of somewhere between 150 and 360 pairs is obtained for the total Parry Sound population. Additional fieldwork is essential in order to refine this estimate.

Peterborough County. The Prairie Warbler does not seem to have been reported from Peterborough County prior to 1947, when a nest was found at Kashabog Lake (Burleigh Twp., ONRS). Since then, however, breeding sites have been found at

Long Lake (near Apsley), Cox Lake, Coon Lake and Stoplog Lake (all in Burleigh and Anstruther Twp.); and Methuen Lake, Kashabog Lake and Round Lake in Belmont and Methuen Twp. (D. Sadler, pers. comm.). The Long Lake colony is probably the best known, and was described as thriving in 1964 (Goodwin 1964). On 28 June 1979, G. Carpentier (pers. comm.) counted 10 singing males there, while other estimates range from 5 to 15, "depending upon time of year and day" (R.D. McRae, pers. comm.). Specific counts for the other sites are not available, but we have estimated a Peterborough population of at least 20 pairs, perhaps as high as 40-60.

Hastings County. A possible breeding site exists at Mt. Moriah, Elzevir and Grimsthorpe Twp., where a singing male was located in June of both 1982 and 1983. These are the only records for



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Hastings Co., where suitable habitat seems to be very limited (R.D. James, pers. comm.).

Prince Edward County. Although there are no confirmed breeding records for the County, in July 1979 singing males were located at two sites 15 km west of Prince Edward Point. "Singing occurred throughout July with 5 males at one site and at least one male at the other" and the birds occupied a regenerating field "overgrown with small red cedar and, at one site, interspersed with aspen" (T. Sprague, pers. comm.). It is not certain whether these birds were breeders, non-breeders or failed breeders (R.D. McRae, pers. comm.), and the sites were not occupied in subsequent years.

Frontenac County. Breeding was first confirmed in 1933 when a small colony was found at Cross Lake, Kennebec Twp., by R.V. Lindsay. Another nest was found there in 1947 and yet another in 1953 (ONRS), but in the meantime other breeding locations for Prairie Warbler were being discovered in the southern part of the County (Quilliam 1973). In northern Frontenac, summering birds were noted near Ompah in the 1950s (H.G. Lumsden, pers. comm.), and a colony was discovered at Mazinaw Lake, Bon Echo Prov. Park in 1971 (Goodwin and Rosche 1971). More recently, 1981-1983 Atlas fieldwork has yielded further records in the southern part of the county including the previously unreported finding that hydro rights-of-way were being utilized in

some areas (R.D. Weir, pers. comm.). In the northern part of the county, another hydro line site was found near Ompah in 1984 (P. Taylor, pers. comm.).

In addition to the sites mentioned above, known localities now include Devil Lake, Canoe Lake (for directions to this site see Goodwin 1982), Clear Lake, and Lake Opinicon (all in Bedford Twp.), while smaller numbers have been found in 10 km squares 18UE72 (Gould Lake), 18UE44 (Puzzle Lake), and 18UE74 (Fermoy). In total, Weir (pers. comm.) estimated between 35 and 50 breeding pairs of Prairie Warblers in southern Frontenac Co. in 1983. When the northern part of the county is included, we consider that the total Frontenac population could amount to 50-65 pairs, with the possibility of yet more being discovered in remote areas. For example, there may be areas of suitable habitat along the Mississippi River (D.A. Sutherland, pers. comm.).

The United Counties of Leeds and Grenville. Just two records of singing males suggest the possibility of breeding. In summer 1976 a singing male was present throughout May and June at the Slim Bay Peninsula on Charleston Lake, in Charleston Lake Prov. Park (Bell 1977). It was not found in 1978, but in that year one was located at the nearby Killingbeck Lake, where the habitat is probably marginal (D.A. Sutherland, pers. comm.). However, there may be other areas of potential habitat in this county and additional fieldwork could still

yield new discoveries.

Lanark County. The first records for this county were obtained during 1984 Atlas fieldwork, when 3 or 4 singing males were found along railroad tracks north of Christie Lake (P. Taylor, pers. comm.). The open, rocky, juniper-type habitat was similar to that used at other Shield edge locations.

Migrant Records

Throughout southern Ontario, the Prairie Warbler is considered to be a rare or very rare migrant in both spring and fall. Most records have occurred at known concentration points such as Point Pelee, Rondeau and Long Point on Lake Erie, or Presqu'île and Prince Edward Point on eastern Lake Ontario. The heavily populated areas of Hamilton, Toronto and Durham R.M. have also yielded a number of records. Among these sites, Point Pelee is pre-eminent for spring migrants, and at all sites except Long Point and Durham R.M., spring records greatly outnumber those in fall. This is probably because in spring, birds are easier to locate and there is more birding activity. In fact, Long Point data indicate that similar numbers are recorded in both seasons (averaging 2 per year in recent years). Over the last 20 years, the Long Point Bird Observatory has trapped 2.7 Prairie Warblers for every 10,000 warblers (all species) banded, which provides some measure of the species' rarity as a migrant.

Most records of migrants involve single individuals, but at

Point Pelee a maximum count of four was recorded on 9 May 1953. There are also records of three on 24 April 1977, 11 May 1979, and 15 May 1980 (A. Wormington, pers. comm.).

Normal spring migration dates at Point Pelee fall between 1 and 23 May, with record early and late dates of 16 April (1982) and 29 May (1979), respectively. These dates reflect the pattern throughout southern Ontario, although a few early June dates have been recorded (latest 6 June 1967 at Hamilton, apart from a 16 June 1969 date at Presqu'île Prov. Park). The earliest dates of arrival on the breeding grounds are 2 May (1965) at Clear Lake, Frontenac, and 5 May (1981) at Beausoleil Island, Muskoka, but the average date of arrival on the Frontenac breeding grounds (based on 13 years' data) is 12 May (Quilliam 1973).

Fall dates at Point Pelee range from 10 August to 20 September, while elsewhere in Ontario the earliest fall date seems to be 7 August 1977, at Long Point. Probably, most have departed by early September (A. Wormington, pers. comm.). The latest documented date is 12 October 1975 at Mississagi Light, Manitoulin (Nicholson 1981), but only four October records have been located. Full details concerning these and other migrant records have been provided in the Status Report (Lambert and Smith 1984).

Discussion

As outlined in the preceding sections, present day breeding

populations of Prairie Warblers in Ontario are concentrated in areas of Muskoka and Parry Sound fringing Georgian Bay, and in Peterborough and Frontenac Counties. Together, these areas account for over 90 per cent of the population. In total, there was in 1984 a known Ontario population of between 321 and 336 pairs (see Table 1), but the figure could amount to between 450 and 700 approximately, if allowance is made for those possibly present in poorly known areas (e.g. northern

Parry Sound District). However, we believe that the lower estimate is more likely: hence in round figures the Ontario population probably does not exceed 500 pairs.

Preliminary data from the Ontario Breeding Bird Atlas (Fig. 2) indicate that the present (1981-1984) distribution does not differ greatly from the known historic range (Fig. 1), except, possibly, in Bruce Co. To date, Prairie Warblers have been reported in the breeding season from 38 ten

Table 1: Estimated numbers of Prairie Warblers (pairs or singing males) presently breeding in Ontario (data to 1984).

County/District	Known as of 1983/84	Estimated additional	Estimated total
Lambton	10	-	10
Middlesex	-	1	1
Haldimand-Norfolk	1	1	2
Waterloo	-	1	1
Bruce	-	5	5
Simcoe	3	10	13
Muskoka	167	8	175
Parry Sound	67	85-291	152-358
Peterborough	20	20-40	40-60
Hastings	-	1	1
Prince Edward	-	-	-
Frontenac	50-65	10	60-75
Leeds & Grenville	-	2	2
Lanark	3	1	4
Manitoulin	-	2	2
Total:	321-336	147-373	468-709

km squares in Sector 1, with confirmed breeding in 7 squares, and probable and possible breeding in 15 and 16 squares, respectively. However, a concerted effort during the last year of Atlas fieldwork might relocate the species in some former haunts, including the following 10 km squares with historic summer records but still lacking Atlas records: Region 4: 17MT54; Region 5: 17NT42; Region 8: 17MA40, 17MA50, 17MA60, 17MV69, 17MV85; Region 9: 17NU59; Region 13: 17NV96, 17PV07, 17PV25; Region 16: 17QV14, 17QV15, 17QV24, 18TE64; Region 18: 17NA60, 17NA80, 17NV98, 17PV16; Region 20: 18UD36; Region 25: 18UE45; Region 28: 17NA52, 17NA81; Region 33: 17LA47. Birders are encouraged to check these areas in 1985.

For the most part Prairie Warblers in Ontario have utilized natural rather than man-altered habitats. Presumably they have bred for centuries in rocky scrub areas bordering Georgian Bay and the southern fringe of the Canadian Shield and in the dunal habitats bordering Lake Huron. Apart from Wasaga Beach and the Pinery area, significant threats to these habitats have not been identified; hence the present situation is one of relative stability and security.

By contrast, man-altered environments have been used to a much greater extent in the United States (Nolan 1978), and as a consequence there has been a considerable expansion during this century in the U.S. breeding range (which includes parts of about 31 states east of the Great Plains). Recent range expansions have



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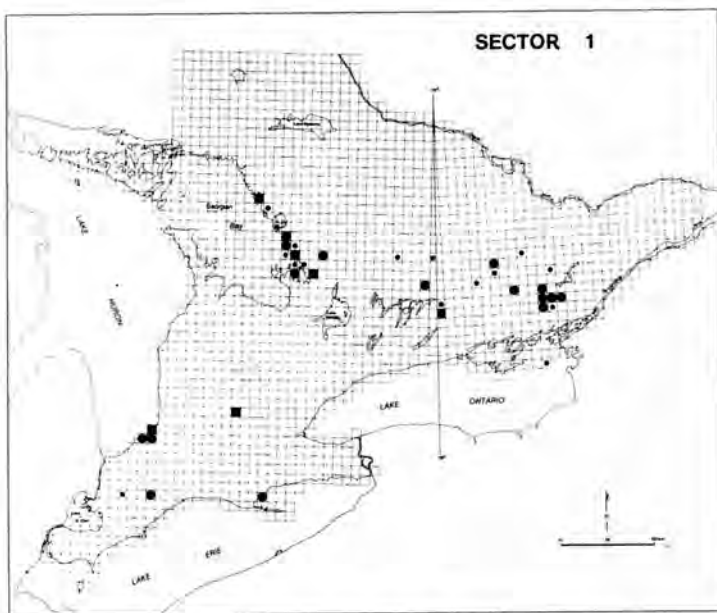


Figure 2: Breeding distribution of the Prairie Warbler in Ontario, based on preliminary (1981–1984) data from the Ontario Breeding Bird Atlas. Within 10 km squares: square=confirmed breeding; large circle=probable breeding; small circle=possible breeding.

been noted in several northern states, such as Ohio, New York, Vermont, Maine, and possibly Wisconsin; while in Michigan, range expansions in some areas have been offset by contractions in other areas, hence the overall situation remains dynamic (Walkinshaw 1959; Payne 1983). Newly exploited habitats include regenerating old fields, logged areas, power line rights-of-way, strip-mined areas and young conifer plantations. In Ontario, however, these habitats have rarely been used, apart from the three cases mentioned previously.

In much of the Ontario range, habitats that appear suitable seem to be under-utilized, and breeding densities are generally very low

compared with many parts of the U.S. range. Although data are lacking, we suspect that this reflects a lower productivity, which might result from a shorter breeding season, a harsher climate/microclimate, possibly greater effects of cowbird parasitism, or other factors.

While the Prairie Warbler's future on its Ontario breeding range seems secure, the situation in the Caribbean wintering areas is more difficult to assess. In winter, Prairie Warblers appear to be most abundant on the Bahamas, fairly numerous on the Greater Antilles and much less common in the Lesser Antilles. However, destruction of the various scrub forest habitats used by wintering

birds is an ongoing process, particularly in the Greater Antilles, and its effects on the Prairie Warbler are largely unknown.

In conclusion, the Prairie Warbler is not endangered, threatened or rare in many parts of its range. Nonetheless, the Ontario population is small, localized and peripheral to the main breeding range, and the Prairie Warbler warrants designation as a 'rare' species in Ontario (and Canada).

Acknowledgements

We would like to thank all those 115 people who responded to our questionnaire, since without their help the Status Report could not have been written. In particular, Don Sutherland and Don Fraser provided a wealth of information. Others who contributed Canadian data were: K.F. Abraham, J.B. Armstrong, M. Bain, D. Barry, M. Biro, C. Blomme, J. Bouvier, R. Bowles, D. Brewer, G. Carpentier, W.E. Cattley, T. Cheskey, G.F. Clay, C. Cochrane, S. Connop, T. Crabe, D. Cuddy, H. Currie, R. Curry, M.P. Davis, O.E. Devitt, B. DiLabio, P. Eagles, G. Fairfield, J.B. Falls, D. Ferguson, D. Fidler, J. Francis, M. Gawn, W.G. Girling, B. Gorman, M. Gosselin, C.G. Harris, W.C. Harris, B. Hartley, D.J. Hawke, J.M. Immerseel, W.R. Jarman, J.W. Johnson, A.J. Kelley, D. Kerr, R. Knapton, S. Kozak, H. Krug, R. Lawrence, J.B. Leather, H. Lumsden, J.D. McCauley, J. McCormick, T. McDonald, W.D. McIlveen, S. McKinley, I. McLaren, K. McLaughlin, R.D. McRae, A.G. McVicar, J. Miles,

A. Mills, B. Morin, G. Murphy, D. Myren, J. Nicholson, H. Ouellet, B. Parker, M. Parker, S. Peruniak, J.K. Reynolds, P. Richter, A. Rider, R. Ridout, C.J. Risley, P. Ritchie, K. Robinson, D. Rupert, D. Sadler, J.M. Speirs, T. Sprague, P. Taylor, R. Tozer, R. Tymstra, R. Weir, P.A. Woodliffe, A. Wormington and the Long Point Bird Observatory. We are grateful to the Ontario Breeding Bird Atlas and its coordinator, Mike Cadman, for making available preliminary Atlas results from 1981-1984, while Ross James provided access to ONRS records and other data held at the Royal Ontario Museum. We thank Irene Bowman, Mike Cadman and Don Sutherland for helpful comments on an earlier draft of this paper. The Status Report was prepared for the Nongame Program of the Wildlife Branch, Ontario Ministry of Natural Resources, and we thank the O.M.N.R. for permission to publish information contained in the Report.

Literature Cited

- Ames, J.H. 1901. Nesting of Cory's Bittern (*Ardeetta neoxena*) and Other Notes. *Auk* 18:106-107.
- Bell, G.P. 1977. A Comparative Biology of Three Provincial Parks in Southeastern Ontario. Environmental Planning Series, Ontario Ministry of Natural Resources, Parks Division, Eastern Region.
- Brewer, D. 1972. Prairie Warbler (Ontario, Gibson River).

- Birdfinding Insert. *Birding* 4:285.
- Brunton, D.F.* 1979. Life Science and Interpretive Potential of the French River Study Area: A Pilot Study for the Proposed Canadian Heritage Waterways System. Ontario Ministry of Natural Resources, North-eastern Region, Sudbury, Ontario. 149 pp.
- Devitt, O.E.* 1967. The Birds of Simcoe County, Ontario. 2nd revised ed. Brereton Field Naturalists' Club. Barrie, Ontario.
- Dingman, R.G.* 1929. Letter to J.L. Baillie, 2 December 1929.
- Goodwin, C.E.* 1964. Worth Noting. *Ontario Naturalist* 2:27-30.
- Goodwin, C.E.* 1982. A Bird-Finding Guide to Ontario. University of Toronto Press, Toronto. 248 pp.
- Goodwin, C.E. and R.C. Rosche.* 1971. The Nesting Season, June 1 - August 15, 1971: Ontario-Western New York Region. *American Birds* 25:851-856.
- Goodwin, C.E. and R.C. Rosche.* 1974. The Spring Migration, April 1 - May 31, 1974: Ontario-Western New York Region. *American Birds* 28:794-800.
- Hanna, R.* 1979. A Life Science Inventory and Evaluation of McDonald Bay Park Reserve-McCrae Lake Wilderness Area. Ontario Ministry of Natural Resources, Parks and Recreational Areas Branch, Central Region. 61 pp.
- Harrington, P.* 1922. Prairie Warbler, *Dendroica discolor*. *Can. Field-Nat.* 36:176.
- Klugh, A.B.* 1909. Notes on Some Birds of Bruce Co., Ontario. *Ont. Nat. Sci. Bull.* 5:25-26.
- Klugh, A.B.* 1910. Present Status of the Prairie Warbler in Canada. *Ont. Nat. Sci. Bull.* 6:34-35.
- Lambert, A.B. and R.B.H. Smith.* 1984. The Status of the Prairie Warbler (*Dendroica discolor*) in Canada. Report prepared for the Nongame Program, Wildlife Branch, Ontario Ministry of Natural Resources. 318 pp.
- Lord, D.* 1955. Occurrence of the Prairie Warbler at Georgian Bay, Ontario. *Ontario Field Biologist* 9:23-24.
- Mills, A.* 1981. A Cottager's Guide to the Birds of Muskoka and Parry Sound. Guelph, Ontario. 209 pp.
- Nicholson J.* 1981. The Birds of Manitoulin Island. Sudbury, Ontario. 204 pp.
- Nolan, V., Jr.* 1978. The Ecology and Behavior of the Prairie Warbler *Dendroica discolor*. *American Ornithologists' Union Monograph No. 26.* Allen Press, Lawrence, Kansas. 595 pp.
- North, F.* 1943. Letter to J.L. Baillie, 13 October 1943.
- Payne, R.B.* 1983. A Distributional Checklist of the Birds of Michigan. *Misc. Publication No. 164, Mus. of Zoology, Univ. of Michigan.* 71 pp.

Quilliam, H. 1973. History of the Birds of Kingston, Ontario. Kingston Field Naturalists, Kingston, Ontario. 209 pp.

Ricker, W.E. and C.H.D. Clarke. 1939. The Birds of the Vicinity of Lake Nipissing, Ontario. Contributions of the Royal Ontario Museum of Zoology 16:1-15.

Samuel I. [sic] H. 1900. List of the rarer birds met with during the spring of 1900 in the immediate vicinity of Toronto. Auk 17:391-392.

Saniford, P. 1933. Letter to J.L. Baillie, 30 April 1933.

Saunders, W.E. 1906. Birds New to Ontario. Ottawa Naturalist 14: 205-207.

Saunders, W.E. 1934. Letter to

J.L. Baillie, 27 November 1934.

Saunders, W.E. and E.M.S. Dale. 1933. History and list of birds of Middlesex County. Trans. Royal Can. Inst. 19:161-248.

Simpson, R. and H. Simpson. 1973. The Biology of Blackstone Harbour-Moon Island Provincial Park Reserve, Parry Sound District, Ontario. Ontario Ministry of Natural Resources, Division of Parks, Parks Planning Branch, Environmental Planning Section. 156 pp.

Sparling, J.H. 1965. The Sand Dunes of the Grand Bend Region of Lake Huron. Ontario Naturalist 3:16-23.

Walkinshaw, L.H. 1959. The Prairie Warbler in Michigan. Jack-Pine Warbler 37:54-63.

