

IDAHO DEPARTMENT OF FISH AND GAME

Cal Groen, Director

Project W-170-R-31

Progress Report



BIG GAME HARVEST SURVEY

Study IV, Job 1

July 1, 2006 to June 30, 2007

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PROGRESS REPORT SURVEYS AND INVENTORY

| | | | |
|------------------------|--------------------------------------|--------------------|---------------------------------|
| STATE: | <u>Idaho</u> | JOB TITLE: | <u>Harvest Surveys</u> |
| PROJECT: | <u>W-170-R-31</u> | | |
| SUBPROJECT: | <u>8</u> | STUDY NAME: | <u>Hunter Attitude and Game</u> |
| STUDY: | <u>IV</u> | | <u>Harvest Surveys and</u> |
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| PERIOD COVERED: | <u>July 1, 2006 to June 30, 2007</u> | | |

ABSTRACT

The deer, elk, and pronghorn surveys were changed from a telephone survey to a mandatory harvest report in 1998. A random survey of individuals who did not submit a harvest report for 2006 was conducted in January and February 2007. The final figures (Appendix A) are estimates of hunter activity and harvest based on adjustments to the reported values.

Increasing costs of conducting the telephone harvest survey and budget limitations resulted in moose, mountain goats, and bighorn sheep being eliminated from this harvest survey program in 1996. Black bears and mountain lions were eliminated from the telephone survey program in 1997 to maximize information collected on harvest of deer, elk, and pronghorn (Table 1). Subsequently, minimum harvest of moose, mountain goats, bighorn sheep, black bear, and mountain lion has been calculated from mandatory harvest check information (Table 2).

INTRODUCTION

Prior to 1998, a telephone survey was conducted following each deer (mule and white-tailed deer), elk, and pronghorn hunting season. Beginning in 1998, the telephone surveys for deer and elk were changed to a mandatory harvest report. Beginning in 2001, the telephone survey for pronghorn was changed to a mandatory harvest report and all hunters were required to file a report regardless of whether they harvested a deer, elk, or pronghorn. Hunters reported the number of days hunted, by weapon and game management unit, whether they harvested an animal, and if so, the date, game management unit, weapon used, sex, and antler points (deer and elk) or horn length (pronghorn). Results were tabulated for general, controlled, depredation, and landowner appreciation hunts, by game management units, by elk management zones, and by harvest weapons. Mule deer and white-tailed deer are now tabulated separately.

Hunters were able to submit their reports via mail, telephone, fax, or internet website. Systems Consultants, Inc., (SCI) Fallon, Nevada, processed the harvest reports for deer, elk, and pronghorn hunters in 2006 and the raw data were provided to the Department for analysis. The analysis and tabulation were performed internally. A random telephone survey of individuals who did not submit a harvest report was conducted by SCI in January and February 2007. The reported figures were modified by a non-reporting factor to obtain the final harvest figures.

A total of 240,072 tags were purchased by 159,100 hunters for deer, elk, and pronghorn hunts occurring from August to December 2006 (average 1.5 tags per hunter, maximum 6 tags per hunter). Hunters were required to report on their hunting effort and harvest success within 10 days of the end of hunting season. One postcard (140,000 in mid-November) and 1 reminder letter (90,000 in mid-December or mid-January) were sent to hunters who had not yet filed their reports by those dates. A total of 184,800 harvest reports were filed by hunters by 1 March 2007 (77% filed the required report). To estimate bias from non-compliance, we attempted to contact 9,000 of the remaining hunters by telephone in January and February 2007 to obtain their harvest reports. A sample of hunters was called by phone and 3,390 missing reports were completed by phone. This was used to calculate the harvest estimates (23% of missing pronghorn reports and 6% of missing deer and elk reports were completed by phone – others were properly reported during the same period, reducing the number needed to contact). Pronghorn hunters were sampled at a higher rate to increase precision. The harvest results from the telephone sample were used to estimate the harvest by hunters who did not file reports. A summary of big game harvest is presented in Appendix A.

Starting in 2005, harvest estimates for mule deer and white-tailed deer were estimated separately (tabulating species primarily hunted for, species harvested, days hunted, weapon used).

The list of hunting licenses and deer, elk, and pronghorn tags sold were also used for several surveys of hunter's opinions on relevant topics, such as a major survey of opinions by mule deer hunters about off-highway vehicle restrictions, trophy harvest units, controlled hunts, antlerless hunts, and other choices among possible kinds of regulations

ACKNOWLEDGMENTS

This survey was partially supported by Federal Aid in Wildlife Restoration (W-170-R) Statewide Big Game Harvest Survey. The 2006 harvest survey was processed by Systems Consultants, Inc., Fallon, Nevada, under contract with the Idaho Department of Fish and Game.

Table 1. Statewide estimates of harvest, number of hunters, and activity for 2006.

| Species | Season | Tags sold | Hunters | Harvest | Success (%) | Days hunted |
|-----------|---------------------------|-----------|---------|---------|-------------|-------------|
| Deer | Any weapon | 124,600 | 120,960 | 40,090 | 33 | 595,200 |
| | Archery ^a | | 15,320 | 2,320 | 15 | 110,300 |
| | Muzzleloader ^a | | 2,690 | 780 | 29 | 12,500 |
| | Controlled | 15,500 | 13,930 | 8,450 | 61 | 71,300 |
| | Total | 140,100 | 152,900 | 51,700 | 34 | 789,200 |
| Elk | Any Weapon | 75,200 | 53,900 | 9,360 | 17 | 302,600 |
| | Archery ^a | | 19,900 | 2,530 | 13 | 157,600 |
| | Muzzleloader ^a | | 6,600 | 1,180 | 18 | 30,100 |
| | Controlled | 21,500 | 19,000 | 6,960 | 37 | 109,100 |
| | Total | 96,700 | 99,400 | 20,040 | 20 | 599,400 |
| Pronghorn | Archery ^b | 1,580 | 1,440 | 380 | 26 | 7,030 |
| | Controlled | 1,650 | 1,480 | 1,100 | 74 | 4,640 |
| | Total | 3,230 | 2,920 | 1,480 | 50 | 11,670 |

^a Deer and elk general tags are valid for any-weapon, archery, and muzzleloader seasons.

^b Pronghorn general tags are valid only for archery hunting.

Table 2. Big game harvest history, 1935-present.

| Year | Deer | Elk | Pronghorn | Black bear | Mtn. lion | Moose | Bighorn sheep | Mtn. goat |
|------|--------|--------|-----------|------------|-----------|-------|---------------|-----------|
| 1935 | 7,659 | 1,821 | 144 | 8 | | | 1 | 24 |
| 1936 | 7,800 | 1,917 | 124 | 79 | | | 4 | 81 |
| 1937 | 8,795 | 2,133 | | 133 | | | 6 | 62 |
| 1938 | 11,597 | 2,298 | | 49 | | | 12 | 61 |
| 1939 | | | | | | | | |
| 1940 | | | 400 | | | | | |
| 1941 | | | | | | | | |
| 1942 | 4,952 | | 700 | | | | | |
| 1943 | 11,095 | 2,398 | | 61 | | | | 23 |
| 1944 | 13,982 | 2,874 | 1,470 | 118 | | | | 33 |
| 1945 | 21,263 | 4,392 | 650 | 150 | | | | 59 |
| 1946 | 26,936 | 5,435 | 0 | 233 | | 26 | 13 | 125 |
| 1947 | 18,895 | 6,549 | 461 | 406 | | 24 | 15 | 67 |
| 1948 | 21,924 | 5,944 | 419 | | | 27 | | |
| 1949 | 22,285 | 5,395 | 383 | | | 27 | | |
| 1950 | 22,578 | 7,165 | 539 | | | 50 | | 8 |
| 1951 | 33,250 | 7,492 | 1,349 | | | 28 | | 21 |
| 1952 | 30,454 | 8,792 | 1,520 | 500 | | 71 | 13 | 14 |
| 1953 | 47,200 | 12,600 | 1,254 | 500 | | 91 | 18 | 21 |
| 1954 | 51,400 | 12,451 | 970 | 2,600 | | 105 | 13 | 27 |
| 1955 | 64,074 | 15,799 | 822 | 2,450 | | 108 | 22 | 51 |
| 1956 | 71,862 | 15,910 | 919 | 3,124 | | 134 | 20 | 61 |
| 1957 | 62,154 | 13,568 | 1,001 | 3,045 | | 91 | 29 | 78 |
| 1958 | 71,013 | 16,450 | 821 | 3,709 | | 77 | 37 | 59 |
| 1959 | 70,237 | 13,865 | 679 | 2,367 | 119 | 59 | 59 | 59 |
| 1960 | 75,213 | 16,545 | 701 | 3,373 | 83 | 40 | 62 | 114 |
| 1961 | 76,001 | 16,572 | 579 | 2,218 | 164 | 46 | | 140 |
| 1962 | 66,645 | 13,653 | 549 | 3,951 | 98 | 45 | | 144 |
| 1963 | 63,546 | 14,542 | 774 | 2,444 | 162 | 52 | 49 | 171 |
| 1964 | 67,379 | 13,835 | 839 | 3,419 | 127 | 59 | 35 | 161 |
| 1965 | 56,438 | 14,064 | 977 | 2,861 | 108 | 51 | 53 | 214 |
| 1966 | 64,629 | 14,631 | 1,219 | 3,386 | 156 | 55 | 14 | 161 |
| 1967 | 66,350 | 13,397 | 1,286 | 2,700 | 109 | 50 | 32 | 127 |
| 1968 | 78,441 | 17,064 | 1,294 | 2,597 | 164 | 53 | 47 | 161 |
| 1969 | 67,176 | 12,415 | 1,472 | 3,085 | 143 | 74 | 46 | 168 |
| 1970 | 77,087 | 14,146 | 1,551 | 3,404 | 114 | 81 | 64 | 151 |
| 1971 | 54,927 | 11,009 | 1,465 | 3,786 | 303 | 86 | 13 | 137 |
| 1972 | 47,599 | 9,324 | 1,486 | 3,783 | 70 | 88 | 21 | 152 |
| 1973 | 54,014 | 12,374 | 1,237 | 1,430 | 87 | 96 | 15 | 128 |
| 1974 | 42,026 | 8,712 | 1,301 | 1,747 | 112 | 112 | 16 | 121 |
| 1975 | 40,102 | 8,981 | 1,314 | 2,285 | 142 | 93 | 32 | 102 |
| 1976 | 25,427 | 4,135 | 1,380 | 2,516 | 123 | 94 | 38 | 103 |
| 1977 | 39,834 | 6,353 | 1,250 | 2,173 | 160 | 95 | 27 | 117 |

Table 2. Continued.

| Year | Deer | Elk | Pronghorn | Black bear | Mtn. lion | Moose | Bighorn sheep | Mtn. goat |
|---------------------|--------|--------|-----------|------------|-----------|-------|---------------|-----------|
| 1978 | 39,879 | 7,662 | 1,345 | 2,300 | 167 | 99 | 38 | 106 |
| 1979 | 42,549 | 6,344 | 1,430 | 1,718 | 31 | 104 | 42 | 79 |
| 1980 | 45,988 | 8,303 | 1,498 | 1,619 | 97 | 118 | 32 | 47 |
| 1981 | 50,580 | 9,903 | 1,837 | 1,918 | 198 | 114 | 46 | 65 |
| 1982 | 48,670 | 12,485 | 2,112 | 1,584 | 189 | 147 | 64 | 32 |
| 1983 | 50,600 | 12,700 | 2,400 | 2,100 | 167 | 229 | 60 | 41 |
| 1984 | 42,600 | 15,600 | 2,070 | 2,100 | 400 | 268 | 70 | 52 |
| 1985 | 48,950 | 15,550 | 2,190 | 1,700 | 170 | 297 | 79 | 38 |
| 1986 | 59,800 | 15,500 | 2,540 | 2,150 | 250 | 355 | 79 | 56 |
| 1987 | 66,400 | 16,100 | 2,600 | 1,950 | 300 | 363 | 77 | 70 |
| 1988 | 82,200 | 20,400 | 2,800 | 1,900 | 550 | 399 | 76 | 62 |
| 1989 | 95,200 | 22,600 | 3,500 | 2,100 | 340 | 400 | 98 | 79 |
| 1990 | 72,100 | 21,500 | 3,180 | 2,300 | 350 | 422 | 92 | 76 |
| 1991 | 69,100 | 24,100 | 2,950 | 2,100 | 171 | 428 | 97 | 85 |
| 1992 | 61,200 | 26,600 | 3,150 | 2,800 | 330 | 420 | 106 | 67 |
| 1993 | 45,600 | 20,800 | 2,470 | 1,260 | 450 | 579 | 80 | 66 |
| 1994 | 56,900 | 28,000 | 1,835 | 2,250 | 450 | 558 | 78 | 69 |
| 1995 | 48,400 | 22,400 | 1,540 | 2,040 | 700 | 637 | 57 | 44 |
| 1996 ^a | 50,800 | 25,600 | 1,460 | 1,740 | 635 | 583 | 48 | 48 |
| 1997 ^{b,c} | 38,600 | 18,500 | 1,300 | 1,538 | 834 | 638 | 61 | 61 |
| 1998 | 39,000 | 18,750 | 1,150 | 1,973 | 804 | 612 | 63 | 57 |
| 1999 | 43,300 | 17,500 | 1,150 | 1,819 | 652 | 775 | 50 | 48 |
| 2000 | 45,200 | 20,200 | 1,325 | 1,855 | 728 | 774 | 50 | 48 |
| 2001 | 53,000 | 19,500 | 1,350 | 1,887 | 628 | 918 | 48 | 48 |
| 2002 | 44,650 | 18,400 | 1,350 | 2,390 | 514 | 870 | 34 | 41 |
| 2003 | 43,500 | 18,400 | 1,300 | 2,415 | 569 | 933 | 36 | 33 |
| 2004 | 46,160 | 20,800 | 1,340 | 2,443 | 459 | 928 | 46 | 32 |
| 2005 | 54,050 | 21,470 | 1,410 | 2,425 | 466 | 835 | 42 | 48 |
| 2006 | 51,700 | 20,040 | 1,480 | 2,231 | 480 | 811 | 48 | 46 |

^a Because of budget shortfalls and increasing costs of conducting the telephone harvest survey, moose, bighorn sheep, and mountain goats were eliminated from the telephone survey in 1996. Harvest figures after 1996 result from mandatory harvest check-in records.

^b Harvest estimates from 1997-2000 do not include pronghorn harvest during the general archery season.

^c Black bear and mountain lions were dropped from the telephone survey program in 1997 because of budget restrictions. Harvest figures after 1997 result from mandatory harvest check-in records.

APPENDIX A

**Summary of
2006
Big Game
Harvest Estimates**



| Species | Estimated | | | |
|---------------|-----------|---------|---------|-------------|
| | Permits | Hunters | Harvest | Days hunted |
| Deer | 140,100 | 152,900 | 51,700 | 789,200 |
| Elk | 96,700 | 99,400 | 20,040 | 599,413 |
| Pronghorn | 3,230 | 2,920 | 1,480 | 11,670 |
| Black Bear | 34,350 | | 2,231 | |
| Mountain Lion | 23,200 | | 480 | |
| Moose | 1,091 | | 811 | |
| Bighorn Sheep | 82 | | 48 | |
| Mountain Goat | 57 | | 46 | |

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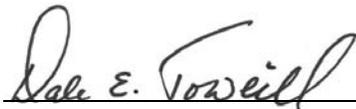
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Approved by:

IDAHO DEPARTMENT OF FISH AND GAME



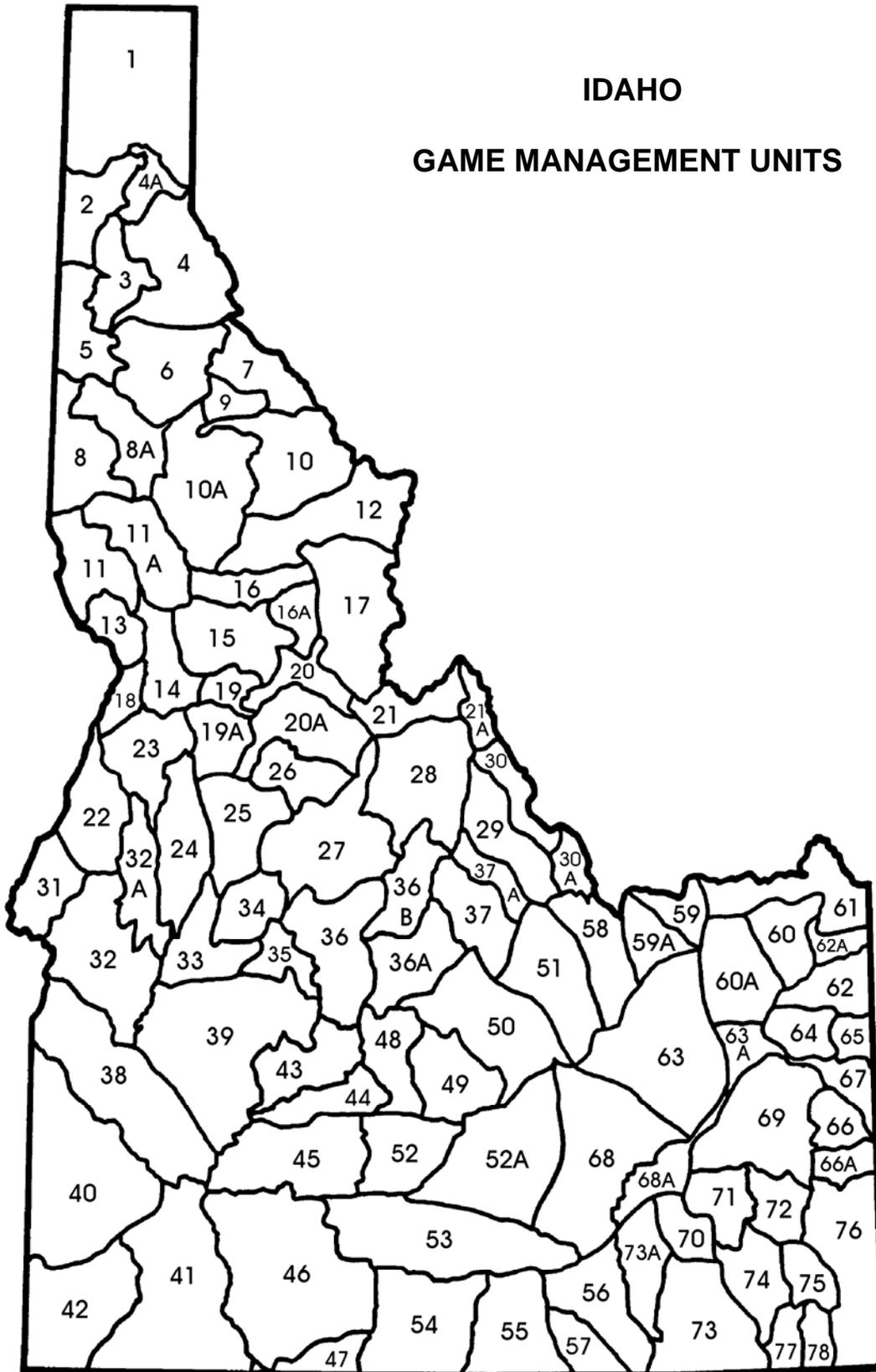
Dale E. Towell
Wildlife Program Coordinator
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James W. Unsworth, Chief
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IDAHO

GAME MANAGEMENT UNITS



FEDERAL AID IN WILDLIFE RESTORATION

The Federal Aid in Wildlife Restoration Program consists of funds from a 10% to 11% manufacturer's excise tax collected from the sale of handguns, sporting rifles, shotguns, ammunition, and archery equipment. The Federal Aid program then allots the funds back to states through a formula based on each state's geographic area and the number of paid hunting license holders in the state. The Idaho Department of Fish and Game uses the funds to help restore, conserve, manage, and enhance wild birds and mammals for the public benefit. These funds are also used to educate hunters to develop the skills, knowledge, and attitudes necessary to be responsible, ethical hunters. Seventy-five percent of the funds for this project are from Federal Aid. The other 25% comes from license-generated funds.

