

Trumpeter Swan Populations: Challenges and Success

By Bo Crees



Photo by Bob Martinka

Twenty-some years ago I visited Yellowstone National Park for the first time. I remember driving through Hayden Valley and being in complete awe of the large Bison herds. I was so excited to see massive bull bison for the first time in my life and stopped at every pulloff to photograph and admire these epic symbols of the American West. At one pulloff I saw an interpretive ranger with a spotting scope aimed towards the Yellowstone River. There were no bison in that direction, so I assumed she had a bear in the scope. As I approached, the ranger smiled and said “take a look!” without telling me what she was watching. I peered through the scope and instead of the large grizzly I was hoping for, I saw two white swans. This was a few years before I discovered how wonderful birds are and I suspect she noticed my disappointment. She told me they were Trumpeter Swans, and they were rare or uncommon, and something about conservation efforts, and... a large bison was crossing the road, so I tuned out everything else she was excited to share. The one thing that stuck with me from that interaction is that apparently there was something special about this species. It was nearly a decade later when I finally came back around to learn about and appreciate this magnificent, embattled, and vulnerable species, the largest North American waterfowl and heaviest bird on the continent.

Endemic to North America, Trumpeter Swan males in Montana commonly weigh 25-30 lbs (females being a bit smaller) and have a 7-8 foot wingspan. Some individuals in Alaska weigh around 32 lbs and are amongst the heaviest flying birds in the world. Trumpeters can weigh twice as much as Tundra Swans, our only other native swan species. Adult plumage is entirely white, but is often stained rufous by the water and mud they forage in.

Trumpeter Swan juveniles are usually brownish, and cygnets are usually light gray. This species is very long-lived, with some individuals reaching 29 years of age in the wild. Trumpeters typically begin breeding at age 4-7, and if paired, will attempt to breed every year as long as adequate nutritional and habitat conditions are met.

In centuries past, Trumpeter Swans were abundant and widespread across much of the continent. As early settlers expanded westward in the 1700s and 1800s, harvest for subsistence and the commercial swan-skin market, coupled with wetland drainage, led to a rapid decline in swan populations. By 1900 Trumpeter Swans were nearly extinct, and the only surviving breeding group in the lower 48 states was in the Greater Yellowstone area. There, like bison, Trumpeter Swans were relatively safe due to the remoteness of the region and they survived in isolated locations where hot spring runoff kept water from freezing during the winter.



Trumpeter Swan pair. Photo by Bob Martinka

By 1933 things looked bleak with only about 70 year-round resident Trumpeters remaining in the entire contiguous U.S. (they were joined by a similar number of migrant swans from Canadian nesting grounds every winter). The U.S. government recognized the severity of the situation, and in 1935 Red Rock Lakes National Wildlife Refuge was established to protect Trumpeter Swan habitat and actively manage the population. Conservation efforts in the Greater Yellowstone area and other parts of the Northern Rockies eventually included land acquisition, winter feeding, protection from illegal shooting, closed hunting seasons, public education, translocation efforts and release of swans reared in captivity. These efforts proved effective, and by the 1950s the contiguous U.S. population increased to more than 500 birds. Still, many areas in western Montana that historically sustained Trumpeter Swans and had quality breeding habitat were not naturally re-populated.

For the last several decades, three regional management groups have been recognized by the U.S. Fish and Wildlife Service. Trumpeters that breed in Montana and reside in the state year-round are a small but important part the Rocky Mountain Population, which is made up mostly of birds that breed in Canada and winter in or migrate through Montana (the other two management groups are the Pacific Coast Population- largest of the three- and the Interior Population) In order to bolster populations of breeding Trumpeters in Montana and bring the swans back to where they ranged historically, reintroduction efforts have occurred or are ongoing in several western Montana valleys.

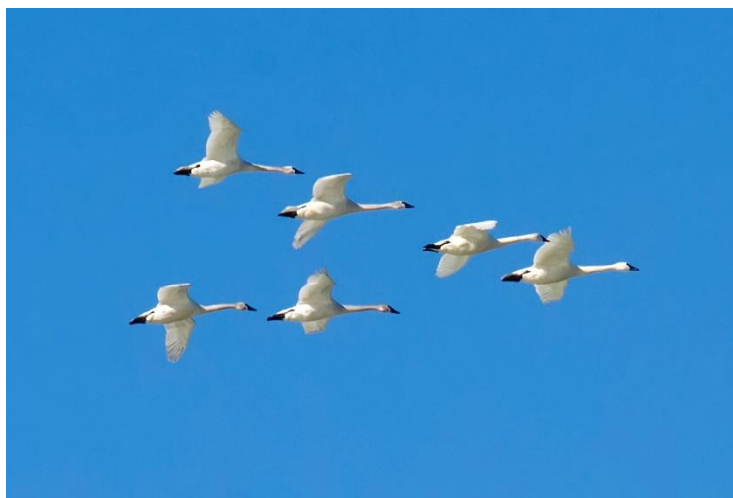
Trumpeters were reintroduced to the Blackfoot Valley starting in 2006 with the release of swans from a captive facility in Jackson, WY. In the last 15 years the Fish and Wildlife Service, along with a number of partners, have released 250 Trumpeter Swans in the Blackfoot Valley, and in 2020 five pairs were successful at rearing 20 cygnets to fledging. Reintroductions in the Madison Valley began in 2012 on O'dell Creek, south of Ennis, and a small number of individuals have been released there every year since. Trumpeters were reintroduced to the Flathead Indian Reservation in 1996 and 1998, and then again from 2002-2007. The reintroduction efforts briefly mentioned above and several others in western Montana have all had some success but also experienced setbacks. Some programs suffered from high swan mortality rates, mainly due to collisions with powerlines. In addition, it was not uncommon for Trumpeters that left their reintroduction sites to not return the following year for unknown reasons. Still, with high public interest and support, we will hopefully continue with at least some of these restoration programs to maintain and grow our breeding Trumpeter populations.



Trumpeter Swan in O'dell Creek, Madison Valley. Photo by Tricia Rodriguez

As a result of conservation efforts throughout the United States and Canada, the overall Rocky Mountain Population- along with the Pacific Coast and Interior populations- is doing very well. There are now more than 60,000 Trumpeters across the continent, including more than 11,700 in the Rocky Mountain Population. But, while it is wonderful to know that Trumpeters have recovered from the brink of extinction, there are still concerns that must be kept in consideration for the small subpopulation of Trumpeters that breed in our state.

The swans that stay with us year-round and breed in Montana contribute to the larger Rocky Mountain Population, that is made up mainly of Trumpeter Swans breeding in Canada. Less than 400 individuals were counted in Montana in 2016, a number that includes the Centennial Valley population and the Madison, Paradise, Blackfoot, and Flathead Valley reintroduction flocks. Unlike the large Canadian subpopulation, the rate of growth for swans breeding here- both native and reintroduced- has remained fairly stagnant.



Trumpeter Swans in flight. Photos by Bob Martinka

Our breeding Trumpeter Swan population still faces a number of challenges. To start, the distribution and connectivity of the various Greater Yellowstone and restoration flocks has yet to reach desired levels. For populations to be robust, they not only need to remain above a certain threshold of individuals, but also adequately distributed on the landscape to prevent random, localized events (for example, an unusually harsh winter, a disease outbreak or a snap hailstorm) from potentially wiping out a large portion of the population. Other significant risks to our breeding subpopulation include a lack of quality wetland nesting habitat and a decline in existing habitat quality due to water supply problems and disturbance. The Greater Yellowstone area and other western Montana valleys that make up a large part of the Rocky Mountain population range have been seeing dramatic human population growth and development. Without proper planning, this will likely result in loss, fragmentation, and destruction of both breeding and wintering habitat.

Trumpeter Swans are considered an “indicator species” of healthy wetlands and waterways since they only thrive and breed in high-quality habitats. The fact that the Canadian breeding populations are rapidly and continuously increasing while the ones breeding in Montana are growing much slower, if at all, should give us a pause.



Photo by Tricia Rodríguez

The Greater Yellowstone flocks are particularly important because even though they make up a fraction of the entire Rocky Mountain Population, they are our sole surviving, original, native breeding Trumpeter Swans in the lower 48 states. The general public, nongovernmental organizations, and state agencies in Montana have a high interest in our local breeding flocks and are determined to preserve them. We must continue with careful management and conservation efforts in Montana to ensure that not only the overall Rocky Mountain Population is safe and stable, but that our more vulnerable, small breeding population of Trumpeters that stays with us year-round will grow and thrive well into the future.



Trumpeter Swan adults and immatures. Photo by Bob Martinka



O'dell Creek in the Madison Valley. Photo by Tricia Rodriguez

Montana FWP is seeking public comment for new proposed waterfowl hunting regulations. Including, A general swan season with both tundra and trumpeter swans being legal to hunt for the Central Flyway. Comments can be submitted on March 15th through the FWP website at fwp.mt.gov, via email to fwpwld@mt.gov, or via mail to Bird Regulations, P.O. Box 200701, Helena, MT 59620. Public comment will also be accepted at the April meeting 1st Fish and Game Commission meeting.