

2025 Chequamegon Point Piping Plover (Charadrius melodus) Seasonal Report



BAD RIVER BAND OF LAKE SUPERIOR TRIBE OF CHIPPEWA INDIANS



MASHKIIZIIBII NATURAL RESOURCES DEPARTMENT

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2025 CHEQUAMEGON POINT PIPING PLOVER SEASON REPORT



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What are piping plovers?

Piping plovers (Charadrius melodus) are small, sand-colored migratory shorebirds, typically measuring 7 inches long. They only nest in the middle of wide beaches with ample amounts of cobble. The Great Lakes subspecies (Charadrius melodus circumcinctus) of Piping Plover is listed as endangered due to nesting habitat loss and anthropogenic disturbances (pet dogs, development, ATV traffic, aircraft traffic, harassment).

Before human encroachment, an estimated historical population of 500-800 pairs inhabited North America. Piping Plovers were listed as endangered in 1986, when there were only 16 nesting pairs left around the Great Lakes. Since then, due to recovery efforts, the number of unique pairs nesting along the Great Lakes has grown to 88, as of 2025. This marks the highest number of pairs recorded since the species was first listed as endangered.

Project Goal

The mission of the piping plover project is to restore the species to sustainable population levels resembling those prior to human disturbance, ultimately leading to delisting from the endangered species list.

Here, in Northern Wisconsin

On Chequamegon Point, a team works to accomplish this goal, including two piping plover monitors recruited each year to monitor the areas where these birds' nest. During the breeding season, monitors walk the beach daily to locate and document piping plovers, nests, eggs, and chicks. The monitors look for signs of predators and human disturbance, assist with plover chick banding, and educate the public, especially those interfering with the birds.



Who is Involved?

This project is a cooperative effort between the Mashkiiziibii Natural Resources Department, the National Park Service (<u>Apostle Islands National Lakeshore</u>), the U.S. Fish and Wildlife Service, the Wisconsin Department of Natural Resources, and the Nature Conservancy.

2025 was the 52nd year of monitoring the Great Lakes piping plovers at Chequamegon Point on the south shore of Lake Superior, the 39th year since the species received endangered status, and the 27th year of partnership in restorative efforts with

the Mashkiiziibii Tribe.

The monitors for this field season were Aidan Doherty and Rowan Gibson. Between May 23 and August 6, the monitors conducted daily surveys on Chequamegon Point, weather permitting. Seven piping plover (Charadrius melodus) nests were documented and monitored. This season, 23 eggs hatched on Chequamegon Point and 12 chicks **fledged**. There were no nests observed near the point of Long Island.

CHEQUAMEGON POINT AND LONG ISLAND

Where is Long Island?

Long Island was at one time a true island, located at the northeast of Chequamegon Bay on Lake Superior in northern Wisconsin. However, since the 1970s, sand accumulation has connected the island with the mainland, making it part of a peninsula known as Chequamegon Point. An act of Congress in 1986 added the area known as Long Island to the Apostle Islands National Lakeshore (National Park Service). Wetlands near Chequamegon Point have resulted in less development. The absence of roads results in visitors arriving at the Long Island portion of Chequamegon Point by watercraft or float plane/ultralight.

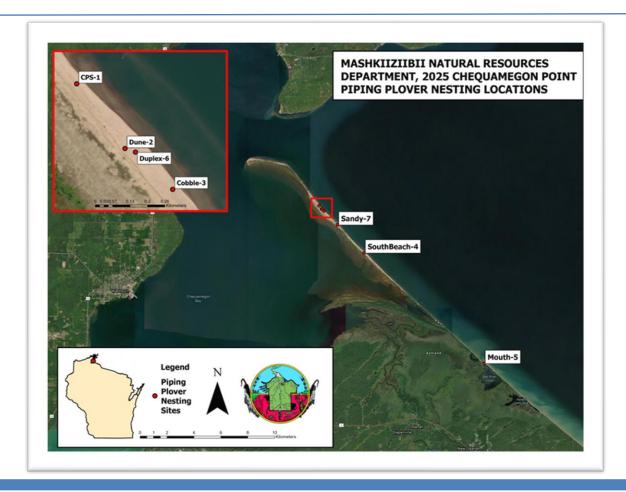


NESTS

Seven piping plover nests were monitored during the 2025 season. Five nests were located on the north-west shore of Chequamegon Point within an area commonly referred to as Plover Beach due to the recurrence of nests for several years These five nests at Plover Beach also fall within the Apostle Islands National Lakeshore The other two nests are located further south along the eastern shore. Nest 5 was located on a sandy point where Mashkiiziibii (Bad River) meets Anishinaabeg-Gichigami (Lake Superior), outside of the national park boundaries. All nests were located within the historical tribal lands of the Bad River Band of Lake Superior Chippewa.

The Bad River Reservation was established with the 1854
Treaty of La Pointe with the U.S. Government and was sited along the beautiful shores of Anishinaabeg-Gichigami and Chequamegon Bay. Bad River is the largest Chippewa reservation in the state of Wisconsin at 124,459 acres. The reservation boundaries encompass lands in two counties and six municipal townships with 36 miles of Anishinaabeg-Gichigami shoreline and over 488 miles of rivers and streams. To learn more about the Bad River Band of Lake Superior Chippewa you are encouraged to visit https://www.badriver-nsn.gov/history/.

(Source: https://www.badriver-nsn.gov)



NEST 1: CPS

Female: Blueberry

• **Band combo**: X [2651-63503], B : Of, b b

• Arrival and departure: 5/13 - 7/16

Male: Otto

• **Band combo**: X [-831-83598], -: Of, O O

• Arrival and departure: 5/13 - 7/16

Nest found: 5/23

Hatch date: 6/24 *no chicks observed

Exclosure Installed: 5/23

Psychological fencing installed: 6/07





Nest Overview/Site Description

Nest #1 was the northernmost nest on Chequamegon Point. This nest location consistently hosts piping plover nests annually. This area of Plover Beach is an expansive, flat beach with wide **wash zones**, cobble, and driftwood scattered throughout.

This nest, like most, was directly inside the **cobble pan**. Slightly north of the nest had the highest concentration of human activity, as a nearby **tree line** along the beach offered shade for visitors. When visitors were not present, the adults frequently foraged at the tree line. Adults at this site would forage in the dune, near the water, and in the driftwood. Foraging primarily occurred north of the nest due to competition further east. Adults from nest #1 would occasionally engage in **territory disputes** at the other nearby nests. The male from nest #1, Otto, was observed limping on his left foot throughout the monitoring season. When inspected during banding, nothing appeared wrong.

By late June, two of the four eggs had hatched. Evidence of eggshells near the water's edge indicated quick predation, as no chicks were ever observed. By early July, CPS adults stopped incubating the remaining two eggs, which were evidently infertile. The remaining eggs were collected, and the adults departed within the following two weeks.

Nest 2: Dune

Female: Young Little Ruby

• **Band combo**: X [2651/83591], Y: Of, L R

• Arrival and departure: 5/13 - 7/16

Male: Google

• **Band combo**: X [0831/83581], [G]: O, O/G Rdot, [G326]

• Arrival and departure: 5/13 - 7/23

Nest found: 5/29

Hatch date: 6/30

• O^G, G (465): X, - [8101/37032] (PREDATED before fledging)

Exclosure Installed: 5/23

Psychological fencing installed: 6/05





Nest Overview/Site Description

Of all the nests on Chequamegon Point, Nest #2 was one of the closest to the **foredune**. For this reason, we named nest #2 "Dune". Nest #2 was also in very close proximity to nest #6. Nest #2 and Nest #6 were only 40ft away, resulting in near constant **parallel walks**, territorial disputes, and **flight displays** between adults. This became a more consequential issue later in the monitoring season after the chicks hatched. Adults from both nests frequently focused on each other and the territory boundaries, leaving the chicks vulnerable to nearby avian predators. Monitors even observed adults from Nest #1 attacking Dune chicks. This posed a challenge for monitors, as it was impossible to keep track of all chicks simultaneously.

Piping Plovers typically lay clutches of four eggs. Nest #2, however, had five eggs, a unique occurrence. Of the five eggs, four chicks hatched. The fifth egg was infertile and never hatched; incubation was quickly abandoned in favor of safeguarding the other chicks. Unfortunately, despite the efforts of both plovers and monitors, all four chicks were lost to predation. The only banded chick, just before it was ready to fledge, was also predated. The remaining infertile egg was collected for further testing, and both adults migrated south.

Nest 3: Cobble

Female: Big Little Betty

• **Band combo**: X [-831-83452], b: Of, L B

• **Arrival and departure**: Before 5/23-7/4

Male: XO

• **Band combo**: X [1841/67224], [G]: O, [G163]

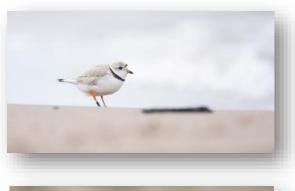
• Arrival and departure: 5/13 - 7/4

Nest found: 5/26

Hatch date: 6/15-16 *no chicks observed

Exclosure Installed: 5/23

Psychological fencing installed: 6/07





Nest Overview/Site Description

Nest #3, referred to as "Cobble", was located in a vast cobble pan with medium to large driftwood sparsely distributed throughout. Like nests CPS, Dune, and Duplex, this nesting location's main complication was its proximity to other plover nests. The Cobble Male, XO, is Chequamegon Point's oldest returning bird (since 2017). The female on this nest, Big Little Betty, finished laying eggs when the nest hit three eggs. This was also unusual, being the only three-egg nest observed at Chequamegon Point in 2025.

Initially, two of the three eggs hatched. Unfortunately, both chicks were predated before being observed. Incubation of the last egg didn't cease past the expected hatch date, so the egg was **candled** and determined to be not viable. Both adults continued to incubate the remaining egg until it was collected, days after both adults disbanded and left.

After the Cobble adults left, Duplex adults and chicks frequented the Cobble exclosure for foraging. The departure of CPS and Cobble adults allowed for less **intraspecific competition**, giving surviving chicks from other nests more room to forage.

Nest 4: South Beach

Female: Rose Girl

• **Band combo**: X [-831-83590], R: Of, G L

• **Arrival and departure**: Before 5/23-7/16

Male: Pippin

• **Band combo**: X [-831-83584], P: Of, P N

• **Arrival and departure**: 5/13 – 7/29

Nest found: 5/31

Hatch date: 6/25

• X [8101/36785], A¹³: O^R –

• X [8101/36783], A¹⁴: O^G, -

• X [8101/36778], A¹⁵: O^Y, -

• X [8101/37000], A¹⁶: O^B, -

Fledge date: 7/18

Exclosure Installed: 6/10

Psychological fencing installed: 6/11



Nest Overview/Site Description

Nest #4, South Beach, was the furthest nest south that monitors could observe daily. From the monitor camp, nest #4 was a four-mile walk one way. Nest #4 was adjacent to a large bald eagle nest on a thinner section of the beach. The nest was predominantly surrounded by smaller pieces of driftwood, with smaller pebbles lining the nearby shore. Luckily, South Beach had some of the best parents. All four eggs hatched within two days and were fiercely guarded by both adults. While foraging, South Beach adults often split the chicks between themselves and foraged in opposite directions.

Shortly after all chicks had hatched, all six individuals relocated further south down the beach near the cabins. While the male adult would stay with the chicks until fledging, Rose Girl would end up meeting the CPS adults before migrating together.

Nest 5: River Mouth

Female: Very Good Violet

• **Band combo**: X[8101/36789],V: Of, G V

• Arrival and departure: 5/17-

Male: Extra Large Guy

Band combo

• X[8101-36793], L: Of, G Y

• Arrival and departure: 5/17 –

Nest found: 6/3

Hatch date: 6/22

• X [8101/36784], -: O, A (Gdot, A10)

Fledge date: 7/15

Exclosure Installed: 6/10

Psychological fencing installed: 5/24





Nest Overview/Site Description

Nest #5 marks the second consecutive year that the same pair returned to the mouth of the Bad River (Mashkiiziibii). The site consisted of a sandy point with cobble and driftwood set further back. The nest was elevated slightly from the wash zone. A typical flock of approximately 30-50 seagulls frequented the area surrounding the nest throughout the season. The plovers here tolerated an abundance of passing boat traffic, although boat speeds were far slower at the mouth than in the open water near the other nests. This nest was also the only nest to be occasionally disturbed by ATV traffic, although the beach was closed to ATV traffic during the nesting months. Tracks were often seen close to **psychological fencing**. Even though the nest was set back from the water, nests at the mouth are typically affected by the elements more than other nests (wind, waves, erosion, etc).

Like other nests monitored this year, one infertile egg didn't hatch. Of the three eggs that did hatch, only one chick survived to fledging. Because of the Bad River and excessive walking distance, this nest was only able to be monitored on occasion when dropping off or picking up stationed plover monitors every four days. The occurrence of seagulls at the mouth is a probable culprit for chick mortality at this location.

After the remaining chick neared fledging, the adult female relocated near Cobble and Sandy nests before departing.

Nest 6: Duplex

Female: Georgia

• **Band combo**: X [2651/63498], G: O (r dot)

• Arrival and departure: 5/13-7/16

Male: Gary

Band combo

• X [2651/63531], G: Of, -

Arrival and departure: 5/20 – 7/29

Nest found: 6/3

Hatch date: 7/1

• X [8101-37094], G⁴⁷⁷: O^R, G/O

• X [8101-37095], G⁴³⁴: O^Y, G/O

• X [8101-37096], G⁴³⁵: O^G, G/O

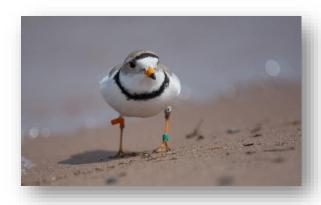
• X [8101-37097], G⁴³⁶: O^B, G/O

Fledge date: 7/24

Exclosure Installed: 6/10

Psychological fencing installed: 6/05





Nest Overview/Site Description

Nest #6's location was incredibly close to nest 2. The Duplex nest was so close to nest #2 that they shared the same psychological fencing. This resulted in frequent, near-constant, parallel walks, and territorial disputes. Despite the shared resources and space, Duplex hatched all four chicks (same day). Distracting territorial matters often left the Dune and Duplex chicks vulnerable to overhead seagulls. To counteract this, monitors built scarecrows (or scaregulls) to keep avian predators away. Scarecrows were moved daily to assist the often unguarded chicks. To the credit of the scarecrow or not, all four Duplex chicks fledged after banding and were seen flying shortly after. Duplex chicks were frequently observed foraging in or near the dunes to avoid large, nearby seagull flocks. Once neighboring plover nests were abandoned, Duplex chicks and adults moved around the beach more (usually going south towards the Sandy Nest (nest 7).

Nest 7: Sandy

Female: Bobbie

• **Band combo**: 8101-36934 O, b/O: X, b (Ydot, b501)

• Arrival and departure: 5/20-8/4

Male: Oly

• **Band combo:** 2331-95854 X, [G]: -,O (Ydot, [G368])

• Arrival and departure: 6/6-7/23

Nest found: 6/3

Hatch date: 7/1

• $X [8101-37098], G^{437}: O^{B}, G/O/G$

• X [8101-37099], G⁴³⁸: O^R, G/O/G

• X [8101-37100], G⁴³⁹: O^Y, G/O/G

Fledge date: 7/29

Exclosure Installed: 6/10

Psychological fencing installed: 6/10





Nest Overview/Site Description

Sandy was the seventh nest discovered during the 2025 plover season. This nest marked a new record number of nests for Chequamegon Point/Long Island. The nest was located on a wide sandy beach with little to no cobble and trace amounts of driftwood, hence the name. Because of this, seagulls frequented the shoreline, a likely reason for the nest being very close to the foredune.

Once all four chicks hatched, they were often seen foraging within the larger driftwood logs slightly north of the nest (higher up towards the dune). It wasn't uncommon for chicks to be foraging within the dune grass. During chick banding, the 4th Sandy chick was determined to be predated. After banding the three surviving chicks, the sandy male relentlessly chased one of the banded chicks after release. The male would attack, chase, and fly at the chick who attempted to get away. Eventually, all chicks were accepted.

Once chicks were closer to fledging, the Sandt Nest male Oly left the chicks and was seen near Plover Beach before departing. The Sandy Nest female, Bobbie, watched over the chicks until fledging.



Monitors can't be everywhere at once, and various factors can contribute to monitors observing certain nests more than others. Nests 1, 2, 3, 6, and 7 were observed the most due to proximity to the plover camp. Monitors had to walk upwards of eight miles a day when monitoring nest 4, making it impractical to check several times daily. The Mouth Nest, nest 5, was observed even less around every four days, because it was not accessible without the use of a boat.

From what was observed, the plovers seemed to have few issues with incubation. Plovers were observed swapping consistently, rarely leaving the eggs alone for long periods of time. Despite this, many of the eggs were infertile. Between all seven nests, five eggs weren't viable. Four of the nests had infertile eggs. When plovers delegate time to incubating these eggs, they often leave their successful young unguarded, leading to higher rates of chick predation.

Adult plovers were seen defending their territories from potential nest predators, other shorebird species, and other Piping Plovers. Adult plovers from nests 1, 2, 3, and 6 were occasionally observed working together to chase off other birds (mainly seagulls) from overlapping territories. Despite this, most conflicts occurred between plovers. Plover adults from nearby nests were observed chasing other adults and chicks away. Parallel walks, territorial disputes, and alarm calls occurred nonstop after chicks hatched near nests 1, 2, 3, and 6.

Overall, of the 23 eggs hatched, 12 chicks fledged, for a success rate of 42%. An improvement of 2% from the 2024 plover monitoring season. We also exceeded our fledged chick per nest goal of 1.5 fledged chicks/nest with 1.71/nest this year, also exceeding the 1.6/nest in 2024.







Gulls pressured the plovers throughout the entire monitoring season. Throughout the season, nearly 500 herring gulls/ring-billed gulls were observed semi-regularly along the beach. Seagulls were most problematic on Plover beach, where hundreds of seagulls would accumulate near and around plover exclosures. Seagulls accumulated predominantly in front of nest 1, where the beach was widest.

Monitors didn't observe what was responsible for predating the chicks; however, given past observations and the abundance of seagulls nearby, monitors assume seagulls were responsible. These predations potentially happened early in the morning, before monitors could intervene.





Two scarecrows made by monitors. The one on the left created by monitor Rowan and the one on the right by monitor Aidan

Several things deterred the seagulls from targeting newborn and adolescent plovers. Seagulls would relocate when high winds and excessive wave action hit the lakeside of Chequamegon Point/Long Island.

Scarecrows/Scaregulls created and placed by monitors also seemed to deter seagulls from bothering nests 2 and 6 later in the season. Nest 4 was also mostly unbothered by seagulls, with monitors seeing very few around the exclosure. One possible explanation was an eagle nest in a large white pine in the wood line behind nest 4. Monitors during the 2024 season noticed a possible correlation between nearby eagles scaring crowds of seagulls away from nests.

Another problem monitors faced was visitors accidentally pushing large flocks of seagulls towards nests when beaching their boats. This resulted in monitors having to chase seagulls away from active nests and chicks.

Other predatory birds like merlin and owls were also observed, but none were sighted near plover nests.

Predators Continued

The most prevalent mammal predators observed were coyotes. Coyote tracks were commonly seen in all areas near the nests; shore, cobble, foredune, dune tops and dune valleys. Their tracks were encountered daily during monitoring from beginning of the season to the end.

Bear tracks were common at the northern end of Chequamegon Point, as was bear scat. Blueberries were prevalent both at camp and further north near the lighthouses, explaining the increased black bear activity in those areas later in the season.

Monitors didn't see any of the mammal predators during day monitoring. Tracks would be encountered first thing in the morning at the wash zone near camp (coyote, skunk and/or raccoon). As we made our way to the nests, we often followed the coyote tracks which hovered along the shoreline and then populated the nesting areas in all directions.

Evidence of predation was observed throughout the season. Many bird remains, predominantly wings, were found along the beach. Later in the season a newly deceased seagull was found within one of the enclosures, this didn't correspond to any loss of ployer life. It's not definitively known what predated these birds.











Skunk tracks found near plover camp

Black bear spotted by monitor near the point

Visitation and Human Impact

Human Visitors

How do they get to the Point? All observed visitors to Chequamegon Point arrived via watercraft this year. The most popular site for anchoring was at the north end of Plover Beach and the nearby "Narrows" area directly to the north. At the Narrows, boats anchored on both the east and western shores of Chequamegon Point. There were also several visitors near nest 7.

Boats/Humans/Dogs

As one might expect, Friday, Saturday, and Sunday were the busiest days for beach and water visitors as were sunny, hot days. The 4th of July and the following two weekends saw the highest numbers of visitors for the season.

Visitors often created campfires, arranged driftwood into large piles, and even constructed fixtures using driftwood. This was most often done in the evening hours after the plover monitors had left the area, so opportunity to discourage this behavior was not available. These creations would be discovered the next morning. Abandoned campfires were often covered with sand with a vertical stick poked in the center. Imported firewood was often left charred on the beach.

Plastic, glass, fishing lures/lines/nets, cans, and other debris were collected by monitors from the beach and shoreline. Mylar balloons were the most common, found in many locations including on the beach, behind the dunes and in the tree lines. Visitors would also frequently leave/forget children's sand toys. Clothing would also frequently wash up on the beach.

Monitors also had to enforce leashed dogs, a strict rule on Chequamegon Point/Long Island. Monitors reminded visitors that dogs are required to be leashed within park boundaries and in and around the plover habitat. While visitors acknowledged the rule, many were dismissive or didn't adhere to the rule. Others promised to keep their dogs close, leashed, or on the boat. On one occasion, the monitor's leash reminder was met with hostility when a visitor parked directly in front of nest 1. Fortunately, the disgruntled visitor left after being talked to. Altogether, visitors were very respectful and adhered to the rules after being reminded. Many of the people visiting were local and knew of or were very interested in the piping plovers.

AIRCRAFT

No float planes were witnessed landing in the waters near Chequamegon Point. However, several large aircrafts flew directly over piping plover nesting areas and adjacent shorelines. Two planes, a very large military plane and a small float plane, were observed flying close to the beach. Additionally, a black privately owned helicopter was spotted flying dangerously low on three separate occasions. One of the monitors estimated the aircraft to be only 30-50 feet of the ground during the initial

observation.
While

helicopters and planes have differing minimum heights of



operation, flying that low is still illegal and dangerous behavior for monitors, visitors, plovers, and the pilot. Because of this, the eyewitness monitor worked with an FAA (Federal Aviation Administration) investigator to file a complaint.

Piping plovers can't distinguish aircraft and drones from avian predators that want to eat them or their young. Not only can they be mistaken for predators, but the loud noise can interfere with foraging, courtship, and **copulation**. At worst, low flying aircraft can cause piping plovers to abandon nests or young, greatly affecting population revival efforts. Disturbing piping plovers this way is illegal and considered harassment under the Migratory Bird Treaty Act.

(Source: https://pipingploverproject.org/tag/drones/)





Privately owned helicopter flying directly over Plover beach

HUMAN/MONITOR INTERACTION

Visitor/monitor interaction was overwhelmingly positive this season. Printed brochures were given out to those who were receptive, as well as small cards with a QR Code that when scanned would lead to www.greatlakespipingplover.org for more information. Only during the 4th of July and subsequent two weekends did individuals or families walk directly in front of the nesting sites. On these occasions, the monitor would greet and educate them on the plovers. People without prior knowledge of piping plovers were very interested in learning more or helping. During one instance, several young boys volunteered to help chase seagulls away from the nests. Monitors emphasized the endangered status and rarity of the piping plovers in the Great Lakes. When approached, monitors let visitors view the adults and chicks with specialized equipment. Visitors appreciated how special it was to be one of very few people to see piping plovers in the wild. People passing by were asked to walk in the wet zone and carefully listen for a quiet "peep-lo" or "keep-er".

Most visitors knew about the piping plover's habitat being in the local vicinity. They asked questions and were quite interested in learning more, especially how to best navigate or behave in the area while visiting. Many told us they were locals from either Ashland, Bayfield, or Odanah. Visitors who self-identified as repeat or annual visitors to Chequamegon Point would ask how many nests there were this year, how many chicks, etc. The publics continued appreciation, respect, and awareness of piping plovers is tremendously beneficial for the conservation effort.



CHICK BANDING

BIRD BANDERS:

<u>Sumner Matteson</u>, Avian Ecologist, Wisconsin Department of Natural Resources

ADDITIONAL SUPPORT:

<u>Kassandra Arts</u>, Biological Technician, Apostle Island National Lakeshore

Both plover monitors were present.

On both banding days, chicks were weighed prior to banding, and after banding were released in the direction of their parents. Parent plovers and chicks were observed until they reunited, then banders and support departed.

Six chicks were banded July 2, 2025. The chicks were located at Plover Beach, Nests 2, 4 and 5 (Dune, South beach, Mouth). Seven more chicks were banded on July 17, 2025. The second day of chick banding proved to be more of a challenge. One of the Sandy (nest 7) chicks couldn't be located and was assumed predated. The male adult also showed aggression towards one of its chicks post banding. The four Duplex chicks (nest 3) were also much older and quicker than the other chicks. This made corralling the chicks a greater challenge. This, however, proved to be no obstacle for the skilled team of support (pictured below).



The graceful release of a newly banded chick



From left to right: Kassandra Arts, Melanie Michaels, Rowan Gibson, Aidan Doherty, Sumner Matteson, Jakob Wohlford, Elouise Lozinski, and Izzy Vetterman. Photo taken by Cait Williamson

Top left to right: Sumner Matteson, Landis Ehler, Alex Juedes, Aidan Doherty, Elouise Lozinski, Rowan Gibson. **Bottom left to right:** Ed Jakaitis, Mikayla Erickson, Kassandra Arts, Izzy Vetterman, Jakob Wohlford. Photo taken by Billy Flynn

CHICK BANDING DAY

(CONTINUED)











(front to back) Jakob, Aidan, Melanie Michaels, and Rowan are releasing recently banded chicks.





Sumner Matteson (left), Kassandra Arts (middle), and Izzy Vetterman (right) recording data and banding chick

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Sumner Matteson and Kassandra Arts delicately soldering bands on plover chick

Plover banding team slowly and methodically approaching chicks from the dune for capture



ADULT BANDING

BIRD BANDERS:

<u>Stephanie Schubel</u>, Lead Plover Bander and Field Team Coordinator, University of Minnesota

ADDITIONAL SUPPORT:

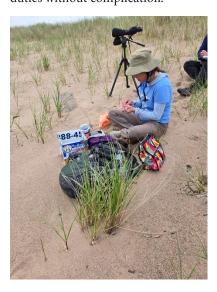
Aimee Rothschild, Field Team, University of Minnesota

Both plover monitors were present.

On both banding days, adults were weighed prior to re-banding, and after banding were released and supervised momentarily until an adult was back incubating the eggs.

Adult banding took two days to complete. During adult banding, chick bands are removed from the adult plovers and new, unique bands are soldered (this does not hurt the bird). The adults are usually given unique band color combinations that correspond with their names. For example, one adult with the combo X, L: Of, G, Y, was given the name Extra Large Guy. These individualized combinations help with monitoring on Chequamegon Point and at their wintering grounds.

This year was very successful for adult banding. Of the 13 adults needing new combinations, 8 were re-banded. The Nest 1 male and female, nest 2 female, nest 3 female, nest 4 male and female, and nest 5 male and female all had updated band combinations. The method used for capturing adults can be stressful, so monitors observed the adults closely after release to ensure incubation resumed. All adults resumed their parental duties without complication.











Stephanie Schubel handling an adult bird for banding

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OTHER WILDLIFE



BIRDS, MAMMALS, INSECTS AND MORE

Immature bald eagles were frequent visitors throughout the season, flying both over the nesting areas and perching atop dead trees near the east and west shores of Chequamegon Point. Mature bald eagles were also prevalent. One monitor even saw a "cartwheel courtship flight" or "death spiral" directly in front of the monitor camp, which resulted in one of the eagles swimming. Whitetail deer were also spotted on occasion. As has historically been the case, the deer proved to be curious about the exclosures and/or plovers as exemplified by their tracks near and around exclosures. An adult whitetail deer even ran in front of one of the monitors on their way to a plover nest.

Common mergansers were quite common in the waters along the eastern shore. Some groups were quite large, including twenty or more birds. One monitor captured a photo of a lone female carrying chicks pictured below.



Biting stable flies were incredibly prevalent and bothersome on many days of the season, especially on hot, humid days without wind. Stable flies are terrestrial and hatch from washed-up vegetation and driftwood. Both male and female stable flies bite. They made monitoring quite difficult. Stable flies will bite any open skin but tend to target legs, ankles, and wrists. Bug repellents do not deter biting flies, and they can bite through thin or tight-fitting fabrics. The best preventative option monitors found was to wear loose-fitting clothing and tall boots.





At the end of season, spotted sandpipers took up residence at Plover Beach, including adults and newly hatched chicks who foraged near the piping plovers.

Black bears were also present. Bear tracks and scat were found from camp to the northern end of Chequamegon Point. There were also several middle-of-the-night bear visits heard just outside the tent by monitors.





Migrating birds passing through filled the shoreline at the beginning of the season but soon departed. Likewise, a return near the end of July saw an uptick in shorebird species for a few days before they departed.

BIRDS

Common Name	.Scientific Name
Canada Goose	. Branta canadensis
Wood Duck	. Aix sponsa
Blue-winged Teal	. Spatula discors
Gadwall	. Mareca strepera
Mallard	. Anas platyrhynchos
Northern Pintail	. Anas acuta
Green-winged Teal	. Anas crecca
Greater/Lesser Scaup	. Aythya marila/affinis
Hooded Merganser	. Lophodytes cucullatus
Common Merganser	. Mergus merganser
Red-breasted Merganser	. Mergus serrator
Wild Turkey	. Meleagris gallopavo
Ruffed Grouse	. Bonasa umbellus
Horned Grebe	. Podiceps auritus
Mourning Dove	. Zenaida macroura
Black-billed Cuckoo	. Coccyzus erythropthalmus
Common Nighthawk	. Chordeiles minor
Chimney Swift	. Chaetura pelagica
Sandhill Crane	. Antigone canadensis
Ring-billed Gull	. Larus delawarensis
Herring Gull	. Larus argentatus
Caspian Tern	. Hydroprogne caspia
Forster's Tern	. Sterna forsteri
Common Tern	. Sterna hirundo
Common Loon	. Gavia immer
Double-crested Cormorant	. Nannopterum auritum
American White Pelican	. Pelecanus erythrorhynchos
Great Blue Heron	. Ardea herodias
Turkey Vulture	. Cathartes aura
Northern Harrier	. Circus hudsonius
Sharp-shinned Hawk	. Accipiter striatus
Bald Eagle	. Haliaeetus leucocephalus
Broad-winged Hawk	. Buteo platypterus
Belted Kingfisher	. Megaceryle alcyon
Downy Woodpecker	. Dryobates pubescens
Hairy Woodpecker	. Dryobates villosus
Pileated Woodpecker	. Dryocopus pileatus
Northern Flicker	
American Kestrel	. Falco sparverius
Merlin	

Black-bellied Plover	*
Killdeer	•
Semipalmated Plover	
Piping Plover	. Charadrius melodus
Whimbrel	
Short-billed Dowitcher	. Limnodromus griseus
Spotted Sandpiper	. Actitis macularius
Lesser Yellowlegs	. Tringa flavipes
Willet	. Tringa semipalmata
Ruddy Turnstone	. Arenaria interpres
Buff-breasted Sandpiper	. Calidris subruficollis
Sanderling	. Calidris alba
Dunlin	. Calidris alpina
Baird's Sandpiper	. Calidris bairdii
White-rumped Sandpiper	. Calidris fuscicollis
Least Sandpiper	. Calidris minutilla
Pectoral Sandpiper	. Calidris melanotos
Semipalmated Sandpiper	. Calidris pusilla
Bonaparte's Gull	. Chroicocephalus philadelphia
Franklin's Gull	. Leucophaeus pipixcan
Eastern Wood-Pewee	. Contopus virens
Alder Flycatcher	. Empidonax alnorum
Least Flycatcher	. Empidonax minimus
Eastern Phoebe	. Sayornis phoebe
Great Crested Flycatcher	. Myiarchus crinitus
Eastern Kingbird	. Tyrannus tyrannus
Yellow-throated Vireo	. Vireo flavifrons
Red-eyed Vireo	. Vireo olivaceus
Blue Jay	. Cyanocitta cristata
American Crow	. Corvus brachyrhynchos
Common Raven	. Corvus corax
Black-capped Chickadee	. Poecile atricapillus
Bank Swallow	. Riparia riparia
Tree Swallow	. Tachycineta bicolor
Barn Swallow	. Hirundo rustica
Red-breasted Nuthatch	. Sitta canadensis
Sedge Wren	. Cistothorus stellaris
Eastern Bluebird	
Veery	. Catharus fuscescens
Hermit Thrush	
American Robin	. Turdus migratorius

Cedar WaxwingBombycilla cedrorum
American Pipit
Purple Finch
White-winged CrossbillLoxia leucoptera
Pine Siskin
American GoldfinchSpinus tristis
Chipping SparrowSpizella passerina
Dark-eyed Junco
White-throated SparrowZonotrichia albicollis
Savannah Sparrow
Song SparrowMelospiza melodia
Swamp Sparrow Melospiza georgiana
Eastern TowheePipilo erythrophthalmus
Baltimore OrioleIcterus galbula
Red-winged Blackbird
Common GrackleQuiscalus quiscula
OvenbirdSeiurus aurocapilla
Northern Waterthrush
Golden-winged WarblerVermivora chrysoptera
Northern Waterthrush

Black-and-white Warbler	Mniotilta varia
Tennessee Warbler	Leiothlypis peregrina
Nashville Warbler	Leiothlypis ruficapilla
Mourning Warbler	Geothlypis philadelphia
Common Yellowthroat	Geothlypis trichas
American Redstart	Setophaga ruticilla
Cape May Warbler	Setophaga tigrina
Magnolia Warbler	Setophaga magnolia
Blackburnian Warbler	Setophaga fusca
Yellow Warbler	Setophaga petechia
Chestnut-sided Warbler	Setophaga pensylvanica
Black-throated Blue Warbler	Setophaga caerulescens
Pine Warbler	Setophaga pinus
Yellow-rumped Warbler	Setophaga coronata
Black-throated Green Warbler	Setophaga virens
Canada Warbler	Cardellina canadensis
Scarlet Tanager	Piranga olivacea
Rose-breasted Grosbeak	Pheucticus ludovicianus
Indigo Bunting	Passerina cyanea
-	•



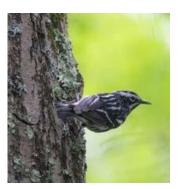
































All photos this page taken by Rowan Gibson 2024, Plover





INSECTS

	0.1
Common Name	
Sand Chafer	Strigoderma arbicola
White-collared Chafer	Dichelonyx albicollis
European Chafer	Amphimallon majale
Seven-spotted Lady Beetle	Coccinella septempunctata
Bigeminate Sigil Lady Beetle	Hyperaspis bigeminata
Eye-spotted Lady Beetle	Anatis mali
Chinch-bug Hairy-necked Tiger Beetle	Blissus leucopterus
Hairy-necked Tiger Beetle	Cicindela nirticollis
Six-spotted Tiger Beetle	Cicindela sexguttata
Oblique-lined Tiger Beetle	Cicindela tranquebarica
Ant-like Longhorn Beetle	Cyrtopnorus verrucosus
Spotted Cucumber Beetle	Diabrotica unaecimpunctata
Baly's Earth-boring Beetle	Geotrupes valyl
Three-lined Hoplia	
Black Firefly	
Tumbling Ragdoll Part of Part of	
Fan-shaped Fire-colored Beetle	Пеоругосигоа навената
Green Immigrant Leaf Weevil	Polyarusus formosus
Rain Beetle	Pterosticnus meianarius
Red Triangle Long-horned Beetle	e.Purpuricenus numeraus
Bee-mimic Beetle	Tricniotinus assimilis
Red-blue Checkered Beetle	
Thin-tailed Long-horned Beetle	I ypocerus acuticauaa
Banded Longhorn Beetle	1 ypocerus veiutinus
Roughened Darkling Beetle	Upis ceramboides
Rove Beetle	Xantnounus sp.
Yellow-spotted Webworm Moth.	Anageshna primordialis
Spongy Moth	Lymantria dispar
X7' ' - T' X - d	Macaria sp.
Virgin Tiger Moth	Apantesis virgo
	Caenurgina sp.
Arctic Skipper	Carterocephalus mandan
Northern Pearly-eye	Lethe anthedon
European Skipper	I hymelicus lineola
Monarch	Danaus piexippus
Viceroy	Limenitis arcnippus
	Opnioninae
Eastern Calligrapher	I oxomerus geminatus
Half-black Bumble Bee	
Yellow-banded Bumble Bee	
	Ectemnius sp.
Mining Bee	Anarena sp.
	Pyrobombus sp.
	Pandivirilia sp.
o. II El /o. IEl /D.: El	Therevinae sp.
Stable Fly/Sand Fly/Biting Fly	
Common Snipe Fly	Rhagio mystaceus
37 1 1 136 1 71	Nephrotoma wulpiana
Narrow-headed Marsh Fly	Helophilus fasciatus
Common Drone Fly	
Wandering Deer Fly	
Frigid Deer Fly	Chrysops frigidus
	Mesembrina latreillii
Unadorned Bog Fly	Parhelophilus obsoletus
Narrow-banded Pond Fly	
Thick-headed fly	
Racket-tailed Emerald	Dorocordulia libera
Giant Mayfly	Hexagenia sp.
Common Marauder	
Say's Cicada	Okanagana rimosa



















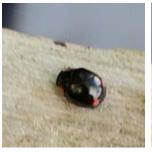














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OTHER WILDLIFE

(CONTINUED)

















ARACHNIDS

Common Name	Scientific Name
American Dog Tick	Dermacentor variabilis
Eastern Black-legged Tick	Ixodes scapularis
Versicolor Long-jawed Orbweaver	Tetragnatha versicolor
	Habronattus cognatus
Arabesque Orbweaver	Neoscona arabesca
Goldenrod Crab Spider	Misumena vatia
Multicolored Bark Crab Spider	Bassaniana versicolor
Harvestmen sp	Opiliones sp.

OTHER ARTHROPODS

Common Name	Scientific Name
(Centipede)	Strigamia sp.
(Plankton)	Holopedium gibberum

REPTILES AND AMPHIBIANS

Common Name	.Scientific Name
Gray Treefrog	. Hyla Versicolor
Green Frog	. Lithobates clamitans
Mink Frog	Lithobates septentrionalis
Common Garter Snake	Amnophis sirtalis
Snapping Turtle	. Chelydra serpentina

FISH

Common Name	Scientific Name
Spottail Shiner	. Hudsonius hudsonius

MAMMALS

Common Name	Scientic Name
Shrew sp	Soricidae
Gray Squirrel	Sciurus carolinensis
Red Squirrel	Tamiasciurus hudsonicus
Black Bear	Ursus americanus
Coyote	Canis latrans
White-tailed Deer	Odocoileus viroinianus





PLANTS

PLANTS	
Common Name	
common yarrow	
Serviceberry	
pearly everlasting	Anaphalis margaritacea
Lyreleaf Rockcress	Arabidopsis lyrata
bearberry	Arctostaphylos uva-ursi
Field Sagewort	Artemisia campestris
American marram grass	Calamagrostis breviligulata
Marsh Calla	Calla palustris
fireweed	Chamaenerion angustifolium
bastard toadflax	Comandra umbellata
marsh cinquefoil	Comarum palustre
Canadian bunchberry	
red osier dogwood	Cornus sericea
pink lady's slipper	
wood fern	
trailing arbutus	, ,
field horsetail	
Virginia strawberry	-
Eastern Teaberry	
Black Huckleberry	
woolly beachheather	
Baltic Rush	
common juniper	
Swamp Laurel	
seaside pea	
Balkan toadflax	
stag's-horn clubmoss	
northern starflower	
Tufted Loosestrife	•
Canada mayflower	
narrowleaf cow wheat	
evening primrose	
Hawkweed	
sand cherry	
common bracken	
Bog Labrador Tea	
Rose sp	
Sheep's sorrel	
common soapwort	
purple pitcher plant	
Marsh Skullcap	
interrupted clubmoss	
white meadowsweet	-
marsh hedge nettle	•
common dandelion	
western poison ivy	
lowbush blueberry	
10 wousti biucocity	v accinium angustijottum

FUNGI AND LICHEN

Common Name	.Scientific Name
Chicken of the Woods	. Laetiporus sulphureus
British Soldier Lichen	. Cladonia cristatella







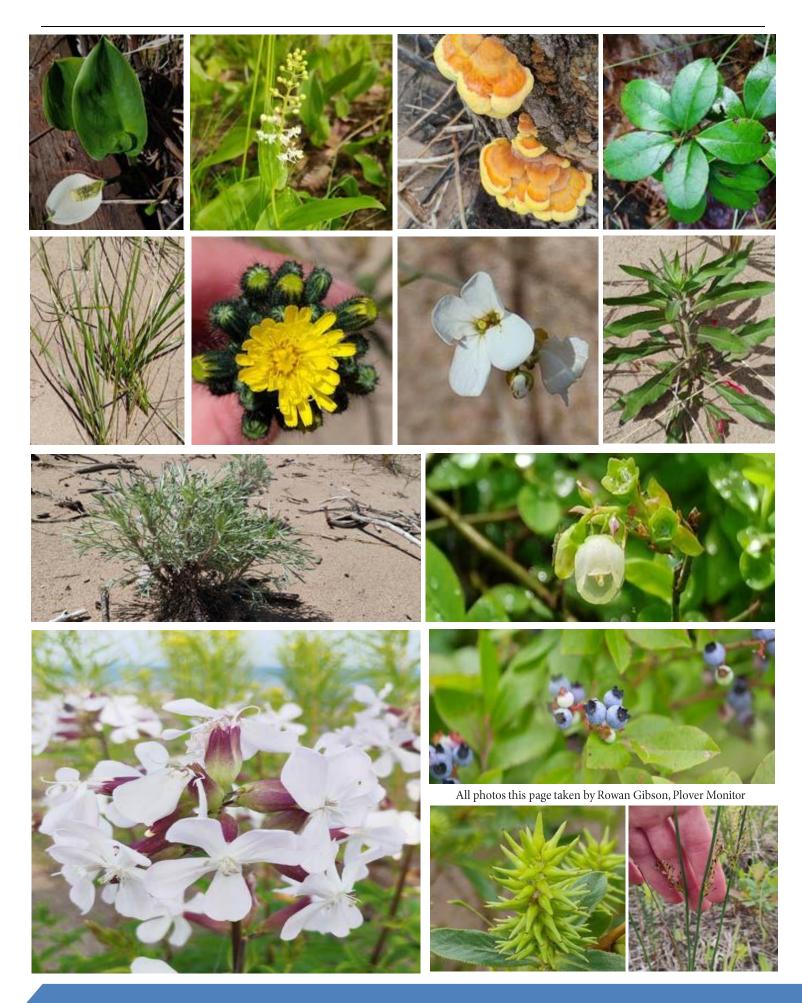












WEATHER

SUF	RVEY PERIOD	MAX. TEMP	MIN. TEMP.	AVG. TEMP. INCLUDES OVER NIGHT TEMPS	MEAN AVG. TEMP. NORMAL	TOTAL DAYS OF PRECIP.	SUM PRECIP.	NORMAL PRECIP. TOTAL	GUST MAX
May	Nest building and incubating	89 °F	25 °F	52.0 °F	51.5° F	3	0.55"	3.45"	45 mph
Jun	Incubating and hatching	90 °F	32 °F	61.5 °F	61.0 °F	12	2.78"	3.92"	41 mph
Jul	Fledging and departing	91 °F	43 °F	66.3 °F	66.7 °F	9	5.27"	3.93"	52 mph
Aug (6 days)	Fledging and departing	87 °F	35 °F	64.8 °F	65.1 °F	3	1.81"	3.44"	40 mph

 $Historical\ we ather\ data\ sourced\ from\ we ather\ gov\ and\ wunder ground. com$

The plover season got wet in June and July. Between both months, there was a total of 21 days of precipitation or wet days. A wet day is classified as any day with a liquid-equivalent of 0.04 inches of precipitation. Chequamegon Point/Long Island saw the most precipitation in July, however, chances of a wet day also rapidly decreased from July to August. June and July had several large storms with strong winds. The combination of precipitation, gusts, and wave action resulted in significant damage to the psychological fencing. Many of the signposts were snapped in half, buried, or bent at a 90° angle. Monitors promptly fixed all damage. One intense storm in July washed away a steel scarecrow between nest 2 and 6. Another storm weeks later deposited it near the monitor camp 1.4 miles from its original location.

The weather did, however, cause difficulties for monitors. In addition to fence repairs, late season storms made inconvenient altercations to the beach. Several lengths of shoreline that were easily traversed early in the season disappeared or were obstructed by fallen trees and driftwood logs. There were also several occasions when monitors had to be removed from Chequamegon Point/ Long Island early due to the threat of storms.

Despite the intensity and frequency of storms, the plovers endured. No nests were lost to flooding and none of the damage was consequential. While severe storms may be stressful for incubating adults, weather did not drastically impact hatch or mortality rates.



A foggy morning at plover beach which hindered observational capabilities



Intense waves and fog before a storm

GLOSSARY

CANDLED-A method used for testing an eggs viability

COBBLE PAN-The strip of beach parallel to the shore where cobblestones (naturally rounded rock) have been most densely deposited by the tide.

COPULATION-The male hops onto the female's back and balances there kneading her with his feet. At the correct moment he transfers his sperm into her cloaca, the male tucks his tail under hers and then dismounts. He sometimes holds on to her neck feathers with his bill for a short time

FLEDGE - The point reached in a juvenile plover's life when its flight feather growth allows for the ability to fly

FLIGHT DISPLAY-The male circles over his territory with stiff, deep wing beats peeping constantly. Males usually do flight displays in response to other males intruding on their territory or to females they are trying to attract.

FOREDUNE -The dune ridge in a system of dunes that is closest to the shoreline.

INTERSPECIFIC COMPETITION-Competition for limited resources by members of the same species

PARALLEL WALK-One territorial display is the parallel walk. (Photo #2, Back Cover) Two plovers, or sometimes more, with adjoining territories, walk side-by-side along the territorial boundary. They take turns running ahead, pecking and bobbing

PSYCOLOGICAL FENCING- A protective perimeter installed around active nest sites to limit public disturbance. It consists primarily of a set of posts and signs joined by a length of twine or string.

TERRITORIAL DISPUTES-Both males and females can be involved in territory defense. They puff up their back feathers and charge at each other with lowered heads. Sometimes they even jump on each other and tussle on the beach. There will be a lot of peeping during a dispute.

TREE LINE -The belt where the dune system transitions into forest habitat; the edge of the dunes where trees begin to grow

WASH ZONE -The region of the shoreline within which waves break.



Special Thanks

This report represents the effort of a far larger team. First and foremost, thank you to **Jakob Wohlford** and **Elouise Lozinski** for your leadership, mentorship and logistical support throughout the season. The appreciation for each early morning boat ride and late-night security check-in cannot be understated. The passed-down knowledge and experience of piping plovers and Chequamegon Point was extremely valuable and beneficial this monitoring season. We also acknowledge all the behind-the-scenes work and responsibilities, allowing us to concentrate on the birds.

Our thanks to the Mashkiiziibii Natural Resources Department: Jacob Rodmaker, Nick Blanchard, and Mark Arbuckle for the outside help setting up psychological fencing and transportation to and from camp when needed. Extra special thanks to Jakob Wohlford, and Elouise Lozinski, for all your work to monitor and support Mashkiiziibii Nest (nest #4) at the mouth of the Bad River. Because we (the monitors) could only visit the nest while transporting by boat to/from Chequamegon Point, that area needed additional support. Our immense gratitude for your dedication to the additional duties and responsibility. The success of that nest reflects all your care.

Thanks to **Sumner Matteson** for leadership and experienced banding on both banding days, as well as your tremendous avian expertise which you so encouragingly shared all through the season. Your positive attitude and humor will always be appreciated.

Thank you to **Stephanie Schubel** for your leadership and expertise this season along with your banding of our adult plovers.

Our thanks to now retired National Park Service staff: **Peggy Burkman** for early training in May and introducing us to the rest of the supportive staff of the National Park Service serving the Apostle Islands National Lakeshore in Bayfield, WI. Thank you to the rest of the APIS staff for all your assistance on the banding days, we salute **Izzy**, **Kasey**, **Melanie**, **Landis**, **Alex**, **Ed**, **and Billy Flynn**.

Thank you to **Jade Arneson** of US Fish and Wildlife for your guidance and instruction throughout the season with weekly meetings keeping the team informed and prepared.

Finally, recognition and praise to our partner organizations: the Mashkiiziibii Tribe, the National Park Service, U.S. Fish & Wildlife Service, Mashkiiziibii Natural Resources Department, Wisconsin Department of Natural Resources, The Nature Conservancy, the Johnson Family, and the WISKERT Corporation for your dedication to the conservation of Chequamegon Point piping plovers on Lake Superior of the Great Lakes. Together, progress is being made with the hope that generations to come will be able to be as enchanted by these amazing birds as we were this summer. Thank you all!









