

JANUARY WATERFOWL COUNT, 2008, AND SOME OBSERVATIONS ON LONG-TERM TRENDS

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The New York State Ornithological Association (NYSOA)'s 2008 January Waterfowl Count was held during January 12-20, 2008. Survey procedures were described by Swift (2007), and survey coverage was generally good except for some key areas on Long Island (e.g., Amagansett to Montauk). Additional volunteers are needed to help cover important waterfowl wintering areas in the future; please contact the author or a regional compiler if interested.

WEATHER CONDITIONS

National Weather Service data from Buffalo, Watertown, Albany, LaGuardia and Islip were reviewed along with anecdotal reports from regional compilers to characterize weather conditions as they may have affected waterfowl abundance, distribution or observation.

Winter began early throughout New York State, with below normal temperatures in all areas during the first three weeks of December 2007, and 18-24" of snow recorded in Albany and Buffalo. Conditions eased off later in the month as temperatures were above normal and precipitation lessened. January 2008 began with a few days of below normal temperatures (lows near or below zero upstate, in the teens on Long Island), but this was followed by two solid weeks (January 5-18) with temperatures up to 33° above normal and less than 6" of snow at all locations. Average daily temperatures were above freezing throughout the week prior to the waterfowl count, and high temperatures in the 60s were recorded during January 7-9 at most locations. A cold front on January 18-19 brought strong winds, colder temperatures and some snow (up to 3" upstate) during the last days of the count period. However, January snowfall totals were less than 1" on Long Island.

The early onset of winter probably forced many geese and dabbling ducks out of local haunts to larger water bodies or south out of New York. At the same time, ducks forced out of Canada or western breeding areas found plenty of open water in New York. The mild weather prior to and during the count period made for pleasant viewing conditions, but the lack of ice provided countless ponds and streams for remaining waterfowl to disperse to, and in some areas (e.g., the

Hudson and Mohawk Rivers) high stream flows made access and waterfowl observation difficult.

RESULTS

The January 2008 count yielded a total of 392,624 birds, far below the record high count of 584,389 in 2007, but still well above the long-term (1973-2007) average of 292,379 (Table 2). Most species were at or above their long-term averages, including Canvasback, Long-tailed Duck, Black Scoter, and Trumpeter Swan, all of which had record high counts (Table 2). Snow Goose and Canada Goose numbers dropped sharply from their record highs in 2007, perhaps due to snow covering cut cornfields in western New York during December. In contrast, counts of dabbling ducks such as Mallard and Black Duck were higher than a year ago, as these species were forced south or frozen out of smaller water bodies into larger areas that are routinely covered by this survey. Two exceptions were Common Eider and Harlequin Duck; these species had unusually low counts, probably due in part to incomplete coverage of some key areas on the south shore of Long Island.

In general, this year's counts seemed to reflect a return to more "normal" winter conditions for New York State. The early winter weather may have affected abundance and distribution of many species for the remainder of the season, even though we experienced a third consecutive January with very mild weather.

SOME LONG-TERM TRENDS

Winter waterfowl counts are of limited value for year-to-year population monitoring because they are influenced so much by weather conditions and because they are affected by annual variation in coverage. However, inspection of long-term data can reveal some interesting trends. For this year's report, I selected four species for such analysis. I invite others to do the same, using data available from the NYSOA website.

Tundra Swan - Tundra Swan was an uncommon species on the January Waterfowl Count until the mid 1990s. Before 1992, no more than 100 birds had been reported statewide. A high count of 199 Tundra Swans occurred in 1995, but that record has been topped several times, with the current high count of 1,773 observed in 2007 (Fig. 1). NYSOA Regions 1, 3 and 6 have accounted for most of the growing total count in recent years. The eastern population of Tundra Swans increased only slightly over the past 30 years (USFWS 2008), so we may be seeing a northward shift in winter range for this species, just one consequence of climate change and milder winters in eastern North America.

Canvasback - The record high count of 25,718 canvasbacks in January 2008 followed a record high continental breeding population estimate for the species in spring 2007 (USFWS 2008). However, Canvasback counts have declined steadily on Long Island (NYSOA Region 10), to record lows of less than 500 birds in 2007 and 2008 (Fig. 2). This may reflect losses of submerged aquatic vegetation, a critical food source for Canvasbacks, in Long Island coastal waters. Overall, Canvasback numbers tend to fluctuate a great deal on both surveys, but both suggest a relatively stable population over the long-term (Fig. 3).

Scaup - Total numbers of Greater, Lesser and unidentified scaup counted in New York fluctuate considerably from year to year, but average counts for each decade suggest a gradual decline over time: 1970s (69,772); 1980s (46,733); 1990s (41,741); and 2000s (34,463). This trend in winter scaup counts has generally followed the pattern for continental scaup breeding population estimates (Fig. 4). However, as total numbers declined, there has also been a shift in distribution from Long Island to the Great Lakes regions of upstate New York (Fig. 5). This shift was likely a response to recent invasion of the Great Lakes by zebra mussels (*Dreissena polymorpha*); this species is now a major component of scaup diets in that region (Custer and Custer 1996, Petrie and Schummer 2002).

Hooded Merganser - Prior to 1985, statewide January counts of Hooded Merganser never exceeded 400 birds, but counts since 2000 have exceeded 1,400 birds in every year but one (Fig. 6). Winter counts of Hooded Merganser reflect the growing breeding population of this species in New York, as documented by the Breeding Bird Atlas (McGowan and Corwin 2008). Although Long Island still accounts for most of the Hooded Mergansers counted during winter, significant numbers now occur in many upstate regions, where breeding has become more widespread.

FUTURE COUNTS

The January Waterfowl Count (JWC) is a valuable long-term population monitoring program for waterfowl and other waterbirds wintering in New York State. I invite all bird clubs and birders in New York to join in this important and enjoyable activity. For those who like to plan ahead, the count period begins on the Saturday prior to the Martin Luther King Jr. holiday, which is the 3rd Monday in January. The dates for the next two years are as follows:

2009 - January 17-25 (target date - Sunday, January 18), and
2010 - January 16-24 (target date - Sunday, January 17).

For more information about the JWC, please visit the NYSOA web site at:

<http://www.nybirds.org/ProjWaterfowl.htm>

http://www.birds.cornell.edu/fnysbc/wfc_compilers.htm

ACKNOWLEDGMENTS

I wish to thank everyone who participated in the 2008 count, and for enduring harsh winter weather that is typical of this time of year. A special thanks to the following Regional Compilers who coordinated the efforts of all those volunteers this year:

Region	Compiler	Region	Compiler
1	Jim Landau	6	Jerry LeTendre
2	Greg Hartenstein	7	John M. C. Peterson
3	Mike Morgan	8	Bryan Swift
4	Gail Kirch	9	Tracey Shimer
5	Marge Rusk	10	Ronald & Jean Bourque

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Table 1. Regional totals for the 2008 January Waterfowl Count.

SPECIES	1	2	3	4	5	6	7	8	9	10	Total
Goose, White-fronted	0	0	0	0	0	0	0	0	1	1	2
Snow/Ross'	0	0	10711	35	1610	0	0	0	4551	26	16,933
Canada/Cackling	4,930	6553	62776	2945	6735	2868	24	2445	18290	29695	137,261
Brant	0	0	0	0	0	0	0	0	1	14514	14,515
Swan, Mute	20	277	7	2	5	6	0	54	283	965	1,619
Trumpeter	0	2	24	0	0	0	0	0	0	0	26
Tundra	32	0	871	0	86	347	0	0	0	2	1,338
Wood Duck	0	0	0	2	0	0	0	0	16	21	39
Gadwall	50	1	254	0	0	27	0	0	123	1235	1,690
Wigeon, Eurasian	0	0	0	0	0	0	0	0	1	6	7
American	15	0	69	0	2	1	0	0	56	1003	1,146
Am. Black Duck	126	191	6404	211	147	126	41	129	396	7566	15,337
Mallard	4443	2131	23610	1,180	2,350	1006	775	1040	3726	8567	48,828
Mallard X Black	0	14	5	0	0	1	0	0	5	50	75
Blue-winged Teal	0	0	0	0	0	0	0	0	0	0	0
Northern Shoveler	0	0	2	0	0	0	0	0	1	344	347
Northern Pintail	27	0	137	0	11	0	1	0	5	87	268
Green-winged Teal	1	7	2	0	1	0	0	0	4	161	176
Canvasback	12655	0	11656	1	2	0	0	303	603	498	25,718
Redhead	47	214	7350	19	194	8502	0	0	20	23	16,369
Ring-necked Duck	1	5	232	3	19	3	1	11	220	439	934
Tufted Duck	0	0	0	0	0	0	0	0	0	0	0
Scaup, Greater	6060	828	550	0	940	4476	11	0	173	8286	21,324
Lesser	295	153	173	4	200	0	0	0	285	1647	2,757
not to species	24	100	2	0	300	495	1	125	215	1090	2,352

Eider, King	0	1	0	0	3	0	0	0	0	1	5
Common	0	0	0	0	0	0	0	0	0	19	19
Harlequin Duck	1	0	0	0	0	0	0	0	0	0	1
Scoter, Surf	10	3	0	0	0	0	0	0	0	761	774
White-winged	178	1217	0	0	698	14	0	0	0	493	2,600
Black	0	5	0	0	3	0	0	0	3	12578	12,589
not to species	0	0	0	0	100	0	0	0	25	1337	1,462
Long-tailed Duck	366	584	0	0	658	547	3	0	28	11382	13,568
Bufflehead	3368	225	204	5	229	394	88	0	180	3209	7,902
Goldeneye, Common	3750	2984	1184	50	1,107	2432	4163	225	183	1026	17,104
Barrow's	0	1	0	0	0	1	0	0	0	2	4
Merganser, Hooded	134	15	90	51	41	4	34	27	345	1569	2,310
Common	1699	105	204	566	2,121	2081	723	994	1,988	75	10,556
Red-breasted	574	3189	25	1	325	95	1	0	25	2675	6,910
Ruddy Duck	3	0	28	0	0	0	1	0	123	3341	3,496
Loon, Red-throated	3	43	0	0	0	0	0	0	1	395	442
Common	7	12	10	0	8	0	7	0	7	137	188
Grebe, Pied-billed	7	3	18	0	4	1	0	0	2	57	92
Horned	25	316	13	1	11	0	67	0	1	185	619
Red-necked	4	3	0	0	0	0	1	0	2	2	12
Eared	0	0	0	0	0	0	0	0	0	0	0
Cormorant, D.-crested	94	10	4	0	18	1	0	0	1	70	198
Great	0	0	0	0	0	0	0	0	7	64	71
American Coot	118	305	1223	53	19	0	0	0	190	489	2,397
UNIDENTIFIED	26	28	3	0	0	172	0	11	1	3	244
TOTAL OF ABOVE	39,093	19,525	127,841	5,129	17,947	23,600	5,942	5,364	32,087	116,096	392,624

Table 2. Comparison of 2008 January waterfowl counts in New York State to previous years.

SPECIES	2008	2007		Long-term (1973-2007)			
		Count	% diff	Average	% diff	Minimum	Maximum
Goose, White-fronted	2	26	-92%	1	100%	0	26
Snow/Ross'	16,933	107,683	-84%	3,426	394%	1	107,683
Canada/Cackling	137,261	236,741	-42%	87,024	58%	5	236,741
Brant	14,515	17,235	-16%	15,169	-4%	6	31,592
Swan, Mute	1,619	1,979	-18%	1,325	22%	7	2,296
Trumpeter	26	14	86%	2	1200%	0	14
Tundra	1,338	1,160	15%	198	576%	0	1,773
Wood Duck	39	28	39%	38	3%	9	108
Gadwall	1,690	1,707	-1%	1,035	63%	11	2,900
Wigeon, Eurasian	7	5	40%	3	133%	0	10
American	1,146	1,642	-30%	1,600	-28%	13	3,207
Am. Black Duck	15,337	8,912	72%	18,326	-16%	14	27,734
Mallard	48,828	31,395	56%	33,896	44%	15	60,527
Mallard X Black	75	41	83%	62	21%	0	379
Blue-winged Teal	0	0	??	3	-100%	0	32
Northern Shoveler	347	756	-54%	285	22%	18	797
Northern Pintail	268	73	267%	200	34%	19	421
Green-winged Teal	176	501	-65%	276	-36%	20	614
Canvasback	25,718	14,103	82%	11,136	131%	21	24,584
Redhead	16,369	5,566	194%	8,527	92%	22	20,615
Ring-necked Duck	934	1,438	-35%	574	63%	23	2,234
Tufted Duck	0	0	n/a	1	-100%	0	5
Scaup, Greater	21,324	43,819	-51%	27,732	-23%	0	57,995
Lesser	2,757	7,778	-65%	1,307	111%	0	7,778
not to species	2,352	3,105	-24%	18,300	-87%	27	108,669
Eider, King	5	2	150%	6	-17%	0	29
Common	19	2,680	-99%	1,117	-98%	0	18,095

Harlequin Duck	1	0	??	6	-83%	0	15
Scoter, Surf	774	6,968	-89%	3,173	-76%	31	13,749
White-winged	2,600	3,938	-34%	7,408	-65%	32	22,525
Black	12,589	4,592	174%	1,020	1134%	10	4,940
not to species	1,462	12,463	-88%	2,357	-38%	0	16,940
Long-tailed Duck	13,568	12,040	13%	4,655	191%	35	13,071
Bufflehead	7,902	8,419	-6%	6,422	23%	36	10,025
Goldeneye, Common	17,104	14,899	15%	12,702	35%	37	20,932
Barrow's	4	2	100%	2	100%	0	8
Merganser, Hooded	2,310	2,448	-6%	789	193%	39	2,448
Common	10,556	8,763	20%	10,981	-4%	40	29,809
Red-breasted	6,910	6,768	2%	4,605	50%	41	8,058
Ruddy Duck	3,496	5,872	-40%	2,320	51%	36	8,834
Loon, Red-throated	442	927	-52%	81	446%	0	927
Common	188	358	-47%	196	-4%	32	628
Grebe, Pied-billed	92	92	0%	81	14%	21	210
Horned	619	236	162%	361	71%	49	756
Red-necked	12	10	20%	4	200%	0	14
Eared	0	1	-100%	0	??	0	3
Cormorant, D.-crested	198	401	-51%	149	33%	0	401
Great	71	50	42%	170	-58%	0	575
American Coot	2,397	4,220	-43%	2,056	17%	55	4,406
UNIDENTIFIED	244	2,533	-90%	1,269	-81%	0	5,675
TOTAL OF ABOVE	392,624	584,389	-33%	292,379	34%	129,907	584,389

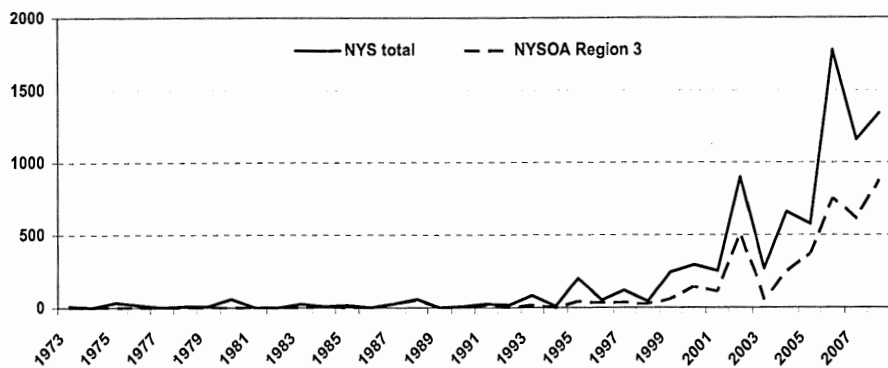


Figure 1. Total number of Tundra Swans counted in New York State during January, 1973-2008.

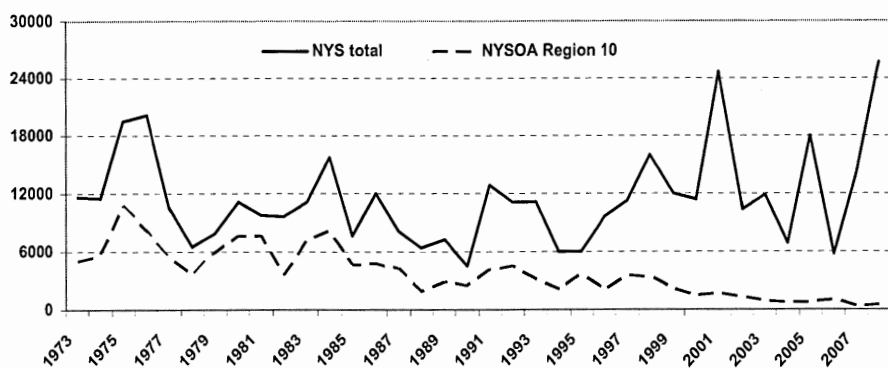


Figure 2. Total number of Canvasbacks counted in New York State during January, 1973-2008.

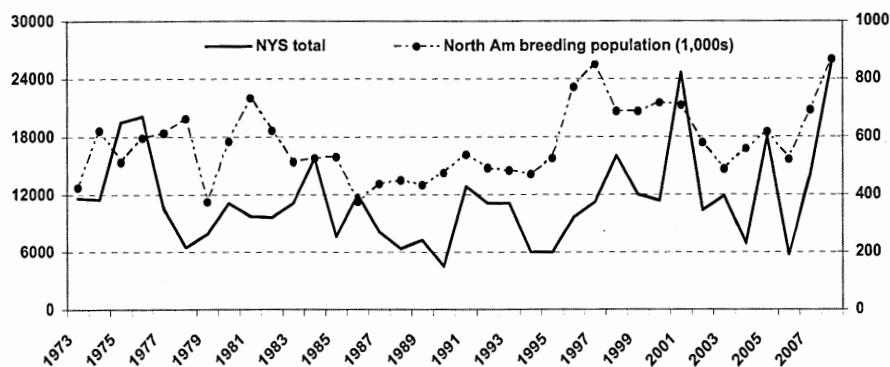


Figure 3. Total number of Canvasbacks counted in New York State during January, 1973-2008, versus the prior year continental breeding population estimate (source: USFWS 2008).

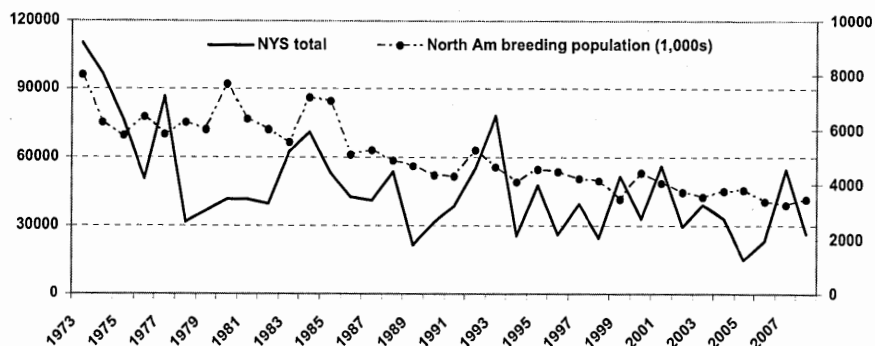


Figure 4. Total counts of scaup (Greater, Lesser and unidentified to species, combined) in New York State during January, 1973-2008, versus the prior year continental breeding population estimate (source: USFWS 2008).

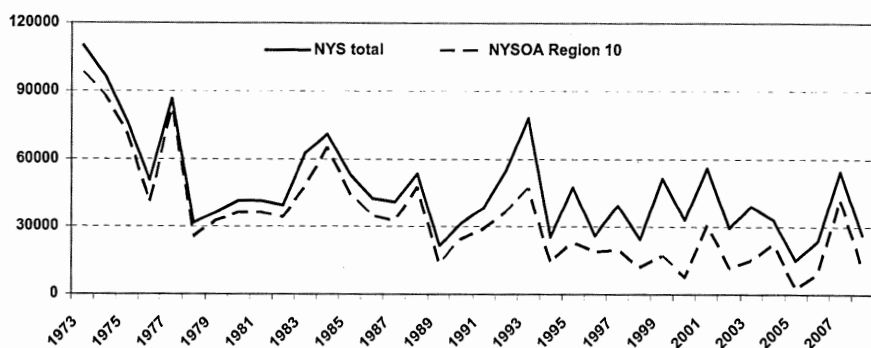


Figure 5. Total counts of scaup (Greater, Lesser and unidentified to species, combined) in New York State during January, 1973-2008.

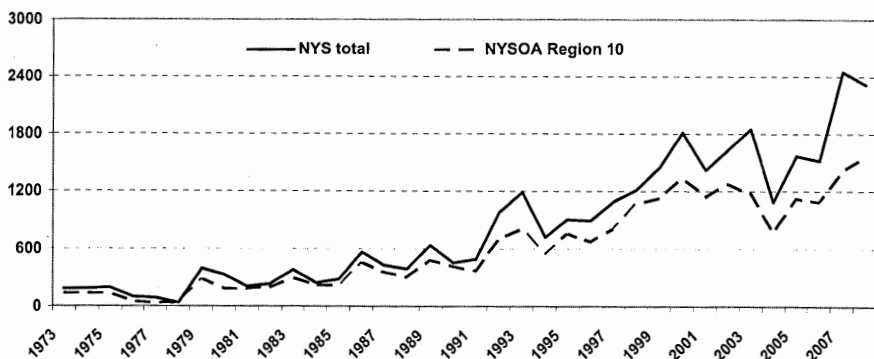


Figure 6. Total counts of Hooded Merganser during January in New York State, 1973-2008.