

Piping Plover Monitoring Summary 2008

Apostle Islands National Lakeshore

Apostle Islands National Lakeshore (APIS) and adjacent tribal and private lands provide critical nesting habitat (US FWS 2001) for the federally and state endangered piping plover (*Charadrius melodus*). This area is the only location within the state where successful breeding has occurred in recent years. Protection and management of this bird is truly a collaborative effort between the National Parks Service, Wisconsin Department of Natural Resources, U.S. Fish and Wildlife Service, Bad River Band of Lake Superior Chippewa, The Johnson Foundation, The Nature Conservancy and researchers from the University of Minnesota.

Long Island was known as an important historic nesting area in the early 1980's, however, plovers did not start nesting again in this location until 1998. Nesting was sporadic until 2006. Since then, piping plover have consistently nested successfully.

In May, a meeting with representatives of the different collaborators started the season in order to coordinate plover protection and monitoring and train new staff. In 2008, two plover monitors were hired by the Wisconsin DNR, one of which was funded by The Johnson Foundation. A NPS biological technician was also hired to assist with plover management. Plover monitors are stationed on Long Island and assigned the duties of finding nests, recording plover behaviors, observing the hatching and rearing of chicks, and recording arrival and departing dates of the adults and fledged young. Another large part of the plover monitor's duties involve visitor education and outreach. The monitors help enforce NPS rules to protect the birds, and provide visitors with brochures and factsheets on the Great Lakes Piping Plovers. In 2008, a new handout about identifying piping plovers from similar species was created and distributed. The new handout included identification information on the piping plover, semipalmated plover, killdeer, and spotted sandpiper. The handout highlighted the key similarities and differences between the shore birds.

Also in May, Outer, Stockton, Michigan, Cat, and Long Islands within the Apostle Islands National Lakeshore, as well as areas south of the park boundary on Long Island were surveyed for plovers. Long Island was the only site where piping plovers were seen. Six breeding pairs were located on Long Island, five along the southern section of the island, extending to the southern boundary of APIS and one at the northern tip of the island.

Of the six breeding pairs identified, five produced nests. Four nests contained four eggs each, and one produced three for a total of 19 eggs laid. When a plover nest is identified, a fenced, nest enclosure is placed around the nest (12'x12') to protect it from mammal predators, and topped with blueberry netting to protect it from avian predators. A small section of beach around the nest enclosure (approx. 100 m 'buffer zone') is marked with signs and officially closed for public use. Four of the five nests were fitted with enclosures; one nest was predated before an enclosure was able to be set. Three of the enclosed nests produced four eggs, while one pair produced three, for a total of 15 eggs.

In June 2008, during nest incubation, 8 of the 12 adult plovers on Long Island were banded. 2008 was the first year adult plovers were banded in the park, and each was marked with an

‘orange flag’ band to identify them as Apostle Islands Plovers. Color banding of Great Lakes Plover populations has been a method of providing researchers with valuable information on individual birds. When birds are banded it allows researchers to identify the origin of the bird (where it was hatched), previous breeding partners, nesting success (how many chicks have fledged), and migration patterns (where the bird winters).

By late June/early July, 11 of the 15 enclosed plover eggs hatched. Of the 11 hatched chicks, 6 survived through their first few weeks and were banded during July of 2008. A late spring, coupled with intense summer storm activity, as well as coyote predation, were components responsible for chick mortality and un-hatched eggs. Nest success for 2008 was 1.2 chicks per nest, which is down from 2.2 in 2007 and 1.25 in 2006 (Table 1). Decline in nest success is attributable to natural causes.

Table 1. Piping Plover Statistics, Apostle Islands National Lakeshore 2006-2008

Year	Total Nests	Total Eggs	Total Chicks	Nest Success (fledged* chicks per nest)
2006	4	16	5	1.25
2007	6	24**	13	2.2
2008	5	19	6	1.2

* Chicks are considered fledged if they survived until banding.

** This value assumes that the Plover chicks found late in the season (1 adult with 2 chicks on Long, and 1 adult with 2 chicks on Outer) came from nests of 4 eggs each. These chicks found later were not banded, but were predicted to successfully fledge and so are also included in the total chick count for 2007.

Throughout May, June, and July, the plover monitors contacted 164 visitors, compared to 120 visitors contacted in 2007. All monitors noted the general response of visitors as positive when they were give information about the birds. In 2008, the monitors noted that some of the visitors they contacted had also received information in 2007 and inquired how populations were doing this season. Overall, the monitors greatly help educate the public on Wisconsin’s rarest bird, and help ensure compliance with the rules protecting them. The monitors ended their season in early August, when the last of the chicks were confirmed fledged.

Summary Table: 2008 Long Island Piping Plover Breeding Population

Plover Pair ID	Band Combinations	Nest Location	Eggs Laid	Eggs Hatched	Chicks Banded	Chick Band Combination
PP1	Male: X, L : Of, RL	N 46.71081	4	3	0	-
	Female: X, B : Of, Bb	W 90.76385				
PP2	Male: Of, RY : X, R	N 46.70613	4	3	2	X, G/O : O, -
	Female: Of, YY : X, B	W 90.75741				
PP3	Male: g : X, O/g	Did not nest	-	-	-	-
	Female: O : X, g					
PP4	Male: Of, LG : X, b	N 46.70332	4	2	2	X, G : O, -
	Female: Of, GB : X, Y	W 90.75243				
PP5	Male: X, Y : Of, BB	N 46.73143	3	3	2	X, g : -, O
	Female: X, G : Of, LL	W 90.80685				
PP6	Male: - : X, g	N 46.70857	4	0	0	-
	Female: unbanded	W 90.76096				
Totals:			19	11	6	