

# The 1996 Piping Plover Census in Ontario

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## Introduction

An intensive survey of former breeding locations of the Piping Plover (*Charadrius melodus*) in Ontario was conducted during 1996 as part of the International Piping Plover Census. Former breeding locations along the Lake Erie and Georgian Bay shorelines, and known breeding locations on Lake of the Woods, were surveyed as part of this census. In addition, a number of potential breeding sites at Sault Ste. Marie, Ontario (Lake Huron and Lake Superior shorelines and offshore islands) were censused during 1996. This article describes the 1996 census results in comparison with the 1991 census, and relates these results to historical numbers and distribution of the Piping Plover in Ontario, where possible. Lastly, a brief discussion is included which summarizes the status of the plover in Ontario, and conservation measures to protect this endangered species.

## Methods

Seventeen locations within the province were censused during 1996 (Table 1), compared to three locations censused during the 1991 survey. All of these locations were surveyed on foot, with some locations requiring the use of a boat to access offshore islands.

Two known plover nesting sites on the Ontario portion of Lake of the Woods were censused twice during the survey period. Windy Point and the Sable Islands Provincial Nature Reserve were surveyed on 5 and 6 June, respectively. No plovers were observed on these dates, with inclement weather conditions present (high winds and rain). These locations were again surveyed on 13 June under more favourable weather conditions. These sites were accessed by boat from Kenora. The entire length of Sable Islands was walked (6 km), and approximately 1 km of suitable habitat at the tip of Windy Point was covered on foot during both surveys.

A number of small sand beaches on the south side of Big and Bigsby Islands (Lake of the Woods) were also surveyed during 1996. Ten potential nesting sites were surveyed on Lake Superior and Lake Huron from Sault Ste. Marie. Former nesting locations at Wasaga Beach (Georgian Bay), and Long Point (Lake Erie), were surveyed during 1996 as well.

## Results

Piping Plovers were located at only one of the seventeen sites censused (Table 1). Three adults were observed at Windy Point, Lake of

**Table 1: Locations and numbers of Piping Plovers found in Ontario in 1996.**

<b>Date</b>	<b>Map Sheet 1:50,000</b>	<b>Site Location (Description)</b>	<b>Distance Covered (km)</b>	<b>No. of Adult Birds</b>	<b>Habitat Assessment</b>
5/6/96	52E/2	Big Island Lake of the Woods	2	0	M
5/6/96	52E/2	Bigsby Island Lake of the Woods	1	0	M
5/6/96	52D/15	Windy Point	1	0	G
13/6/96		Lake of the Woods	13	3	
6/6/96	52D/15	Sable Islands	6	0	G
13/6/96		Lake of the Woods	6	0	
3/6/96	40I/9	Gravelly Bay Long Point	3	0	G
6/6/96	40I/9	Courtright Ridge Long Point	1	0	M
4/6/96	41A/9	Wasaga Beach Lake Huron	2.5	0	M
6/6/96	41N/7	Agawa Bay Lake Superior	5	0	M
6/6/96	41K/15	Beaver Rock Lake Superior	.5	0	M
6/6/96	41N/2	Alona Bay Lake Superior	.6	0	U
6/6/96	41K/15	Methany Bay Lake Superior	.5	0	U
6/6/96	41K/15	Sawpit Bay Lake Superior	.3	0	U
6/6/96	41K/16	Batchawana Bay Lake Superior	2	0	U
12/6/96	41G/10	Desert Point Great Duck Island Lake Huron	2	0	G
12/6/96	41G/10	Horseshoe Bay Great Duck Island Lake Huron	.5	0	G
12/6/96	41G/10	Western Duck Island Lake Huron	2	0	G
17/6/96	41N/5	Caribou Island Lake Superior	5	0	G

Symbols: U = Unsuitable; M = Marginal; G = Good

the Woods on 13 June 1996. One pair of plovers was defending territory, and one nest containing two eggs was located. The other plover appeared to be an unpaired bird and was continually being chased by the mated pair. A nest enclosure was erected on this nest. It took approximately ten minutes to erect the enclosure, and a plover returned to incubate the eggs about one minute after we departed to a safe distance. The nest enclosure consisted of 2x2 inch wire mesh, five feet high with an approximate diameter of six feet. The wire mesh was buried in the sand to a depth of about six inches, and supported by four six foot lengths of half inch rebar. Coloured string was randomly strung across the top of the enclosure. In addition, two endangered species signs prohibiting public access were erected on each side of the nest site (about 100 m away).

The nest enclosure was next checked on 3 July 1996. The nest was abandoned (and empty), and did not appear to have been predated. The enclosure and the endangered species signs were removed on this date. Two adult plovers were observed. One of the adults appeared to be aggressive toward the other adult and kept chasing it within the immediate area. An extensive effort was not made to locate fledged young. Windy Point was again surveyed on 21 July 1996, and no plovers were observed on this date.

Piping Plovers were not

observed at any of the remaining sixteen surveyed sites during 1996. One adult plover was observed at Beaverton (near Lake Simcoe) on 2 June 1996 by Margaret Bain (Dobos 1997). This was a colour-banded bird and was most likely banded as a chick in Michigan during 1995. This plover was not observed after this date.

### General Comments

Weather conditions were less than ideal during the 5 and 6 June survey dates, with rain and high winds occurring on both days. The subsequent survey on 13 June was conducted during sunny, clear weather conditions.

Water levels on Lake of the Woods were high during the nesting period (elevation 1061.4 on 13 June 1996). Beach areas were significantly reduced this year, resulting in less suitable habitat for Piping Plovers. This situation was very obvious on the tip of Windy Point, with terns and gulls, and the one plover nest, all in very close proximity to each other.

### Discussion

According to the *Atlas of the Breeding Birds of Ontario* (Lambert 1987), the Piping Plover was once widespread throughout the Great Lakes Region, with numbers estimated to be approximately 150 breeding pairs. Significant population declines occurred during the 1960s and 70s with the last known

breeding in southern Ontario occurring in 1977 at Long Point Beach on Lake Erie (Lambert and Nol 1978). Piping Plovers are still occasionally seen at Long Point Beach and at Turkey Point Beach. However, these birds appear to be transients as they do not remain at these sites during the breeding season.

A variety of explanations has been put forward to explain the population decline. It would appear that one of the primary reasons is the increasing use of beach habitat for recreational purposes. The destruction of nests and young by pedestrian and vehicular traffic, and the disturbance of nesting birds by recreationists, are the main concerns. It has also been suggested that increasing numbers of natural predators such as raccoons, foxes, gulls, and crows have contributed to the decline (Cairns and McLaren 1980).

A small population of Piping Plovers continues to breed in the extreme northwest portion of the province on Lake of the Woods. This population consists of an Ontario and a Minnesota segment. The Minnesota population breeds primarily on two offshore barrier sand islands (Pine and Curry Islands). This group has continued to decline from a high of approximately 50 adults during the early 1980s to 10 adults in 1996 (Maxson et al. 1996).

In recent years, the Ontario

population has been restricted to the Sable Islands Provincial Nature Reserve and to Windy Point. The number of adult plovers observed on the Sable Islands remained relatively constant until 1992, when no plovers were observed (Table 2). Plovers were not observed on the Sable Islands during the 1995 and 1996 breeding seasons. Prior to 1995, plovers would occasionally be observed on Windy Point, although nesting success was very poor. It would appear that predation by foxes and Ring-billed Gulls (*Larus delawarensis*) was the primary factor contributing to unsuccessful nesting attempts at this site. The very tip of Windy Point was breached by a late 1994 fall storm, which resulted in a small island being formed at the tip of the point. Since this event, at least one pair of plovers has successfully nested on Windy Point during the 1995, and again during the 1996, breeding seasons. This small offshore island now presents a barrier to mammalian predators and, coupled with the use of nest enclosures, nests are not being predated prior to hatching.

It does not appear that the availability of suitable habitat on Windy Point or on the remainder of Lake of the Woods is a limiting factor on the viability of this population. An investigation of nineteen sites by Lambert and Risley (1989) during a 1989 survey found that six of these sites were categorized as fair or good habitat, while the

**Table 2: Number of Piping Plovers observed at Lake of the Woods, Ontario (1938-96).**

Year	Breeding Birds			
	Sable Islands		Windy Point	Total
	(Adults)	(Young)	(Adults)	(Adults)
1938	6	n.d.	n.d.	6
1974	5	n.d.	n.d.	5
1978	5	n.d.	n.d.	5
1979	2	n.d.	4	6
1980	3	n.d.	n.d.	3
1981	4	n.d.	n.d.	4
1983	2	2	n.d.	2
1986	6	n.d.	n.d.	6
1987	5	1	5	10
1988	3	3	n.d.	3
1989	6	7	2	8
1990	4	1	0	4
1991	5	2	0	5
1992	0	0	2	2
1993	1	0	0	1
1994	3	0	0	3
1995	0	0	3	3
1996	0	0	3	3

Sources: Heyens 1986-88, 1990-96; Ratcliff 1979

remaining sites were categorized as marginal or unsuitable habitat.

Extensive habitat is available at the Sable Islands. The major threats to this population are from recreationists and from fluctuating water levels on Lake of the Woods. Both of these impacts are manageable, and attempts have been made by the Ontario Ministry of Natural Resources to educate recreationists regarding the protection of Piping Plovers and their habitat requirements. Signage is in place at three

separate locations on the Sable Islands advising recreationists of the protected status of the Islands and that the use of all-terrain vehicles is prohibited. During the 1996 breeding season, endangered species signs were erected on Windy Point to prevent human disturbance of the nesting plovers. The Lake of the Woods Water Control Board is the agency responsible for controlling water levels on the lake, and it has been made aware of the habitat requirements of this endan-

gered species.

In conclusion, a small remnant population of Piping Plovers continues to breed in Ontario in the extreme northwestern portion of Ontario at Lake of the Woods. The 1991 International Piping Plover Census documented five birds at this location, while the 1996 census documented three birds there. Plovers continue to be reported on a sporadic basis from other parts of Ontario as well. However, these birds appear to be transients and do not breed at these locations. Annual censuses will continue on the Lake of the Woods population, and nest enclosures and endangered species signage will continue to be used at any nest sites.

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