

Assessing the Conservation Order for Light Geese in the Atlantic Flyway in 2010



Submitted in Fulfillment of the Reporting Requirements of the Conservation Order on Behalf of
the Participating States in the Atlantic Flyway

Snow Goose, Brant, and Swan Committee of the Atlantic Flyway Council

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In 2010, seven Atlantic Flyway states participated in the conservation order (CO) on light geese that was established by the light goose final rule (Federal Register Vol. 73, no 227) (Table 1). States differed in their administration of the CO season. All of the states, except for New York, required participants to obtain a permit to participate. Permits were obtained either online or through the mail. Maryland also issued permits through their automated licensing system. Maryland (\$5) and New Jersey (\$2) charged a fee for the permit. Pennsylvania, Delaware, Vermont, and Virginia issued free permits. Participation in New York was complimentary of existing waterfowl hunting privileges.

The Atlantic Flyway developed a standard survey form template for use by states in assessing the impact of the CO (Appendix A). Hunter activity was solicited through a paper hunting diary and/or an online data entry screen. Reporting of activity, regardless of participation, was required in all five states that issued permits. New York surveyed a sample of people who registered in HIP to estimate participation and harvest. Follow up letters, emails, or phone calls to non-respondents were conducted in five states (Delaware, New Jersey, New York, Virginia, and Vermont).

The use of special measures and bag limits during the CO seasons was varied by state (Table 1). As experience is gained on hunter activity and effectiveness during the CO, hopefully all participating states will relax the constraints towards the maximization of harvest during the small window of opportunity.

Table 1. Light goose harvest regulations in the key staging and wintering states within the Atlantic Flyway, 2010.

State	Special Measures Outside of CO	Participate in CO in 2010?	CO Dates	Special Measures in CO?	Bag/Possession Limit	Participation	Harvest Survey
Vermont	No	Yes	March 11-April 23	All	15/None	Free Permit	Yes
New York	Yes	Yes	March 11-April 15	Unplugged, E-calls	15/None	Existing waterfowl hunting privileges	Yes
New Jersey	No	Yes	Feb 16-April 10	All	None/None	\$2 Permit	Yes
Delaware	No	Yes	Feb 1-April 17	All	None/None	Free Permit	Yes
Pennsylvania	No	Yes	Feb 20-April 3	E-calls, extended hours	15/None	Free Permit	Yes
Maryland	No	Yes-in AP CAGO zone	Feb 1-April 17	All	None/None	\$5 fee, plus \$1.03 Service Fee if obtained via DNR website	Yes
Virginia	No	Yes-in AP CAGO zone	Feb 1-March 27	All	None/None	Free Permit	Yes
North Carolina	Yes	No		Unplugged, E-calls			

The following summary of hunter activity and harvest associated with the CO seasons are broken down by individual state and for the entire flyway.

In the six states that utilized a permit system, a total of 6,893 permits were issued (Table 2). A total of 2,722 permits were returned. One state, Maryland, sampled a proportion (33%) of their permittees. All other permit states used the entire permittee pool for harvest information gathering. The overall response rate from the six permit states was 41%. Five states conducted follow up inquiries to permit holders to boost response rate. In the six states that issued permits, an estimated 49% of all permit holders participated in the CO (n = 2,823). Estimated harvest in those states that required a permit for participation was 40,305. In New York a harvest survey was sent to 5% (n = 2000) of all HIP registrants. Overall response rate for New York was lower (33%) than for states that used a special permit. Participation rate in New York was only 2% yielding an estimate of 810 participants for the CO. Including un-retrieved birds, the estimated harvest in New York was 5,150.

Table 2. Hunter activity and estimated harvest in the Atlantic Flyway Light Goose Conservation Order, 2010.

State	2010 Dates	Permits Issued	Permits Returned	Response Rate	Hunted	Percent Participate	Days Hunted	Geese Shot and Retrieved	Geese Shot and Lost	Geese shot after Sunset	Geese shot with electronic calls	Geese taken with shot shell >3
DE	1 February - 17 April	1,018	590	58%	630	62%	2,021	16,414	556	711	3,363	2,034
MD	1 February - 17 April	1,438	196	45%**	805	56%	2,464	14,737	910	5,894	6,337	1,621
NJ	16 February - 10 April	637	271	43%	433	68%	1,659	5,084	661	997	2,508	1,179
NY	11 March - 15 April	38,244*	NA	33%	810	2%	2,893	4,947	203	NA	4,195	752
PA	20 February - 3 April	3,107	1,335	43%	668	21%	2,409	2,985	141	330	1,101	NA
VA	1 February - 27 March	269	146	54%	137	51%	506	891	34	53	640	89
VT	11 March - 23 April	425	184	43%	150	35%	584	194	14	NA	NA	NA
	Six Permit State Total	6,894	2,722	48%	2,823	49%	9,643	40,305	2,316	7,985	13,949	4,923
	AF Total	6,894	2,722	46%	3,633	42%	12,536	45,252	2,519	7,985	18,144	5,675

Flyway wide an estimated total of 3,633 hunters participated in the CO, similar to the estimated number of participants in 2009 (3,614). The estimated retrieved flyway harvest of light geese was 45,252, with an additional 2,519 birds shot and lost. The estimated total harvest of 47,771 birds is twice the estimated harvest in the first year of the CO in 2009 (24,853). The estimated number of days spent hunting was similar between years (12,536 vs 12,617 in 2009), so it appears that individual hunter success was much higher in 2010, perhaps a result of the hunting conditions during February or hunters gaining experience with this new opportunity.

The most useful of the special measures seemed to be the use of electronic calls, which accounted for approximately 38% of the total harvest. In 2009, an estimated 29% of the harvest was achieved using electronic calls. Only New York didn't allow shooting after sunset. An estimated 19% of the harvest in those six states that did allow shooting after sunset occurred after normal shooting hours. This is higher than the estimated 13% from 2009. Flyway wide an estimated 12% of the harvest was achieved with shells fired after the customary 3rd shot. The 2009 estimate was 17%.

Snow conditions and cold weather in February in the mid-Atlantic states resulted in excellent snow goose hunting conditions. Birds were limited to feeding in standing cornfields that were

accessible because of snow depths that often reached greater than 1.5 meters. Geese were highly susceptible to harvest during these conditions. Testament to these favorable conditions was the fact that 72% of the estimated harvest in Maryland and Delaware (23,434) occurred in the month of February. This is in stark contrast to 2009, when over 90% of the Delaware harvest occurred in March, as did 60% of the Maryland harvest. The timing of the harvest in these Chesapeake states in 2009 was also influenced by the starting date for the CO season which was in March 2009. It was prescient that all the Chesapeake states, Delaware, Maryland, and Virginia began the CO in 2010 in February.

Further reason for lower latitude states to open the CO as early as possible, similar to 2009, the timing of snow goose migration in 2010 was early. Geese seemed to move out of the Chesapeake and mid-Atlantic region during the second week of March. Many birds were in southern Quebec by the middle of March, which is much earlier than normal. Stopover in northern New York and Vermont was very short in 2010. Most birds did not spend any appreciable time in the northern US in March. This is likely due to the very warm weather experienced in March throughout the northeastern US and southeastern Canada. Estimated harvest during the intervals on the harvest survey bear further witness to the northward movement of geese in spring 2010.

Despite an early migration, short stopover times, and lower than hoped for participation, the second year of the CO seasons in the US portion of the Atlantic Flyway was reasonably successful, although not as successful as needed to stem the current population trajectory of greater snow geese. Despite an estimated harvest far greater than that of 2009, overall harvest continues to fall short of the level to stabilize the population. Of further concern is the continued good production of the greater snow goose population, even, it seems, in years of late springs elsewhere in the eastern Arctic. The good production is a catch 22 in that harvest opportunity on adult birds is greater in years of good snow goose production, however, good recruitment serves as a buffer to achieving high adult harvest rates.

Anecdotal reports from southern Quebec in April 2010 indicated that many harvested birds were in very good shape (i.e. thick fat pads). Thus, the lack of participation in the northern portion of the US portion of the AF and the hasty northward movement of birds into the St. Lawrence estuary may not have resulted in widespread detriment to feeding or movement patterns of the geese. This lack of disturbance likely resulted in birds being in excellent condition as they headed towards the breeding grounds.

In an effort to better promote the CO and successful snow goose hunting tactics, the AF developed a brochure outlining the do's and don'ts of successful snow goose hunting, an overview of the problems posed by overabundant snow geese, and some links to more information on snow goose recipes and hunting. This brochure was distributed on agency websites, and posted on the Arctic Goose Joint Venture website, and www.flyways.us.

Appendix A. Hunter survey form.

Snow Goose 2010 Spring Season Harvest Survey - *State Name*

The special spring season for snow geese is designed to increase harvest of these birds, which have increased to more than one million birds in the Atlantic Flyway and now threaten the long-term health of the ecosystems they inhabit. As a requirement for establishing a spring season in *State Name*, we must collect information on hunter participation, use of special regulations, and snow goose harvest during the season. This information will help managers assess effectiveness of the spring season for reducing snow goose populations. Please take a few minutes to accurately and completely fill out this survey and return it in the pre-paid envelope by May 31, 2009. **Failure to return this survey may make you ineligible to participate in the 2010 spring season!**

Snow Goose 2010 Spring Season regulations in *State Name*:

Season dates:

Daily bag limit: **No limit**

Unplugged guns allowed: **Yes**

Electronic calls

allowed: **Yes**

Shooting hours: **½ hour before sunrise to ½ hour past sunset**

Hunter Survey:

1. Your *State Name* HIP (or other authorization) number for 2009-10: _____
2. Your home (or cell) phone number: _____ and birthdate: ____/____/____
3. How many days did you hunt and how many snow geese did you personally shoot during each of the time periods listed below:

	Feb 1-15	Feb 16-28	March 1-15	March 16-31	April 1-15	April 16-30	Total
# days hunted							
# geese shot and retrieved							
# geese downed and not retrieved							

4. How many of the total number of birds you shot were taken with the aid of the following **special regulations:**

	Geese shot after sunset	Geese shot with aid of electronic call	Geese shot with 4 th , 5 th , or 6 th shell in magazine
Shot and retrieved			
Downed and not retrieved			

5. Please list the counties where you hunted snow geese during the 2010 spring season in *State Name*, and how many geese you shot and retrieved in each county:

County	# days hunted	# geese shot and retrieved

6. Will you hunt snow geese in 2011 if a spring season is offered again in *State Name*?
7. _____
Please add any comments you have on the 2010 spring season for snow geese in *State Name*:

Please return this survey in the envelope provided. Thank you very much!