

# Sharing the Shoreline

## 2023 John Martin Reservoir Piping Plover and Interior Least Tern Newsletter



**US Army Corps  
of Engineers®**

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## The Year in Review

Although the 2022 season was a challenging season for John Martin Reservoir's plovers and terns, there were some wins. The U.S. Army Corps of Engineers (USACE) continued working with Colorado Parks and Wildlife (CPW) and the U.S. Geological Survey (USGS) to monitor and protect the birds.

Continue reading for highlights and successes from this past season, new hall of fame records, and facts about these birds and John Martin's monitoring program!

## 2022 Nesting Season

Most of the nests we found in 2022 were plover nests, but only a few were successful. Despite the best efforts of USACE and CPW, many nests failed to hatch, and at least one plover was killed by a hailstorm. Though there were fewer terns nests, approximately one-third were successful.

Twenty-two banded plovers returned to John Martin in 2022. Of these, four hatched at John Martin in 2021 and were banded as juveniles (E11, E12, E14, and E18). Three of these birds did not breed. A member of last year's Lonely Hearts Club, F90, did not find a mate in 2021 but paired up with E18 in 2022 and attempted to raise a brood. The oldest bird to return to John Martin was F74, who was banded as an adult in 2017 and is at least 6 years old. To determine survival and return rates of young birds, USGS ecologists banded one plover chick and one tern chick with unique alphanumeric bands.



*F70 makes sure the eggs stay warm.*



*A tern egg is hidden among rocks.*



*USGS ecologist Dustin Toy fits a tern chick with bands.*



## 2022 Accomplishments

Both birds prefer nesting in open habitat, and excess vegetation not only reduces the number of places they can nest, but also provides cover for predators such as coyotes and skunks. In early 2022, USACE Rangers, CPW staff, and local volunteers improved plover and tern nesting habitat by removing invasive tamarisk and other vegetation from the South Shore. Over a two-day period, over 5,000 pounds of vegetation were cut and woodchipped (Figs. 1–3). This ensured that the birds had lots of high-quality habitat where they could raise their young.

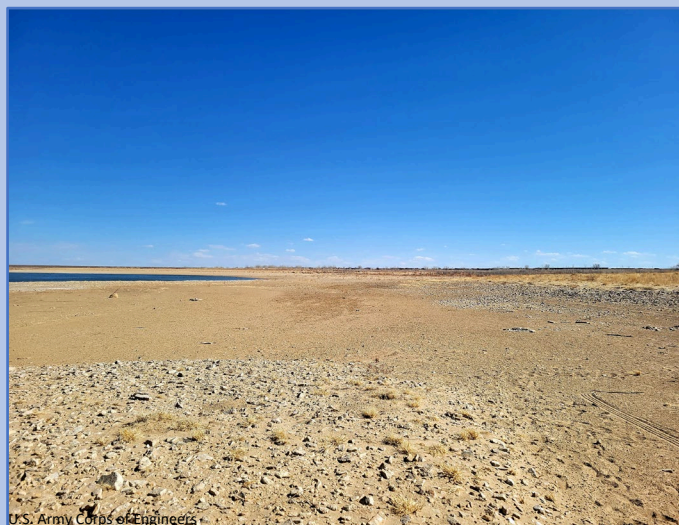
Additionally, USACE Rangers gave virtual presentations to the Aiken and Weminuche Audubon Societies. Members of these groups learned about plover and tern biology, the threats they face, and John Martin’s monitoring program.



**Figure 1.** Sawyers cut and stack vegetation for later woodchipping.



**Figure 2.** USACE Rangers return and chip the cut limbs.



**Figure 3.** The improved South Shore is ready for plovers and terns!

## Secretive Shorebirds

Plovers, terns, and their eggs and chicks are notoriously difficult to find, even for experienced bird monitors. Because visitors can accidentally step on egg and chicks, USACE and CPW mark nesting areas with T-posts, signs, and brightly colored twine. These sites are closed to the public and allow the birds a safe place to raise their chicks.

Using the photos below, test your skills in finding the plovers and terns in this interactive game! Answers are at the bottom of the page.

A. How many plovers are in this photo?



B. How many terns are in this photo?



A. 3 plovers B. 2 terns



# John Martin Reservoir Hall of Fame

John Martin is home to some awesome birds! Below are some of the records from the past 6 seasons. Alphanumeric codes refer to individual birds.

## A New Hope

### **Tern B5**

With no tern chicks hatched in 2021, Tern B5 represents renewed promise for John Martin's Least Terns.



*B5 shows off its new bands.*

## Old but Gold

### **Plover F74**

F74 was banded as an adult in 2017 and returned to nest in 2022, making them at least 6 years old! For reference, the oldest recorded Piping Plover was at least 16 years old.



*F74 takes a break from incubating the eggs.*

## In Memory

### **Plover F89**

Nested 2018–2022 and died trying to protect their eggs during a hailstorm.

*F89 was a least 5 years old and always very curious about bird monitors.*



## Stronger Together

### **Plovers F82 & F55, F70 & F57, and F40 & F37**

Paired up in 2021 and remained together in 2022.

## Lifetime Achievement Award

### **Plover F82**

First banded as an adult in 2018, F82 has returned to nest at John Martin every year since and has tried nesting 9 times! Of these attempts, ~45% successfully produced chicks.



*F82 and F55 search for the perfect spot to raise chicks.*

# All About Plovers and Terns

## What Are Piping Plovers and Interior Least Terns?

Piping Plovers (*Charadrius melodus*) and Interior Least Terns (*Sterna antillarum athalassos*) are small, migratory shorebirds. Every spring they travel hundreds of miles to their breeding grounds. One of the places they choose to raise their chicks is John Martin Reservoir.

Adult plovers (**Fig. 4**, top left) have a sandy-colored back, white belly, black collar and “unibrow,” orange and black bill, and orange legs. Juveniles (**Fig. 4**, top right) appear similar to adults but lack the collar and unibrow and have an all-black bill.

Adult terns (**Fig. 4**, bottom left) have black heads with a white triangle on the forehead, grey backs, and yellow bills and legs. Young birds (**Fig. 4**, bottom right) have black bills and a black smudge behind their eye.

## When Are They Here?

Plovers and terns leave their wintering grounds and travel hundreds of miles to southeastern Colorado. While plovers arrive in mid-April, terns show up in May. The birds leave us at the end of August and spend their winter along the Atlantic Coast of North and South America, as well as in the Bahamas and Caribbean Islands.

## Why Are They Important?

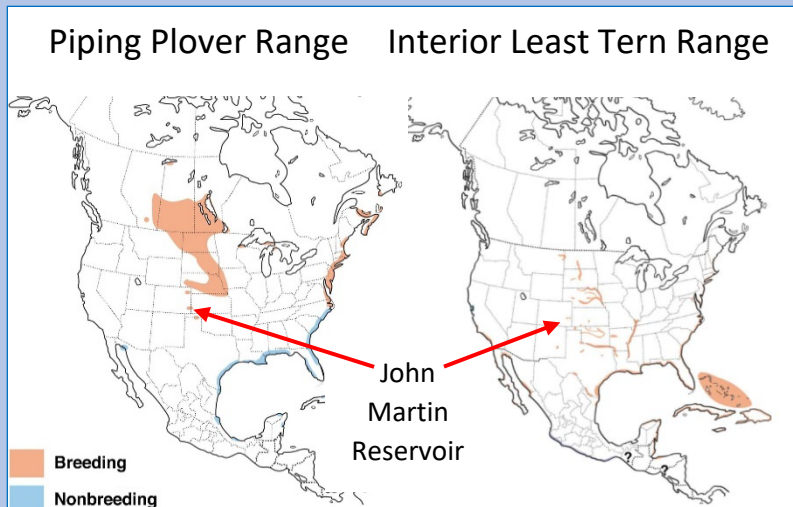
Both species have seen population declines in recent decades, due in large part to habitat loss. Additionally, the populations at John Martin Reservoir are small and isolated (**Fig. 5**). Piping Plovers are federally threatened, whereas Interior Least Terns are classified as endangered by the state of Colorado.



**Figure 4.** Adult (top left) and juvenile (top right) Piping Plovers. Adult (bottom left) and juvenile (bottom right) Interior Least Terns.

## Did you know?

Males and females of both species play an active role in parenting. They take turns keeping eggs warm and chicks fed.



**Figure 5.** The ranges of Piping Plovers and Interior Least Terns in North America. The John Martin Reservoir populations are indicated by the red arrows. Maps courtesy of the Cornell Lab of Ornithology.



## What Is The U.S. Army Corps of Engineers Doing to Help?

John Martin Reservoir is managed by the U.S. Army Corps of Engineers (USACE), who manage the dam to minimize flood risks, conserve water, protect natural resources, and offer recreation opportunities. We partner with CPW to protect the birds at the reservoir, improve nesting habitat by removing invasive tamarisk from the shoreline (**Fig. 6**), temporarily close nesting areas. Rangers monitor the birds and record nesting data. We also educate the public about plovers and terns. Additionally, we continued our partnership with the USGS to band the birds. Banding allows us to identify individuals to estimate chick and adult survival, as well as track migration.

## How Can I help?

The easiest and best thing to do is to stay away from nesting sites. Plovers and terns are very wary of intruders. When people/predators enter their habitat, they feel they have no choice but to flee, leaving their eggs and chicks unprotected. Eggs and chicks are also very hard to see (**Fig. 7**) and can be accidentally crushed. Nest sites are marked by signs and brightly colored twine (**Fig. 8**). Please visit the John Martin Reservoir Facebook page and the South Shore kiosk for the most recent closures. It's also important to pick up litter and throw it away in a trash can. Leftover trash can attract predators, harm wildlife, and potentially injure visitors. If you're fishing, avoid landing in closures and bring all your lines and hooks home with you. Keep your pets leashed; even a well-behaved dog looks like a predator to a nesting bird.

Lastly, help us protect these birds by spreading the word about plovers and terns! Talk to other visitors about what you've learned and follow us on Facebook for future updates.

## What if I Have Questions?

USACE Rangers are happy to answer any questions you have. See the next page of this newsletter for our contact information.



**Figure 6.** A USACE Ranger removes tamarisk from the South Shore.



**Figure 7.** Eggs are camouflaged and hard to see. Can you find the plover nest in this picture?



**Figure 8.** A sign marking where birds nested in 2022.

## Found a Dead Bird?

Please contact us immediately (see below) if you find a dead plover or tern. Take a picture and let us know where the bird is. This information is very important and helps us immensely.

## Please Let Us Know

If you see someone in a closed area, please let us (number below) or CPW know (John Martin State Park Office (719) 829-1801). A Park Ranger will go and explain why the area is closed.

## Contact Information

US Army Corps of Engineers-John Martin  
Reservoir  
29955 CR 25.75  
Hasty, CO 81044

**Office:** (719) 336-3476

**Website:**

[www.spa.usace.army.mil/Missions/Civil-Works/Recreation/John-Martin-Reservoir/](http://www.spa.usace.army.mil/Missions/Civil-Works/Recreation/John-Martin-Reservoir/)

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**Facebook:** [@USACE John Martin Reservoir](https://www.facebook.com/USACEJohnMartinReservoir)

