

A Summary of the 2004-2005 Bernardo/Casa Colorada Light Goose Hunt

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Abstract The New Mexico Department of Game and Fish administered its annual regulated field hunt for 'light geese' at the Bernardo and Casa Colorada Waterfowl Management Areas (WMA)s during the 2004-2005 waterfowl season. Permits were issued to hunt Snow Geese (*Chen caerulescens*), and Ross's Geese (*C. rossii*), on 6 selected dates between December 6, 2004 and January 27, 2005. December 29, 2004 at the Bernardo WMA was set aside for a youth hunt. Results from data gathered on hunter survey forms indicate 19 geese were harvested over 94 hunter days for a mean harvest of 0.20 geese per hunter. This figure is below the established goal of 0.74 geese per hunter.

INTRODUCTION

The Bernardo and Casa Colorada Waterfowl Management Areas have administered a regulated field hunt for twelve consecutive waterfowl seasons, including this past 2004-2005 season. In addition to the Bosque del Apache National Wildlife Refuge (NWR) limited light goose hunting, this hunt provides consistent public light goose hunting opportunity in the middle Rio Grande valley (MRGV).

The goal of this hunt is to match or exceed hunts traditionally held on the Bosque del Apache NWR prior to 1992. Furthermore, it was designed to provide a quality hunt for all participants. The revision of A Plan for the Management of Waterfowl, Sandhill Cranes, and other Migratory Birds in the Middle Rio Grande Valley of New Mexico (Plan) (Taylor 1999), doesn't address hunting due to conflicting management strategies. However, the goals from the previous Plan will be used for the Bernardo/Casa Colorada Special Goose Hunts. That goal is 0.74 geese per hunter on managed areas in the MRGV.

METHODS

Six dates between December 6, 2004 and January 27, 2005 were selected and scheduled into three hunt segments. The hunt dates are fixed calendar dates and are similar as has been scheduled the previous years. The first segment consisted of two hunt dates scheduled on alternating days at Bernardo WMA and one hunt date at Casa Colorada WMA. The last two segments had two hunt dates scheduled on alternating days on each WMA. This altered the number of days available to accommodate using the random drawing system. The three segments were separated by a period of 20 - 25 days to allow 10 - 15 days for feeding and 10 days for recovery so as not to be in violation of federal baiting regulations.

The Bernardo WMA maintained the number of available blinds at eight. Blind size is capable of accommodating four persons (except the youth hunt when only two hunters per blind was allowed), for a capacity of 176 hunter days. Two of the blinds located on the impoundments north of Highway U.S. 60 were removed with the remainder as field blinds. Casa Colorada WMA operated 8 field blinds for a total of 160 potential hunter days. A total of 336 hunter days were available for the 2004-2005 light goose hunt.

Permits were acquired through a random drawing. Applications for Bernardo/Casa Colorada light

goose hunts were submitted on the appropriate application form. A six-dollar non-refundable application fee was required of each applicant. Up to four persons could apply per application and applicants may designate up to three hunt choices. Only one choice was awarded. The deadline date for applications was on the second Saturday in September. Five hunt codes were available. Hunters were limited to one permit. Each permit contained two hunt dates scattered between Bernardo and Casa Colorada. At least one hunt date per two of the three hunt periods was included on each permit. Maps and information sheets were distributed to hunters acquiring permits. Standby positions were filled, with no fee, in the event space remained available the day of the hunt.

The 16 youth permits were available through the same random drawing process to those persons whom would not have reached the age of 18 years on December 29, 2004. A minimum of one non-hunting adult was required to be present in the blind with the youth hunters during their hunt. Department personnel provided youth hunters a review of safety rules prior to leaving for the blinds. The Youth Hunt day was changed from the second day of the second hunt period to the first day of the second hunt period to increase the quality of this hunt.

One of the hunt choices this season was reserved as a Youth/Adult hunt. Eligible applications required at least one hunter under the age of 18 years and at least one adult, but not more than two adults. This hunt choice was intended to encourage youth hunter participation.

All hunters were required to check in at the WMAs one hour prior to commencement of the hunt to receive blind assignments. Before proceeding to their blinds, hunters were instructed on hunt regulations and how to record their harvest prior to leaving the hunt area. Hunting hours were from one half hour before sunrise to 1:00 p.m.

At the end of each hunt date Department personnel gathered information on the numbers of geese bagged. From this information, a summary for each hunt date, each two-day hunt segment, and total season was generated for both locations. This report summarizes the 2004-2005 Bernardo/Casa Colorada light goose hunt.

RESULTS

Hunter Activity and Harvest

Of the 176 hunter days available at Bernardo, 39.2% (n=69) occurred. Casa Colorada utilized 15.6% (n=51) of its capacity of 160 hunter days. Overall, 30.0% (n=94) of the 336 potential hunter days were filled.

Nineteen geese were bagged resulting in an overall mean harvest of 0.20 geese per hunter. Bernardo recorded the higher harvest and mean harvest per hunter for the first two hunt segments. No geese were bagged during the last hunt segment on Bernardo. There were four of the five hunt dates where no geese were bagged at Casa Colorada. Hunters were present on all but the last date. Bernardo harvested 94.7% (n=18) while Casa Colorada harvested 5.3% (n=1) of the total harvest. Bernardo recorded the higher overall mean harvest with .26 geese per hunter while Casa Colorada averaged 0.04 geese per hunter. The second segment had the highest harvest and mean bag (12 geese; 0.46 geese/hunter). The first segment recorded the second highest harvest and lowest mean bag (6 geese; 0.18 geese/hunter), with the third segment recording no harvest (Table 1).

Table 1. Summary of hunter activity for the Bernardo and Casa Colorada WMAs; 2004-2005.

	Bernardo		Casa Colorada		Total	
	No. Hunters	No. Bagged	No. Hunters	No. Bagged	No. Hunters	No. Bagged
December 6	19	0	*		19	0
December 8	15	6	2	0	17	6
Total	34	6	2	0	36	6
0 Harvest		0.18		0.0		0.17
December 29	9	8	9	1	18	9
December 31	17	4	12	0	19	4
Total	26	12	17	1	37	13
0 Harvest		0.46		0.06		0.35
January 25	3	0	6	0	9	0
January 27	6	0	0	0	6	0
Total	9	0	6	0	15	0
0 Harvest		0.0		0.0		0.0
TOTAL	69	18	25	1	94	19
0 HARVEST		.26		0.04		0.20

* Youth hunt
 * No hunt scheduled

The 2004-2005 season ranked the lowest in total harvest and in mean harvest per hunter when compared with hunts held both at the Bosque del Apache NWR and Bernardo/Casa Colorada WMAs during the period 1985-2004 (Table 2).

Youth Hunt

This was the eleventh season that the Department provided waterfowl opportunity specifically for youth hunters. The number of blinds available was maintained at 8 so only 16 permits were available. Of the 16 permits available, 56% (n=9) were used. Eight geese were bagged (74% decrease) for a mean harvest of 0.89 geese per hunter (down from 2.21 last season). This hunt introduced young hunters to waterfowling. Comments from both hunters and non-hunting companions continued to be extremely positive, but the lack of light geese using Bernardo was disappointing.

Table 2. Total number of geese harvested and mean harvest; Bernardo and Casa Colorado WMAs Light Goose Hunt 1985-2004.

Year*	Number of Geese Harvested	Mean Harvest (geese/hunter)
1985	567	0.40
1986	111	0.47
1987	81	0.56
1988	205	0.98
1989	382	1.35
1990	288	0.94
1991	282	0.80
1992	287	0.62
1993	551	1.33
1994	332	0.93
1995	457	1.23
1996	385	0.98
1997	258	0.64
1998	731	1.93
1999	433	1.06
2000	281	0.89
2001	219	0.70
2002	163	0.68
2003	164	0.79
2004	19	0.22

* Bosque del Apache NWR 1985-1991; Bernardo/Casa Colorado WMAs 1992-2004.

DISCUSSION

The total harvest of the Bernardo/Casa Colorado hunt was 19 geese. For the 2004-2005 season the bag limit on light geese remained at 20 with a possession limit of 80 to match the regular season regulation. Each hunter was allowed to take 25 non-toxic shot shells to the blind. With 69 hunter days of use, a calculated 0.20 geese per hunter resulted. The goal to meet or exceed 0.74 geese per hunter was not achieved. Bosque del Apache NWR offered light goose hunting on that refuge for 3 days in January 2004. This resulted in less demand for light goose hunts on state WMAs and allowed the Department more days to provide feed for sandhill cranes and waterfowl and 10 days for recovery so as not to be in violation of federal baiting regulations. Bernardo again lead Casa Colorado in all of the monitored hunt parameters. The mean harvest on Bernardo decreased 74% from the 2003-2004 hunts. Mean harvest decreased for all three hunt segments. On Casa Colorado the mean harvest decreased 86% for all three hunt segments. Light goose use at Bernardo and Casa Colorado was low to nonexistent while the crane use was very high.

During the 1992-93 season, 1,080 hunter days were available yet only 42.9% (n=463) were utilized. For 1993-94, only 864 hunter days were available. This reduction was a result of

implementing a recommendation to reduce the number of blinds at Bernardo from 20 to 14. However, only 47.8% of capacity (n=413) was realized. For the 1994-97 seasons, 850 hunter days were available. For the 1998-99 season, 860 hunter days were available yet only 43.4% (n=378) were utilized. The increase of 10 hunter days was a result of reducing the number of blinds on Bernardo while increasing blind capacity at both Bernardo and Casa Colorada from 3 to 4 hunters. During the youth only hunt at Bernardo only two hunters per blind were allowed. The 2003-2004 hunts reduced the number of blinds to 8 and blind capacity remained at 4. There was a 0.006% increase in the number of birds harvested. Hunter use days decreased 34.3% compared to 2002-2003. The 2004-2005 hunts maintained the number of blinds to 8 and blind capacity remained at 4. There was an 88.4% decrease in the number of birds harvested. Hunter use days decreased 54.8% compared to 2003-2004; and hunter use remains lower than desirable, especially at Casa Colorada.

This season, the MRGV experienced a warmer than average winter with above average moisture. The 2004-2005 winter recorded the wettest winter since the 1864. During the three hunt segments the MRGV light goose population averaged 32,520, which is below the Plan's goal of 40-45,000. The major factors for the low harvest this year was due to few geese leaving Bosque del Apache NWR, hunter pressure at the WMAs when the geese began leaving Bosque del Apache NWR, below average wintering population in the MRGV, poor production on the Arctic breeding areas and the smaller than average proportion of juvenile light geese wintering in the MRGV.

This was the ninth year that impoundments, north of US-60, on Bernardo were flooded during the winter. Initially this resulted in light geese roosting on Bernardo. This changed the daily flight patterns of light geese using the MRGV. Geese that had made the daily flights from Bosque del Apache to feed on the WMAs would remain on or near the WMAs. This resulted in less bird watching opportunity at Bosque del Apache and less hunter opportunity off the WMAs. Daily hunting of waterfowl was allowed on the impoundments north of U.S. Highway 60 during the regular seasons from 1998-99 through 2001-02, to discourage roosting light geese. This initially increased the harvest of light geese on Bernardo. Hunters could hunt until 1:00pm and the light geese developed a pattern of not using the impoundments until after 1:00pm and seldom used the impoundments as roosting sites. The geese reverted to the pattern of occasional daily flights from Bosque del Apache to the WMA's however; this also decreased light geese use on Department WMAs.

During 2002-03 the Bernardo impoundments north of U.S. Highway 60 were closed to all hunting except those holding the special light goose permits. This was to again encourage light goose use on the WMA's. This had no success due to the mild weather. Without cold weather light geese didn't have the high-energy food demands required to fly from Bosque del Apache to the WMA's to feed on grain. It appears that once the geese begin establishing a pattern using Bernardo, personnel must cease mowing corn so that all grain will be removed from the hunt areas 10 days prior to the hunts. The lack of grain and the disturbance from the hunts discourages goose utilization and most geese return to Bosque del Apache NWR. Once the geese become accustomed to utilizing Bosque del Apache NWR it is very difficult to encourage goose movements without accompanying cold temperatures.

In previous years hunters were allowed to hunt ducks and light geese south of US-60 on the days of the Special Goose Hunts. With the addition of the impoundments north of US-60 this added confusion on when they were open to hunting. During the 1998-99 hunts there were several instances when non-permitted hunters would enter the impoundments prior to shooting hours and flush the geese. The last six years all of Bernardo was closed during the days of the Special Goose Hunt to all hunting except for those holding a Special Goose permit or those entering on a standby status. This alleviated confusion and resulted in fewer non-permitted hunters disrupting the hunt. It is hoped that with all of Bernardo being closed on these days the geese may begin using the impoundments south of US-60 and provide more hunting opportunity.

This year very few light geese used Bernardo WMA resulting in an extremely low harvest. Eighteen geese were harvested during 69 hunter days. Hunting pressure when light geese are first arriving at Bernardo and the warm winter resulting in geese not needing high-energy food reserves is the most likely cause for this as sandhill crane use was very high.

This year very few light geese used Casa Colorada WMA resulting in an extremely low harvest. One goose was harvested during 25 hunter days. The warm winter resulting in geese not needing high-energy food reserves is the most likely cause for this as sandhill crane use was very high.

Despite the continued drought and decreased irrigation water available, corn was planted on the MRGV WMA's during 2004. Some acreage was also planted in sorghum and millet to hold the soil and provide some food resources. This sufficed for concentrating sandhill cranes as the cranes could feed on the sorghum without personnel having to manipulate it; but there wasn't the desired light goose use on the WMAs as in the past. Due to little to no light goose use the WMAs had surplus corn.

It is recommended that the current structure be reviewed annually. Also, strategies need to be developed to increase the waterfowl use days at these WMAs and increase the hunt quality.

Literature Cited

Taylor, J. P. 1999. A plan for the management of waterfowl, sandhill cranes, and other migratory birds in the Middle Rio Grande Valley of New Mexico. U. S. Fish and Wildlife Service, Region 2. 51pp.