

## Results of the 2020 Light Goose Conservation Order in Colorado

Jim Gammonley, Jon Runge, and Ed Gorman  
Colorado Parks and Wildlife  
10 July 2020

The Colorado Division of Parks and Wildlife established a conservation order for light geese in 1999. The conservation order area is the eastern plains of Colorado, east of Interstate 25. The conservation order period in 2020 was February 17–April 30. Shooting hours were from one-half hour before sunrise to one-half hour after sunset. There was no bag or possession limit. Electronic calls and unplugged shotguns were allowed. Participants were required to be registered for the Harvest Information Program (HIP) and to have a Colorado state duck stamp. All other federal and state regulations pertaining to the take of migratory birds were in effect during the conservation order.

A stratified random sample of 4,500 potential light goose hunters was drawn from among 2019-2020 HIP registrants. The sample was stratified into HIP registrants that responded they did not hunt light geese during the 2018-2019 seasons and conservation order, light goose hunters that did not bag any light geese during 2018-2019, light goose hunters that bagged 1-30 birds during 2018-2019, and light goose hunters that bagged >30 birds during 2018-2019. A post-season harvest survey was conducted by phone; individuals within the sample that provided email addresses when registering for HIP were sent email surveys as well.

A total of 1,640 (36% of the original sample) hunters responded to the survey. Estimates of hunter numbers, total hunter-days, and light goose harvest during the conservation order were lower in 2020 than in 2019, and lower than the 1998-2019 averages (Table 1). In 2020, the average light goose harvest per hunter was 8.1, slightly lower than the 1999-2019 average of 9.5. The average number of days hunted per hunter in 2020 was 5.4, near the 1999-2019 average of 5.0 days. In 2020, 78% of participants hunted north of Interstate 70 and harvested 71% of the total conservation order harvest, and 27% of participants hunted and harvested 29% of total geese south of I-70 in eastern Colorado.

Electronic calls were used by 20% of participants ( $425 \pm 84$ ) and 21% of harvest was obtained using electronic calls. Twenty-four percent of participants ( $489 \pm 91$ ) hunted after sunset and 3% of the total harvest was obtained through hunting after sunset. Unplugged shotguns were used by 28% of participants ( $573 \pm 102$ ) and 24% of total harvest was obtained using unplugged shotguns. Based on reported wounding loss by participants, we estimate that  $438 \pm 37$  light geese were wounded but not retrieved during the 2020 conservation order (7% of reported retrieved harvest).

In 2020, 69% of respondents indicated they were very likely and 24% responded they were somewhat likely to participate in a light goose conservation order if it is offered in future years. Estimates of hunter numbers, hunter-days, and harvest have remained fairly stable throughout the 22-year history of the light goose conservation order in Colorado (Figs. 1-3).

Table 1. Estimates ( $\pm$  SE) of participation and harvest during the light goose conservation action in Colorado.

Year	Hunters	Total-Hunter Days	Total Harvest	Harvest Using Electronic Calls	Harvest After Sunset	Harvest with unplugged shotguns
1999	1,638 (179)	6,709 (62)	13,417 (550)	Not permitted	Not permitted	Not permitted
2000	3,276 (511)	15,316 (3,178)	31,783 (7,877)	17,441 (5,607)	3,364 (1,417)	Not permitted
2001	2,495 (616)	8,836 (2,521)	22,457 (8,673)	16,671 (7,068)	2,060 (964)	Not permitted
2002	1,323 (351)	5,016 (1,502)	7,594 (1,923)	3,445 (1,011)	1,153 (505)	Not permitted
2003	2,162 (205)	10,193 (1,563)	27,395 (5,336)	19,828 (5,044)	3,658 (809)	Not permitted
2004	1,877 (184)	8,547 (911)	24,497 (3,286)	13,467 (2,457)	3,051 (652)	Not permitted
2005	1,281 (157)	6,593 (1,194)	16,135 (3,620)	12,417 (3,473)	1,886 (323)	Not permitted
2006	2,704 (511)	12,568 (3,406)	18,535 (751)	8,357 (466)	2,338 (170)	Not permitted
2007	2,367 (229)	10,847 (1,613)	23,375 (1,362)	16,041 (6,210)	3,509 (1,232)	Not permitted
2008	2,555 (250)	11,886 (1,595)	13,745 (1,268)	7,212 (896)	1,381 (233)	Not permitted
2009	1,951 (208)	8,744 (936)	23,072 (1,246)	15,190 (5,669)	6,485 (3,155)	Not permitted
2010	1,899 (200)	8,829 (1,343)	11,473 (861)	6,149 (1,260)	2,058 (468)	2,443 (639)
2011	1,385 (157)	10,905 (1,884)	28,193 (1,853)	14,438 (4,651)	3,066 (974)	3,246 (655)
2012	1,847 (203)	8,659 (1,215)	18,971 (1,316)	13,168 (2,921)	1,916 (337)	2,785 (580)
2013	2,461 (285)	7,533 (1,027)	13,246 (868)	8,821 (1,963)	2,049 (586)	2,766 (1,157)
2014	3,555 (310)	25,311 (4,035)	34,216 (1,435)	14,774 (3,217)	3,878 (1,461)	7,956 (1,912)
2015	2,693 (298)	13,907 (1,996)	15,719 (732)	8,075 (2,525)	2,981 (1,148)	4,478 (2,171)
2016	2,933 (261)	16,903 (2,360)	23,499 (1,457)	10,613 (3,624)	1,750 (811)	7,415 (3,387)
2017	2,921 (275)	15,637 (2,356)	16,102 (611)	7,645 (2,132)	796 (489)	3,477 (1,211)
2018	2,821 (259)	18,076 (5,294)	56,647 (2,819)	18,021 (6,298)	1,396 (841)	28,542 (13,302)
2019	2,506 (223)	14,336 (2,128)	20,719 (893)	11,202 (3,434)	1,764 (1,057)	4,136 (2,293)
1999-2019 average	2,317	11,683	21,942	11,740	2,433	6,474
<b>2020</b>	<b>2,075 (198)</b>	<b>11,154 (1,637)</b>	<b>16,813 (1,117)</b>	<b>3,564 (1,390)</b>	<b>550 (277)</b>	<b>3,974 (1,308)</b>

Figure 1. Annual estimates of numbers of hunters participating in the light goose conservation order in Colorado, 1999-2020.

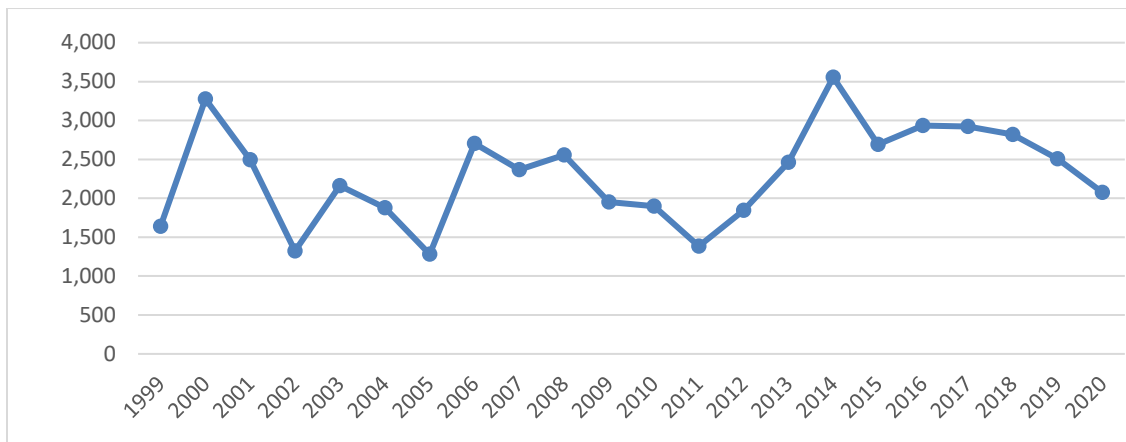


Figure 2. Annual estimates of numbers of the total number of hunter-days in the light goose conservation order in Colorado, 1999-2020.

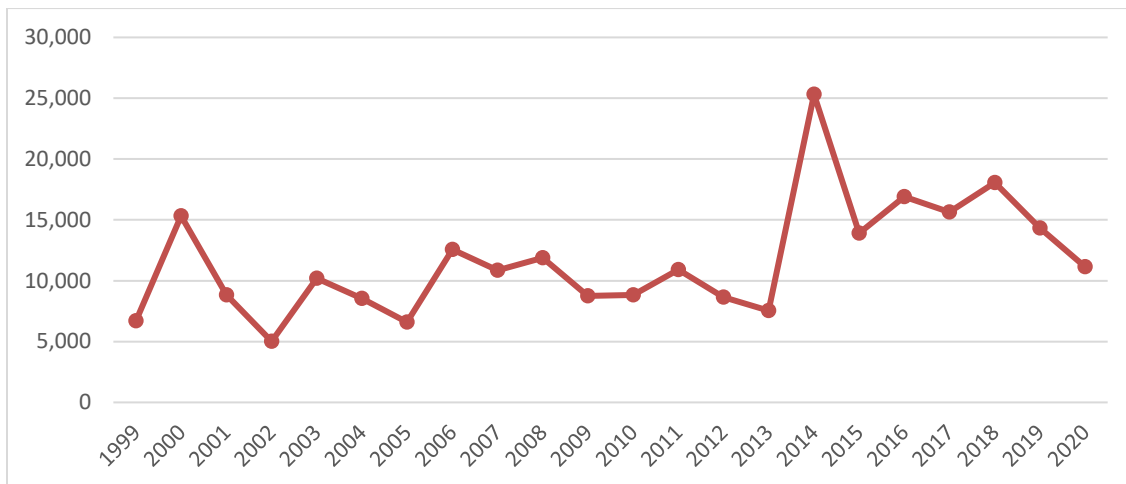


Figure 2. Annual estimates of total harvest in the light goose conservation order in Colorado, 1999-2020.

