#### 2002/2003 Light (Snow and Ross's) Goose Harvest Report

This report provides information on the estimated harvest of light geese during the regular goose season and the conservation action period. Harvest is reported both on a county and statewide basis. Information is provided on the use of electronic calls and extended hunting hours during the conservation action period. (Colorado did not offer a late light goose only season in 2003.)

A post-season harvest survey was conducted by phone.

A stratified random sample of 2501 potential light goose hunters was drawn from among HIP participants. 1996 (80% response rate) hunters were contacted.

Of the 429 hunters who reported hunting light geese, 283 or 66% reported they had actively hunted light geese during the regular goose season. Fifty-seven percent or 245 hunters reported hunting light geese during the conservation action period.

84% reported being satisfied with their light goose hunting experience.

The leading reason for hunting during the conservation action period was the ability to harvest an unlimited number of geese (38%) followed closely by concern for the environment (37%). Use of electronic callers (14%) and extended hunting hours (9%) were not a factor for the majority of hunters surveyed.

Seventy-eight percent of the 429 hunters surveyed said they would be very likely to participate in future conservation action periods. Eighteen percent were somewhat likely to participate and 4% were not at all likely to participate.

Statewide harvest was estimated at 19,138  $\pm$  4615 (14523 - 23753) for the regular season and 27,395  $\pm$  10,458 (16,937- 37,853) for the conservation action period.

#### Comparison with 2001/02 survey results:

Comparing only the figures for the combined regular season and conservation action period for both years, harvest was down during the regular season but up for the conservation action period. In 01/02 an estimated 23,551  $\pm$  9,892 birds were harvested during the regular season and 7,594  $\pm$  3,769 during the conservation action period. Hunter numbers decreased from 6,235  $\pm$  945 in the 01/02 regular season to 3,804  $\pm$  570 in 02/03 but increased for the conservation action period (1,323  $\pm$  686 in 01/02 compared to 2,162  $\pm$  400 in 02/03). Total days hunted decreased from an estimated 39,591  $\pm$  10,286 (regular season) to 28,430  $\pm$  5627 (regular season), but increased from 5,016  $\pm$  2,944 (conservation action) in 01/02 to 10,193  $\pm$  3061 in 02/03.

#### Harvest by Strata, County and Population

Summary tables provide estimates of hunter numbers, days in the field and light goose

harvest by county and population. Estimates are followed by the standard error of the estimate, and 95% upper (UCI) and lower (LCI) confidence intervals around the estimate. For example, the estimated number of light goose hunters in Bent County during the conservation action is 178 plus or minus 1.96(SE) or 1.96(59)= 116. The range of the estimate is 62 to 294. Estimates of days in the field and harvest are interpreted the same way. State totals are given at the bottom of each column.

(The output wraps around.)

## 2002-2003 Light Goose Survey Results

# Hunted Light Geese During the 2002/03 Season (Sept 28 - Mar 31)?

| _ | hunt0203 | Frequency | Percent | Cumulative<br>Frequency | Cumulative<br>Percent |
|---|----------|-----------|---------|-------------------------|-----------------------|
|   | Yes      | 429       | 21.49   | 429                     | 21.49                 |
|   | No       | 1567      | 78.51   | 1996                    | 100.00                |

## Hunted Light Geese During the Regular Season (Sept 28 - Feb 16)?

|         |           |         | Cumulative | Cumulative |
|---------|-----------|---------|------------|------------|
| huntreg | Frequency | Percent | Frequency  | Percent    |
| Yes     | 283       | 65.97   | 283        | 65.97      |
|         |           |         |            |            |
| No      | 146       | 34.03   | 429        | 100.00     |

## Hunted During the Conservation Action (Feb 22-Mar 31)?

|        |           |         | Cumulative | Cumulative |
|--------|-----------|---------|------------|------------|
| huntca | Frequency | Percent | Frequency  | Percent    |
| Yes    | 245       | 57.11   | 245        | 57.11      |
| No     | 184       | 42.89   | 429        | 100.00     |

## Reason for Hunting

| Reason                        | Frequency | Percent | Cumulative<br>Frequency | Cumulative<br>Percent |
|-------------------------------|-----------|---------|-------------------------|-----------------------|
| Environmental Concerns        | 92        | 37.55   | 92                      | 37.55                 |
| Harvest unlimited light geese | 95        | 38.78   | 187                     | 76.33                 |
| Use electronic callers        | 36        | 14.69   | 223                     | 91.02                 |
| Hunt after sunset             | 22        | 8.98    | 245                     | 100.00                |

## Satisfaction

| Satis                 | Frequency | Percent | Cumulative<br>Frequency | Cumulative<br>Percent |
|-----------------------|-----------|---------|-------------------------|-----------------------|
| Strongly Dissatisfied | 12        | 4.90    | 12                      | 4.90                  |
| Somewhat Dissatisfied | 12        | 4.90    | 24                      | 9.80                  |
| Slightly Dissatisfied | 12        | 4.90    | 36                      | 14.69                 |
| Neutral               | 4         | 1.63    | 40                      | 16.33                 |
| Slightly Satisfied    | 14        | 5.71    | 54                      | 22.04                 |
| Somewhat Satisfied    | 64        | 26.12   | 118                     | 48.16                 |
| Strongly Satisfied    | 127       | 51.84   | 245                     | 100.00                |

#### Hunt in future Conservation Action Seasons?

|                 |           |         | Cumulative | Cumulative |
|-----------------|-----------|---------|------------|------------|
| future          | Frequency | Percent | Frequency  | Percent    |
| Not likely      | 16        | 3.73    | 16         | 3.73       |
| Somewhat likely | 76        | 17.72   | 92         | 21.45      |
| Very likely     | 337       | 78.55   | 429        | 100.00     |

#### Strata

|                        |           |         | Cumulative | Cumulative |
|------------------------|-----------|---------|------------|------------|
| strata                 | Frequency | Percent | Frequency  | Percent    |
| Did not hunt last year | 1396      | 69.94   | 1396       | 69.94      |
| None bagged last year  | 97        | 4.86    | 1493       | 74.80      |
| 1-30 bagged last year  | 438       | 21.94   | 1931       | 96.74      |
| 30+ bagged last year   | 65        | 3.26    | 1996       | 100.00     |

## Used electronic calls to hunt during the Conservation Action?

|       |      |           |         | Cumulative | Cumulative |
|-------|------|-----------|---------|------------|------------|
| useec | alls | Frequency | Percent | Frequency  | Percent    |
| Yes   |      | 19        | 30.65   | 19         | 30.65      |
| No    |      | 43        | 69.35   | 62         | 100.00     |

#### Hunted during the extended hunting hours during the Conservation Action?

|     |     | _         |         | Cumulative | Cumulative |
|-----|-----|-----------|---------|------------|------------|
| sun | set | Frequency | Percent | Frequency  | Percent    |
| Yes |     | 31        | 50.00   | 31         | 50.00      |
| No  |     | 31        | 50.00   | 62         | 100.00     |

## Harvest Summaries for State-wide Estimates by Strata

----- Strata=Did not hunt last year -----

|                                     |          | Standard |       |       |
|-------------------------------------|----------|----------|-------|-------|
| Variable                            | Estimate | Error    | LCI   | UCI   |
|                                     |          |          |       | _     |
| Days hunted regular season          | 18932    | 2682.6   | 13674 | 24190 |
| Harvest regular season              | 6448     | 1458.6   | 3589  | 9307  |
| Days hunted CA season               | 4740     | 1383.7   | 2028  | 7452  |
| Harvest CA season                   | 11954    | 4906.9   | 2336  | 21572 |
| Days hunted all seasons             | 23673    | 3492.8   | 16827 | 30518 |
| Harvest all seasons                 | 18402    | 5171.3   | 8266  | 28538 |
| Electronic Call Harvest all seasons | 9952     | 4815.9   | 513   | 19391 |
| Electronic Call Harvest CA season   | 9952     | 4815.9   | 513   | 19391 |
| Extended Hours Harvest CA season    | 766      | 294.5    | 188   | 1343  |
| Hunters regular season              | 2679     | 267.0    | 2156  | 3203  |
| Hunters CA season                   | 1148     | 178.2    | 799   | 1498  |
| Hunters all seasons                 | 3298     | 293.8    | 2722  | 3874  |

## ----- Strata=None bagged last year ------

|                                     |          | Standard |      |      |
|-------------------------------------|----------|----------|------|------|
| Variable                            | Estimate | Error    | LCI  | UCI  |
|                                     |          |          |      |      |
| Days hunted regular season          | 3308     | 857.6    | 1627 | 4989 |
| Harvest regular season              | 1073     | 540.4    | 14   | 2132 |
| Days hunted CA season               | 1490     | 661.3    | 194  | 2786 |
| Harvest CA season                   | 596      | 314.3    | -20  | 1212 |
| Days hunted all seasons             | 4798     | 1043.7   | 2753 | 6844 |
| Harvest all seasons                 | 1669     | 619.0    | 456  | 2882 |
| Electronic Call Harvest all seasons | 30       | 29.3     | -28  | 87   |
| Electronic Call Harvest CA season   | 30       | 29.3     | -28  | 87   |
| Extended Hours Harvest CA season    | 0        | 0.0      | 0    | 0    |
| Hunters regular season              | 536      | 112.8    | 315  | 757  |
| Hunters CA season                   | 358      | 95.5     | 170  | 545  |
| Hunters all seasons                 | 864      | 132.8    | 604  | 1125 |

------ Strata=1-30 bagged last year ------

|                                     |          | Standard |      |       |
|-------------------------------------|----------|----------|------|-------|
| Variable                            | Estimate | Error    | LCI  | UCI   |
|                                     |          |          |      |       |
| Days hunted regular season          | 4177     | 401.0    | 3391 | 4963  |
| Harvest regular season              | 5315     | 798.1    | 3750 | 6879  |
| Days hunted CA season               | 2731     | 236.5    | 2267 | 3194  |
| Harvest CA season                   | 6883     | 1073.1   | 4780 | 8987  |
| Days hunted all seasons             | 6907     | 525.9    | 5877 | 7938  |
| Harvest all seasons                 | 12198    | 1544.1   | 9172 | 15225 |
| Electronic Call Harvest all seasons | 5489     | 1027.1   | 3476 | 7502  |
| Electronic Call Harvest CA season   | 5489     | 1027.1   | 3476 | 7502  |
| Extended Hours Harvest CA season    | 892      | 195.1    | 510  | 1274  |
| Hunters regular season              | 489      | 28.2     | 433  | 544   |
| Hunters CA season                   | 540      | 28.9     | 483  | 597   |
| Hunters all seasons                 | 790      | 30.1     | 731  | 848   |

# ----- Strata=30+ bagged last year ------

|                                     |          | Standard |      |       |
|-------------------------------------|----------|----------|------|-------|
| Variable                            | Estimate | Error    | LCI  | UCI   |
|                                     |          |          |      |       |
| Days hunted regular season          | 2013     | 389.2    | 1250 | 2776  |
| Harvest regular season              | 6302     | 1577.1   | 3211 | 9393  |
| Days hunted CA season               | 1231     | 182.9    | 873  | 1590  |
| Harvest CA season                   | 7961     | 1772.1   | 4488 | 11435 |
| Days hunted all seasons             | 3244     | 471.6    | 2320 | 4169  |
| Harvest all seasons                 | 14263    | 2926.7   | 8527 | 20000 |
| Electronic Call Harvest all seasons | 4357     | 1090.6   | 2219 | 6494  |
| Electronic Call Harvest CA season   | 4357     | 1090.6   | 2219 | 6494  |
| Extended Hours Harvest CA season    | 2000     | 728.1    | 573  | 3427  |
| Hunters regular season              | 100      | 10.8     | 78   | 121   |
| Hunters CA season                   | 116      | 10.8     | 95   | 137   |
| Hunters all seasons                 | 151      | 9.7      | 132  | 170   |

------ Strata=Totals -------

|                                     |          | Standard |       |       |
|-------------------------------------|----------|----------|-------|-------|
| Variable                            | Estimate | Error    | LCI   | UCI   |
|                                     |          |          |       |       |
| Days hunted regular season          | 28430    | 2871.3   | 22802 | 34057 |
| Harvest regular season              | 19138    | 2354.5   | 14523 | 23753 |
| Days hunted CA season               | 10193    | 1562.5   | 7131  | 13255 |
| Harvest CA season                   | 27395    | 5335.6   | 16937 | 37853 |
| Days hunted all seasons             | 38623    | 3713.2   | 31345 | 45901 |
| Harvest all seasons                 | 46533    | 6170.5   | 34439 | 58627 |
| Electronic Call Harvest all seasons | 19828    | 5043.6   | 9942  | 29713 |
| Electronic Call Harvest CA season   | 19828    | 5043.6   | 9942  | 29713 |
| Extended Hours Harvest CA season    | 3658     | 809.3    | 2071  | 5244  |
| Hunters regular season              | 3804     | 291.4    | 3233  | 4375  |
| Hunters CA season                   | 2162     | 204.6    | 1761  | 2563  |
| Hunters all seasons                 | 5103     | 324.0    | 4468  | 5738  |

# 2002-2003 Light Goose Survey Results Regular Season Harvest by Counties

| County     | Hunters     | SE(Hunters)  | LCI<br>(Hunters) | UCI<br>(Hunters) |
|------------|-------------|--------------|------------------|------------------|
| Country    | nuncers     | SE (Huncers) | (nuncers)        | (Huncers)        |
| Adams      | 183         | 71           | 45               | 322              |
| Alamosa    | 59          | 41           | -21              | 139              |
| Arapahoe   | 59          | 41           | -21              | 140              |
| Baca       | 3           | 3            | -2               | 8                |
| Bent       | 171         | 59           | 56               | 287              |
| Boulder    | 95          | 50           | -3               | 194              |
| Cheyenne   | 3           | 3            | -2               | 8                |
| Conejos    | 29          | 29           | -27              | 86               |
| Crowley    | 51          | 11           | 30               | 72               |
| Delta      | 88          | 50           | -10              | 186              |
| Fremont    | 36          | 29           | -21              | 94               |
| Garfield   | 29          | 29           | -27              | 86               |
| Gunnison   | 29          | 29           | -27              | 86               |
| Jefferson  | 29          | 29           | -27              | 86               |
| Kiowa      | 216         | 60           | 99               | 333              |
| Kit Carson | 3           | 3            | -2               | 8                |
| La Plata   | 29          | 29           | -27              | 86               |
| Larimer    | 394         | 104          | 189              | 598              |
| Las Animas | 7           | 4            | -1               | 14               |
| Lincoln    | 3           | 3            | -2               | 8                |
| Logan      | 444         | 105          | 239              | 649              |
| 7          |             | T. G.T.      |                  |                  |
| Estimated  | GT /II t-   | LCI          | UCI              |                  |
| Harvest    | SE (Harvest | ) (Harvest)  | (Harvest)        |                  |
| 422        | 256         | -78          | 923              |                  |
| 118        | 116         | -109         | 345              |                  |
| 206        | 203         | -191         | 603              |                  |
| 579        | 480         | -363         | 1520             |                  |
| 1569       | 512         | 564          | 2573             |                  |
| 227        | 156         | -80          | 533              |                  |
| 129        | 107         | -81          | 338              |                  |
| 59         | 58          | -55          | 172              |                  |
| 296        | 94          | 111          | 480              |                  |
| 177        | 174         | -164         | 517              |                  |
| 10         | 9           | -7           | 27               |                  |
| 29         | 29          | -27          | 86               |                  |
| 59         | 58          | -55          | 172              |                  |
| 29         | 29          | -27          | 86               |                  |
| 2893       | 796         | 1333         | 4453             |                  |
| 1087       | 902         | -681         | 2855             |                  |
| 59         | 58          | -55          | 172              |                  |
| 903        | 452         | 18           | 1789             |                  |
| 51         | 43          | -33          | 136              |                  |
| 122        | 101         | -77          | 321              |                  |
| 1262       | 551         | 181          | 2342             |                  |
|            |             |              |                  |                  |
|            |             |              | LCI              | UCI              |
| County     | Hunters     | SE(Hunters)  | (Hunters)        | (Hunters)        |

| Mesa       | 121    | 58  | 8   | 235  |
|------------|--------|-----|-----|------|
| Moffat     | 3      | 3   | -2  | 9    |
| Montrose   | 62     | 41  | -18 | 143  |
| Morgan     | 581    | 123 | 341 | 822  |
| Otero      | 386    | 84  | 222 | 550  |
| Phillips   | 29     | 29  | -27 | 86   |
| Prowers    | 464    | 97  | 274 | 654  |
| Pueblo     | 238    | 72  | 98  | 379  |
| Rio Grande | 29     | 29  | -27 | 86   |
| Routt      | 3      | 3   | -2  | 9    |
| Sedgwick   | 172    | 59  | 56  | 288  |
| Washington | 3      | 3   | -2  | 8    |
| Weld       | 785    | 141 | 508 | 1062 |
| Yuma       | 3      | 3   | -2  | 9    |
| Unknown    | 66     | 41  | -15 | 146  |
|            | ====== |     |     |      |
|            | 4011   |     |     |      |

| Estimated | a= /        | LCI       | UCI       |
|-----------|-------------|-----------|-----------|
| Harvest   | SE(Harvest) | (Harvest) | (Harvest) |
|           |             |           |           |
| 89        | 65          | -39       | 217       |
| 0         | 0           | 0         | 0         |
| 62        | 58          | -51       | 176       |
| 692       | 315         | 75        | 1309      |
| 1987      | 551         | 907       | 3067      |
| 0         | 0           | 0         | 0         |
| 2408      | 584         | 1264      | 3552      |
| 537       | 197         | 151       | 923       |
| 0         | 0           | 0         | 0         |
| 10        | 9           | -7        | 27        |
| 266       | 107         | 56        | 475       |
| 161       | 133         | -101      | 422       |
| 2264      | 932         | 437       | 4092      |
| 0         | 0           | 0         | 0         |
| 373       | 348         | -308      | 1054      |
| =======   |             |           |           |

2002-2003 Light Goose Survey Results

Conservation Action Harvest by Counties

|            |         |             | LCI       | UCI       | Days   | SE (Days |
|------------|---------|-------------|-----------|-----------|--------|----------|
| County     | Hunters | SE(Hunters) | (Hunters) | (Hunters) | Hunted | Hunted)  |
| -          |         |             |           |           |        |          |
| Adams      | 3       | 3           | -2        | 9         | 3      | 3        |
| Arapahoe   | 29      | 29          | -27       | 86        | 118    | 116      |
| Baca       | 3       | 3           | -2        | 8         | 3      | 3        |
| Bent       | 178     | 59          | 63        | 294       | 688    | 210      |
| Crowley    | 103     | 42          | 20        | 186       | 517    | 210      |
| Kiowa      | 190     | 52          | 87        | 293       | 1306   | 639      |
| Kit Carson | 40      | 30          | -18       | 98        | 135    | 93       |
| Lincoln    | 3       | 3           | -2        | 8         | 19     | 16       |
| Logan      | 463     | 97          | 273       | 654       | 1580   | 433      |
| Morgan     | 200     | 71          | 61        | 340       | 956    | 429      |
| Otero      | 186     | 59          | 70        | 303       | 589    | 172      |
| Prowers    | 459     | 89          | 285       | 634       | 1440   | 291      |
| Pueblo     | 60      | 30          | 1         | 119       | 296    | 128      |
| Sedgwick   | 245     | 66          | 115       | 375       | 823    | 172      |
| Washington | 39      | 29          | -18       | 96        | 104    | 62       |
| Weld       | 216     | 77          | 66        | 366       | 839    | 413      |
| Yuma       | 63      | 41          | -18       | 143       | 125    | 92       |
| Unknown    | 62      | 41          | -18       | 143       | 651    | 582      |
|            | ======  |             |           |           | =====  |          |
|            | 2545    |             |           |           | 10193  |          |

| LCI (Days<br>Hunted) | UCI (Days<br>Hunted) | Estimated<br>Harvest | SE(Harvest) | LCI<br>(Harvest) | UCI<br>(Harvest) |
|----------------------|----------------------|----------------------|-------------|------------------|------------------|
|                      |                      |                      |             |                  |                  |
| -2                   | 9                    | 3                    | 3           | -2               | 9                |
| -109                 | 345                  | 206                  | 203         | -191             | 603              |
| -2                   | 8                    | 0                    | 0           | 0                | 0                |
| 275                  | 1100                 | 1819                 | 760         | 330              | 3307             |
| 105                  | 929                  | 540                  | 355         | -156             | 1235             |
| 53                   | 2558                 | 2047                 | 541         | 987              | 3107             |
| -47                  | 317                  | 783                  | 633         | -457             | 2023             |
| -12                  | 51                   | 238                  | 198         | -149             | 625              |
| 732                  | 2428                 | 6212                 | 1870        | 2547             | 9877             |
| 116                  | 1796                 | 548                  | 385         | -206             | 1302             |
| 253                  | 926                  | 1892                 | 896         | 135              | 3649             |
| 869                  | 2011                 | 8550                 | 4423        | -119             | 17E3             |
| 46                   | 546                  | 326                  | 137         | 58               | 593              |
| 486                  | 1160                 | 3300                 | 1263        | 824              | 5776             |
| -18                  | 226                  | 244                  | 155         | -61              | 548              |
| 31                   | 1648                 | 48                   | 27          | - 6              | 101              |
| -55                  | 305                  | 107                  | 89          | -68              | 281              |
| -489                 | 1791                 | 533                  | 388         | -227             | 1294             |
|                      |                      | =======              |             |                  |                  |

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