

HIGHLIGHTS OF THE SEASON - WINTER 2013-14

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This winter New York State was plagued by one of the coldest Arctic outbreaks in two decades. The cold temperatures were associated with the polar vortex and were caused by stratospheric warming pushing the jet stream further south than normal. The phenomenon created numerous strong storms in New York. Most of these storms were present throughout the state, bringing bitter cold, with temperatures dropping to 11-25° F below normal, accompanied by precipitation, then followed by periods of normal temperatures. Most unusual was the high frequency of these events, occurring three to four times per month throughout the state. Snowfall in the state was above normal for the winter period December through February, with 108" recorded in Buffalo, 63" in Albany, and 46" in New York City. Total precipitation was also above normal for the winter period. The bitter cold brought significant ice cover to the Great Lakes Region, which had a direct effect on waterfowl.

It was a winter with many unusual events in the New York avian world. Among these was the unprecedented incursion of Snowy Owls in the eastern US, the die-off of ducks on the Great Lakes, and the slaughter of birds and mammals at Port Authority airports.

The winter of 2013-2014 witnessed an unprecedented number of Snowy Owls found in New York State and in the eastern United States. eBird data show that this invasion was primarily focused in the north-central and north-eastern portions of the country with individual records from as far south as Washington DC, the Carolinas, Florida, and Bermuda. Invasion years of Snowy Owls have occurred in the past, 2011 for instance, but not on the scale of this winter. Locally in Rochester, Tom McDonald was busy banding these owls. He has worked almost exclusively for the past 25 years on this single species, trying to understand the details of its meandering habits. This year, he and Dave Genesky spent all of December and January banding Snowy Owls from as far west as Somerset, Orleans Co. to Syracuse, Onondaga Co. and south of this region. Dave Tetlow traveled over much of the western part of this area searching out Snowy Owls to alert the two banders to them. By February, they had banded 60 Snowy Owls and estimated that 30 to 40 additional birds remained in the region. Tom points out that they can be very difficult to find, especially inland, where they will hunker down at their roost site during the day.

By watching the movements of banded birds, Tom has concluded that they follow major waterways and initially settle within a mile or two of the Lake Ontario shoreline, feeding on waterfowl and gulls. With night vision equipment he has observed that they become most active at night and compete for territories, physically harassing each other by contact until one bird establishes control of a territory. Wintering Snowy Owls hunt mostly at night. Some birds move inland, especially to areas that meet their hunting and roosting requirements, gain control of preferred territories, and feed on local mammals.

Overall, he sees the largest percentage of owls within two miles of Lake Ontario. Once they have established a territory, they will remain in that area for an extended period of time if there is an adequate prey base. Three of these owls were radio-tagged and show movements along the lake front. One bird went as far as Saint Catharines, Ontario and later returned to its previous location. One of the banded owls began migrating north on 31 March.

Satellite transmitter studies have revealed that perhaps as many as 40% of full adult Snowy Owls rarely move very far from their arctic habitat because they try to find the best breeding territories as early as possible in the late winter or early spring. But some adults will cover long distances to try and find the best possible breeding territory. One satellite-tagged female covered 1,100 miles in two weeks searching for a territory. Much research has been conducted in recent time on the aging and sexing of Snowy Owls. Roar Solheim of the Norwegian Snowy Owl Team is a leading expert on this and Tom McDonald uses his work and sends him photographs of local owls to age and sex the owls being banded in western New York, as well as using other material. The results show that about 75% to 80% of the owls banded this season have been hatch-year birds and that the remainder appears to be a mix of second- and third-year birds. There have been no full adults. This contrasts sharply with birds captured in Boston at Logan Airport which are mostly adults, and is consistent with the behavior mentioned above, where adult birds remain closer to the breeding range. In western New York, two-thirds of those captured were males. The birds were all healthy, not starving or underweight. The only injured Snowy Owl was hit by an automobile. The abundance of Snow Owls has been the result of a banner breeding year in northern Quebec during the summer of 2013, based on numerous reports of extraordinarily high numbers of lemmings, their primary source of food.

Unlike the situation with Snowy Owls, this winter's cold conditions took a devastating toll on the wintering waterfowl. Die-off of waterfowl was recorded throughout the Great Lakes region. This winter, Lakes Superior, Huron, and Erie all had more than 95% ice coverage and Lake Michigan reached 80%. Lake Ontario had lower ice coverage but most of it was concentrated along shorelines. Mike Wasilco of the NYS Department of Environmental Conservation estimated that in DEC Region 8, hundreds of ducks perished. He said that most of the dead ducks were reported in the larger bays that normally do not freeze but did so this year. DEC Region 9 reported much higher numbers, in the thousands, from Lake Erie and the Niagara River, where significantly higher numbers of ducks routinely winter. All of the carcasses that have been examined by wildlife officials were severely malnourished and either starved to death or died of exposure due to malnutrition, which prevents waterfowl from maintaining their waterproofing. Some ducks still alive may not have been able to recover even if conditions had improved immediately.

The vast majority of the dead ducks identified were Red-breasted Mergansers, but smaller numbers of just about every species that winters here have likely perished as well. The species that feed on aquatic organisms mostly found in shallower water appear to be most heavily impacted as those areas had

ice cover the longest. The birds that can forage in the deeper open waters of Lake Ontario (loons, grebes, Long-tailed Ducks, etc.) appear to be the least affected. The puddle ducks and geese that can fly inland and feed on waste grain or take advantage of bird feeders saw less impact as well.

The die-off of ducks is a natural phenomenon but the extermination of birds at the coastal airports is not. A report from the 2 March *New York Post* metro section listed 20,237 birds killed by the New York Port Authority in 2012-13 under permission from the Federal Government to keep airport runways clear of birds. According to the Port Authority, non-lethal methods were ineffective but, also according to them, non-lethal methods are used whenever possible. The killings included five Snow Owls and so much bad publicity surrounded these deaths that it forced the Port Authority to begin to trap and relocate these northern intruders, but no mention is made of the remaining 47 species that suffered lethal control measures.

The program to eradicate birds from the Port Authority airports began in 2008 but further data from the Port Authority show that the number of bird strikes has remained constant at about one every other day since the program started. At Kennedy Airport, 42,000 animals, 99% of which were birds, have been killed since the program started and 6,000 have been killed at Newark and Teteroboro airports. The eradication has had no effect on the frequency of bird strikes at the New Jersey airports. In 2013, other species were taken in small numbers, such as American Kestrel (threatened), Northern Harrier (endangered) and 11 Osprey (species of special concern) as well as many other harmless birds such as shorebirds, sparrows, swallows, and blackbirds. Also noteworthy and important was the killing of so many Laughing Gulls and Brant. Is the slaughter commensurate with any thoughtful consideration of actual threats when species as small as sparrows and shorebirds are victims? Most of the major airports in this region were built near water and along migratory corridors, the same areas important for breeding, wintering and stopover sites for birds. The eradication program is supposed to balance public safety and environmental needs but the latter goal is not being sufficiently met. Better methods need to be developed to keep birds away from airport runways. Simply killing them is not accomplishing that goal.



Snowy Owl, Troy, *Rensselaer*, 15 Dec 2013, © Scott Stoner.