

Population status of the threatened/endangered Piping Plover in 1991

Susan M. Haig & Jonathan Plissner

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US Fish and Wildlife Service, South Carolina Cooperative Fish and Wildlife Research Unit, Behavior, Ecology and Conservation Biology Program, G08 Lehotsky Hall, Clemson University, Clemson, South Carolina 29634, USA.

In 1991, biologists from Canada, the United States, Mexico and various Caribbean nations collaborated in a census of all known Piping Plover *Charadrius melodus* breeding and wintering sites. The goals of the census were to (1) establish current population levels, (2) survey additional potential breeding and wintering sites and (3) assess the status of the species relative to past population estimates.

Observers conducted censuses by walking and driving along a predetermined stretch of beach or sandflat and recording the number and location of Piping Plovers at each site. The winter census was conducted from 12 to 20 January 1991, along the Gulf coast of the United States and Mexico and the southern Atlantic coast of the United States, Cuba and several other Caribbean countries (Figure 1, Table 1). The breeding census was carried out across the species' range (Figure 1, Table 2) from 1 to 9 June 1991. Nests, eggs and chicks were not counted. More precise methods for the winter and breeding censuses are summarized in Haig & Plissner (1994).

Over 850 observers from ten nations participated in the census. Approximately 2,095 sites were surveyed, resulting in total numbers of 5,482 breeding adults and 3,451 wintering birds. The number of wintering birds comprised 63% of the breeding birds counted (Tables 1 & 2). The majority of wintering birds (55% or 1,898 birds) were found in Texas. Among areas where birds were found, 51% (1,762 birds) occurred on ocean beaches, 43% (1,486) used sandflats or algal flats in protected bays and 6% (203) used areas where protected bays met ocean beaches.

The 1991 breeding census represented a complete census of all known Piping Plover breeding sites. Currently, Piping Plovers are widely distributed in small populations across their breeding range (Figure 1). The majority of adults (63.2%) are found in the northern Great Plains and Prairies of the United States and Canada, whereas the numbers of birds and breeding sites on the Great Lakes remain small (Table 2). Piping Plovers breed in a variety of habitat types. On the Atlantic coast, 93.9% (1,854) of breeding birds were found on ocean beaches, and the remainder used protected bays. All Great Lakes birds used Great Lakes beach shoreline. In the northern Great Plains and Prairies, 59.6% (2,068) of Piping Plovers used shorelines around alkaline lakes, 24.6% (854) used reservoir beaches, 13.4% (466) used river islands and sand-pits, 2% (68) occupied large freshwater lake beaches and 0.4% (13) were found along the shores of industrial ponds.

Birds were found in areas where they had not been reported previously, including the Missouri River Coteau region of Saskatchewan, a number of areas in northeastern Montana and the Prewitt Reservoir in Colorado. Piping Plovers have all but disappeared on the Great Lakes and on the Lake of the Woods in Minnesota, Ontario and Manitoba. Numbers on the Atlantic coast remain stable, perhaps because of unprecedented efforts to protect Piping Plover there.

Reference

Haig, S.M. & Plissner, J.H. 1994. The 1991 International Piping Plover Census in the United States, Mexico, and the Caribbean: breeding and winter populations. *Can. Wildl. Serv. Occas. Pap.* 82: 48–51.

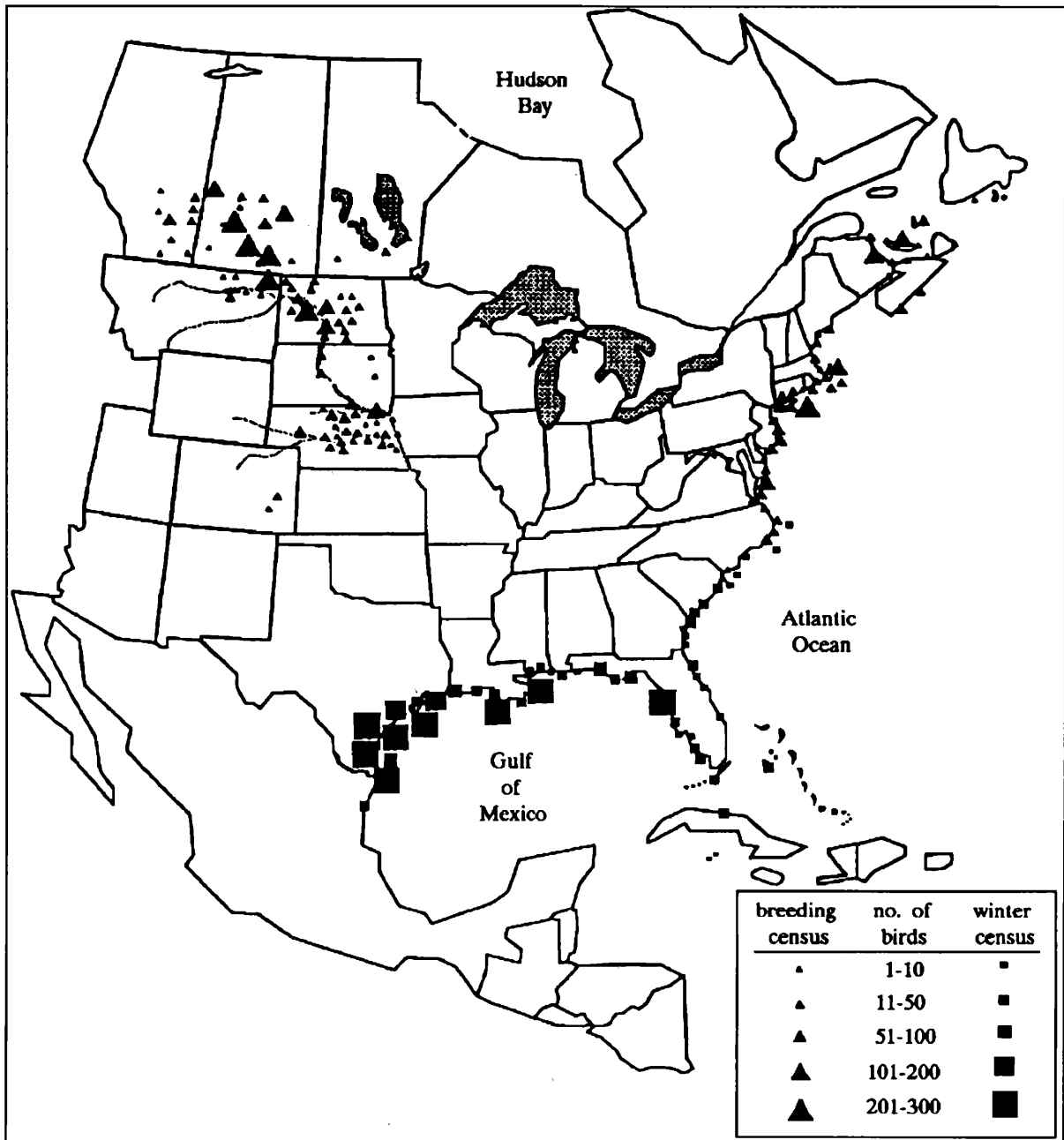


Figure 1. Distribution of birds reported from the 1991 International Piping Plover Census.

Table 1. Results from the 1991 International Piping Plover winter census.

Location	No. of birds	Total no. of sites	No. of plover sites
<i>Total USA</i>	3,384	325	156
US Atlantic	178	132	30
US Gulf	3,206	193	126
<i>Gulf of Mexico</i>	27	18	4
<i>Caribbean</i>	40	11+	2
Bahamas	29	1	1
Turks and Caicos	0	1	0
Cuba	11	2	1
Jamaica	1	*	0
Puerto Rico	0	5	0
Cayman Islands	0	*	0
Total winter	3,451	354+	162

* Unknown number of sites surveyed in Cayman Islands and Jamaica.

Table 2. Results from the 1991 International Piping Plover breeding census.

Location	No. of adults	No. of pairs	Total no. of sites	No. of plover sites
<i>Total Prairie Canada & US Great Plains</i>	3,467	1,486	1,121+	425
Prairie Canada	1,437	589	561	111
US Great Plains	2,030	897	560+	314
<i>Total Great Lakes</i>	40	17	47	15
<i>Total Atlantic</i>	1,975	938	573	288
Atlantic Canada	513	236	234	92
US Atlantic	1,462	702	339	196
Total Canada	1,950	825	795	203
Total USA	3,532	1,616	946+	525
Total census	5,482	2,441	1,741+	728