

# WHY IS IT SO HARD TO ESTABLISH A MIGRATORY POPULATION OF TRUMPETER SWANS?

Laurence N. Gillette, The Trumpeter Swan Society, 3800 County Road 24, Maple Plain, MN, 55359

---

## ABSTRACT

Eight individual programs to restore the Trumpeter Swan (*Cygnus buccinator*) to the upper Midwest have resulted in a collective population of about 1000 free-flying swans by the fall of 1996. Less than 20% of the overall population spends the winter far enough south to survive without human assistance. Most of the population does not migrate beyond the state or provincial boundaries where they were released, based on observations reported to The Trumpeter Swan Society office. A few swans have migrated repeatedly to the same locations in Oklahoma, Arkansas, Missouri, Illinois, and Indiana, while others have migrated once, then rejoined their more sedentary relatives, despite having located adequate wintering sites in the south. Why has it been so hard to establish a migratory tradition within this population of Trumpeters? This paper investigates some of the biological and political reasons for the present situation.

---

## INTRODUCTION

Establishing a migratory population of Trumpeter Swans (*Cygnus buccinator*) is the goal of most of the restoration programs that are currently underway in the Midwest. However, by 1996, when almost 1000 swans were in the wild, only a small percentage were actually migrating any significant distance. There are biological and political reasons why it has been so difficult to get these swans to migrate on a consistent basis. Understanding these reasons may help in the development of solutions.

## BIOLOGICAL REASONS

Many Trumpeters stay at northern sites because they are fed by people. In some cases, it is an intentional effort by a managing agency to increase the survival of the flock. In other cases, it is done by private citizens for their own enjoyment or concern for the welfare of the birds. In either case, the birds do not migrate. While this may be the single most important reason why Trumpeters have not been very successful in establishing migratory traditions in the Midwest, it is not the only reason.

Trumpeters do retain the instinct to migrate. Almost all newly released Trumpeters will migrate south if they don't find a place to spend the winter in the north. This has been demonstrated by swans that were released in Wisconsin, Minnesota, and Iowa. The first migration is a random search to find a wintering spot. The swans usually stop as soon as they find ample food and water.

Trumpeter Swans are very traditional in their use of nesting territories and wintering sites. An adult pair will use the same nesting site for decades. If a bird

loses a mate, it will bring a new mate back to its territory. The pair may migrate to the same wintering area each year as long as the site remains attractive, but the fidelity to a wintering site does not appear to be as strong as the attachment to the nesting territory. This behavior appears to increase the survival of the birds. It enables them to retain a nesting territory, to start nesting earlier in the season, and to avoid potentially dangerous situations such as marshes contaminated with lead.

Trumpeters migrate primarily as a family unit, which consists of the adult pair, their young of the year, and occasionally a few of their offspring from the previous year. It is very difficult for other swans to join this group. The family breaks up in the spring when the adults return to their nesting marsh, at which time the newly independent cygnets may join a subadult flock.

The migration route is learned by the cygnets during their first trip. Once a migratory tradition has been broken by the localized extirpation of the flock, it is very difficult to get birds to reestablish the route. Even if a few swans survive, they will not lead a large flock back to the site, as geese or ducks can do. It can take generations to repopulate a wintering site.

Young Trumpeter Swans usually pair with older birds which have established territories and wintering sites. Therefore, a large sedentary population could reduce the speed with which migratory flocks grow by continually bringing the subadults back into the sedentary group as they seek mates. I have witnessed this in Minnesota. I don't know what will happen as the population matures so that the original migrants become the older members of each pair.

Many of the natural wintering sites in the south have been drained or altered so that they are no longer suitable for Trumpeters. The best looking sites may have hidden dangers. In today's environment, mortality is much higher for Trumpeters that migrate in a random search for a place to spend the winter compared with swans that migrate to known sites or swans that spend the winter in northern regions where they receive supplemental food. Exposure to lead poisoning, shooting, and accidents all increase the risk for swans that must explore numerous wetlands to find a suitable wintering site.

Good aquatic habitat is in short supply in the central Mississippi River Valley. Mallards and geese have adapted to feeding in agricultural fields across the central Midwest, either out of necessity or preference, which has enabled them to stay farther north than they did historically. Trumpeter Swans have adapted to agricultural feeding on the West Coast, so they should be able to do so in the Midwest as well, but the process will be slow.

These are some of the biological or behavioral reasons why it is difficult, but not impossible, to establish migratory flocks of Trumpeters. We can compensate for the Trumpeters' behavior. However, first we must agree on what should be done.

## **POLITICAL REASONS**

In my estimation, we have not reached a consensus on what we want to accomplish beyond "establishing a migratory population." The finer points of management could not be addressed in the recently prepared *Mississippi and Central Flyway Management Plan for the Interior Population of Trumpeter Swans* (Subcommittee on the Interior Population of Trumpeter Swans 1997) due to a lack of consensus. A few waterfowl managers are still concerned about the potential impact Trumpeters could have on existing waterfowl seasons. Restoration managers do not agree on how aggressively they should manage migrating Trumpeters, and even The Trumpeter Swan Society has not agreed on recommendations for management. We are at the point where any decision may be better than no decision at all.

One reason for our stagnation is our tendency to try to anticipate and address every potential problem before proceeding rather than emphasizing the opportunities provided by a restored population. What impact will Trumpeters have on existing hunting programs? Will feeding of Trumpeters cause swans to beg for food or

to attack people? Will state agencies have to assume a greater work load because of Trumpeters? While the answers to these questions are important, the problems that may be encountered will not be insurmountable, and they should not be severe enough to negate the benefits that could be derived from a restored migratory population.

One of the best ways to keep costs down and avoid an excessive work load for government officials is to involve the public. There is a tremendous interest in Trumpeters. People want to help, but not just by giving contributions so professionals can have all the fun of doing the field work. The public wants to be involved in all the hands-on work, and they are willing to pay for the program and assume responsibility for it if we simply tell them what we want them to do. Asking people to contribute financially but to avoid all contact with the birds does not meet the hands-on need. Other papers presented at the sixteenth Trumpeter Swan Society Conference explain what it means to private citizens to be involved in one of these projects on a firsthand basis. These people are responsible for much of the progress that we have made in our restoration efforts to date. They are not unique.

The Trumpeter Swan is a protected species, yet it is managed by game departments in most southern states. Basically, it exists in limbo. Game managers are overextended almost everywhere, and the Trumpeter does not bring in additional revenue through the sale of hunting licenses. How can they be expected to start a management program without funding? Several state game agencies have found sources of funds for Trumpeter restoration. In other cases, we need to consider turning Trumpeter Swan management over to other sections or to private individuals who are in a better position to provide the time and money that is needed.

Since Trumpeters are protected, they may adapt to people in ways that other hunted species of waterfowl cannot. Too many managers consider this type of adaptation to be undesirable based on experiences with other species of hunted wildlife. Since Trumpeters are protected, we have the opportunity to use techniques for management that are not suitable for other waterfowl. We need to take advantage of this situation more than we are.

There are a few fundamental questions that have been debated for years. We need to answer them once and for all. Five of these questions are listed below, along with some discussion on each one.

1. Should Trumpeters be kept out of intensively hunted areas?

Most waterfowl managers see some benefit in restricting where Trumpeters migrate. Even though there is no reason why a Trumpeter should be mistaken for any other species of waterfowl, besides a Tundra Swan (*C. columbianus*), managers do not want to tempt fate or create situations where the waterfowl hunting community could be embarrassed by the actions of a few unscrupulous hunters. However, if the prime hunting areas are the most attractive places for swans, how will we keep them out?

2. Should Trumpeters be attracted to areas for public viewing?

Trumpeters provide a tremendous opportunity for public education and recreation. Public viewing areas, where swans, ducks or cranes can be seen close up, are very popular in England and Japan. We could create similar areas in the Midwest using Trumpeter Swans as the featured wildlife. Locating such sites near urban areas could keep Trumpeters out of prime waterfowl hunting areas. Swans could be attracted to areas where the direct association with people is minimized and where other species of hunted waterfowl are excluded. This type of wildlife viewing has not been popular among wildlife managers in the U. S., but if human population growth continues unabated, how far removed are we from the conditions found in other countries?

3. Should Trumpeters be kept as free from human contact as possible?

Trumpeters will frequent wetlands with a lot of human activity on the shore. As far as I know, there is no evidence that shows that close contact with people has an adverse impact on the behavior of Trumpeters if they are raised by swan parents, either in the wild or in captivity. Swans will become tamer with favorable exposures to people, and they may begin to look to people for food, but this condition can be reversed very easily with swan-reared birds. Most swan managers would prefer to avoid having people feed swans bread crumbs by hand. However, this type of situation can be avoided in a controlled situation. We need to encourage both the people and the swans to do what we want.

4. Are we willing to use supplemental feeding or live decoy swans to attract and hold Trumpeters?

Using supplemental food is a proven way to attract all species of waterfowl. Most waterfowl managers have trouble with the thought of feeding waterfowl, which for the most part are hunted. There are federal regulations against baiting. Managers do not want state agencies to get involved in costly wildlife feeding programs, with good reason. However, Trumpeters are a protected species and are likely to remain so in most areas for the foreseeable future. The public has a long history of feeding wildlife as individual citizens at backyard feeders and as organized groups. Is it possible or advisable to let the public assume this role at specifically designated locations? Why not? Feeding has been an excellent tool for conditioning wildlife to learn to tolerate the human disturbances that they must tolerate in order to survive. We are not restoring Trumpeters into a pristine landscape. Using a few decoy swans is another technique for attracting Trumpeters to a specific location.

5. Should Trumpeters establish migration routes entirely on their own?

Trumpeters have already demonstrated an ability to migrate, and, in a pristine environment, they should be able to establish a migratory route on their own. However, if we expect them to use certain sites while avoiding other equally attractive sites, we need to have some involvement. While I'm not advocating transporting birds between summer and winter habitat as I have in the past, I do advocate taking steps to attract and hold Trumpeters at suitable sites long enough for them to form an attachment. I also advocate activities that will increase the number of swans migrating to the site. Releasing subadult swans at wintering sites which are already occupied by a limited number of Trumpeters is an example of what could be tried.

Probably no one agrees with all of the opinions expressed above, but we need to arrive at some form of consensus to avoid a continuation of the paralysis that presently grips the restoration program. A new management plan for Trumpeters is being submitted to the Mississippi and Central Flyways within the next month. It does not answer these questions, but instead it suggests that these are questions that each state needs to address. I hope this meeting will enable all of us who are interested in Trumpeters to gain enough information about the birds to make some of these decisions.

## **LITERATURE CITED**

Subcommittee on the Interior Population of Trumpeter Swans. 1997. Mississippi and Central Flyway Management Plan for the Interior Population of Trumpeter Swans. Mississippi and Central Flyway Councils, Migratory Bird Coordinator, U. S. Fish and Wildlife Service, Twin Cities, MN. Unpublished report.