

Long Island Piping Plover Monitor: 2016 Season Summary

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Summary:

From 5/26/2016 through 8/5/2016 daily surveys were conducted on Long Island for approximately eight-hours, weather and wildlife permitting, between N 46 71' 76.8" – W -90. 77' 06.1" and N 46 69' 24.1" – W -90. 73' 03.3". Coverage was continuous from 5/26/2016 through 8/5/2016 with 7/22/2016 being the only exception. Throughout the 2016 season several unfavorable weather events occurred 6/1, 7/12, and 7/21. During these severe weather events there were drastic changes in beach width and topography.

A total of three color banded pairs of piping plovers were documented with three active nests, a fourth pair was observed at the mouth of the Bad River by a local beach goer, unfortunately this nest was predated upon before an exclosure could be established. Each of the three nests underwent successful renesting attempts, where all three nests rested with a full clutch of four eggs. Two nests hatched three eggs, with the third nest hatching a single egg that was never observed and later abandoned. Six chicks were successfully banded and five fledged at the end of the season. Females were not observed in the vicinity from 7/29 and had left the beach by 8/3.

A survey was conducted along the beach between the two lighthouses on the island on 6/19. The survey started at N 46 72' 89.6" W -90 78' 62.5" and ended at N 46. 73' 05.5" W -90 80' 97.6". This survey was conducted in order to inspect the open beaches for additional nesting pairs/ individuals. The survey yielded no additional sightings, though it did indicate that the northern portion of the island received high visitor use based on footprint abundance.

Nest Monitoring:

Site One – Fargo2

GPS Coordinates: N 46 71' 27.3" W -90 76' 55.6"

Failed Nest GPS Coordinates: N 46 42' 45.3" W -90 45' 54"

Female: X: O, B/O/B

Male: Gf, GL: Y, B

of eggs: 4

of chicks hatched: 3

of chicks fledged: 3

Exclosure Erected: 6/9/16

Hatch Date: 7/5/16

Chicks Banded: 7/13/15

Band Combinations:

1. X, G(235):-, O(R)

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2. X, G(236):-, O(G)

3. X, G(237):-, O(B)

Fledge Date: 7/28/16

Notes: Pair was first observed together exhibiting mating behavior on 5/28. A nest was found mid-beach with a single egg, adjacent to a few cobblestones, on 5/30. A large storm event with high waters and wave action took place on 5/31 where the birds appeared to be unaffected when observed that morning. On 6/1 the nest and egg had been completely washed away. A successful renesting attempt was discovered on 6/9 with a full clutch of four eggs. That same day, 6/9, an exclosure was placed over the nest and was not removed until 7/13. Psychological fencing was installed around the territory 6/11. Female was the primary incubator for a majority of the season. Male often observed foraging several hundred yards West of the nest in the midmornings and early evenings. When observed near nest, most time was spent foraging or making territorial displays towards X, G/O/G: O. Chicks first observed 7/5 and actively foraging with adults. On 7/9 male actively defending and displaying towards X, G/O/G: O. Male watching over chicks while female foraging down the beach, Three chicks banded on 7/13 by the NPS, with band combinations of X, G(235):-, O(R), X, G(236):-, O(G), and X, G(237):-, O(B). A large dispute between both adults from Fargo2, Cobblestone, and X,-: O, Y occurred on 7/14, the chicks remained in the grass as the parents squabbled. Female was last observed with chicks on 7/15 and last seen on beach 7/20. Male stayed close to the chicks through fledging on 7/28 and was last observed 8/2. On 8/5, all three fledglings were observed foraging together. The exclosure and psychological fencing was removed on 8/5.

Site Two – Cobblestone

GPS Coordinates: N 46 71' 19.0" W -90 76' 44.0"

Failed Nest GPS Coordinates: N 46 42' 30.5" W -90 45'37.3"

Female: O, b(059): X

Male: X, G/O/G: O

of eggs: 4

of chicks hatched: 3

of chicks fledged: 2

Exclosure Erected: 6/11/16

Hatch Date: 7/13/16

Chicks Banded: 7/21/15

Band Combinations:

1. X, G(238):-, O(B)

2. X, G(239):-, O(R)

3. X, G(240):-, O(G)

Fledge Date: 8/5/16

Notes: The pair was first documented together on 5/29. Goose stepping was observed between the two on 5/30. A nest with two eggs was found on 5/30, located among the beach grass and driftwood higher up the beach. large storm event with high waters and wave action took place on 5/31 where the birds appeared to be unaffected when observed that morning. On 6/1 the

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nest and eggs had been completely washed away. A renesting attempt was found on 6/9 with a single egg. This nest was located within several *Salix spp.* with minimal cobble in the vicinity. A second egg was laid 6/11 at 15:25, with additional eggs being found 6/13 and 6/16. An enclosure was installed on 6/11. Male was quick to give broken wing display during installment before fleeing. Female returned in less than five minutes where she sat outside the enclosure before entering several minutes later. Psychological fencing was placed on 6/18. Male often observed foraging near nest and quick to incubate whenever humans approached nest. Female observed incubating less frequently, often foraging 50 yards or more from nest. 6/25 male quick in attempts to lure intruders away from nest towards other nesting site (Fargo2). A territory dispute occurred on 7/2 when Gf, GL: Y, B encroached upon the nest. The dispute lasted approximately 10 minutes until both birds flew down the beach. Female X: O, B/O/B approached nest and was chased away by both adults, loudly peeping throughout the process. 7/11 male actively walking territory 'boundary' displaying towards Gf, GL: Y, B. Three chicks hatched on 7/13, spending the majority of the day next to the male while the female foraged. Squabble occurred between Cobblestone and Fargo2 (Site 1) birds, female intent on protecting chicks, hiding among the beach grass. Female no longer observed after 7/18. All three chicks remain very close to male during foraging, male very protective. Three chicks banded on 7/21 by the NPS, with band combinations of X, G(238):-, O(B), X, G(239):-, O(R), and X, G(240):-, O(G). One chick was lost between 7/21 and 7/22 due to an unknown cause. Male stayed close to the chicks through fledging on 8/5. On 8/5, both fledglings were observed foraging together. The enclosure and psychological fencing was removed on 8/5.

Site Three – Woodyard

GPS Coordinates: N 46 41' 47.6" W -90 44' 35.7"

Failed Nest GPS Coordinates: N 45 42' 14.8" W -90 45' 14.8"

Female: X, -: O, Y

Male: X, G: O

of eggs: 4

of chicks hatched: 1

of chicks fledged: 0

Exclosure Erected: 6/12/16

Hatch Date: 7/13/16

Chicks Banded: N/A

Band Combinations: N/A

Fledge Date: N/A

Notes: The pair was first located together on 5/30, the same day as the nest was discovered with a single egg. The nest was located 10 yards from the beginning of the dunes amid the beach grass. A large storm event with high waters and wave action took place on 5/31 where the birds appeared to be unaffected when observed that morning. On 6/1 the nest and egg had been completely washed away. A successful renesting attempt was located on 6/10 with two eggs present. The third and fourth eggs were found on 6/12 and 6/15. An enclosure was

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installed on 6/12. Both birds were hesitant to return to the nest, eventually returning approximately 15 minutes after the installation. Psychological fencing was installed between 6/12 and 6/13, with minimal disturbance to the birds. Male appeared flighty, in many cases flying away when marginally being approached. Parents evenly shared incubation duties, more often leaving the nest unattended while closely foraging. 7/9 both birds observed foraging more than 50 yards from nest in opposite directions. 7/13, both birds acting strange, loudly peeping and frantically running around in and out of the beach grass. One egg had hatched, unable to identify hatched chick. Female observed participating in squabble between Fargo2 (nest site one) and Cobblestone (nest site two) adults on 7/14. Neither parent present at nest, male spotted 50 yards East of nest on 7/14. Neither bird present on 7/15 or any time after that. On 7/21 remaining three eggs were collected by USFW. Psychological fencing was removed 7/26. Exclosure was removed on 8/3.

Predator Observations:

Throughout the summer several predators were identified along the beach. On 6/1 a merlin was observed flying over the beach. At various times during the daily surveys evidence of merlin activity was recorded along the beach, primarily near the third nest site where the beach became more expansive with greater tree coverage on the bayside of the island. Other signs of predators included: fox tracks, otter tracks, and goose tracks. Herring and ring-billed gulls were present in large numbers daily, in addition to a pair of Caspian terns.

Visitors:

Over the course of the 2016 season a minimum of 112 boats anchored near or landed on Long Island, 428 individuals visited with 62 dogs (39 off leash), and 131 people were spoken to. Most visitors spent their time enjoying the water or spending time recreating or tanning on the beach. Very little interaction occurred between visitors and the plovers. Dog owners who were approached and informed of the rules of the National Park and the importance of the plover habitat were understanding and willing to leash their pets. Often times leashes were removed once the monitor left the immediate vicinity.

Aircraft: On 6/18 low flying private planes flew over the beach after taking off from the Madeline Island airport, the plover appeared to be unaffected. Again on 7/19 a private aircraft flew over the beach twice, touching down at three different locations along the beach, both before and after the third nesting site.

Plover Behavior:

Due to the proximity of Fargo2 and Cobblestone nests, territory disputes were common between the males, frequently with Gf, GL: Y, B acting as the aggressor. Gf, GL: Y, B was the most territorial and aggressive of the birds present, often chasing intruders several hundred yards. In terms of nest and chick protection, X, G/O/G: O was always sure to place himself between intruders. Unlike the males from the first two nesting sites, X, G: O did not display any form of aggression or confidence in defending the nest or territory in general. Overall, the behavior displayed by the six plovers did not appear to be overly aggressive, with no observable injuries occurring to neither adults or hatchlings.

Future Recommendations:

As a means of bringing the presence of the plovers to the attention of the general public before they have established a spot with their children and dogs, placing the "Do Not Enter" plover signs along the beach where the plovers forage could aid in less disturbances. In addition, placing these signs along the trails that lead from the bayside of the island to the lakeside as reminders before visitors get situated could be beneficial. Both of these practices could help prevent off leash dogs from harassing the birds before owners have an opportunity to read the signage.

Twine should not be used for constructing the psychological fencing, it is not strong enough and often has to be retied. The white string was much better at staying together and seldom needed repairs, although it was very prone to getting tangled if not stored properly from the season before or if it was wadded up and thrown into a pack. Para-cord might be a better and more official looking option for future uses.

The boardwalk running through the bog in the center of the island is in need of repairs in several spots. After such a wet summer there were a handful of locations that were constantly under water, making traveling from one side of the island to the other difficult.