

From: Avers, Barbara (DNR)
Sent: Wednesday, September 05, 2012 3:34 PM
To: John W. Grandy
Cc: Beyer, Stephen (DNR)
Subject: more information

Hi John,

Hope you had a good holiday weekend. I finally had a couple days in the office to pour through old files and find some more information per your request.

1. Regarding your questions about the Michigan Spring Breeding Waterfowl Survey and questions about our mute swan estimates, indicated birds, etc:

MDNR uses the estimation equations and procedures established and published by the USFWS for aerial breeding waterfowl surveys. For mute swans, there is no visibility correction factor (we assume that we see 100% of the mute swans present on the transect at the time of the survey). We calculate the number of indicated birds by assuming that for every bird recorded as a single drake (single swan), there is a female present but unobserved in the transect, and that birds observed as flocked drakes (flocked swans) or mixed-sex groups do not have a hidden mate present. So if we saw 1 single drake (1 single swan), 1 pair, and 7 grouped swans, the number of indicated birds is 11. Once we calculate the number of indicated birds on the surveyed area, we expand that number by an appropriate factor to account for all of the unsurveyed area in the state.

This year, data was not captured on one side of the plane for 41 segments of the survey due to a computer equipment malfunction; although incomplete data resulted in higher than normal variances, preliminary analyses suggested lost data added minimal bias to waterfowl estimates. That means that the 2012 number of indicated birds could have been smaller because it represented a smaller fraction of the state. Once we multiply by the appropriate factor to expand the estimate to include the area of the entire state, the estimate could end up similar to those of other years. The fact that we had fewer complete transects to calculate densities explains why there were fewer indicated birds. If anything, we likely underestimated mute swan abundance this spring.

Historic population estimates used in the mute swan model were taken from the 1980 Draft Management Plan for the Mute Swan in Michigan (attached) and The Mute Swans of Michigan's Grand Traverse Bay Region-Preliminary Report (attached). These numbers are also published in:

Gelston, W.L. and R.D. Wood. 1982. The Mute Swan in Northern Michigan. Myers Printing Service, Traverse City, Michigan.

Van Deusen, R. 1991. Mute Swan Species Account. Pages 118-119 in R. Brewer, G. McPeck, and R. J. Adams, Jr., editors. The Atlas of Breeding Birds of Michigan. Michigan State University Press, East Lansing, Michigan.

The earliest reference that I could find that Michigan DNR began being concerned over expanding mute swan numbers in the 1960s was from a handwritten note by Gerry Martz circa 1980, "Mute swans (2) were introduced into Michigan in 1919. They now number about 1,500 birds and the population is still expanding. Concerns over this expanding population by the DNR were first expressed in the late 1960s and early 1970s (my predecessor, Ed Mikula)". Similar statements are made again in the 2002 and 2003 MDNR Issue Review Papers (attached).

As far as when DNR began control activities, the earliest reference I could find was the 1980 Draft Management Plan.

It appears that control efforts by the DNR have been variable, but generally increasing as the mute swan population has increased. I couldn't find annual reports of mute swan control and they appear to be spotty. When mute swans were placed on the MBTA list and MDNR had a federal mute swan permit, I did find annual permitting reports for 2002 (59 killed and 5 nests/27 eggs destroyed) and 2003 (5 nests/18 eggs). The 2002 and 2003 MDNR applications for federal permit requested take of mute swans up to 300 and destruction of 200 nests. In 2006, from the files I found, it appears between 200-250 mute swans were removed. In 2008, it appears to be about 290-325. In 2010, approximately 700 mute swans removed, and there were 1,756 mute swans removed in 2011. These are the numbers of mute swans removed and doesn't count nest/egg destruction.

I was unable to find much in the files regarding records of mute swan complaints. Complaints typically come into the field offices, and unfortunately we do not have consistent reporting from MDNR staff throughout the state of mute swan attacks. However, to give you an idea of the level of reported complaints, between June 2009 and September 2010, there were 15 complaints logged at the Southfield Operations Service Center regarding mute swan attacks or aggression and a summary of mute swan complaints from 1981 to 2000 showed about 40 mute swan threats towards humans and about 70 overt attacks of mute swans on humans. In 2007, our Southwest Wildlife Management Unit reported 10 attacks of mute swans on humans on our web-based reporting system. Anecdotally, several field staff have reported to me that the number of calls regarding mute swan complaints has been increasing, especially in the last two years. Our Michigan Mute Swan Management and Control Policy and Procedures, revised in 2012, outlines a process for tracking mute swan complaints. MDNR staff are required to provide an annual summary at the end of each year of mute swan complaints. Therefore, beginning this year, I will be able to provide much better information regarding the number of complaints received and the nature of those complaints.

I have poured through the old files that I've found and the first mute swan policy that I could find was the 1980 Draft Management Plan for the Mute Swan in Michigan (attached). I also found updated policies from 1994-96 and 1998-2000 (I could only find a draft of this one). Both of these are attached.

Best regards,

Barb

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