Status of Mountain Goats and Bighorn Sheep and their Management in Idaho

DALE E. TOWEILL[1], Program Coordinator, Idaho Department of Fish and Game, Boise, Idaho 83720.

BIENN. SYMP. NORTH. WILD SHEEP AND GOAT COUNC. 16: 4-6

[1] *Email: dtoweill@idgf.state.us*

Mountain goats are endemic to Idaho. Idaho's Sawtooth Range marks the southernmost distribution of the species at the time of Western exploration and settlement (Wister pp. 227-275 *in* Whitney, ed. **Musk-Ox, Bison, Sheep, and Goat**, MacMillan, 1904). Populations were estimated at 2,785 animals as a result of surveys conducted in 1949-1953 (Brandborg, **Life history and management of the mountain goat in Idaho**, Wildl. Bull. 2, Idaho Dep. Fish and Game, 1955). Since 1981, mountain goat populations have fluctuated at 2,785 $\pm$ 300 animals, and are believed to total about 2,600 presently. Most native herds are stable but are widely dispersed and exist at low density. Mountain goats have been hunted in Idaho since 1903. Harvest accelerated sharply between 1960 and 1980. More than 100 mountain goats were harvested annually between 1960 and 1980, but harvests have averaged only about 50 mountain goats annually since 1980 (less than 2 percent of the population). Hunter success is high, typically greater than 80 percent. At current rates of harvest, mean age among harvested animals has increased from 5.25 years of age at harvest in 1989 to 6.4 years of age at harvest in 2007, and continues to increase. Hunter days to harvest has averaged 3 to 5 days since 2000, and was 4.3 days in 2007. Harvest of billies is encouraged through education of hunters that receive tags each year, although harvest of both sexes is allowed (nannies with kids at heel are protected). Hunter education is somewhat successful. Harvest of nannies has declined from nearly 40 percent of the harvest in 1982 to 28 percent in 2007.

Twenty-three mountain goats were captured in Utah's Beaver Mountains and released in the northern Lemhi Range south of Salmon, Idaho in September 2007. Two deaths—one adult killed by a mountain lion and another animal dead of unknown causes—have been recorded to date. Although most of the animals (ca. 80 percent) remained in the immediate vicinity of the release site, several exhibited exploratory movements following release. In every instance, exploratory behavior (including one adult female who travel south approximately 20 miles and then returning north approximately 38 miles before settling in near the Montana state line) resulted in wandering animals encountering existing mountain goat herds.

Bighorn sheep are also endemic to Idaho, and are believed to have been the most abundant big game animal in the state in the early 19th century. An entire culture of native American Indians, the "sheep-eaters" of the Northern Shoshone, based their entire culture on the availability and utility of bighorn sheep. It is likely that Rocky Mountain bighorns (never extirpated from central Idaho Wilderness areas) and California bighorns (primarily south of the Snake River Plain) existed in Idaho. However, massive die-offs of native bighorn sheep followed closely on introduction of domestic livestock (primarily domestic sheep) as early as the 1870's, so that southern Idaho bighorns were extirpated by 1938. California bighorn sheep were

reintroduced into Idaho in 1963-1967 (Toweill and Geist, **Return of Royalty**, Boone & Crockett 1999).

Since 1963, 113 California bighorns have been transplanted into Idaho, 199 moved within the state, and 195 have been sent to other states to found or supplement other herds. The current population is believed to total about 1,500 California bighorns.

Idaho hunters are allowed to harvest both one California bighorn sheep and one Rocky Mountain bighorn in their lifetime; a hunter unsuccessful in one season may begin applying again following a two-year wait period. Permits are in high demand, with about 650 applications for 21 permits in 2007. Harvest rates are high (about 85 percent success in 2007), and hunter-days to harvest are low 3.6 days in 2007 as compared with 8.3 days in 2002). Only ram harvest (currently under an "any ram" harvest rule) is allowed, and herds are hunted lightly. Average age at harvest has increased from 5 years of age in the early 1980s to 7.1 years of age in 2007.

Rocky Mountain bighorns, although decimated by documents die-off events between 1870 and 1920, were never extirpated from Idaho, although herds may have been reduced to as few as perhaps 1,000 animals (Smith, **The bighorn sheep in Idaho**, Wildl. Bull. 1, Idaho Dep. Fish and Game, 1954). Since transplants were initiated in 1969, 290 Rocky Mountain bighorns have been brought into Idaho, 176 moved about within the state, and 87 have been sent to adjoining states. Most historic transplants have been dedicated to restoration of bighorns in the Hells Canyon area, in cooperation with Oregon and Washington. Idaho herds currently number about 2,500 bighorns.

Rocky Mountain bighorns are highly sought by hunters. About 1,700 permits applications were received for 62 permits in 2007, more than 1,000 of those from non-resident hunters. Permit numbers have dropped sharply since 1992, due to several large-scale die-off events in Idaho. Currently, herds are stable to increasing, and permit numbers have been stable since 1997. Hunter success averages 50 percent annually. Average age at harvest has increased from about 6.5 years in 1980 to 7.2 years in 2007, and hunter-days to harvest has fluctuated between 5 and 9 days. No transplants have occurred since 2005, when 62 Rocky Mountain bighorns were transplanted from Montana's Sun River herd into Idaho's Lost River Range.

Idaho has been involved in a three-state bighorn sheep restoration project including long-term monitoring and disease research since 1996 (Cassirer et al, **Restoration of bighorn sheep to Hells Canyon: the Hells Canyon Initiative**, 1997). In addition to the wildlife management agencies of Idaho, Oregon, and Washington, this effort includes federal land management agencies (USDA Forest Service and USDI Bureau of Land Management), the University of Washington, and the Foundation for North American Wild Sheep (FNAWS), working through the parent organization and state chapters. Other organizations including the Nez Perce Tribe and sportsman's groups have also assisted greatly. This research effort is continuing, aided by the Idaho Department of Fish and Game's Wildlife Health Laboratory. Data collection focused on bighorn sheep elsewhere in Idaho is routinely collected by research and management staff.

Current challenges relate primarily to bighorn sheep hypersensitivity to diseases carried by domestic sheep. All-age die-offs have occurred in Hells Canyon and along the Salmon River, setting back bighorn sheep population restoration efforts. As a result, Hells Canyon became the focus for

wild sheep disease research, largely conducted through Washington State University (which now has an endowed chair dedicated to research on wild sheep diseases). A recent legal challenge to the Payette National Forest Land Use Plan is currently underway. Products stemming directly from the legal action have included a risk assessment of domestic sheep allotments and management on bighorn sheep populations, a scientific review of bighorn sheep/domestic sheep diseases that resulted in the "Payette Principles" that encourages separation of the two species, a workshop on bighorn sheep/domestic sheep diseases held in Boise, Idaho, in 2008, and the creation of an Interim State Policy that emphasizes separation of the two species as the best and only practical measure available on public lands at present. Indirectly, outcomes have included a series of wild sheep/domestic sheep workshops and panels (Tucson, AZ, Irvine, CA, and Salt Lake City, UT) and creation of a Wild Sheep Working Group under the jurisdiction of the Western Association of Fish and Wildlife Agencies (WAFWA) that developed working guidelines, endorsed by Western wildlife management agency directors, that strong encourage separation of bighorn sheep and domestic sheep on public lands.

A decision on the Payette National Forest land management policy is expected in late 2008 or early 2009.