

The story of Solo the Turnbull National Wildlife Refuge Male Swan

(taken from Turnbull NWR website):

https://www.fws.gov/refuge/Turnbull/Wildlife_and_Habitat/Trumpeter_Swan.html

Photographs by Carlene Hardt



Trumpeter Swan Restoration on Turnbull NWR

By the late 1950's trumpeter swans were nearly extinct in the lower 48 states as a result of overhunting and loss of habitat. The largest remaining population of nesting birds occurred on Red Rock Lakes National Wildlife Refuge in Montana.

Birds from this flock were relocated to several areas in the west that historically supported swans. Turnbull National Wildlife Refuge was one of the reintroduction sites for trumpeter swans in the 1960's. From the original introduction of 33 cygnets that took place over 3 years (1963, 1965, and 1966), the refuge population stayed relatively stable through 1976 with spring populations between 27 and 29 birds. Nesting peaked in 1970 with 8 nests. This is the first year that all introduced birds reached breeding age. Peak recruitment occurred in 1975 with 14 cygnets fledged. It was the belief of Jim Reese, refuge biologist in the late seventies, that none of the swans hatched on the refuge returned to breed and that all breeding that occurred was accomplished by the original introduced cygnets.

In 1976, the supplemental feeding and pond aeration program that began in 1968 was discontinued. This program had effectively created a resident flock with no migration behavior. The resulting dispersal of individuals that first winter and a severe drought the following year, resulted in a precipitous decline in the refuge population indicating that wintering habitat in the area is severely limiting. Several birds, mostly juveniles, failed to return at all and were never accounted for by band returns or other observation. Major causes of mortality were shooting, power line collisions, and predation.

Restoration a Failure?



Above: *one male swan, nicknamed “Solo” was the last remaining swan at Turnbull NWR by 1980.*

By 1980, the refuge population was down to one active breeding pair. Following the predation of the last breeding female by a coyote in 1988, the refuge trumpeter swan population was reduced to a single adult male (later to become known by the nickname “Solo”).

The Story of Solo:

For the next 21 years this male spent most of his days alone. In 1992, an unmarked adult trumpeter swan was seen with the male throughout the nesting season. Both the male and the new swan were captured in 1993 and marked with neck collars. The new swan was found to be a female bird at least 3 years old. She remained with the male for 2 years. They built a nest platform but laid no eggs. Following her disappearance in 1994, the refuge received no reports of her whereabouts. From that time there have been on occasion 1 to 2 unmarked trumpeter swans

and an occasional family group that have come to the refuge in fall and spring and have stayed in the company of the single male for up to 2 months, but invariably they leave to continue their migration.



The male was a year-round resident that was on the refuge as long as there was open water. His location during freeze up was unknown, but it was likely close, since he returned almost within the day when a thaw opened up the ponds in his territory. Inquiries of local birders found that a marked swan had been observed on a few occasions at the mouth of the Little Spokane River approximately 20 miles as the swan flies northeast of the Refuge.

A New Beginning

In 2009, the male swan, dubbed Solo by the local press, returned on February 27. About 3 weeks later another swan was observed in his company. They were constant companions throughout the spring, spending time on Winslow Pool, and Pine and Cheever Lakes below headquarters. On May 20, 2009, both swans were observed in the north end of Cheever Lake. One of the pair appeared to be on a platform of hardstem bulrush.

Over the course of the next several weeks the pair was only seen in close proximity to the possible nest and one swan was seen frequently on the platform. On June 22, the swan pair was observed near the nest site. Observation resulted in a glimpse of a cygnet, then 3 more. Since the pair was observed on June 19 and the pen was still on the nest on that date, it is likely they were hatched some time over the Father's Day weekend.

Solo was first captured and banded in 1984 at which time it was determined he was at least 4 years old. He did not have any older markings or bands on him at the time of capture.

Based on the banding data we can safely say he was at least 29 years old when he again became a father. Because we believe that he was part of a breeding pair that used the same wetland since 1980, and swans do not breed until they are on average 4 years old, we can refine this estimate and say that **he was at least 34 years old in 2009.**

If Reese was correct, that only the original relocated cygnets stayed to nest on the refuge, **it is possible that this male is one of the original cygnets which would make him 44 – 47 years old.** Since most swans live until they are 20-30 years old, he was likely breaking some longevity records. This unlikely pairing garnered national media attention, based on articles written by outdoor writer Rich Landers of the Spokesman Review.

Solo, his mate and the new cygnets were seen throughout the summer and fall of 2009 only leaving the refuge during freeze up but returning with 3 cygnets in January 2010 (below).



After chasing off the 2009 cygnets, Solo and his mate nested again on Cheever Lake. They successfully hatched 5 eggs and reared all of these cygnets to flight age (below).



Solo's Last Days

Solo, the last member of the Turnbull NWR Restoration Flock, went missing in late January 2011. Solo, his mate and his 5 cygnets from 2010 left the refuge shortly after Thanksgiving when all of the lakes and ponds had frozen. A few sightings of a group of 10 trumpeters, we believe were Solo's 2010 family and the 3 cygnets from 2009, were reported during December on Williams and Badger Lakes south of the Refuge.

On January 3, we received a report of 10 swans on Badger Lake and one of them appeared to be sick since it would not fly off with the others. Refuge staff went to the lake the next day and found the lone swan near the shore. He was captured on the ice. It appeared to have symptoms associated with lead poisoning. We brought him to a veterinarian in Spokane and later transferred it to the Wildlife Veterinarian at Washington State University where he passed away on January 16. **A necropsy performed by pathologist at the university found that he had died from complications associated with chronic lead poisoning.**

Lead poisoning is actually fairly common amongst some populations of swans where there is an accumulation of spent lead shot from past hunting or lead sinkers from fishing. Swans pick up the lead as grit while feeding to help grind food in their gizzard. Swans in the Coeur D'Alene Basin have also been poisoned from lead in sediments from mining activity in the Silver Valley.

Solo's Legacy

As spring 2011 advanced a group of swans consisting of single adult and 4 cygnets was repeatedly observed on the refuge. This group likely represented Solo's mate and 4 of the 5 cygnets from 2010. We saw a variety of trumpeter swans that spring on and near the refuge.

Besides the 2010 family group of 5 and the 3 cygnets from 2009, we saw a pair with 1 cygnet, several single swans, and groups both on the refuge and wetlands in the near vicinity including Philleo Lake and flooded pastures on private land. This trend in greater trumpeter swan numbers has been observed over the past few years and appears to coincide with observed increases in trumpeter swan populations in North America. In the spring of 2012, several trumpeters were observed from January through March. Some of the observations based on groupings appeared to represent members of Solo and his mate's 2009 and 2010 broods.

So, what does the future hold for trumpeter swans at Turnbull NWR?

We still have a breeding age female (Solo's widow). Early in 2012 she was seen in the company of another adult male. On May 5, 2012 a local photographer reported seeing a pair of swans building a nest in Middle Pine. This pair could only be Solo's widow and a breeding age Trumpeter swan that was passing through the refuge. Eggs were observed in the nest on June 12. On June 20, 2012 newly hatched cygnets were observed at the nest. Eventually 5 cygnets were observed with the new pair. One cygnet disappeared within the first few weeks and another was found dead on an island in Middle Pine Lake in early October. Eventually, 2 cygnets made it to flight age that fall.

Beginning in December 2012 a group of 14 trumpeters were repeatedly observed on the refuge through February of 2013. This group included 4 cygnets. This group likely represents in-part the Turnbull flock. In March several observations were made of adult trumpeters in pairs including one pair with 2 cygnets.

Solo's 3 cygnets from 2009 and the 4 from 2010 will reach breeding age in 2013 and 2014, respectively. Any of the swans we have been seeing the past few spring could be potential partners for Solo's off spring.



Although the news of Solo's death was sad, and we will miss his early morning trumpeting call, he opened the door for the restoration of trumpeters at Turnbull with his efforts those past 2 years.

Left: 2017 Family of 6 swans at Cheever Lake, Turnbull, NWR.