

Committee
on the Status
of Endangered
Wildlife
in Canada

Comité sur le
statut des espèces
menacées
de disparition
au Canada

Ottawa, Ont. K1A 0H3
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UPDATED STATUS REPORT ON THE HENSLOW'S SPARROW
AMMODRAMUS HENSLOWII
IN CANADA

BY

MADELINE J.W. AUSTEN

AND

MICHAEL D. CADMAN
ONTARIO RARE BREEDING BIRD PROGRAM*

STATUS ASSIGNED IN 1993
ENDANGERED

REASON: HAS DISAPPEARED FROM MOST AREAS IN WHICH IT WAS
FORMERLY FOUND; VERY FEW PAIRS REMAINING IN CANADA
(FEWER THAN 50). SIGNIFICANT DECLINES IN THE PAST
DECADE.

OCCURRENCE: ONTARIO

*THE ONTARIO RARE BREEDING BIRD PROGRAM IS A CO-OPERATIVE PROGRAM
ORGANIZED BY THE ONTARIO FEDERATION OF ONTARIO NATURALISTS, THE
LONG POINT BIRD OBSERVATORY, THE NATURE CONSERVANCY OF CANADA
AND THE ONTARIO FIELD ORNITHOLOGISTS.

COSEWIC — A committee of representatives from
federal, provincial and private agencies which
assigns national status to species at risk in Canada.

CSEMDC — Un comité de représentants
d'organismes fédéraux, provinciaux et privés qui
attribue un statut national aux espèces menacées de
disparition au Canada.

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JUNE 1990

Ottawa, Ont. K1A 0B2 (613) 997-4991

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DEFINITIONS

- SPECIES:** "Species" means any species, subspecies, or geographically separate population.
- VULNERABLE SPECIES:** Any indigenous species of fauna or flora that is particularly at risk because of low or declining numbers, occurrence at the fringe of its range or in restricted areas, or for some other reason, but is not a threatened species.
- THREATENED SPECIES:** Any indigenous species of fauna or flora that is likely to become endangered in Canada if the factors affecting its vulnerability do not become reversed.
- ENDANGERED SPECIES:** Any indigenous species of fauna or flora that is threatened with imminent extinction or extirpation throughout all or a significant portion of its Canadian range.
- EXTIRPATED SPECIES:** Any indigenous species of fauna or flora no longer known to exist in the wild in Canada but occurring elsewhere.
- EXTINCT SPECIES:** Any species of fauna or flora formerly indigenous to Canada but no longer known to exist anywhere.

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ABSTRACT

This report summarizes the distribution and population status of Henslow's Sparrow in Canada. Henslow's Sparrow probably expanded its range into Ontario during the early decades of the 20th century, following the clearing of forests. It is unclear whether the species bred in the province prior to settlement (Knapton 1982), but recent sightings of the species in remnant tall grass prairie habitat in southwestern Ontario suggest they may have formerly bred in this area.

Henslow's Sparrow is only known to breed in Ontario in Canada, and in the northeastern and northcentral United States. In Ontario, the majority of Henslow's Sparrow nesting sites occur in the Southern Great Lakes and Carolinian Forest Regions. Knapton (1982, 1986) found the main concentration for the species to be in the southern part of Hastings, Lennox and Addington, Frontenac, and Prince Edward counties.

Breeding Bird Surveys (BBS) indicate a statistically significant decline in the continental and eastern populations of Henslow's Sparrows from 1966 to 1988 and a declining trend in the Canadian population from 1967 to 1988.

During the past forty years, the species has undergone a drastic decline in both numbers and range in Ontario (Knapton 1982, 1986; Speirs 1985). In a 1981 survey, only 17 individuals were found in seven widely scattered areas across southern Ontario (Knapton 1982). In 1983, the known Ontario population was 25 individuals at 13 sites (Risley 1983). Between 1981 and 1985, fewer than 50 pairs were thought to breed in Ontario in any given year (Knapton 1986, 1987). Searches since then suggest a further decline in numbers (Austen 1992; Ridout and Austen 1993). In 1992 and 1993, only one active site was located with presumably only one pair of Henslow's Sparrows breeding.

Reasons for the decline of Henslow's Sparrows in Ontario (and Canada) are unknown, but the loss of suitable breeding habitat appears to be the most likely limiting factor. In Ontario, Henslow's Sparrows have been found in abandoned fields, ungrazed or lightly grazed pasture, fallow hayfields with high clover and alfalfa content, grassy swales in open rolling farmland, wet meadows, or infrequently mowed fields with a thick layer of thatch and dead stalks from the previous years' growth. Fields meeting all, or most, of this species' habitat requirements are becoming more uncommon in Ontario (Knapton 1986). Some sites, however, still have apparently suitable habitat for Henslow's Sparrows, but birds are no longer breeding there. This suggests that other factors (e.g. loss of wintering habitat, mortality between breeding seasons, local population losses due to small number of individuals in isolated locations, or natural population fluctuations) are also influencing the Henslow's Sparrow population.

Due to the small number of known breeding pairs in Ontario, the small size of colonies (in most cases one pair per colony), and the limited information on the amount of suitable habitat currently available for the species, it is recommended that Henslow's Sparrows now be designated as "Endangered" in Ontario. The future of this species may be largely dependent upon the maintenance of open, grassy fields in agricultural areas and the preservation and enhancement of remnant tall grass prairie in southwestern Ontario.

THE ONTARIO RARE BREEDING BIRD PROGRAM

The Ontario Rare Breeding Bird Program (ORBBP) is a follow-up to the Ontario Breeding Bird Atlas. The atlas data facilitated an evaluation of which species are the rarest in the province. These have been termed Ontario's "species of concern". The logical next step in the conservation of Ontario's birds is to undertake recovery activities for those species already designated threatened or endangered, and to determine if any of the other species shown to be rare by the atlas are in need of such attention. The ORBBP is designed to assist in that process.

The Ontario Rare Breeding Bird Program is a co-operative program organized by the Federation of Ontario Naturalists, the Long Point Bird Observatory, the Nature Conservancy of Canada and the Ontario Field Ornithologists. Funding has been provided by the Ontario Ministry of Natural Resources, the Endangered Species Recovery Fund, the Canadian Wildlife Service, the Nature Conservancy of Canada, the Ontario Heritage Foundation, the James L. Baillie Memorial Fund, and the Environmental Youth Corps.

The primary goal of the ORBBP is to help improve the status of species of concern in the province. The first step in that process is to provide up-to-date status reports on each species of concern. This is one of 58 such status reports.

The status reports are produced largely from information contained in two data bases created specifically for the program. The first contains up-to-date and extensive data on the location and use of breeding sites of the 58 species of concern. Data were provided by volunteers from across the province. The second data base contains information relevant to the status of each species in Ontario, and was created by program staff with data from across North America, but primarily from Ontario and surrounding states and provinces.

It is intended that the status recommendations made in these status reports will be considered by the Ontario Ministry of Natural Resources and that each species will be provided an official status designation for the province. Once official designations are in place, priorities for conservation action can be set and recovery activities for the most seriously threatened species can begin. The program's data base on breeding sites of species of concern is expected to be useful in undertaking recovery activities.

ACKNOWLEDGEMENTS

The Ontario Rare Breeding Bird Program is a co-operative program organized by the Federation of Ontario Naturalists, the Long Point Bird Observatory, the Nature Conservancy of Canada and the Ontario Field Ornithologists. Thanks to the following, which have provided funding support for the program: the Ontario Ministry of Natural Resources, the Endangered Species Recovery Fund, the Canadian Wildlife Service, the Nature Conservancy of Canada, the Ontario Heritage Foundation, the James L. Baillie Memorial Fund, and the Environmental Youth Corps.

The ORBBP was managed through the Atlas Advisory Committee: George Francis (Chair); Michael Bradstreet (Long Point Bird Observatory); Bill Caulfield-Browne (Federation of Ontario Naturalists); John Eisenhauer (Nature Conservancy of Canada); Don Fraser (Ontario Field Ornithologists); Sandy Gage (Federation of Ontario Naturalists); Doug Hagen (Ontario Ministry of Natural Resources); Rick Pratt (Canadian Wildlife Service); and Terry Quinney (Ontario Federation of Anglers and Hunters). The program's Technical Advisory Committee was made up of: Ross James (Chair, Royal Ontario Museum); Irene Bowman (Ontario Ministry of Natural Resources); Virgil Martin (Kitchener-Waterloo Field Naturalists); Margaret McLaren (Ontario Ministry of Natural Resources); and Jon McCracken (Long Point Bird Observatory).

The ORBBP Coordinator from 1988 (during development) through 1991 was Mike Cadman. Madeline Austen coordinated the project from 1992 to 1994. Janice Arndt, Madeline Austen, Maira Berzins, Jon Dobbyn, Marc Freeman, Nancy Mahony and Annette Page were Assistant Coordinators for the program. The other ORBBP staff, who helped compile the data and produce the status reports, were: John Brzustowski; Karen Cedar; Erin Cosgrove; Marianne Franklin; Rob Guthrie; Alvaro Jaramillo; Stephan Sempson; Jill Tanaka; and Val Wyatt.

Data collection for the project was undertaken by a network of Ontario's naturalists under the supervision of 42 Regional Coordinators. Regional Coordinators are key to the success of such a program, and their assistance is very much appreciated: Cathy Watson (Essex, 1989-1991); P. Allen Woodliffe (Kent, 1989-1991); Scott Connop (Lambton, 1989-1991); Harold Lancaster (Elgin-West, 1989-1991); Mrs. Francis Hindmarsh (Elgin-East, 1989-1991); Pete Read (Middlesex, 1989-1991); Don Bucknell (Oxford-West, 1989-1991); Jon McCracken (Haldimand-Norfolk, 1989-1991); Gordon Bellerby (Niagara, 1989-1991); Rob Dobos (Hamilton-Wentworth-Brant, 1989-1991); Bill Wilson (Waterloo-Perth, 1989-1991); William Thompson (Huron, 1989-1991); Bryan Wyatt (Wellington, 1989-1991); Mike Pickup (Bruce, 1989-1991); Tom Murray (Grey, 1989-1990); Terry Osborne (Dufferin, 1989-1991); Peter Van Dijken (Peel-Halton, 1989-1991); Luc Fazio (Toronto, 1989-1991); Theo Hofmann (York, 1989-1991); Bob Bowles (Simcoe, 1989-1991); John Barker (Durham, 1989-

1991); Ted McDonald (Northumberland-West, 1989-1991); Steve LaForest (Northumberland-East, 1989-1991); Doug Sadler (Peterborough, 1989-1991); Allan Sinclair (Muskoka, 1989-1991); Ed Poropat (Haliburton, 1990-1991); Albert Boisvert (Hastings & Prince Edward, 1989-1991); Nora Mansfield (Lanark-South, 1989); Neil Carleton (Lanark-South, 1990-1991); Ellen Radix (Ottawa-Carleton/Prescott-Russell, 1989-1991); Eric Ridgen (Renfrew-South/Lanark-North, 1989-1991); Jacques Bouvier (Renfrew-North, 1989-1991); Chris Michener (Renfrew-North, 1991); Ron Tozer (Algonquin, 1989-1991); Mark Kubisz (Parry Sound, 1989-1991); Richard Tafel (Nipissing, 1989-1991); C.J. Whitelaw (Sudbury, 1989-1991); C.J. Whitelaw (Manitoulin, 1991); Susan Weilandt (Temagami, 1989-1991); Ed Czerwinski (Sault Ste. Marie, 1990-1991); Nick Escott (Thunder Bay, 1989-1991); Dave Elder (Lake-of-the-Woods, 1990-1991).

Many thanks to the 512 people who provided field data to the project. Unfortunately, there is not enough space available to list all those names.

Ross James made available information from the Ontario Nest Record Scheme. Linda Dupuis, Michelle Woulfe, and Sue Crispin provided information from the Nature Conservancy of Canada and The Nature Conservancy. Bruce Peterjohn provided data from the Breeding Bird Survey.

Special thanks also to those who provided data from their breeding bird atlases: Raymond Adams, Jr. (Michigan); Louis Bevier (Connecticut); Daniel Brauning (Pennsylvania); Rick Enser (Rhode Island); Carol Foss (New Hampshire); Jean Gauthier (Quebec); George Hall (West Virginia); Robert Montgomery (Illinois); Brainard Palmer-Ball, Jr. (Kentucky); Linda and Peter Payzant (Maritimes); Wayne Petersen (Massachusetts); Daniel Rice (Ohio); Chandler Robbins (Maryland); Glen Semenchuk (Alberta); Richard West (Delaware).

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**Ontario Rare Breeding Bird Program
Status Report**

Henslow's Sparrow (Ammodramus henslowii)
AOU Number: 547

DISTRIBUTION

Global Distribution

Distribution according to the 1983 AOU Checklist

Breeds from eastern South Dakota, central Minnesota, central Wisconsin, central Michigan, southern Ontario, northern New York, southern Vermont, southern New Hampshire and northeastern Massachusetts, south to central Kansas, southwestern and central Missouri, southern Illinois, northern Kentucky, central West Virginia, eastern Virginia and east-central North Carolina; also locally in eastern Texas (Harris County). The breeding range in the northwestern and eastern portions has decreased in recent years.

Winters in coastal states from South Carolina south to southern Florida, and west to eastern and (rarely) southern Texas, casually north to Illinois, Indiana, New England and Nova Scotia.

Figure 1 shows the breeding distribution of Henslow's Sparrow in North America.

Distribution in Canada

Distribution according to Godfrey's (1986) Birds of Canada

Breeds locally in southern Ontario (sporadically but sometimes commonly north to Barrie and Ottawa, probably Manitoulin Island; east at least to Morrisburg). Has been recorded in Quebec (Hull, Eccles-Hill, Montreal). In northernmost parts of its range (e.g. Ottawa) the species may nest commonly for a period of years then disappear completely over the next period, only to appear again years later.

Accidental in Nova Scotia (photo record: Seal Island, 12 to 24 October 1976).

The Henslow's Sparrow is not a common breeder in the northernmost parts of its range as implied by Godfrey (1986), but it may be found in a given area for a few years and then absent for several years (Robins 1967).

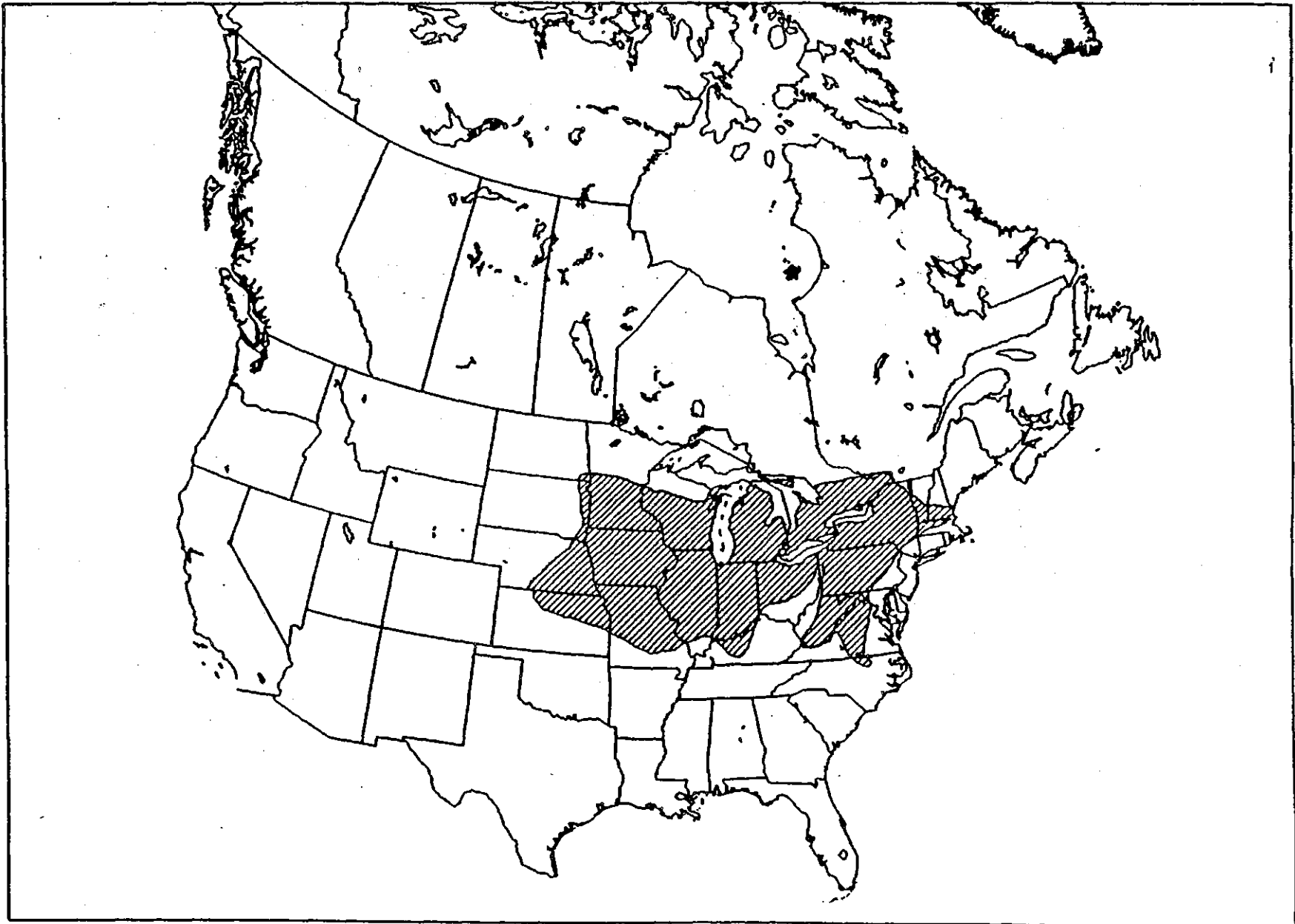


Figure 1. Breeding distribution of the Henslow's Sparrow in North America.

Distribution in Ontario

Figures 2a and 2b show the breeding distribution of Henslow's Sparrow in Ontario, based on data from the Breeding Bird Atlas and the ORBBP. During the Atlas of the Breeding Birds of Ontario (1981-1985), Henslow's Sparrows were found in only 38 (2%) squares, and in only 3 (8%) of these was breeding confirmed (Figure 2). In Ontario, the majority of Henslow's Sparrow nesting sites occur in the Southern Great Lakes and Carolinian Forest Regions (Table 1) and within Lennox-Addington, Frontenac, Grey, Bruce, and Dufferin counties. A pair of birds probably bred in the Vermilion Bay area (Kenora District) in 1975, and a single bird was seen at the same site in 1976 (Fig. 2b; ORBBP). Knapton (1982, 1986) found the main concentration for the species to be in the southern part of the Counties of Hastings, Lennox & Addington, Frontenac, and Prince Edward County. Forty pairs of Henslow's Sparrows were found in the Kingston area during the Breeding Bird Atlas (Weir 1989). In 1983, the known Ontario population of Henslow's Sparrow was 25 - 29 individuals at 13 sites (Atlas; Risley 1983). In 1992 and 1993, surveys for Henslow's Sparrows were conducted within the historic core breeding area of the species (Austen 1992; Ridout and Austen 1993). Only one active Henslow's Sparrow site was located during these surveys (see Appendix 1 for further details).

Another breeding site was reported to Birders Journal for the 1992 season (Henshaw and Kerr 1992). Brian Henshaw, co-editor of the journal, was contacted for information regarding this report. However, the individual who reported the breeding site for Henslow's Sparrow was unwilling to release any information about the site. B. Henshaw did find out that the site was abandoned early in the summer. It is believed that this site is in southcentral Ontario, although this is not certain.

Specific information on Henslow's Sparrow sites in the Kingston area was not released to the author by the Kingston Field Naturalists (KFN), however, Ron Weir (pers. comm.) believes there were about six active Henslow's Sparrow sites in the Kingston area in 1992: two sites in each of Prince Edward, Lennox-Addington, and Frontenac Cos. This corresponds to a rumour of six sites where Henslow's Sparrows were known to occur in 1991. A Henslow's Sparrow was reported singing at one of the first ten stops on the Roblin Breeding Bird Survey route in the Tweed area on June 7, 1992 (E. Hayakawa pers. comm. 1992). Specific information on Henslow's Sparrows reported during the Breeding Bird Survey from 1967 to present is being compiled by Canadian Wildlife Service. Although Henslow's Sparrows are rarely reported on BBS routes, the species has been reported on seven routes in Ontario from 1967 to 1988 (B.

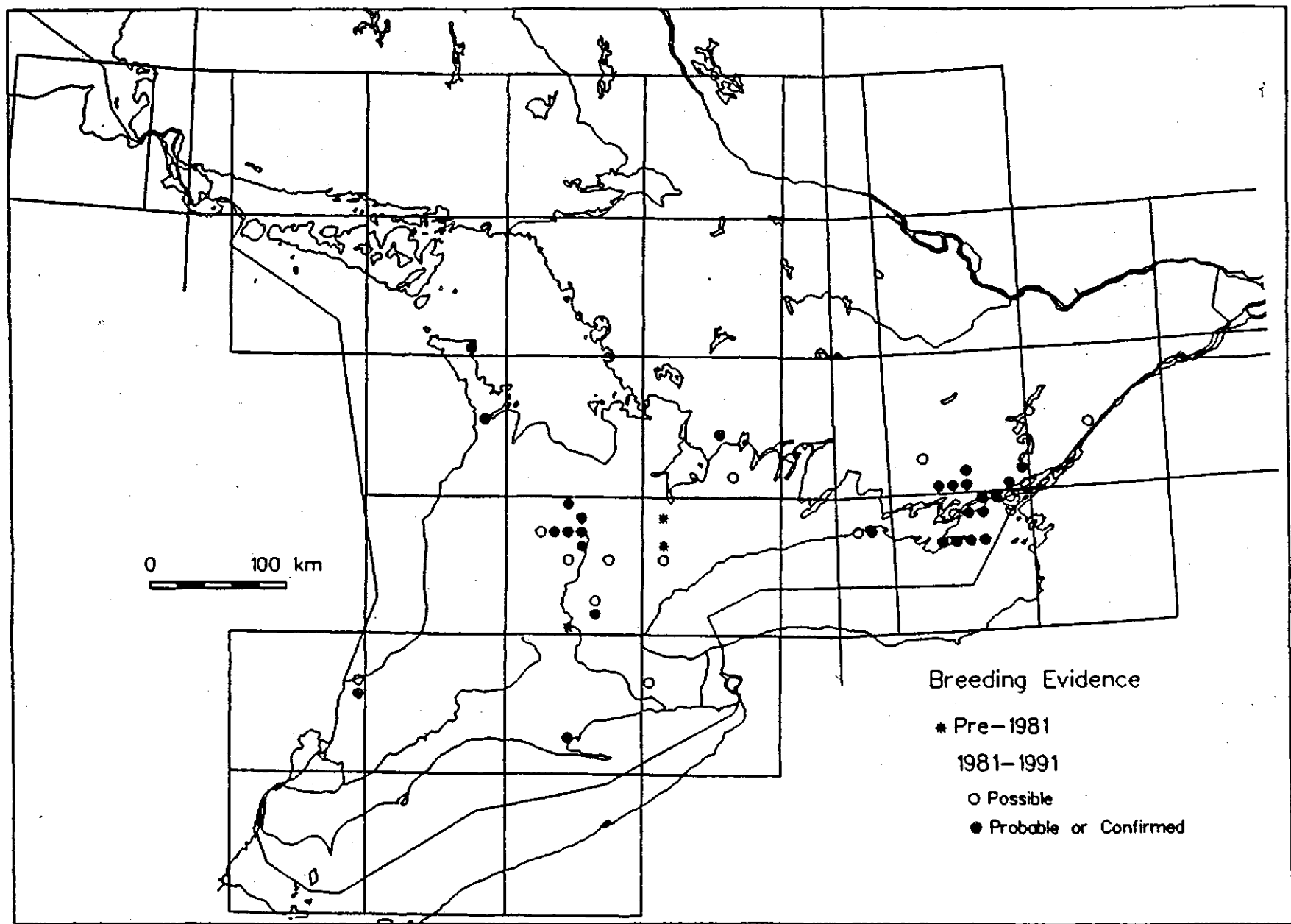


Figure 2a. 10-km squares in which the Henslow's Sparrow was reported to the Breeding Bird Atlas and the Ontario Rare Breeding Bird Program in southern Ontario.

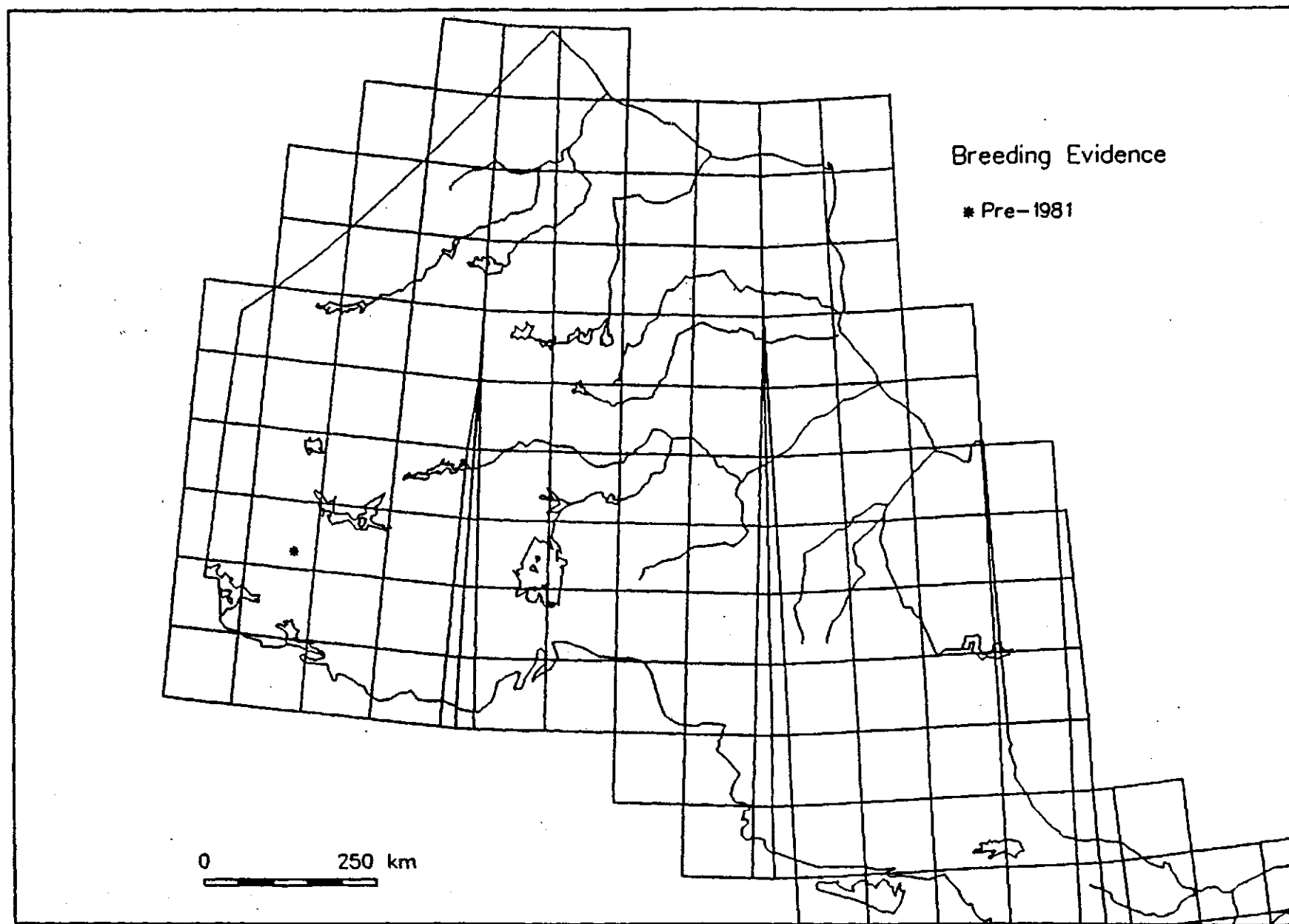


Figure 2b. 10-km squares in which the Henslow's Sparrow was reported to the Breeding Bird Atlas and the Ontario Rare Breeding Bird Program in northern Ontario.

Peterjohn pers. comm.). More information is needed regarding Henslow's Sparrow breeding sites in the Kingston area before population estimates for Ontario can be ascertained. However, results from 1992, suggest that far fewer than 50 pairs are breeding in Ontario (possibly less than 10 pairs) (Austen 1992).

Active colonies found at other locations in Ontario during the summers of 1986 - 1991 included: Shelburne area (Tim Sabo) and Walpole Island (C. Spitz) in 1986; Shelburne area (Tom Murray) and Kortright, Kleinburg (Bill Edmunds) in 1987; and Coun area in Grey County (fide Tom Murray) and Long Point (first week of June only) (Long Point Bird Observatory) in 1989 (Ron Weir pers. comm. 1992). No breeding site information was reported to the ORBBP for the Kingston area.

The Henslow's Sparrow tends to be an elusive bird and has a very scattered and localized distribution, making it a difficult species to locate and identify. The species may be commonly found in a given area for a few years and then absent for several years (Robins 1967; R. Weir pers. comm. 1992).

Table 1. Summary of Henslow's Sparrow records from the Atlas of the Breeding Birds of Ontario by Site Region.

<u>Region</u>	<u># of Squares</u>	<u>% of squares*</u>	<u>% frequency by Region</u>
1. Hudson Bay	0	0.0	0
2. Northern Boreal Forest	0	0.0	0
3. Boreal Forest	0	0.0	0
4. Southern Boreal Forest	0	0.0	0
5. Northern Great Lakes Forest	1	1.1	3
6. Southern Great Lakes Forest	22	3.4	58
7. Carolinian Forest	15	4.6	39

* Number of squares for which data were received during the breeding bird atlas:

Region 1 - 164 squares	Region 5 - 887 squares
Region 2 - 368 squares	Region 6 - 638 squares
Region 3 - 713 squares	Region 7 - 329 squares
Region 4 - 558 squares	

POPULATION SIZE AND TREND

Global

Nature Conservancy Rank: G4. Indicates that the species is "apparently secure globally, though it may be quite rare in parts of its range, especially at the periphery."

North America

Blue List: The Blue List was designed to act as an 'early warning' system for species that were considered by knowledgeable bird watchers to be declining in restricted areas or throughout their North American range (Arbib 1977). The Blue List was published from 1972 until 1986 inclusive, with the exceptions of 1983, 1984, and 1985.

The Henslow's Sparrow was Blue Listed from 1974 to 1981. In 1982 and 1986, it was placed on the "Special Concerns" List, but was not officially Blue Listed.

Explanation of Blue List Ranking:

"1974. Added on the basis of declines in the Northeast and the Western Great Lakes region. No reports from elsewhere." (Arbib 1973).

"1975. No question of the steady decline of this meadow sparrow; all nineteen reporters agree that it should be retained on the list." (Arbib 1974).

"1976. Almost unanimous sentiment in favour of Blue List inclusion for this meadowland species. "Most grassland species are going as habitat goes," -Buckley. Richards calls it "endangered" for S.E. Pennsylvania." (Arbib 1975).

"1977. Almost unanimous in expressing concern for this meadowland species, no single region expressed dissent, and only six lonely voices (four of them in the Niagara-Champlain Region), held for deletion." (Arbib 1976).

"1978. Only five dissenting voices this year, one from northwestern Pennsylvania, two from Indiana, and two from Minnesota, prevent this meadowland sparrow from a unanimous Blue-listing. Our conclusions on the status of this species are probably somewhat deductive, but with 89% of respondents agreeing, there is no doubt about Blue-listing." (Arbib 1977).

"1979. The numbers of individual dissenting opinions drops from five to two this year, one each in Ontario and Appalachia. Otherwise, we are as close to a unanimous Blue-listing nomination as we have ever had, with all thirteen regions agreeing, eleven of them without a single dissent." (Arbib 1978).

"1980. Retained on the list with strong support in 10 regions, making it our number 10 candidate. Loss of grassland habitat with changing farming practices and land development are given as major causes for the decline." (Arbib 1979).

"1981. One vote for deletion came from IN where it is reportedly doing quite well. Nearly all other respondents favoured retention. LeGrand, reporting for the Southern Atlantic Coast Region, recommended Federal listing." (Tate 1981).

"1982. Reports of continued declines of stable but low level populations from the Central Southern, Southern Atlantic Coast, Middle Atlantic Coast, Hudson-Delaware, Niagara-Champlain, Ontario, and Western Great Lakes regions. Of Special Concern until confirming systematic information is available." (Tate and Tate 1982).

"1986. Reported greatly down in Northeastern Maritime, Hudson-Delaware, Appalachian regions by one respondent each. Reported down in Southern Atlantic Coast, and Central Southern regions." (Tate 1986).

Breeding Bird Survey Data (1966 through 1988)

The BBS is a roadside survey, conducted annually in mid-June in road-accessible areas across the continent. It is reasonably well suited to surveying the Henslow's Sparrow in North America because the species occurs in open, grassland habitats and is often active around dawn. However, the short "tslick" call of the species is often hard to discern amongst other bird songs; therefore, it is quite possible that this species is underrepresented in the BBS results. Moreover, the erratic nature of the species (i.e. individuals may leave an apparently suitable nesting site from one year to the next) means that the data will likely vary considerably from year to year along any one route. These variations will make it less likely that the survey will detect changes in populations. Despite these problems, the BBS is the best long-term survey that is available to examine trends in Henslow's Sparrow populations and does cover the entire breeding range of the species.

(i). Continental Data: Show a statistically significant decline in the population at an average rate of 3.6% per year from 1966 through 1988.

Reported on 222 routes

Average number of birds per route: 0.15

Population trend: Decreasing at a rate of 3.6% per year

Trend significance: $p < 0.01$

(ii). Eastern North American Data: Show a statistically significant decline in the Eastern population, at an average rate of 4.4% per year from 1966 through 1988. The rate of decline in Eastern North America is slightly faster than the rate of decline determined from the continental data.

Reported on 210 routes
Average number of birds per route: 0.17
Population trend: Decreasing at a rate of 4.4% per year
Trend significance: $p < 0.01$

United States

Nature Conservancy Rank: Not currently available.

Breeding Bird Survey Data: Show that the species is widespread, but generally occurs in low numbers. The population in the United States shows a statistically significant decline at an average rate of 3.7% per year from 1966 through 1988.

Reported on 215 routes
Average number of birds per route: 0.16
Population trend: Decreasing at a rate of 3.7% per year
Trend significance: $p < 0.01$

Northeastern and Northcentral United States

State Nature Conservancy Ranks and Official Status Designations

Table 2 indicates that the species occurs in low numbers throughout the northeastern and northcentral states. It is considered to be Of Special Concern or Endangered in the majority of states where it has been listed.

State Breeding Bird Atlas Results

Breeding bird atlas data (Table 3) confirm that Henslow's Sparrow is a rare breeding bird in the northeastern and northcentral United States. Michigan and Ohio are the only states listed that have Henslow's Sparrows breeding in more than 10% of the blocks surveyed.

Canada

COSEWIC Rank: Threatened.

Nature Conservancy Rank: N2, meaning that the species is "imperiled nationally because of rarity (6 to 20 occurrences or few remaining individuals or acres) or because of some factor(s) making it very vulnerable to extirpation throughout the nation."

Table 2. Available State Nature Conservancy Ranks and Official Status Designations for the Northeastern and Northcentral United States.*

<u>State</u>	<u>Rank</u>	<u>Designation</u>
Connecticut**	SHB, SHN	Special Concern - proposed
Delaware	S1	
Illinois	S2	Threatened
Indiana	S2	Threatened
Iowa	S2	
Kentucky	S2S3	Special Concern
Massachusetts	SH	Endangered
Maryland	S1S2	Need of Conservation
Maine		Not Listed
Michigan	S4	Not Listed
Minnesota	S3	Special Concern
New Hampshire	SH	Endangered
New Jersey	S1	Not Listed
New York	S4	Special Concern
Ohio	S4	Not Listed
Pennsylvania**	S3S4B	At Risk
Rhode Island	SX	
Virginia	S1	Endangered - proposed
Vermont**	S1B, S?N	Endangered
Wisconsin**	S3B, SZN	Not Listed
West Virginia	SH	Special Concern

* Ranks as of 1993; Designations as of 1990.

** B refers to breeding status; N refers to non-breeding status.

S1 = Critically imperiled in state because of extreme rarity (5 or fewer occurrences or very few remaining individuals or acres) or because of some factor(s) making it especially vulnerable to extirpation from the state.

S2 = Imperiled in state because of rarity (6 to 20 occurrences or few remaining individuals or acres) or because of some factor(s) making it very vulnerable to extirpation from the state.

S3 = Rare or uncommon in state (on the order of 21 to 100 occurrences).

S4 = Widespread, abundant, and apparently secure in state, with many occurrences, but is of long-term concern.

SH = Occurred historically in the state (with expectation that it may be rediscovered), perhaps having not been verified in the past 20 years, and suspected to be still extant.

SX = Believed to be extirpated from the state.

SZ = Not of practical conservation concern in state because there are no definable occurrences, although the taxon is native and appears regularly in the state; typically applies to migrants.

S? = Unranked.

Table 3. Breeding Bird Atlas Data Summaries for the Northeastern and Northcentral United States.

State	Years of Survey	# of blocks surveyed	# and % of blocks with breeding records				
			poss.	prob.	conf.	total	(%)
Conn.	1982-86	597	0	0	0	0	0.0
Del.*	1983-87	222	0	0	0	0	0.0
Ill.	1986-90	1011	5	1	3	9	0.9
Ky.	1985-91	727	15	7	2	24	3.3
Me.	1978-83	706	0	0	0	0	0.0
Md.	1983-87	1256	4	9	1	14	1.1
Mass.	1974-78	1116	0	3	0	3	0.3
Mich.**	1983-88	1896	135	60	16	211	11.1
N.H.	1981-86	178	1	0	0	1	0.6
N.Y.	1980-85	5323	135	152	61	348	6.5
Ohio	1982-87	969	21	96	61	178	18.4
Ohio***	1982-87	764	15	77	52	144	18.8
Penn.	1983-89	4928	134	177	52	363	7.4
R.I.*	1982-88	165	0	0	0	0	0.0
Vt.*	1976-81	179	1	0	0	1	0.6
W. Va.	1984-89	502	4	3	2	9	1.8

* = historical breeding records, but none during atlas

** = based on townships

*** = priority blocks

Provincial Nature Conservancy Ranks and Official Status Designations

The species has no official Provincial Designations, but is ranked as S1 in Quebec and S2 in Ontario (see page 15) by the Nature Conservancy. S1 means that the species is "critically imperiled in province because of extreme rarity (5 or fewer occurrences or very few remaining individuals or acres) or because of some factor(s) making it especially vulnerable to extirpation from the province." Although there are historical records of Henslow's Sparrows in Quebec, the species has not been reported breeding in the province recently and is not recorded on Quebec's current list of rare and threatened species.

Breeding Bird Survey Data: Indicate that the species occurs in very low numbers, and that its population shows a tendency to be declining from 1967 through 1988, but the species was reported on too few routes to accurately determine a population trend.

Reported on 7 routes

Average number of birds per route: 0.02

Population trend: Decreasing at a rate of 1.8% per year

Provincial Breeding Bird Atlas Results

Henslow's Sparrows were not reported in any of the 1529 blocks surveyed during the joint Maritime Breeding Bird Atlas (1986 to 1990), which was conducted in Nova Scotia, New Brunswick, and Prince Edward Island. During Quebec's Atlas project (1984-1989), the species was recorded in only two (0.08%) of 2464 squares surveyed (one contained "possible" breeding evidence and one contained "probable" breeding evidence). The Henslow's Sparrow was not recorded during Alberta's Atlas project (1987-1991).

Ontario

History of the species in Ontario and adjacent jurisdictions

Henslow's Sparrows may have been present in non-forested areas of Ontario prior to settlement (Knapton 1982; Weir 1989). Following the clearing of the forests, Henslow's Sparrows probably expanded their range in Ontario (MacClement 1915; Knapton 1984a). Although the first official record for this species was in 1898 at Jeannette's Creek, near Sarnia (Macoun 1900), Chamberlain (1887) also reported Henslow's Sparrows in Ontario. Macoun and Macoun (1909) reported Henslow's Sparrows apparently breeding on Lake Joseph (Muskoka region) in 1902.

A large colony of Henslow's Sparrows nested at Long Point during the summer of 1927 (Snyder and Logier 1931) and isolated colonies, numbering up to a dozen birds, were reported at different locations in Elgin County (Brooman 1954). The species was noted in 1920, 1921 and 1930 at the "Ponds" in Middlesex County, and was considered to be fairly common in the London district in 1931 (Saunders and Dale 1933). By 1937, Henslow's Sparrows were regarded as a locally-distributed summer resident of extreme southern Ontario, and had been reported nesting in Peel, Norfolk, Elgin, Kent, York, and as far north as Lambton, and Simcoe Counties (Baillie and Harrington 1937). A bird was also reported in Manitoulin District near Providence Bay on June 23, 1952 that may have been nesting (Nicholson 1981).

In the Niagara Frontier region, Henslow's Sparrows peaked in abundance from 1947 to 1952, but by 1965 the species was classed as an uncommon summer resident (Beardslee and Mitchell 1965). In Kingston, Quilliam (1965) reported this species as a regular summer resident and fairly common in some years. Henslow's Sparrow populations fluctuated from year to year in the Oakland and Macomb counties of the Detroit-Windsor area (Kelley *et al.* 1963). Godfrey (1966) noted that the species had recently extended its breeding range north to Ottawa, and that it bred as far east as Morrisburg. Henslow's Sparrow was a rare summer resident in Simcoe County (Devitt 1967), but was believed to be increasing in Prince Edward County (perhaps due to increased ability of observers) towards the end of the 1960s (Sprague 1969). The first of four records from Pickering Beach was also collected at this time (Long 1972). In Wellington County, a breeding population that had been established at Luther Marsh since 1962 had disappeared by the late sixties, the

last bird being seen in 1972 (Brewer 1977). Stirrett (1973) stated that this sparrow was an uncommon and regular transient at Point Pelee.

By the early 1980s, it was reported by McCracken et al. (1981) that the population at Long Point was believed to have been extirpated, and the species was reported as rare, extremely local and sporadic in Haldimand-Norfolk in later years (McCracken 1987). The breeding range in the northwestern and eastern portions of North America had also decreased around this time period (AOU 1983). This decreasing trend was confirmed by Sadler (1983) for Peterborough County where the species was classified as an extremely rare summer resident. Speirs (1985) reported that Henslow's Sparrow numbers had fluctuated widely and appeared to have decreased in the late 1970s or early 1980s in Ontario. This trend was also noted in the United States by Robbins et al. (1986), however, Payne (1983) stated that the birds were locally common in Berrien, Ottawa, St. Clair, Washtenaw, Benzie and Alpena counties in Michigan.

In 1986, Henslow's Sparrow was listed as threatened by the Ontario Ministry of Natural Resources (as cited by McCracken 1987). Peck and James (1987) believed that the decline in Henslow's Sparrow breeding populations in Ontario was probably related to habitat loss and disturbances to nesting colonies. During the Atlas of the Breeding Birds of Ontario (Cadman et al. 1987), the Henslow's Sparrow was found in only 38 squares, and in only 8% of these was breeding confirmed. By 1987, it was estimated that the total provincial population was unlikely to exceed 50 pairs (Knapton 1987). Only 14 nests have been reported to the Ontario Nest Record Scheme (ONRS) over the years (Peck 1993), which is an indication of the difficulty of locating Henslow's Sparrows and their well-concealed nests.

Information on 23 historic and current Henslow's Sparrow sites has been submitted to the Ontario Rare Breeding Bird Program (ORBBP). Excluding the Kingston area (for which breeding site information was not reported to the ORBBP), only three sites were active during the period 1989 - 1991, and each of these sites were active in 1989. In June of 1988, 1989 and 1990, ORBBP staff and volunteers surveyed the southern portion of Grey county and sections of Dufferin county for Henslow's Sparrows; two birds were found in 1988, one singing male was found in 1989, and no birds were found in 1990. Volunteers also surveyed north Wellington for Henslow's Sparrows during the ORBBP but no birds were located.

Ron Weir (pers. comm. 1992) found breeding Henslow's Sparrows in nine atlas squares in the Kingston area during 1986-1991 inclusive, with about 14 pairs found annually in and around the Kingston area. Half (9) of the 18 squares where Henslow's Sparrows were found during the Atlas period were not searched for the species. Ron Weir (pers. comm. 1992) estimates that up to 20 pairs of Henslow's Sparrows breed annually in the Kingston area, however, a thorough survey of the area has not been conducted since the Atlas. In 1992 and 1993, surveys of the Henslow's Sparrow core breeding range in southern Ontario were conducted (including the Kingston area) and

only one singing male was located (Appendix 1). Ron Weir (pers. comm.) believes there were about six active Henslow's Sparrow sites in the Kingston area in 1992: two sites in each of Prince Edward, Lennox-Addington, and Frontenac Cos. This corresponds to a rumour of six sites where Henslow's Sparrows were known to occur in 1991. More specific information from the Kingston Field Naturalists (KFN) is needed on known Henslow's Sparrow sites in the Kingston region. To date, survey results indicate declines in the number of Henslow's Sparrows, which does not appear to be related to habitat loss (R. Weir pers. comm. 1991).

Active colonies found at other locations in Ontario during the summers of 1986-1991 included: Shelburne area (Tim Sabo) and Walpole Island (C. Spitz) in 1986; Shelburne area (Tom Murray) and Kortright, Kleinburg (Bill Edmunds) in 1987; and Conn area in Grey County (fide Tom Murray) and Long Point (first week of June only) (Long Point Bird Observatory) in 1989 (Ron Weir personal communication 1992).

In Ohio, Henslow's Sparrows were first documented in 1872 (Trautman 1940). During the 1940s, Henslow's Sparrows began to decline in northern and central Ohio, and had disappeared from most of this range by the 1960s (Peterjohn 1989). The loss of breeding habitats as a result of intensive agricultural land use practices was largely responsible for this decline. However, in the 1940s the species expanded east of the Flushing Escarpment (Buchanan 1980) and continued to increase up until the 1970s, with many pairs nesting in reclaimed strip mines (Peterjohn 1989). During the Ohio Atlas (1982 to 1987), Henslow's Sparrows were found largely in the southern and eastern counties of Ohio; the species had disappeared from most intensively farmed counties in western and central Ohio (Peterjohn and Rice 1991).

Henslow's Sparrows were not documented in Michigan until 1881 (Covert 1894), and the history of the species in the state is sketchy (McPeck 1991). Barrows (1912) referred to Henslow's Sparrows as one of the less common sparrows in the state, but by the 1940s it was well distributed in the southern counties (Hyde 1939; Wood 1951). In the 1950s, the species was listed as a local summer resident north to Saginaw Bay, and very rare in the northern Lower Peninsula (Zimmerman and Van Tyne 1959). In 1959, a specimen was collected from the Upper Peninsula (Dodge 1961). During the Michigan Atlas (1983 to 1988), most reports of Henslow's Sparrows were from the southern two-thirds of the Lower Peninsula (McPeck 1991). Atlas results showed that the species had expanded its range into the northern Lower Peninsula and the southcentral portion of the Upper Peninsula, but had declined in number in several southeastern counties (McPeck 1991). For example, an 80% decline in numbers was reported for Kalamazoo Co. (Adams et al. 1981).

In New York, Henslow's Sparrow was considered a local breeding species, rather uncommon or rare in all parts of the state (Eaton 1914). From the 1920s until the 1940s it appeared to be increasing in number and, by 1930, the species had appeared at many new locations (Stone 1933; Eaton 1953, 1988; Beardslee and Mitchell

1965). After 1950, Henslow's Sparrow was reported less frequently; by 1952, no colonies were found on the south shore of Long Island where it bred formerly, and decreases were noted in the lower Hudson Valley (Eaton 1988). During the New York Atlas (1980 to 1985), this species was found in central and western New York along the Great Lakes Plain and Appalachian Plateau, particularly in the Finger Lakes Highlands and Central Appalachians (Eaton 1988). A statistically significant ($p < 0.01$) decrease in the Henslow's Sparrow population was determined from Breeding Bird Survey (BBS) results during the period from 1966 to 1989 (Office of Migratory Bird Management unpubl. data, Laurel Maryland; Smith 1989).

Site Occupancy

The majority of Henslow's Sparrow sites reported to the ORBBP were occupied for one year only, although many of the sites were not checked in subsequent years. A site near King City was occupied for a minimum of six years (1964 to 1970). Henslow's Sparrows have been noted to abandon a site in the Kingston area after a few years, but return to the site later on.

Ontario Ministry of Natural Resources Designation: Threatened (Appendix 2).

Nature Conservancy Rank: S2, meaning that the species is "imperiled in province because of rarity (6 - 20 occurrences or few remaining individuals or acres) or because of some factor(s) making it very vulnerable to extinction from the province." Henslow's Sparrows may breed in 15 to 20 locations in Ontario, but its numbers are so small (no more than 50 pairs expected to be breeding in any given year from 1981 - 1985 (Knapton 1987), and very likely far fewer than 50 pairs in recent years) that it cannot be considered secure.

Breeding Bird Survey Data: Because the species has been reported on only 7 routes, there are too few records for the population trend to be statistically significant at the $p < 0.05$ level.

Reported on 7 routes

Average number of birds per route: 0.02

Population trend: Decreasing at a rate of 1.8% per year

HABITAT

In Ontario, the Henslow's Sparrow occurs primarily in cleared (agricultural) areas in the Great Lakes-St. Lawrence Forest Region (Knapton 1987; Peck and James 1987). Suitable habitat includes large grassy areas containing song perches, that have lain fallow for several years and as a result have formed a ground mat of dead vegetation. Moist grassy areas are frequently used (Knapton 1987). Peck and James (1987) stated that the species breeds in hay fields, meadows, and pastures, all with characteristically tall growths of grasses, legumes, and other plants. In addition, several nests have been reported in wet or damp areas, and one field contained some small, scattered shrubs (Peck and James 1987). Nests reported to the ONRS have been well hidden in, and supported by, clumps of tall

vegetation (often old and dead); nest positions varied from ground level to a height of 0.2 m (0.5 ft) (Peck and James 1987). Nesting in Ontario is usually in small, loose colonies of several pairs (Peck and James 1987).

STATUS EVALUATION

Henslow's Sparrow is only known to breed in the Northeastern and Northcentral United States and in Ontario, Canada. The majority of birds are located in the eastern and central Ontario counties (e.g., Lennox-Addington, Frontenac, Grey, Bruce, and Dufferin). The species winters entirely in the United States, from eastern Texas to southern Florida and South Carolina.

The Henslow's Sparrow probably expanded its range in Ontario during the early decades of the 20th century, following the clearing of the forests, but it is not clear whether Henslow's Sparrows bred in Ontario prior to settlement (Knapton 1982; Weir 1989). However, recent sightings of Henslow's Sparrows in remnant tall grass prairie habitat in southwestern Ontario suggest that it is possible that Henslow's Sparrows formerly bred in this area (e.g. Walpole Island area).

During the past forty years the species has undergone a drastic decline in both numbers and range in Ontario (Knapton 1982, 1986; Speirs 1985). The species is currently ranked as 'threatened' by COSEWIC and the Ontario Ministry of Natural Resources (OMNR), and it appears that a "lack of suitable habitat and disturbances in nesting colonies have apparently almost eliminated this species as a breeding bird in Ontario" (Peck and James 1987). Knapton (1982) reported that only seventeen individuals in seven widely scattered areas across southern Ontario were detected during the 1981 breeding season. Results from the 1983 season of the Ontario Breeding Bird Atlas and a survey by Risley in 1983 elevated the known Ontario population to 25 individuals at 13 sites in 1983. Searches since 1983 (Knapton 1986) suggest a further decline in the total population number. Breeding Bird Survey data indicate a tendency for population decline ($p < 0.01$) at a rate of 1.8% per year from 1967-1988 in the breeding population of Canada (i.e. Ontario) though the species was not reported on enough routes to accurately determine a population trend. Breeding Bird Surveys also indicate a statistically significant ($p < 0.01$) decline both in the continental population (-3.6% per year) and in the eastern population (-4.4% per year).

It was believed that fewer than 50 pairs bred in the province in any given year during 1981-1985; numbers appear to have declined since then. The Ontario Rare Breeding Bird Program (ORBBP) received information on only three active Henslow's Sparrow sites in 1989-1991 (excluding the Kingston area for which information was not reported to the ORBBP). Ron Weir (pers. comm.) estimates that approximately 20 pairs of Henslow's Sparrows breed in and around the Kingston area; this represents a 50% decline in numbers since the Ontario Breeding Bird Atlas (1981 - 1985). However, only half of the sites where Henslow's Sparrows bred during the Atlas have

been searched in recent years (R. Weir pers. comm.).

Results from more recent surveys (Austen 1992; Ridout and Austen 1993) suggest that far fewer than 50 pairs of Henslow's Sparrows are breeding in Ontario (see Appendix 1).

Reasons for the decline of Henslow's Sparrows in Ontario (and Canada) are unknown, but the loss of suitable breeding habitat appears to be the most likely limiting factor. In Ontario, Henslow's Sparrows have been found in abandoned fields, ungrazed or lightly grazed pasture, fallow hayfields with high clover and alfalfa content, grassy swales in open rolling farmland, wet meadows, or infrequently mowed fields with a thick layer of thatch and dead stalks from the previous years' growth. Many of the abandoned fields that Henslow's Sparrows formerly bred in have succeeded to shrub land or forest, been drained and reclaimed for agriculture, or lost to urban sprawl. Natural events such as succession of grassy field to scrub and forest, and flooding of low-lying fields are also causes of habitat loss. Therefore, fields meeting all, or most, of this species' habitat requirements are becoming more uncommon in Ontario (Knapton 1986).

Some sites still have apparently suitable habitat for Henslow's Sparrows, but birds are no longer breeding there. This suggests that other factors (e.g. loss of wintering habitat, mortality between breeding seasons, local population losses due to small number of individuals in isolated locations, or natural population fluctuations) are also influencing the Henslow's Sparrow population.

In summary, the species is only known to breed in the province of Ontario in Canada and, here it breeds in very low numbers (i.e. probably far fewer than 50 breeding pairs). Henslow's Sparrow has shown a long-term decline in numbers, as evidenced by results from the Breeding Bird Survey. Its native tall grass prairie habitat is essentially gone and grassland areas in Ontario are subject to agricultural change (planting or row crops, overgrazing, or abandonment resulting in the invasion of woody shrubs and trees). Therefore, the future of this species is largely dependent upon the maintenance of open, grassy fields in agricultural areas and the preservation and enhancement of remnant tall grass prairie in southwestern Ontario. This will necessitate active management (e.g. grazing, mowing, or prescribed burns) to maintain and enhance the population.

Due to the small number of known breeding pairs in Ontario, the small size of colonies (in most cases one pair per colony), and the limited information on the amount of suitable habitat currently available for the species, it is recommended that Henslow's Sparrows now be designated as "Endangered" in Ontario.

PROPOSED STATUS: Endangered.

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APPENDIX 1

Results of 1992 and 1993 surveys for Henslow's Sparrows

In 1992, 30 10-km squares in the historic core breeding area were surveyed for Henslow's Sparrows, including 149 areas with apparently suitable habitat and former breeding sites in Grey, Wellington, Dufferin, Northumberland, Prince Edward, Hastings, Frontenac, Lennox-Addington, Leeds-Grenville, and Stormont-Dundas-Glengarry Counties. Eighteen former Henslow's Sparrow sites were visited in 1992; Henslow's Sparrows were not found at any of these sites. Habitat had changed and was no longer suitable for the species at ten of the eighteen sites and five sites now had marginal habitat. Three sites (Tuttles Hill, Frontenac Co.; Arkell Hill, Wellington Co.; and a site west of Dundalk, Grey Co.) still had habitat that was apparently suitable for the species.

During the 1992 survey, only one singing male was found, despite 147 hours of field work during the breeding season (approximately 36 (or 25%) of the 147 hours were spent listening for Henslow's Sparrows in suitable areas). One bird was located at 12:20 a.m. on 25 June (well into the breeding season, egg dates in Ontario 2 June - 14 August, Peck and James (1987)) in an overgrown field near a runway on the northeast side of Brockville Airport, Leeds and Grenville Un. Cos. It was decided to maintain a "hands-off" approach because of the scarcity of Henslow's Sparrows in former breeding areas and, therefore, breeding was not confirmed. The site was an old hayfield, approximately 200 m X 150 m or 3 ha in size, that was dominated by grasses (90% Orchard Grass and 10% shrubs and forbs), but beginning to be invaded by shrubs. Grasses were 0.5 to 1.0 m high and shrubs were less than 0.5 m high. Thatch in the field was approximately 7 to 10 cm high. Trees, less than 10 m in height, bordered the field to the south, west, and north. The site was close to houses and farms, an airport, and a busy road. A marshy area was located near the site where Swamp Sparrows, Common Snipe, and a Sora were heard. Other wildlife associated with the site included Sedge Wren, Bobolink, Savannah Sparrow, and Eastern Meadowlark. The site was owned by the City of Brockville and part of Brockville Airport.

Habitat characteristics of the site supported the findings of other surveys (Knapton 1982, 1984b; Risley 1983), which include a high percent and a moderate to high density of grass cover, a thick mat of thatch built up from previous years' vegetation, a height of dense vegetation (usually grass) of about 0.5 m, and usually a low-lying wet or mesic area.

Local birdwatchers in eastern Ontario were also contacted in 1992 and asked for further information on breeding Henslow's Sparrows. Although the species is believed to have bred historically (from 1956 to 1966) in Presqu'ile Provincial Park, it is now regarded as a very rare migrant in the Park (Peck pers. comm. 1992; Appendix

2). Probable breeding for the species was recorded during the Atlas for the 10-km square including Presqu'ile Provincial Park. Terry Sprague reported that he had not located any Henslow's Sparrows in Prince Edward County or Hastings County, or at other birding haunts he frequented in the Kingston area (pers. comm. 1992). The last individual he located was on Amherst Island several years ago. Luc Fazio, Theo Hofmann, and Roy Smith did not know of any Henslow's Sparrows reported in their regions (Toronto and York) in 1992.

In 1992, a breeding site was reported to Birders Journal (Henshaw and Kerr 1992). Brian Henshaw, co-editor of the journal, was contacted for information regarding this report. However, the individual who reported the breeding site for Henslow's Sparrow was unwilling to release any information about the site. Henshaw (pers. comm.) did find out that the site was abandoned early in the summer. It is believed that this site is in southcentral Ontario, although this is not certain. Specific information on Henslow's Sparrow sites in the Kingston area was not released to the author by the Kingston Field Naturalists (KFN), however, Ron Weir (pers. comm.) suggests there were about six active Henslow's Sparrow sites in the Kingston area in 1992: two sites in each of Prince Edward, Lennox-Addington, and Frontenac Cos. This corresponds to a rumour of six sites where Henslow's Sparrows were known to occur in 1991. More information is needed on the number and location of breeding sites in the Kingston area. A Henslow's Sparrow was reported singing at one of the first ten stops on the Roblin Breeding Bird Survey route in the Tweed area in 1992 (Ellen Hayakawa pers. comm. 1992). Specific information on Henslow's Sparrows reported during the Breeding Bird Survey from 1967 to present is being compiled by Canadian Wildlife Service. Although Henslow's Sparrows are rarely reported on BBS routes, the species has been reported on 7 routes in Ontario from 1967 to 1988.

In 1993, no Henslow's Sparrows were located during surveys conducted in Prince Edward County; Walpole Island, Lambton County; and in Haldimand-Norfolk and Niagara Regional Municipalities (Ridout and Austen 1993). In 1993, Henslow's Sparrows were found at only one site; this site was the same site where a singing male was found during the 1992 survey. Observations by Dave Bland (OMNR, Brockville District) suggested that a pair was breeding on the site. Staff at the Ontario Ministry of Natural Resources contacted the owner of the property in question and will attempt to ensure that no activities (e.g., mowing, ploughing, or development) are undertaken on the property that would adversely affect the nesting of the species.

The Henslow's Sparrow appears to be in trouble in Ontario (and hence, in Canada). Results from the 1992 and 1993 surveys indicate that far fewer than 50 pairs (probably less than 10 pairs) are breeding in the province. All thirty of the atlas squares in which the species occurred in the study area during 1981 to 1985 were visited, but only one Henslow's Sparrow site was found. None of the

sites mentioned by Risley (1983) or Knapton (1986) were occupied any longer. Surveys by Risley (1983), Knapton (1986), Austen (1992) and Ridout and Austen (1993) support the occurrence of a continuing decline in Henslow's Sparrows. It is difficult to say with any certainty how many pairs are successfully breeding due to the KFN's secrecy over information regarding Henslow's Sparrows. Although the Kingston area was covered during the 1992 survey, Henslow's Sparrow colonies could easily be overlooked if they are distant from public roads.

It is obvious that the Henslow's Sparrow population in Ontario is critically imperilled and, therefore, it is strongly recommended that the status of Henslow's Sparrow be uplisted to "Endangered" in Ontario and Canada, and actions taken to protect and manage those sites where the species is known to occur in the breeding season. It is also recommended that an integrated habitat management program be designed and implemented for Henslow's Sparrow and other grassland species at risk.

The new site near Brockville is noteworthy. First of all, it is located approximately 3 km North of the Brockville site noted by Risley (1983), which was located just south of the Buell's Creek Reservoir. This site did not appear to have suitable nesting habitat for the species in 1992. The 1992 site is also located approximately 2 km to the northwest of the MacJohnson Wildlife Area (532 ha in size) which is owned and managed by the Cataraqui Conservation Authority. Perhaps fields in this area could be managed (by mowing, prescribed burns, grazing, etc.) to establish larger areas of suitable habitat for the species and encourage the future nesting of Henslow's Sparrows.

A National Recovery Plan for Henslow's Sparrows, outlining potential recovery activities for the species, was compiled by M. Austen and members of the Henslow's Sparrow Recovery Team in the spring of 1992. The Recovery Plan was revised to include comments from reviewers and re-submitted in April 1994. Further surveys for Henslow's Sparrows are planned for the summer of 1994. Emphasis will be on checking the 1992/1993 site for Henslow's Sparrows; surveying suitable habitat in Haldimand, Niagara, Grey, Dufferin, and Wellington counties for Henslow's Sparrows and other grassland birds at risk; and developing a management plan for a suitable site in eastern Haldimand County for grassland birds at risk.

APPENDIX 2

Ontario Ministry of Natural Resources Criteria for assigning status to species of wildlife

Rare: Any indigenous species of fauna or flora which is represented in Ontario by small but relatively stable populations, and/or which occurs sporadically or in a very restricted area of Ontario, or at the fringe of its range, and which should be monitored periodically for evidence of a possible decline.

Threatened: Any indigenous species of fauna or flora which, on the basis of the best available scientific evidence, is indicated to be experiencing a definite non-cyclical decline throughout all or a major portion of its Ontario range, and which is likely to become an endangered species if the factors responsible for the decline continue unabated.

Endangered: Any indigenous species of fauna or flora which, on the basis of the best available scientific evidence, is indicated to be threatened with immediate extinction throughout all or a significant portion of its Ontario range.

Extirpated: Any indigenous species of fauna or flora no longer existing in the wild in Ontario, but existing elsewhere in that species' range.

Extinct: Any species of fauna or flora formerly indigenous to Ontario which no longer exists anywhere in its former range.