



Where are the Tundra/Whistling Swans?

by *Sussex County Master Gardener Jessica R Clark*

On a cold, snowy, wintry night about 20 years ago, shortly after moving to my home in western Sussex County, I awoke to the sound of what seemed to be an injured dog howling in pain. Throwing on shoes and a coat, I circled the property line near the highway and with no signs of an injured animal, circled my yard. As I approached the southern end of Collins Pond, abutting my property, in the bright moonlight were hundreds of white, moving objects.

Upon closer examination, they turned out to be hundreds of elegant swans calling to each other in loud, high-pitched,



Sussex County Master Gardener Jessica R Clark Photo

Tundra/Whistling Swans on Collins Pond west of Georgetown, DE.

honking tones, clattering across the water's surface with wings beating, and finally settling in for the night.

The Tundra or Whistling Swan has a wingspan of about 70 inches and weighs approximately 16 pounds for males and 14

Swan Numbers Dwindle

Through the years, hundreds of Whistling Swans arrived on Collins Pond. Each year, the numbers appeared to dwindle until the last five years, only four to six swans have arrived. As an amateur sleuth, I went in search of answers.

Game bird Biologist, Gary Macy, replied to my queries with these answers:

Atlantic Flyway productivity surveys for Tundra Swans have been conducted annually since 1978. They are counted in January usually from airplanes every year.

In the last 15 years, Eastern Population Tundra Swan winter counts in the Atlantic Flyway peaked in 2017 at almost 120,000 birds and hit a low in 2019/2020 of 78,600. "It doesn't account for swans that were missed, diminished staffing, and survey capacity, etc.," Mr. Macy explains. "In general, aerial surveys are a reference "index" of Tundra Swan populations rather than absolute count and are the best available data, which is affected by the factors mentioned."

In Delaware's data alone, there are four different biologists counting data over that same time period. In the last five years, Delaware has expanded the survey area to include larger

pounds for females. In flight, the rhythmic flapping of their wings produces a tone that earned them the name *Whistling Swan*.

In the morning, they could first be seen in groups with their bills under their wings, and after awakening, dipping their heads underwater to pluck aquatic plants, tubers, and roots. In between, they plundered grains and corn from the farm across the highway. They returned to the pond each night and stayed for a number of weeks before traveling to Arctic breeding grounds.

On Collins Pond, in the last 20 years, their numbers have dwindled to only five or six swans visiting in each of the last five years for a few days. I was curious why this was happening.

The Atlantic Flyway hugs the eastern coastline from the Canadian territory of Nunavut and the Newfoundland maritime provinces all the way to Puerto Rico and the U.S. Virgin Islands.

Tundra is an appropriate moniker as this species' breeding grounds are located in or near the Arctic and subarctic Tundra. Believed to mate for life, Tundra/Whistling Swans pair up for nearly a year before breeding in large flocks. They leave Delaware at winter's end to fly approximately 2,000 miles to Nunavut and the northern reaches of North America and Canada. Stop-over sites where they rest and renourish can be from New York to everywhere else along the way to the Tundra. They usually arrive in early March to late June, to breed on Tundra lands. Each couple defends a territory of about three-fourths of a square mile in stick nests lined with moss and grasses near a pond or other water source. Then the migration cycle to southern states begins again.

In some cases, migration begins as early as mid-October when family groups start their travels through multiple states and Canadian provinces. As long as weather conditions are favorable, however, and food is plentiful, they winter in Delaware during November and December, sometimes as late as January, near marshes, shallow saline lagoons, sheltered coastal bays and estuaries, and ponds.

Females typically lay about four eggs, incubate them for 32 days, while males guard the nest fending off predators like foxes and jaegers -- rapacious seabirds of the family

bodies of surface water and larger portions of agricultural lands, especially in Sussex County. "Sussex County is actually the place where we count the most swans, but few surveys included western Sussex starting five years ago," Gacy continues. "The survey was expanded because we became aware of the substantial presence of Tundra Swans outside of the typical survey area prior to five years ago."

In those five years, swans have ranged from 1,602 birds in 2021 to 5,560 birds in 2019 with agricultural fields and larger bodies of water in Sussex County hosting the majority.

"According to our data, there's an explosion of swans in Sussex starting five years ago but that's really because of a change in counting methods and observers," Gacy explains.

Migratory patterns almost certainly have changed over time and while the continental population of swans stays similar over years, the population distribution shifts between the Atlantic, Mississippi, and Ontario flyways. "This is largely forced by weather, food availability, competition, and other environmental factors including predators," Gacy states.

It's likely that the food on the landscape has changed over time and therefore so has their use of the land. These are wintering birds in Delaware, and their use of habitat for food is specific to obtaining the highest quality food using the least amount of effort. They also need places to rest safely when those nutritional needs are met.

The changes may not be attributable to a decline of food

Stercorariidae that pursue weaker birds. Both parents care for the young, which usually hatch in late June. The breeding season is subject to the Arctic climate. An early freeze or late spring may cause significant reproductive problems.

Trumpeter Swans, *Cygnus buccinator*, are often confused with Tundra/Whistling Swans as they are very similar in appearance. They are much larger than the Whistling Swan and have a larger bill which is all black.

The Whistling Swan, *Cygnus columbianus*, is large with pure white plumage and a black bill except for a yellow spot, often hard to see or absent, below the eye. The Whistling swan has a relatively short neck which gives it the appearance of a large white goose.

The Mute Swan, *Cygnus olor*, is similar in appearance to the Whistling Swan. The Mute Swan is also white in plumage but has an orange beak bordered with black and is recognizable by its pronounced knob atop the beak, which is larger in males.

“Swan wintering habitat remains plentiful in Delaware. Swans spend about three to four months in Delaware during the winter. Flocks of swans will change size and daily movement patterns throughout that time to seek out more efficient food sources and roosting places. Even large storms and other weather events can displace swans temporarily into Maryland, and elsewhere outside of our survey area,” Gacy concludes.

And, so, it appears that these count data taken at face value would suggest a sharp increase in swans present in Sussex County five years ago, but probably this is because of changes in counting methods, observers, and an expanded survey area.

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but could be a change in location or grain harvesting efficiency. Agricultural practices (types of crops, rotation, timing) can result in less waste for birds to eat. Another factor is the change in the quality of food available elsewhere.

Questions

For questions on this subject or any gardening topic call the Master Gardener Helpline: In New Castle County, (302) 831-8862; in Kent County, (302) 730-4000; and in Sussex County, (302) 856-2585 x 535. The Master Gardeners monitor the Helpline in the winter but it may take a few days to get back to you.



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