

FEB 04 1981

is the threat to hunting in montana real?



PROCEEDINGS :
ANNUAL MEETING -
1980

MONTANA CHAPTER
THE WILDLIFE SOCIETY

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FORWARD

"The future of Hunting in Montana" was an appropriate and timely theme for the 1980 meeting of the Montana Chapter of the Wildlife Society. Program chairman Robert Hensler organized the program into research or discussion papers, regional workshop reports, and group discussions. Participants presented conflicts, analysed problems, and reported possible solutions, while small group discussions synthesized the information and made further recommendations. It is hoped these proceedings will help direct the future of hunting, and promote quality wildlife management in Montana. Papers were compiled and edited by Rosemary Harger, and Gail Gillette.

AWARD FOR KEN LORANG

The Montana Chapter of the Wildlife Society presented a special memorial award in recognition of Ken Lorang, a young man whose career as a professional wildlife biologist was prematurely terminated.

Ken demonstrated a lifelong interest in the wildlife resources of his native Montana. He was particularly fond of waterfowl and upland game birds. However, when he initially selected a career, it was in the field of medicine - Ken earned a Bachelor of Science degree in Psychology in 1974.

Then Ken decided to diversify his education, and after one year at the University of Manitoba, received a Pre-Masters degree in Zoology. It was during that year (in August, 1974) that he and Cynthia Beckley were married.

During the succeeding year, Ken began a second bachelors program, this time in Fish and Wildlife Management at Montana State University in September 1976, and received that B.S. in June, 1977. Immediately afterward, he began work on a masters degree in our profession at MSU.

Ken's field study involved the "Waterfowl and hunter use of Freezeout Lake Game Management Area" in Teton Co., Montana's leading, publically owned waterfowl area.

The study was designed by Bob Eng and myself (John Weigand), and represented the kind of research study either of us would have personally loved to pursue. Therefore, I was particularly pleased when Ken was selected to do the study.

Ken not only carried on the field research with confidence, competence and personal dedication, the resulting thesis was one of the very best ever to be written by a masters candidate at MSU.

Ken was employed in April, 1979, as a part-time wildlife biologist at Freezeout while completing his degree requirements. While on a Canada goose survey along the lower Marias River on June 2, 1979, the aircraft carrying Ken and a MDF&G pilot crashed, taking the lives of both men. Ken and Cindy's second daughter was born June 6.

Those of us who worked, and recreated with Ken realized his tremendous potential as a professional wildlife biologist.

Cindy Lorang accepted the award which had the following inscription:

MEMORIAL AWARD

In recognition of his lifelong interest in
wildlife resources and of his dedication and contributions
to those resources and the wildlife profession,

KENNETH D. LORANG

is honored and will be remembered by the
Montana Chapter of The Wildlife Society.

January 31, 1980

HISTORY OF HUNTING IN MONTANA

BY

Merle J. Rognrud 1/

Introduction

Montana has a 175 year history of hunting that began with exploration by Lewis and Clark. Purchase of the Louisiana Territory by the United States in 1803 led to the government sponsored expedition along the Missouri and Yellowstone Rivers and into west-central Montana, April 25-September 8, 1805 and July 1 - August 7, 1806.

Following this first exploration came a rapid build-up of fur trade with the Indians and fur trapping by the mountain man. The fur trade declined after 40 years about 1850. Hunting in Montana prior to about 1850 was for subsistence.

The decline in fur trade was followed by a rapid increase in hunting of big game for their hides and meat. Many former trappers and mountain men turned to market hunting or served as guides and scouts for settlers and military campaigns. Market hunting continued until the game herds were depleted and was finally prohibited by law in 1897.

A period of settlement by whites began in the 1860's and continued until about 1920, when the highest number of farms and ranches occurred in Montana. Subsistence hunting was common. The development of agriculture, mining, forestry, manufacturing, commerce, tourism and continued settlement produced changes in the state to the present. Sport hunting gradually replaced subsistence and market hunting, developing into the recreational outdoor sport it is today. The Montana Department of Fish, Wildlife and Parks has been the State Agency concerned with management of the State's wildlife resources and sport hunting since 1901.

Early Hunting

Historically, man has relied on hunting for subsistence. The Indians in Montana had intimate knowledge of the habits and haunts of wildlife. They became more efficient hunters when horses, and later, firearms became available. However, their hunting had no extensive impact on Montana's abundant wildlife.

The Lewis and Clark expedition was armed with different kinds of firearms. Part of the military contingent had U.S. model 1795 flintlock muskets, in caliber .69 with 44 inch barrels. The newer 1805 model U.S. flintlock musket in .52 caliber with 34 inch barrel was the arm assigned to the remaining military personnel. Civilians in the expedition carried a lighter, 34 inch barrel half stock sporting type flintlock musket called an "elegant fusil."

1/ 2205 - 8th Ave., Helena, Montana 59601

Members of the expedition hunted for food. The hides were also used as needed to repair footwear, clothing and other articles of field equipment. Their hunting had little impact on the generally plentiful wildlife.

Beaver trappers and mountain men looking for furs explored and roved around Montana for about 40 years after the Lewis and Clark expedition. These men were first armed with flintlock muskets. The shortened barrelled "plains rifle" appeared near 1822 in caliber .50 or larger. After about 1825 the percussion muzzle-loaders began to replace the flintlocks. These firearms were important to the survival of mountain men who apparently coined the farewell "keep yer powder dry."

Early forts and trading posts were established along natural travel routes such as waterways and trails used by Indians and game animals. Local game populations used for meat near these facilities apparently declined after longer periods of use. Hunting trips were then periodically made away from the posts to replenish meat supplies. In contrast, most trappers and mountain men seldom stayed in one place very long, and even changed their rendezvous sites. However, they periodically banded together, sometimes numbering hundreds, for common protection from Indian attacks. Their use of game for food was sometimes locally substantial. But their usual constant travel and rotation of routes, dictated often by the relative abundance of beaver, resulted in no lasting depression of wildlife populations.

Hunting During Settlement

Settlement in Montana started about 1850 and lasted until 1920. There were many changes during this period which affected hunting, wildlife populations and habitat.

Firearms were improved into the weapons of today. Market hunting flourished for awhile and subsistence hunting was important throughout the period. Sport hunting started about 1905. Cattle and sheep spread onto the ranges of Montana. Railroads were constructed that provided transportation for homesteaders, and goods and products grown in the state. People, agriculture, forestry, towns, commerce, mining, lumbering, and government works increased throughout the settlement period.

There was a great westward migration of settlers to Oregon, California and Idaho beginning in the 1840's. Some of these settlers turned into Montana and brought cattle into the Bitterroot Valley in 1850 where the St. Mary's Mission had been established in 1841. Gold was first discovered in 1858 at Gold Creek east of Drummond. Cattle went to the Deer Lodge Valley that same year. In 1859 the first steamer (Chippewa) arrived at Fort Benton. The Hellgate trading post was established near Missoula in 1860.

A series of gold rushes followed at Grasshopper Creek (Bannock) 1862, Alder Gulch (Virginia City), Last Chance Gulch (Helena) and Confederate Gulch (Diamond City) in 1864. These gold camps grew rapidly into population centers of 5,000-19,000 people. Settlements of this size would

require about 740,000 to 1,500,000 pounds of meat per year or 2 to 4 tons of meat per day. The impact of hunting for meat on wildlife populations around these camps and eventually at distances away from these locations is implicit. There soon was a ready market for beef cattle already located in the Deer Lodge Valley and the Bitterroot. Cattle shortly became available in the Beaverhead and the Gallatin Valleys.

The Mullan road from Fort Benton to Walla Walla was completed in 1862. A northern overland route from Minnesota to Fort Union (near the mouth of the Yellowstone) thence north of the Missouri to Fort Benton was completed that same year. The Bozeman Trail was started in 1863 and settlement of the Gallatin Valley began in 1864. However, due to Indian hostilities travel over the Bozeman Trail was limited. The road survey was completed in 1877 after Indian hostilities ceased.

Storey brought cattle to the Gallatin Valley in 1867. Poindexter-Orr brought cattle to the Beaverhead in 1895 and the first Texas cattle were trailed into eastern Montana in 1866. In 1869 Bishop brought the first sheep to the Beaverhead. There were 117,000 cattle in Montana by 1870 and this increased to 55,500 by 1880 and to 1,101,000 by 1890. Sheep increased to 11,000 by 1870, to 385,000 in 1880 and 2,288,000 in 1890. Cattle were also grazing in Judith Basin, Musselshell, Sun River areas and Yellowstone Valley by 1870.

The rapid improvement in firearms beginning about 1850 greatly influence the subsistence and market hunting which followed. The Sharps breech loading rifle was made from 1850 to 1870. The Colt cap and ball revolver first made in 1855 became a .44 caliber rimfire by 1860 and centerfire 44.40 by 1873. The Henry repeating rifle in .44 caliber was first made in 1858 after rimfire cartridges were first used about 1857. The first rimfire Winchester appeared in 1866 and was improved in 1873 with the 44.40 center fire cartridge.

The Remington rolling block, single shot rifle in 45.70 caliber became the U.S. Army weapon in 1873. A Spencer repeating rifle, caliber 56.52, with its magazine in the stock was made in 1858. The single shot Sharps breech loader, caliber 45.120 and the 1873 Remington rolling block in caliber 45.70 were the favorites of buffalo market hunters. The U.S. model 1869 Springfield caliber 50.70 breech loader was followed by the 1873 Springfield caliber 45.70 trapdoor breech loader. The latter became the U.S. Army weapon until the 30.40 bolt action Krag rifle was adopted in 1892. Older Army rifles became surplus and were frequently used by civilians. Some of these older rifles also reached Montana.

Immigration of prospectors, miners and settlers to Montana incited the resident Indian tribes, particularly the Sioux, Cheyennes, and Crows to attack the wagon trains, river boats, and settlers. The U.S. Congress, as a result of treaties with Indian tribes, established the Crow Reservation in 1869, Flathead Reservation in 1872, Blackfeet Reservation in 1874,

North Cheyenne in 1884 and the Fort Peck and Fort Belknap Indian Reservations in 1888. Army units were deployed in Montana to protect settlements and commerce.

The Army maintained troops at forts around Montana from 1866 to 1892. The forts included the following: Ft. Smith 1866 (Bighorn); Ft. Cook/Claggett 1866 (Judith); Ft. Ellis 1867 (Bozeman); Ft. Shaw 1867 (Sun River); Ft. Logan/Baker 1870 (White Sulphur Springs); Ft. Keough 1877 (Miles City); Ft. Custer 1877 (Bighorn); Ft. Missoula 1877); Ft. Assiniboine 1879 (Havre); Ft. Maginni 1880 (Lewistown); and Ft. Harrison 1892 (Helena).

A military campaign to put down the Sioux uprising in Western South Dakota, Eastern Wyoming and Southeastern Montana culminated in the battle of the Little Bighorn when General Custer's troops were annihilated by the Sioux and Cheyenne Indians in 1876. Chief Joseph and his band of Nez Perce Indians retreated from pursuing military forces in an effort to reach Canada. His surrender, near the Bearpaw Mountains in 1877 marked the end of serious Indian warfare in Montana.

The army encampments and forts apparently sent out hunting parties periodically to replenish meat supplies. This was common practice until beef began to replace game for meat rations at some locations in the 1870's. However, game meat was still used before the buffalo were depleted about 1886.

Market hunting started in the 1860's when there was sufficient demand for meat but still a low supply of beef at the mining camps and other settlements. Hunting supplied much of the meat at first and part of the meat later as beef became more available. Traffic in buffalo hides and meat increased during the 1860's and continued into the mid 1880's. Buffalo were often killed for their hides and tongues while the carcasses were left to rot after the hide market accelerated in the late 1870's. These animals were nearly exterminated by hunting in a period of about 25 years.

The Flathead Indian, Walking Coyote brought two bull and two heifer buffalo calves from eastern Montana to the Flathead Reservation in 1873. These calves were the nucleus of the Flathead Indian herd that later stocked the National Bison Range near Moiese in 1908.

Experienced buffalo hunters came to Montana when Indian hostilities ceased in 1877. They were armed with single shot Sharps rifles in .45 and larger caliber. Some had rolling block Remingtons and a few had U.S. Springfields. One hunter estimated he killed 5,000 buffalo in one season and his best single stand was 107 buffalo in an hour. Hide shipments from Fort Benton on one steamer included 600 buffalo, 2,000 elk and 7,000 deer and antelope in 1876. In 1882 an estimated 180,000 buffalo hides were shipped from southeastern Montana. Buffalo hunting ended about 1886. The last wild bull was reported killed in 1895 north of Billings in the Musselshell.

There was considerable traffic in bones after the buffalo were gone. A buffalo bone merchant opened shop in Malta in 1887. Market hunting and subsistence hunting continued on elk, deer, antelope, bighorns, moose, grouse, and waterfowl after the buffalo hunting ended. Market hunting was illegal after 1897 but enforcement was weak for a practice which had been common for 40 years. Some elk hunting was carried out for their hides, and teeth worth \$25-\$30 until about 1917. Subsistence hunting by many homesteaders continued on a decreasing scale into the 1930's.

The construction of railroads across Montana greatly accelerated the homesteading and settlement of the state. The Union Pacific was completed to Butte in 1881, the Northern Pacific in 1883, the Great Northern in 1893, and the Milwaukee in 1909. While cattle and sheep ranching was well established by 1890, wheat and other smaller farms continued to increase until 1920 for a maximum of 57,700 farms and ranches.

There followed further development of mining, hydro-electric power, lumbering and sawmills (124 mills in 1920), automobiles (174,000 registered in 1937), roads and highways, city growth, oil, trade and services. The state population reached 549,000 in 1920. The rural population was decreasing as a percent of the state due to urban growth but was still high at nearly 70 percent in 1920. The decrease continued to 47 percent in 1970 while the number of farms had decreased to 13,000. A drought in 1917 and a severe depression in 1919 brought hard times to agriculture that continued into the 1930's when another drought occurred. Many homesteaders abandoned their farms and sought work out of state. The result was a decrease in state population in 1930.

Hunting seasons were set by the Legislature until 1941. These early hunting seasons apparently reflected the relative abundance of game during these times.

The law allowed taking 8 antelope from 1895 to 1902. After a season closure from 1902 until 1907-08, hunting resumed with local exceptions in 1935 and 1936 until 1943. A bag limit of 8 deer was allowed in 1895 but reduced to 3 deer from 1903 to 1915, 2 deer in 1915-16 and one deer until 1956 when 2 deer bag limits started again. Eastern Montana was generally closed to deer hunting from 1918 to 1940.

The bag limit of 8 elk began in 1895, 2 elk in 1903-04 and one elk afterward to date. Eastern Montana was closed to elk hunting in 1918, and with Central Montana exceptions, has remained closed to date. The season was closed on bison in 1895. Excepting a limited season in 1953 and 1954, the season has remained closed.

The season on bighorn sheep and mountain goat in 1895 allowed 8 each. The bag, reduced to one each by 1903, continued until 1914 when the sheep season

closed and remained closed until 1953. The Audubon sheep, however, became extinct in 1916. Goat seasons were closed 1914 to 1929, when local seasons opened in the Bitterroot and in the South Fork of the Flathead in 1935. The 1895 law allowed 2 moose but the season was closed in 1897 and remained closed until 1945.

Trends in Montana Legislative laws indicate antelope became scarce about 1900. Deer became scarce about 1918 in Eastern Montana and continued to be scarce there for about 20 years. Deer were also scarce in Western Montana. However, populations near the Fisher, Thompson and Bitterroot Rivers and Fish Creek began to expand rapidly by the 1920's after the 1910 and later forest fires and early lumbering activity.

Elk hunting continued throughout this period in the North Yellowstone, Gallatin, Sun River, Flathead, Bitterroot, Blackfoot, and other local areas. Elk herds increased rapidly in size following the 1910 and later forest fires in the South Fork of the Flathead and Sun River drainages.

The use of game animals for food by rural Montanans is not documented but must have been substantial during homesteading and years of hard times. The per capita meat consumption was high during the exploration and fur trade period and consisted almost entirely of game. The per capita consumption was estimated at 160 pounds annually in 1870, decreased to 129 pounds in 1930 but was up to 162 pounds in 1960. Game meat has been an important supplement to these national consumption figures.

Firearms were well developed during the settlement period. The Winchester Model 1894 in 30.30 caliber and other makes of this caliber were available during the period of homesteading. The 30.30 caliber remained the most popular rifle until after War II when the 30.06 began to replace it. Over 2,000,000 model 1894 Winchesters have been made to date.

Hunting in combination with other factors caused extermination of the Audubon bighorn sheep, nearly exterminated the bison and depleted other formerly abundant big game in Montana. In fact, dramatic changes in habitat, the result of domestic livestock grazing, crop farming, draughts, severe winters, timber cutting, and so on, alone would have probably caused population declines. Thus, unrestricted year-round hunting coupled with detrimental habitat alteration depleted big game populations, particularly in eastern Montana by 1920.

Recent Hunting

Montana was still a frontier state until about 1920. Cattle and sheep had increased tremendously and generally replaced the bison on eastern Montana ranges. Settlement was nearly complete and movement from the farms to cities and out of the state had started. The drought and depression of the 1930's brought conservation to the state.

Conservation had started earlier in the eastern United States when wildlife and virgin forests were depleted. Theodore Roosevelt, from 1901-1909, set aside forest reserves in Montana which became National Forests. National Parks were reserved. The Bureau of Biological Survey was created in 1906, Forest Service in 1907, National Bison Range 1908, and the Park Service and Glacier National Park in 1916. The Lacey Act of 1900 regulated interstate commerce of wildlife, and the Migratory Bird treaty with Canada was established in 1918.

The Franklin Roosevelt administration started the Soil Conservation Service (1935), Civilian Conservation Corps (1933), Taylor Grazing Act (1934), created the Fort Peck Game Range, and completed Ft. Peck Dam (1939). The Pittman-Robertson Act for wildlife restoration (1937) was passed by Congress. The Wilderness Society was established in 1935, the National Wildlife Federation and the Wildlife Society in 1936, and Aldo Leopold published his book on game management in 1933.

Sport hunting started about 1900 in the United States. The Boone and Crockett Club was organized in 1887, with Theodore Roosevelt as its first president. Sport hunting began in Montana when the first hunting and fishing licenses were sold in 1905. This also coincided with the beginning of the Department of Fish, Wildlife and Parks in 1901.

Although there were 538,000 people in Montana in 1930, only an estimated 5 percent bought the first big game license in 1931. Low participation in sport hunting continued until after World War II when 10 to 15 percent of the residents in Montana purchased a big game (deer, elk, bear) license at \$1.00 each. Participation increased to approximately 20 percent in 1970.

While sport hunting is still important in Montana, only 5 to 10 percent of the nation's population participates. The anti-gun ownership, anti-hunting, and anti-trapping movements in the nation today may be omens of changes and restrictions to come.

Sport hunting is a recent decendent of subsistence hunting. It has grown into an important outdoor recreational activity in Montana. There are still households today where game animals, taken by sport hunting, provide all or a considerable portion of the annual meat supply. Proper management, based on sound research, should insure diverse and viable wildlife populations. One important and necessary management tool is population cropping by sport hunting.

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Table 1. Big Game Hunting Seasons, 1903-1941 ^{1/}
(from laws of Montana)

1903-1904	Moose, antelope closed, 2 bull elk, 3 deer, 1 sheep, 1 goat	Sept.1-Dec. 1
1905-1906	" " " 1 elk, 3 deer, 1 sheep, 1, goat,	Sept.1-Dec. 1
1907-1908	Moose closed, 1 antelope, " " " "	Sept.1-Dec.15
1909-1910	Moose, antelope closed " " " "	Oct.1-Dec.1
1911-1912	" " " " " "	Oct.1-Dec.1
1913-1914	" " " " 1 ram "	Oct.1-Dec.1
1915-1916	" " " " 2 deer closed closed	Oct.1-Dec.15
1917-1918	" " " " 1 deer " "	Oct.1-Dec.1
1919-1920	" " " " " "	Oct.15-Dec.1
1921-1922	" " " " " "	Oct.15-Nov.15
1923-1924	" " " " " "	Oct.15-Nov.15
1925-1926	" " " " " "	Oct.15-Nov.15
1927-1928	" " " " " "	Oct.15-Nov.15
1929-1930	" " " " " open	Oct.15-Nov.15
1931-1932	" " " " " closed	Oct.15-Nov.15
1933-1934	" " " " " "	Oct.15-Nov.15
1935-1936	" " " " " open	Oct.15-Nov.15
1937-1938	" " " " " closed	Oct.15-Nov.15
1939-1940	" " " " " "	Oct.15-Nov.15

^{1/} The hunting seasons had closed counties, and portions of counties closed or open. The season dates also had some variations not shown. The deer season after 1917 was generally on bucks with local areas open to either sex some years. The table indicates trends in open and closed seasons on different species and general season dates. The trend in bag limit is also indicated.

CHRONOLOGICAL LIST OF EVENTS IN MONTANA HAVING POSSIBLE EFFECTS ON HUNTING

1800-1850

- 1803 U.S. purchased Louisiana Territory.
- 1805 Lewis & Clark expedition in Montana, April 25- September 8.
- 1806 Lewis & Clark expedition returned through Montana, July 1- August 7.
- 1807 First trading post (Missouri Fur Co.) at mouth of Bighorn- (Manuel Lisa)
- 1808 Missouri Fur Co. organized (Lisa), U.S. military to Ft. Osage, Kansas.
- 1809 David Thompson established Salish House, mouth Thompson River (Northwest Co.)
- 1810 Lisa built trading post at Three Forks but abandoned in 1811.
- 1812 Ross Cox reached Flathead from west (Pacific Fur Co.)
- 1818 Montana east of divide ceded to U.S. by Great Britan.
- 1822 Rocky Mtn. Fur Co. organized in St. Louis.
Hawken plains rifle, caliber .50 & larger manufactured in St. Louis to 1861.
- 1825 Columbia fur Co. established buffalo skin trade in eastern Montana.
- 1827 Salsih House moved to Eddy and remained there to 1845.
- 1828 Ft. Union (Am. Fur Co.) established near mouth of Yellowstone.
- 1831 First steamboat arrived at Ft. Union.
- 1832 Ft. McKenzie (Ft. Piegan), (Am. Fur Co.) established above mouth of Marias.
- 1833 Prince Maxmillian visited Montana.
- 1835 Ft. VanBuren (Am. Fur Co.) established near mouth of Rosebud.
- 1837 Smallpox transmitted to Blackfeet, Piegans and Blood Indians.
John Deere steel plow was invented.
- 1841 St. Mary Mission established near Stevensville.
Military percussion rifles first used. (until 1870)
- 1843 Ft. Chardon post built near the mouth of Judith River.
Western Montana ceded to U.S. by Great Britan.
- 1844 Ft. Lewis (Am. Fur Co.) established above Fort Benton.
- 1846 Ft. Connah (Hudson Bay Co.) established near St. Ignatius.
Western Montana ceded to U.S. by Great Britan.
- 1847 Ft. Benton (Am. Fur Co.) established near Fort Benton.
- 1848 Sharps, breech loading, falling block rifle patented.
Montana west of divide became part of Oregon Territory.

1850-1860

- 1850 First cattle into Bitterroot valley,
Ft. Sarpy (Am. Fur Co.) established at mouth Sarpy Cr.
Sharps breech loading rifle first made (until 1870)
- 1854 St. Ignatius Mission established.
- 1855 Colt cap & ball revolvers first made.
Governor Stevens signed treaty with western Indians near Missoula.
- 1856 Sir George Gore visited Montana.
First sawmill made near Stevensville.
- 1857 Rimfire cartridges first used.
- 1858 First cattle to Deer Lodge valley (Grant.)
Gold discovered at Gold Creed near Drummond by Stuart brothers.
Henry repeating rifle first made.
Trail from Ft. Hall, Idaho to the Madison valley improved.
- 1859 First steamer arrived at Ft. Benton (Chippewa.)

1860-1870

- 1860 Hellgate trading post established at Missoula
- 1861 Montana east of divide became part of Dakota Territory.
Civil War in U.S. to 1865.

- 1862 Gold rush to Grasshopper Cr. (Bannock)
Mullan road completed Ft. Benton to Walla Walla.
Northern overland route completed, Ft. Union to Ft. Benton.
Teton River Mission started (to St. Peters, 1866-1918)
Federal Homestead Act passed by congress (160 acres)
- 1863 Gold rush to Alder Gulch (Virginia City.)
Second sawmill to Montana by oxen to Madison County.
Bozeman trail started from Wyoming to Bozeman.
First Winchester repeating rifle manufactured (model 1863)
- 1864 Montana Territory created.
Gallatin valley settlement started (1864-1867)
Gold rush to Last Chance Gulch (Helena)
Gold rush to Confederate Gulch (Diamond City.)
Fort Benton established by Culbertson (Am. Fur Co.)
- 1865 Poindexter-Orr brought cattle into the Beaverhead.
Sun River gold rush.
- 1866 Remington rolling block, breech loading rifle invented.
First Texas cattle to eastern Montana.
Camp Cooke (to 1870), Ft. Clagett constructed mouth of Judith.
First telegraph between Virginia City and Salt Lake City.
- 1867 First school district formed (Virginia City.)
Steamboat traffic high on the Missouri (30-40)
First cattle to Gallatin valley (Storey)
Pony express from Ft. Peck to Helena.
Ft. Shaw (to 1890-Sun River) and Ft. Ellis near Bozeman constructed.
- 1869 Virginia City road to Ft. Hall extended to Corrigan, Ut. (UPRR)
First sheep into the Beaverhead (Bishop)
Crow Indian Reservation established.
Shotgun choke devised.
U.S. Army using rimfire cartridge in model 1869 Remington 50/70 breech loader.

1870-1880

- 1870 Cattle found in Beaverhead, Bitterroot, Gallatin, Deerlodge, Judith Basin, Musselshell, Sun River, and Yellowstone valley, southeast Montana.
- 1871 Fort Logan (Camp Baker) to 1880 established near White Sulphur Springs.
National Rifle Association organized.
Ft. Belknap trading post established near Chinook.
Center fire cartridges first made.
- 1872 Flathead Indian Reservation established.
Yellowstone National Park reserved.
- 1873 U.S. Army model 1873 Springfield rolling block, breech loader 45/70 caliber.
Part of Flathead tribe moved to the reservation from Bitterroot.
Winchester model 1873 in 44/40 center fire caliber manufactured.
Flathead Indians brought buffalo calves to reservation from eastern Mont.
Major Baker battled the Sioux Indians near Billings.
Colt revolver in 44/40 center fire cartridge manufactured.
- 1874 Barbed wire was perfected.
Blackfeet Indian Reservation established.
Kennedy trading post established near St. Marys, (Glacier Co.)
- 1875 Carroll steamboat dock established with overland route to Helena.
Helena became state capital
American Forestry Assn. organized.
Hide shipment from Ft. Benton(600 buffalo, 2000 elk, 7000 deer and antelope)
- 1876 Custer's battle with Sioux and Cheyenne Indians, Little Bighorn.
Marysville Gold rush.
Missoula Mercantile started.

- 1877 Fort Missoula constructed.
Fort Keogh constructed near mouth of Tongue Rive (Miles City)
Fort Custer constructed near Little Bighorn.
Nez Peirce Indians flee through Montana, Chief Joseph surrendered (Bear Paw Mtn)
Bozeman road survey completed.
1878 First telegraph to Helena.
1879 Peak year of steamboats docking at Ft. Benton (49)

1880-1890

- 1880 Cook City mining district started.
Fort Maginnis constructed near Lewistown.
Anaconda Copper Mining Company started by Daly.
Union Pacific Railroad construction to Butte (1881)
1881 Northern Pacific railroad construction across Montana-completed 1883.
Severe winter in Montana 1881-82.
1882 Castle Mountains gold rush (to 1892)
Estimate of 180,000 buffalo hides shipped from south-eastern Montana.
1883 Grinnel visited Glacier National Park area.
Railroad constructed to Cinnibar, Yellowstone National Park.
1884 North Cheyenne Indian Reservation established.
1885 Montana stockgrowers Assn. organized.
1886 Winchester model 1886 manufactured.
Severe winter in Montana 1886-87.
1887 Great Northern railroad constructed across Montana, completed 1893.
Northern Pacific railroad reached the Pacific coast.
Mining district at Nye started (to 1884).
Buffalo bones merchant opened business in Malta.
Boone & Crockett Club organized.
1888 Ft. Peck and Ft. Belknap Indian Reservations established.
1889 Montana became a state under Governor Toole.

1890-1900

- 1890 Last commercial steamboat to Fort Benton.
Steamboat traffic low on the Missouri.
First bolt action rifles manufactured.
First repeating shotguns manufactured.
1891 First Hydro-electric plant at Great Falls.
First U.S. Forest Service Ranger station, west fork Bitterroot.
Chief Charlot's Flathead Indians moved to the reservation.
1892 Fort Harrison constructed near Helena.
U.S. Army adopted the bolt action 30/40 Krag rifle.
1893 Montana State University chartered at Bpzeman.
1894 Winchester model 1894 rifle in 30-30 caliber-manufactured-over 2 million to date.
1895 University of Montana established at Missoula.
Last wild buffalo killed north of Billings in Musselshell.
1897 Western Montana College at Dillon established.
1898 Spanish-American War.

1900-1910

- 1900 Federal Lacey Act passed regulating interstate commerce in wildlife.
Montana School of Mines (Montana Tech.) established at Butte.

- 1903 Teddy Roosevelt visited Yellowstone National Park.
U.S. Army adopted the Springfield 1903 bolt action 30-06 rifle.
- 1905 National Audubon Society formed.
- 1906 Milwaukee railroad construction across Montana, completed in 1909.
U.S. Biological Survey created (later became Fish & Wildlife Service.)
- 1907 U.S. Forest Service created from Forestry Division started in 1876.
- 1908 National Bison Range near Moiese established.
- 1909 Carroll College established.
U.S. Forest Service, northern region, established.

1910-1920

- 1910 Fort Assiniboine (Rocky Boy) Indian Reservation established.
Widespread forest fires in western Montana.
- 1913 State Highway Commission created.
Univ. Mont. Forestry School established.
- 1914 World War I (to 1918), 39,633 Montanans served.
- 1916 Glacier National Park established.
National Park Service created.
- 1917 Drought in Montana to 1921.
- 1918 Migratory Bird Treaty between U.S. and Canada.
- 1919 Severe depression in farming started and continued until 1932.

1920-1930

- 1922 Last steamer docked at Fort Benton.
Izaak Walton League established.
- 1927 Eastern Montana College started (Billings)
Charles Lindberg visited Montana (Lindberg Lake named.)
- 1929 Drought cycle began in Montana and continued into the 1930's
Northern Montana College established at Havre.

1930-1940

- 1930 Wolf killed near Stanford.
- 1932 Northern Yellowstone Elk Study by Rush published.
- 1933 Civilian Conservation Corps in Montana until 1939.
Fort Peck Dam construction started and completed 1939.
- 1934 Taylor Grazing Act passed by Congress.
Migratory Bird Stamp Act passed.
- 1935 Wilderness Society established.
Wildlife Society established.
Estimated there were 400 wildlife professionals in the nation.
Migratory Bird Treaty signed with Mexico.
- 1937 Pittman-Robertson federal aid in wildlife restoration act passed.

1940-1950

- 1941 Soil Conservation Society started.
World War II to 1945, 31,879 Montanans served.
- 1946 Nature Conservancy started.
Bureau of Land Management created.
- 1947 Society for Range Management started.

1950-1960

- 1950 Korean War to 1953
- 1952 Hungry Horse Dam completed
- 1953 Canyon Ferry Dam completed

IS THE THREAT TO HUNTING IN MONTANA REAL?

BY

John P. Weigand 1/

As the title of this paper is a question, so shall the paper raise a series of questions. Their purpose is to increase our awareness of the problems facing hunters and hunting today, and tomorrow. Cumulatively, their answers should dictate courses of action--if hunting is to persevere as a legitimate form of recreation. Some answers and suggested actions will also be presented in other papers today.

The Anti's

There is little question that a segment of our society is determined to ban the total use of firearms by the general populace. To date their efforts have been partially successful (e.g., registration of firearms is mandatory in several of our larger cities and more populated states). They purport to have ultra-human motives, such as reducing crimes of violence. However, most of their legislative proposals are aimed at harassing and penalizing the largest group of gun owners--hunters.

Assuming the anti-gun groups are successful in outlawing citizenry ownership of all firearms, the question of hunting becomes moot. If there be no more hunting, and no more legal hunters, who will provide the funding for wildlife conservation in the United States? In Montana?

Who are the anti's and what are they "anti" about? Some of the anti-hunting groups are (The Wildlife Conservation Fund of America, Bull. for Fall, 1979):

Friends of Animals, Inc.

Defenders of Wildlife

The Humane Society of the U. S.

The International Fund for Animal Welfare, Inc.

Animal Protection Institute

In addition to hunting, they are opposed to trapping, fishing, rodeos, and modern methods of raising livestock.

The Defenders of Wildlife (DOW), which is active in Montana, enjoined the State of Alaska from controlling wolves on Bureau of Land Management land; Alaska's intent was to measure the affects of removal of a segment of a wolf population on survivorship rates of a caribou herd. DOW contended (Grandy 1979) their concern was for wolves as a species and for the premise of constitutionally delegated federal authority to manage resident wildlife on federal lands. If they were concerned for wolves as a species, why were they concerned about removal of only part of one wolf population? Their accompanying challenge of states' rights to manage resident species on all lands within a state (other than in National Parks) suggests DOW wanted a precedent-setting court settlement to further harass or eliminate hunting on all federal lands in the United States. DOW won that lawsuit in January 1977.

Defenders of Wildlife also filed suit in district federal court in Washington, D. C. to ban the export of bobcat pelts from the United States on 9 November 1979. Judge June Green issued a temporary restraining order, effective

1/ Montana Department of Fish, Wildlife and Parks

3 December, on the federal government in the issuing of export permits. On 12 December the judge found in favor of the defendants and the ban was lifted in 26 states, including Montana. DOW then filed for continuing the export ban via a federal Court of Appeals on 21 December. They accused Judge Green of entering an erroneous judgment, that the bobcat trapping season would be over before the Court of Appeals would hear the case, and that bobcat would disappear from substantial parts of its range because of that trapping. Thirty states provided affidavits to the defendants and on 7 January 1980, the Court of Appeals denied the injunction. Further appeals by DOW are expected. In Montana, hunters and trappers are allowed to take bobcats provided they possess the necessary license and permit.

Goodrich (1979) stated that although a \$30-50 million war chest is garnered every 4 years by aspirants to the U. S. presidency, a similar amount of money is collected and spent every year for campaigns to stop hunting, trapping, fishing and wildlife management in general.

Stevens (1979) stated the Animal Welfare Institute is concerned with animal species, populations and individual animals. They are unalterably opposed to trapping by leghold traps. They are not opposed to killing of any animal as long as it eliminates suffering, i.e., harvesting of game animals is acceptable as long as it is done humanely, such as a well-placed bullet by a trained marksman. Does this mean people employed and trained by a government agency or does it include skilled, general hunters/shooters?

On 13 March 1978, the Friends of Animals and Committee for Humane Legislation filed suit in federal district court to enjoin the federal government from reimbursing state wildlife agencies for wildlife management and research activities (Weigand and Mussehl 1979). The reimbursable funds have been obtained from an 11 percent tax on sporting firearms, ammunition and archery equipment under provisions of the Pittman-Robertson Act (P-R). The suit addressed U. S. Fish and Wildlife Service's lack of compliance with provisions of the National Environmental Policy Act (NEPA) in administering P-R funds. Every state wildlife agency receiving funds from P-R joined the battle.

In settling the lawsuit, both sides agreed that all future requests by individual states for P-R funds must be accompanied by the documentation necessary to comply with NEPA.

There are about 600 such projects in the United States, 18 of which are in Montana; an additional 5 land acquisition projects are activated in Montana in any given year. The suit settlement will result in additional time and money spent in providing the necessary documentation.

Since projects are initiated or renewed in a continuing time frame, each project is now subject to public review and comment. While NEPA compliance will probably upgrade the quality of projects and P-R funding has continued to the states, the states will now individually defend their projects against further assaults by animal protectionist groups.

When one considers the tremendous benefits derived by the general populace from P-R expenditures during the past 4 decades, hunters and wildlife biologists have a right to be outraged by the lawsuit's attempted erosion of P-R. Members

of our profession can claim some of the credit for this victory, although it should be viewed as temporary since such attacks can be anticipated in the future.

Economics

Hunters have established a clear record of financial support for their recreation. In Montana, a total of 334,107 hunting licenses were sold during the 1978-79 license year. Those licenses represented an expenditure of more than \$6.05 million. A minimum of 117,788 resident and 19,700 nonresident hunters purchased the licenses.

In addition, Montana was allocated \$2.18 million in P-R funds during Fiscal Year 1979. No money from Montana's general tax fund was used for wildlife work in the state. However, wildlife investigations and habitat developments on federal lands in the state were paid for via national tax-dollars from residents and nonresidents. That group of taxpayers included hunters as well as nonhunters.

If hunting is eliminated, or even severely curtailed, in Montana, a significant adverse impact on Montana's total economy will result. Hunting, like some other forms of recreation, requires an outlay of money for food and refreshments, lodging, transportation, equipment, and access and facilities fees. Those costs are in addition to the price of licenses, tags and stamps. In 1975, total hunting expenditures exceeded \$5.8 billion nationwide (USDI - Fish and Wildlife Service 1977). Less than five percent (4.8%) was for licenses, etc. If the goods and services economic benefits received by Montana are proportionate to those nationwide, hunting in Montana generated an additional \$126 million in 1978-1979. If a six percent annual inflation rate is applied, 1975-1979 (income from license sales actually lagged behind that rate), the estimated economic and licensing benefits to Montana totaled more than \$150 million. Both economic estimates are minimal since economic multipliers (to reflect the money working in local economies) have not been applied. Neither estimate includes the economic benefits derived by the non-hunting outdoor recreation/tourism industry, which depends to some degree on the presence of wildlife.

Nonresident hunters contributed 64 percent of the Montana hunting license income in 1975-1976 and 67 percent in 1978-1979. If the cost of gasoline continues to increase at the present rate, residents and nonresidents may be paying \$1.70 per gallon for unleaded gasoline by the end of 1980 and \$2.75 by late 1981. Should that single cost deter nonresidents from hunting in Montana, income for wildlife programs will be significantly reduced. If Montanans wish to continue just the current level of wildlife management, their hunting licenses will have to triple in cost to offset the lost non-resident revenue; that projection does not account for the current inflation rate. Would Montana hunters initiate, or even support, legislation designed to increase fees of that magnitude?

Any significant reduction in income from hunting would probably reduce the opportunity for hunting, thus triggering a self-feeding hunting-decline cycle. Without the funds necessary to conduct wildlife surveys, the quantity of information needed to support hunting season and bag limit recommendations

would be reduced, and professional wildlife biologists might recommend more restrictive regulations. Those restrictions would result in less opportunity to hunt legally, and interest in hunting would gradually be reduced. Eventually only the most affluent hunters would legally participate in sport hunting. Illegal hunting (i.e. poaching) would benefit from reduced hunting income since part of that income supports enforcement of wildlife laws. Are hunters and nonhunters willing to gamble with the continued existence of their wildlife resources?

Energy Conservation

Information available to Americans concerning vehicle fuel supplies in the immediate future is conflicting (Donovan et al. 1980, Miller 1980). However, predicted fuel shortages have already effected anxiety in long distance travelers; numbers of tourists visiting Montana during the summer 1979 were reduced by as much as one-third from 1978. Should those shortages result in fuel rationing or taxation to unreasonable levels, how will hunters react?

Will Montana residents hunt closer to home? If they do, hunters in the southwestern half of Montana will have more opportunity to hunt since more of that land is under federal or Montana Department of Fish, Wildlife and Parks (MDFWP) administration. Hunters in the northeastern half of the state will have significantly fewer hunting opportunities, especially if nearby private lands are leased for hunting or posted against hunting.

Should fuel shortages materialize, perhaps Montanans will make fewer but longer trips in terms of distance and/or time. Wildlife biologists should monitor shifts in hunter travel habits, now and in the future, to detect such changes. Subsequent modifications in season dates, daily bag limits and possession limits may be necessary to accommodate sportsmen and landowners under more restrictive travel conditions.

If hunters restrict their activities and deer and elk harvests are reduced during regular hunting seasons, herds of those species could increase to intolerable levels on private lands. If hunters are unable to participate in special, late hunts designed to moderate haystack damage, how will landowners be assisted? In the past, game wardens have assisted those landowners in fencing haystacks to alleviate big game damage. MDFWP personnel are already operating under reduced mileage ceilings for all activities by executive directive; wardens may not be as available for fencing assistance in the future. Will this series of events then prompt private landowners to litigate property damage settlements, demand removal of the public's wildlife, or worse, eliminate destructive species?

Hunting in Montana by nonresidents may also be reduced by fuel shortages. Impacts of that contingency has been discussed under Economics.

Ethics

Hunting has traditionally been viewed as a privilege, not as a right. Acceptance of privileges includes acceptance of the accompanying responsibilities. How many hunters continue to accept the responsibilities related to the privilege of hunting?

Although game wildlife is widely distributed across Montana, ranges of individual species are limited and hunters should be aware that hunting them depends, to a large degree, on the concerns of private landowners. Access for hunting on private land, and even across private land to public land, has been a problem for at least 3 decades. It is currently a major problem in eastern Montana. In 1975, an estimated 40 percent of private lands with mule deer was closed or severely restricted to public deer hunting (Anonymous 1978).

Access for hunting seems to have become a problem because of the adverse behavior on the part of some hunters while on private land, disagreement by some landowners about hunting regulations, increased hunting pressure (especially on big game), and land purchases in Montana by nonresident owners who are less tolerant of hunting. Underlying the overall access problem is the 60 percent decrease in numbers of farms and ranches in Montana since the mid-1920's, i.e., there are fewer landowners, and each controls larger land areas. Illegal or unethical activities by recreationists (including hunters) on one piece of land has the potential of closing a larger area than even 20 years ago.

Hunting ethics presumably includes a display of courtesy and consideration for the property of others. Why then were laws requiring hunters to obtain permission for hunting big game and limiting vehicle travel to established roads and trails on private property enacted? Permission to hunt upland game birds on private land is not mandatory. How many hunters exhibit their responsibilities and courtesy by asking permission anyway?

While checking hunters in the field or on checking stations, Montana wildlife personnel have observed wives with big game tagged by their husbands, children with big or small game bagged by their fathers, hunters shooting upland game birds as a group rather than as individuals (i.e., party hunting), and shooting game before or after legal shooting hours. Such activities are illegal. Are they part of the ethics tradition being passed from one generation to the next?

Every hunting season we hear, or read in the newspapers, of hunters being wounded by fellow hunters (or hunters shoot themselves) with a loaded firearm in a motor vehicle. Other hunters, or members of their families and visitors, are wounded from loaded firearms in the home. Some of those accidents are fatal. Is the possession of loaded firearms at sites other than in the field part of the ethics tradition?

With regard to hunter ethics, Jackson et al. (1979) reported from field observation of 583 waterfowl hunters in Wisconsin, and personal interviews with 442 of them, that law violators: had more opportunities to violate the law than non-violators, fired more shots, achieved greater daily and seasonal bags, tended to shoot more trap or skeet, belonged to Ducks Unlimited, read technical magazines for information about hunting skills, prepared a blind before the season, owned and used a retriever in hunting, used duck calls, camouflaged their boats, were older and had hunted more years, displayed better sportsmanship, and were more likely to report greater satisfaction with their day's hunt. In summary, these "violators" were the more dedicated waterfowl hunters! Is hunting becoming so complex, so restrictive and with so many laws and regulations that hunters have little *reasonable* opportunity to avoid a violation?

According to Jackson et al. (1979), "The ultimate answer to improving hunter responsibilities will be found in education. History indicates that morality or ethics cannot be legislated; there is little support for this "carrot and stick" approach to behavior management. The hunters interviewed for this study rated (1) becoming responsible and involved with wildlife, (2) training and hunting skills, and (3) participation in adult hunter education courses as having greater effectiveness on improving their own sportsmanship than fines and sentences."

Kohlberg (1971, from Jackson et al. 1979) stated that "to effectively raise the individual from one level of ethical behavior to a higher one, requires that the person become involved with an individual (or group) already at that higher level of development. The person (hunter) will conform to the higher values to gain approval. Even the individual without a conscience will act ethically to achieve and maintain a place in the group."

Firearms Competency

Montana was one of the first states to enact mandatory hunter safety education for potential resident hunters 18 years old or younger. As of 1978, about 155,000 people or 20 percent of Montana's human population were graduates of that educational effort.

Montanans generally pride themselves on being better hunters and safer handlers of firearms than residents of other states. During the first 12 years of the hunter safety program (1959-70), rates of accidents and mortalities involving firearms during hunting approached those recorded nationally (Anonymous 1972). In 1968, Montana recorded an average 1.6 firearms-hunting fatalities per 100,000 license holders compared to 2.0 nationally. Nonetheless, 73 people were hunting fatalities due to firearms accidents through 1970 in Montana.

What the hunting casualty statistics don't show is the number of hunters who had "close calls" (e.g. with accidentally discharging firearms)! Perhaps hunter safety education prevented those close calls from being fatalities--and then again, perhaps not!

The hunter safety course has been taught voluntarily each year by about 800 certified instructors. Why shouldn't every one of our approximately 200,000 adult hunters become certified instructors? By periodically teaching that course, hunters might be surprised at what they learn in the process.

Actual firearms handling and firing are not required as part of Montana's hunter safety curriculum. Why aren't these facets required? Why shouldn't each student be required to demonstrate his or her proficiency in marksmanship by firing a minimum score at paper targets and clay pigeons?

Many of us have been exposed to driving defensively. How many of us hunt defensively? In other words, why do some hunters insist on avoiding wearing the required minimum of 400 in² of hunter-safety orange while hunting so they can be recognized as a hunter by other hunters? Or why do some hunters shoot at wildlife (game or nongame) from or across well-traveled roads? What is a hunter's rationale for carrying a loaded firearm in a vehicle? Having a loaded firearm in the home?

Habitat

Understanding the complexity of wildlife habitats in Montana is overpowering. Terrestrial and aquatic environments occur in the mountains and foothills and on the prairies. They are influenced by a moderate, maritime climate west of the Continental Divide and a semiarid, continental climate to the east. Vegetation includes closed canopy forests, open forests, shrublands, grasslands, and croplands. More than 80 percent of the state's land area is used for agricultural purposes (Anonymous 1978). The combined habitats support 478 vertebrate wildlife species, 65 (14%) of which are hunted and/or trapped for recreational purposes.

Management of habitats is further complicated by Montana's large size (147,138 mi²) and the irregular landownership pattern, which includes: private - 64 percent, federal government - 30 percent, and state 6 percent (Mussehl et al. 1978). Wildlife biologists have immediate input into habitat management on all federal lands and 0.3 percent of state lands; those state lands occur in 47 areas and are owned/managed by the MDFWP. Management of wildlife habitats on all private and state school lands is at the total discretion of individual managers. Wildlife biologists may advise and counsel managers of private and state lands on maintaining or enhancing habitats but they may not dictate land uses or practices.

Since no known wildlife species have become extinct during the existence of wildlife professionalism in Montana, and the ranges and populations of certain species have been expanded, perhaps our habitat management efforts have experienced some success. Before we congratulate ourselves, however, how many acres of habitat continue to be degraded for wildlife by lumbering, overgrazing or improper grazing by livestock, sprayed annually with harmful pesticides, subdivisions, highway construction, drainage of wetlands, mining for minerals, and fossil fuel exploration and extraction? Will the Northern Tier Pipeline be positioned in a manner as to improve wildlife habitat, to minimize damage to existing habitat, or will it be built with the greatest political and economic expediency regardless of habitat impacts? Are we *really* winning the war against exploitation of wildlife habitat, or are we victorious only in skirmishes and minor battles?

Most knowledgeable hunters today support the concept of a habitat base for wildlife. However, it has taken our profession 40 years of persistent efforts to sell that concept to a group of people who are generally oriented to the outdoors. Most nonhunters dwell in urban areas, having evolved from urban or far-removed rural backgrounds, and have very little understanding (in some cases, no understanding) of natural forces or environments. Nonhunters currently comprise the majority of our national population and have the political clout necessary to preserve or destroy wildlife habitats. Has our profession or have hunters made concerted attempts to educate those nonoutdoorsmen?

Legislation

Whether professional wildlife biologists like it or not, the field of biopolitics is one in which we must excel if wildlife and hunting are to be preserved in Montana. We must be active at national, state and local levels. To illustrate, a few examples of legislative proposals are discussed below.

During the First Session (1979) of the Ninety-Sixth Congress, a bill to provide funding for nongame investigations was introduced (H.R. 3292). More than 260 federal, state, local government and private conservation organizations supported the bill, or at least the bill's concept, at the hearings (Hearings on H.R. 3292 1979:249-252). Neither the Defenders of Wildlife (DOW) nor Committee for Humane Legislation, Inc. (CHL) were included in the list. A spokesman for DOW recommended that P-R be abolished, and that it be incorporated into H.R. 3292 (Toby Cooper, Pp. 248-249). Bernard Fensterwald, CHL, stated that organization was opposed to the bill partly because it added one more bill to a growing list of federal wildlife bills and partly because it did not provide a "holistic" approach to wildlife management (Pp. 291-293). He also recommended termination of P-R except for the tax provisions; the collected P-R taxes should continue to go to the General Treasury and then be appropriated annually by Congress for general wildlife management activities in the states (Pp. 296-297).

Comparisons of testimonies presented at the hearings on H.R. 3292 clearly illustrated that the overwhelming majority of wildlife conservationists supported legislation which would provide a well-defined, stable source of funding for nongame wildlife work in the United States. The few dissenters apparently will not support such a program if it is allied with hunters or hunting. Are they so unalterably opposed to hunting that they will continue to oppose joining forces with other wildlife conservationists for the benefit of the public's wildlife? Will they maintain that position even if it is detrimental to the public's wildlife?

In 1973, Montana's Legislature gave lawful jurisdiction for the management of nongame and endangered species to the MDFWP. Since the legislation failed to provide a source of funding for that responsibility, the department has financed a minimal program with hunting license dollars. An attempt was made by a 9-member Citizens Nongame Advisory Council to legislatively add voluntary contributions from annual income tax refunds due Montana citizens to funding nongame projects. However, adverse publicity by DOW concerning the sighting of a black-footed ferret in southeastern Montana in the fall of 1978 so incensed Montana's livestock and farming community, the Council's efforts and the legislation failed. Therefore, Montana's nongame and endangered species program continues to be a minimal effort.

Some Montana hunters have indicated they are willing to continue support of the nongame and endangered species program, but they are reluctant to have their level of contributions increased, at least until additional funding by other publics is obtained. Unless a significant segment of Montana's public (through its elected representatives) mandates some form of financial support, who will bear the financial burden of that program?

If the opportunity to hunt is reduced or eliminated, license revenue will decrease and the present nongame-endangered species program will become extremely vulnerable.

More recently, the 1979 Montana Legislature acted on several wildlife related bills. H.B. 29, which reclassified the lynx, wolverine, and northern swift fox as furbearers, was successfully passed into law. It enables wildlife biologists to recommend harvest regulations (including a closed season on swift fox) and monitor those harvests more closely than in the past. A bill (H.B. 261) to require the Montana Fish and Game Commission to obtain approval of the legislators before buying wildlife lands larger than 160 acres in area was fortunately defeated; our Chapter was active in its defeat. When a bill (H.B. 842) concerning allocations of water in the Yellowstone River was introduced, it contained a priority ranking system in which wildlife values were last. Fortunately for *all* wildlife, the ranking system was deleted before the bill was passed.

News Media

Professional newsmen and women profess to report "newsworthy" stories in an objective and unbiased manner. In Montana, hunting remains a legitimate form of recreation. The news media reproduces hunting regulations with generally good accuracy. The importance of accuracy in that reporting cannot be overemphasized since any error regarding season dates and bag limits has very real potential for adverse impacts on local game populations.

In Montana, we seldom witness in newspapers, on the radio, or on television the positive aspects of hunting and hunting behavior. Examples could include the large number of hunters who observe hunting regulations, honor landowner's wishes to keep vehicles on designated trails, close gates, pick up trash, fight range and forest fires (started by landowners, other recreationists or lightning), rescue motorists in trouble, etc. However, game violations are reported with regularity and sometimes extensively, vandalism in rural areas during hunting seasons is attributed to hunters without investigations by trained personnel, and accidents and heart attacks related to hunting are fully reported.

A recent nationwide survey sampled public attitudes toward critical wildlife and natural habitat issues (Kellert 1979). A total of 2,759 completed questionnaires were returned from those in the 18 years and older age group, 48 percent were men, 88 percent were Caucasian, and respondents represented 9 broad occupational groups. The two selected wildlife issues which ranked highest in public awareness were the killing of baby seals for their fur (43% had at least moderate knowledge) and the effects of pesticides such as DDT on birds (42% knowledgeable). The remaining issues, in top-to-bottom order, were: using steel leghold traps to trap wild animals (38%), Endangered Species Act (34%), tuna-porpoise controversy (27%), killing of livestock by coyotes (23%), and the use of steel vs. lead shot by waterfowl hunters (14%). Of seven choices for the causes of endangered species, 31 percent listed chemical and industrial pollution and 29 percent said human overpopulation and land lost to development. Hunting and trapping, a combined cause, ranked fourth (16%).

Those statistics suggest the general public is not as knowledgeable about wildlife issues as they should be, what knowledge they have has probably been provided by the news media and literature from special interest groups, and that there is a tremendous opportunity to educate them with factual information. News reporters have judged which happenings and occurrences are newsworthy. Unless they thoroughly research a particular topic, such as hunting, they may be reporting anomalies rather than norms about the subject. Will news reporters be willing to assist hunters and hunting to the same degree they report the harvest of baby seals?

Conclusion

There have been threats to hunting throughout the development of our nation. Habitat destruction, unregulated legal hunting year round, market hunting, etc. have already ended the hunting of passenger pigeons and heath hens, and of prairie chickens and bison over much of their original range. Hunting of antelope, rails, deer, elk and other species was threatened during the early decades of this century. Waterfowl hunting was seriously threatened in the 1930's. Animal protectionists have always been with us and have periodically gained momentum in protesting maltreatment and/or killing of animals.

The present threat to hunting is real. While some of the modes of that threat remain the same as before, there are some new rationales and approaches. Anti-hunters have found a sympathetic audience in a largely urbanized society and news media. The Viet Nam conflict established a generally anti-killing philosophy by the generation of the 1960's. Hunter ethics may be eroding as larger proportions of hunters also come from urban areas. More hunters are dependent on personal vehicles for travel to hunting areas. The quality and quantity of wildlife habitats are being reduced to meet societal demands for food, fiber and energy; Montana excels in the production of all of these needs. Thus hunters are required to travel farther to hunt at a time of escalating fuel prices and threatened fuel rationing.

Hunting may be preserved in Montana, and elsewhere, in the future, but our manner of hunting may change noticeably from that of previous times. Hunter training and ethics should be upgraded to achieve the same exemplary, elite status for our hunters that has been earned by our free-European counterparts. Hunting regulations in Montana have already changed to accommodate increased hunting pressure and decreased tolerance for that pressure by private land-owners; additional changes can be expected in the future. Hunters will probably be expected to pay more for fewer opportunities to hunt; inflationary costs for wildlife management investigations, vehicle fuels and decreasing quality and quantity of wildlife habitats will be contributing factors. And finally, hunters must increase their vigilance of wildlife-related legislative actions at all levels of government.

Since most of us attending this conference are hunters, is each of us willing to commit our time and effort to maintain hunting in Montana? Are we willing to lead the way, through exemplary hunting conduct, for our fellow hunters?

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THOUGHTS ON HUNTER PSYCHOLOGY

BY

Robert E. Carroll 1/

Today everyone is a "psychologist", we even have people who are experts on experts. I sometimes envy psychologists and sociologists the methods they use, as compared to those used in biological research, for instance. At the end of many of their studies, they can't prove they're right, but no one can prove they're wrong. I'm here today because a few months ago, when topics were being suggested, I opened my mouth, saying that if no eminently qualified shrink stepped forth, I would like to tackle this subject. None did, and I went hunting.

As hunters, and wildlife biologists, I hope that today we are not floating along like the three North Dakotans on the Boeing 727. The plane shuddered, and the Captain came on and said "We've just lost an engine, but don't worry we'll only be 25 minutes late." A little while later there was another shudder and the Captain again informed the passengers not to worry, but that they'd be an additional 25 minutes late getting to Bismarck. One North Dakotan looked at another and said, "I hope that third engine doesn't quit or we'll be up here all day!"

The theme of this convention, The Future of Sport Hunting in Montana, has complex implications, not only for all of us here but for everyone everywhere. The origins of hunting go back to the start of mankind itself. Hunting has accompanied the spread of mankind to every portion of the globe. The history of hunting in Montana, as we hear from Merle Rognrud, is a rich and interesting story, but it is an infinitesimal flick of the eyelash of time in the total history.

According to Richard E. Leakey, "Throughout the whole of humanity's long evolutionary career, plant foods have been the primary food; the large size of our cheek teeth and their unusually thick enamel tell us that. We know, too, that through that period, meat usually became a more and more important item on the prehistoric menu, but except for people in unusual situations such as the Copper Eskimos who eat nothing but meat in their frozen homelands, flesh rarely rivaled plant foods as the stable food. The steady reduction in the cheek teeth from the relatively massive molars of Ramapithecus to the still generously endowed, though less formidable, jaws of modern humans points to a change in our ancestors' diet; and so, too, does the increasing frequency with which one finds animal bones associated with stone artifacts as one scans through the archaeological record toward modern times." Leakey speculates that early man, by tapping a greater energy source than available from plants alone, became what he terms "superomnivores."

It is generally thought that the meat eaten by early human-like creatures was simply scavenged--random opportunity seized upon. At what point this scavenging was turned into deliberate hunting is

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lost in the far recesses of time. In Ethiopia, the Hadar Site produces tools 2 1/2 million years old, and at Olduvai and Lake Turkana, tools dating 2 million years old have been found. Tool making had achieved some sophistication by a quarter of a million years ago, which is the age of the earliest known spear artifact that was discovered in England (Leakey, 1978). Again quoting Leakey, "Certainly if one ponders on the remarkable ability of modern humans to calculate the required trajectory and force in order to hit an object accurately with any kind of missile, from a stone to a heavy javelin, then it seems indisputable that throwing things with serious intent has long been a human activity."

As human-like creatures evolved into hunter, and early man into modern man, social organization increased, language developed, and intelligence increased rather dramatically. The Bible tells us man was given dominion over the earth and the animals when he was given the powers of speech and knowledge. It is interesting that at about the time a creature remarkably like modern man appeared, a number of man-like species were also present, and became extinct in short order. Did we help them along because they were just a little too intelligent and too close in competition for the ecological niches occupied?

Carl Sagan says "Only through the deaths of an immense number of slightly maladapted organisms are we, brains and all, here today," (Sagan, 1977). He is, by the way, an astronomer.

Sagan also prepared what he calls a cosmic calander. If you assume the earth was created in the first instant on New Years Day, the first life appears September 25, the first worms on December 16, the first mammals on December 26, and the first humans on December 31, at 10:30 p.m. Midnight of course, is right now. So, although man-like creatures have been around for a long time, the earth has spent an enormously longer time shaping into the form we now see it in and that we now live on. According to Sagan, at present the information content of human chromosomes corresponds to about five hundred million words, equivalent to about two million pages (more than a legislative session generates!).

Since we and our genetic human ancestors have been hunting for at least around two million years, it is likely that a good bit of our monumental genetic code deals with producing an adult human who is very well equipped for hunting, physically and mentally.

Sagan, quoting Maclean, describes the brain as having "three sorts of drivers of the neural chassis." They are the Reptilian, or R-Complex which probably evolved several hundred million years ago. Surrounding the R-Complex is the Limbic System which may have evolved a hundred fifty million years ago. Finally, and surmounting the rest of the brain and clearly the most recent evolutionary accretion, is the Neocortex which probably evolved several tens of millions of years ago. Maclean says "We are obliged to look at ourselves and the world through the eyes of three quite different mentalities, two of which lack the power of speech." A lot goes in

our heads that we are not necessarily conscious of. More than we know occurs in the more primitive parts.

Sagan says that "Evolution by addition and the functional preservation of the pre-existing structure must occur for one of two reasons: either the old function is required as well as the new one, or there is no way of bypassing the old system that is consistent with survival." We are not likely to shed our biological heritage.

Maclean has shown that the R Complex plays an important role in aggressive behavior, territoriality, ritual, and the establishment of social hierarchies. The Limbic System appears to generate strong or vivid emotions. Quoting Sagan, "There are reasons to think that the beginnings of altruistic behavior are in the Limbic System."

The Neocortex, the newest part of the brain, is something that defies a simplistic description. In mankind, the greatly expanded Neocortex function was apparently a necessity to handle the increased complexity of being a social creature, a hunter-predator, with a developing language capability and the necessity of coordinating an increasingly demanding way of living. The most nearly unique human characteristic is the ability to associate abstractly and to reason. It appears that the development of language, tools, and culture may have occurred roughly simultaneously, and coincidentally with the development of increasingly sophisticated and cooperative hunting technology. The Garden of Eden had good hunting.

What has all this got to do with the Psychology of a Montana Hunter? Simply to illustrate that hunting has been a fundamental aspect of human life for a very, very long time. What sort of people were early hunters?

Erich Fromm says "Fortunately, our knowledge of hunting behavior is not restricted to speculations; there is a considerable body of information about still existing primitive hunters and food gatherers, to demonstrate that hunting is not conducive to destructiveness and cruelty, and that primitive hunters are relatively unaggressive, when compared to their civilized brothers." Fromm quotes M.D. Sahlins, who wrote: "In selective adaptations to the perils of the Stone Age, human society overcame or subordinated such primate propensities as selfishness, indiscriminate sexuality, dominance, and brute competition. It substituted kinship and cooperation for conflict, placed solidarity over sex, morality over might. In its earliest days, it accomplished the greatest reform in history, the overthrow of human primate nature, and thereby secured the evolutionary future of the species."

Leakey says "Over countless generations natural selection favored the emergence of emotions that made reciprocal altruism work, emotions such as sympathy, gratitude, guilt, and moral indignation. Indeed, passions among modern gatherer-hunters are raised most rapidly and stormily when someone is discovered to have committed some kind of injustice, however small."

Tiger and Fox say, "We evolved into a very fine hunting machine... at the same time, our emotions, our intelligence, and our social skills were evolving. At about 40,000 years ago, our evolution as a species was substantially at the same point where it now hovers."

About ten thousand years ago, agriculture, and deliberate seeding and harvesting of plants, started becoming widespread. Tiger and Fox say, "We speak glibly and easily of the agricultural revolution and see it as the great leap forward in human history... Agriculture gave us, the myth persists, a food surplus, settlement, leisure... It also gave us two things calculated to put the severest strains on the fine-honed hunting animal that we were (still are): it gave us an uncontrollable and alarmingly increasing population density, and it gave us the daily round, the common task, the drudgery of unremitting year-round agricultural toil. It created the peasant, as inhuman a figure as the bureaucrat, and while it ultimately freed a 'creative' class that developed writing and all the other appurtenances of the civilized life, it condemned the overwhelming majority of the mushrooming human population to a sedentary and servile existence. The Bible also exhorts us to perform good husbandry of resources, not to mention the Golden Rule for human relationships.

Desmond Morris says that for modern man, work has replaced hunting, but work has retained many of the hunting characteristics. I can guarantee that this is true! He theorized that the less challenging the work, the greater need to express hunting urges. He describes the essence of "sport hunting" which is that the prey should be given a fair chance of escaping. Sport hunting involves a deliberately contrived inefficiency, a self-imposing handicap on the part of the hunters. It's the challenge that counts, the complexities of the chase and subtle maneuvers that provide the rewards." Thus the rules and rituals of hunting.

So far, we can find great evidence that hunting is strongly in our genes, over a time period longer than we can really comprehend, although we speak knowingly of 10,000 years, 40,000 years, two million years. Hunting has an equal basis of being part of our culture. While the urge and the body are there, the technologies and ethics of hunting are learned. Family experience and teaching are, I think, the basic creators of the hunter today, as much as any time in the past. With the highly mobile population of the United States and other highly technological advanced countries over the last several decades and the present instability of families, the present day would-be hunter is less apt to receive the extended education necessary to be an effective hunter, let alone a sportsman, or highly ethical hunter. To offset this somewhat, the popular outdoor press, wildlife management organizations, peer groups and others provide parts of the necessary education (sometimes a mishmash of information). Another factor is that experience is a necessity for converting early education into useable, enjoyable skills. With our huge population centers, it is increasingly much more difficult for the aspiring hunter to pursue his or her sport, let alone have a reasonable opportunity to pursue the prey.

No one becomes a hunter by going afield with a weapon the first time. We have all seen children playing at hunting, sometimes assuming the role of a relative or older friend. Their genes are preparing them, for with predators, hunting and fighting games take precedence (Hass, 1970).

When we hunt, we deal with death. We may be hunting predators, or even herbivores, capable of extinguishing our own lives, which adds an element of excitement. We may, in some circumstances, be the accidental victim of another human hunter. We may be hunting for meat, or we may hope for a trophy. We may become a trophy. We may also be out eradicating various rodent species, who we may think are at least indirectly competing with us, or "our" domestic and preferred wild game species. No matter what animals we hunt, there is an overwhelming history of genetic and cultural precedence for doing so. Along with this, however, is a strong history of ritual and education. The latter features were necessary to both perpetuate humans as hunters, and also to control hunting within cultural requirements, because as noted, the ultimate realism of hunting is that something will possibly die.

Being capable of abstract thought, we are well aware of our own morality. As Sagan points out, the price we pay for anticipation of the future is anxiety about it. When we kill an animal, we have an awareness that because of our action, we have ended its life, and this evokes awe, sympathy, sometimes regret, as well as joy at having hunted successfully. The ritualism involved in hunting prepares the new hunter for the emotional release. In the moments of actually making the kill, many people experience a sensation similar to that evoked by extreme danger. It is described by Graham Reed: "It is as though the threatened person walls off his reactions, so that he is no longer aware of emotion. This is termed dissociation of effect. It may be seen as a biological defense which prevents the individual from being swamped by excessive emotions...Unfortunately, dissociation is not amenable to voluntary control; the performer can only try to modify his state of mind by psychological preparation before the event.

Robert Newton Peck, writing for his children (and others) tells them "Because to live is to be hungry, and a hungry animal must kill and hunt...you must kill too...you are a meat eater. You are a killer...", which prepares them to acknowledge the end result, for the prey, of hunting, even though all meat comes from the store.

The act of hunting, as anyone with much "education in hunting" or experience actually hunting, knows and uses, is that the hunter uses non-prey creatures to find his quarry. "Hunters use birds, insects, animals as indicators of location and activity of prey" (Corbett, 1955). Jim Corbett, whom I quoted, killed several dozen man-eating tigers and leopards over a span of several decades in India. Often hunting alone, with a light rifle, and on foot, he invariably was successful due to a superb knowledge of the ecosystem he was in, which he had learned in a lifetime of keen observation.

Thus, although something's death is potentially the goal of hunting, the real hunter has a very strong affinity and affection not only for the prey species, but also all other living creatures. We are certainly

the only predator so concerned with the overall welfare of our prey. We caused, in the United States, the creation of a game department in every state, and a federal agency as well, to look after the welfare of the high interest prey (game) species, but to some extent, all other wildlife as well. Perhaps we knew (in our genes?) that the welfare of the predator is determined by the vigor of the prey base.

So, as you have heard, and will hear more at this meeting, in recent times we have spent millions upon millions of dollars to ensure the continuation of our prey base. This sometimes has grown into a situation where some wildlife agencies have been accused of being a dual predator, preying on the hunter and the wildlife, both to grow bigger, and have more work to do themselves. Other wildlife agencies have been accused of trying to eliminate the predator-hunter by becoming a lethal agent acting on the part of the prey. Agencies also compete for the prey to manage. Hunters and their wildlife management agencies alike, complain that non-hunters, or mythical non-consumptive wildlife users, do not pay for wildlife-benefiting programs in any substantial way and never have. I predict that you never will get anyone but hunters to pay the bills, because only hunters have the emotional and intellectual ties to the prey species compelling them to actively participate in their general welfare.

Returning to agriculture: We have a few million years going for us as hunters, and agriculture is relatively a mere stripling in human experience, as is the domestication of food animals. In a relatively short time, the end products of hunting-gathering have become available to the consumer, far removed from the growing and killing, or harvest. The increased utilization of land for the organized raising of foodstuffs for an ever-expanding population has increasingly circumscribed the opportunity for hunting, even here in Montana. On the one hand you have the landowners and land controllers becoming increasingly sensitive and restrictive about who is doing what on their land, and on the other hand there is a tremendous number of hunters (potentially every one of us) who feel they have the right to hunt. Notice I said "right," not privilege. While Robert Ardrey's views are very controversial, his contention that hominids become human because they hunted is perhaps the most extreme view of the role hunting has played in our development. It is not surprising to me that every active hunter I know feels he or she has a right to hunt. The only privilege connected with it is the privilege of hunting on private land.

Wildlife management agencies must face some potentially opposed characteristics of the population. On one hand the hunters historically in this country, have vested ownership of the wildlife in the people, as represented by the state. On the other hand landowners (and land managers) are territorial and tend to resist uninvited trespass. This is further complicated today by a general wariness, if not distrust by people of government, including sometimes our wildlife agencies. According to Peter Schrag, speaking of government, a great part of post-World War II technology has been applied, not merely, and not often even primarily, to control of things, but more significantly

to control for human beings; and that in turn has generated a fundamental shift in the ideology of control: from the overt to the (hopefully) subtle, from punishment to "treatment," from moral and civil law to the "natural" order of things, the tyranny of the normative. He was referring to government's intrusion into personal behavior. This makes a lot of people nervous, as bureaucracy decides for us what is appropriate behavior. The state wildlife management agency must recognize the psychology of the hunter, and also the landowner, and in essence be the conciliator between two forces vying for some of the same resources. This possibly can be helped; it may indeed be critical to any solutions, by the fact that many landowners are also hunters, even corporate landowners.

Thus, there is a great deal of mutual, common ground for negotiation and diplomacy. I think the key is education. In Montana, the fish and game, more recently, and accurately named Department of Fish, Wildlife and Parks, must supplement the education, as we now have many people who have gotten little in the way of family instruction during childhood and adolescence. We are never going to get hunters to act like sport hunters, except by peer group pressure. No amount of game wardens could monitor the number of hunters we have. You will have to utilize to the fullest all the potential of the mass media; print, radio and television, and they'll have to know, or think, it's hunters as well as biologists talking to hunters. The more highly ethical sport hunters you can produce, the more possible it will be to convince landowners to tolerate hunters on their land.

The job is going to get worse, and never get better, in all probability. The world and national situation is going to result in more meat hunting. You'll see more people hunting or attempting to hunt. The ineptitude of the inexperienced will create more friction between competitive resource users.

This will be complicated by another propensity of mankind---the application of advance technology.

Man the hunter, is also man the tool maker. Since we first discovered that a sharp rock was more effective than a clenched fist, we have been fascinated by weapons and associated hunting technology. The present-day hunter is no less intrigued than the folks who first turned out folsom points. Why should a hunter want more than one gun? Because each gun does something a little better than some other gun, or at least is planned to. This age old history of attachment to weapons is one reason why gun control evokes such a gut response from gun owners. Why would some people use airplanes, helicopters, two-way radios, the latest four-wheel drives, and violate sanctuaries such as national parks to hunt? All other considerations aside, all these things increase efficiency in terms of the kill. It is up to you, the management agency, in consort with the real sport hunters to create a widespread public knowledge that sport hunting is not just killing. It is fair chase, as Morris put it, where the prey has a reasonable chance of escaping due to self-imposed handicaps on the efficiency with which it is possible to hunt. It is the camaraderie of associations with fellow hunters in planning, executing, and remembering a hunt. (Few people choose to hunt alone consistently.) It is seeing what's over the next hill, mountain range, river. It's sharing all the aspects of hunting, including the kill. Humans sharing food are unique

among all the species (not to be mistaken for some carnivores bringing food to their immature offspring). Hunters distributing the results of their efforts among their group is something deeply ingrained in our nature. Only by a massive, cooperative effort between ethical sport hunters and the fish and game, can sport hunting in Montana hopefully remain as we know it, by doing everything possible to ensure that every hunter appreciates that hunting, as one of the oldest human endeavors, is comprised of a series of activities, not the least of which are the rituals, the ethics.

It should be noted that although a great deal can be found in print about man-the-hunter and woman-the-cave (or house)-keeper, the female hunting experience parallels the male experience. The difference is of degree, not kind. It would be naive to think that prehistoric women did not hunt, a lot, of necessity. It is a lead-pipe cinch they had to have skill with weapons, for they lived in an environment populated with an abundance of large and capable predators. There is, however, one thing that only a woman can do, and that is give birth. In a species where the young take such a long time to mature, the mothers, of necessity, were occupied looking after the young. Right now, women have far fewer constraints. There are also a large number of American women who choose to have few, if any, children. Do not be surprised to see more women hunting each year, and do not neglect them as part of your audience.

We live in a complex world with an inordinate amount of pseudointellectual experts on every hand, on everything. Harold Rosenberg once defined intellectuals as those who turn answers into questions. R.D. Rosen warns us that in the seventies "psychological man" has regressed, into not being just a victim of interminable introspect, but also the victim of his own inability to describe human behavior with anything but platitudes. Joan Marble Cook says, "With only a few exceptions, a strange negativism has affected psychological thinking, the chief practitioners having confined their attention almost exclusively to sick and neurotic humans or caged rats." Neurotics build castles in the clouds, psychotics live in them, and psychologists collect the rent. Little comparatively can be found about hunter psychology in contemporary literature. However, one can find a certain amount of media pop-psych directed toward the occasionally messy side of human nature (real or contrived) aimed at totally discrediting hunters. Bless the Beasts and the Children, first a novel, then a film; The Guns of Autumn, a CBS propaganda program, and many others are typical. These broadsides from the national mass media are designed to vilify for profit, hunters and hunting, and to achieve total fire-arms removal from the hands of the public. There seems to be a vociferous element in our population whose hunting heredity seems to satisfy their atavistic urges. They also seem to think they can legislate immorality for all creatures. At the present, hunters, shooters, weapon owners, and others seem to be keeping them at bay. C.H.D. Clarke, in Autumn Thoughts of a Hunter, points out that the leading anti-hunting fanatic of modern times was the late Reich Minister of the Interior, Heinrich Himmler (all killing must be humane--he used gas), Clarke's article is a particularly scholarly and enjoyable exploration of the psychology of hunting. He concluded, "In the fantastic mass participation (number of American hunters) described at the beginning we see some danger and some good. It's no good trying to make one of the basic

activities of the human race on almost all land, the exclusive property of a small cult. We have to let them hunt, even though we thereby include those who debase sport. They are the few. Of the rest, we must agree that few have the knowledge or perception to fit into nature as a hunter should. They are, however, willing and eager to learn, conscious of limitations to their own fulfillment imposed by their ignorance. By helping them, we help ourselves, the game, and the whole world of nature."

It would seem that we can be somewhat optimistic. Although there are voices at present raised against hunting, we have an effective tool to keep hunting in its place as a major activity in Montana. The gene pool, which incidently was the theme of the last issue of Montana Outdoors, seems to be a powerful ally. We, as the epitome of 80 or more thousand generations of peace-loving, generous, altruistic, considerate, compassionate, very cerebral hunters, hopefully will have the wits and the intelligence to capitalize on it, and keep hunting an activity to be enjoyed by the many.

I will conclude with some of the words of Jose Ortega: "Hunting, like all human occupations, has its different levels and how little of the real work of hunting is suggested in words like diversion, relaxation, entertainment! A good hunter's way of hunting is a hard job which demands much from man: He must keep himself fit, face extreme fatigues, accept danger. It involves a complete code of ethics of the most distinguished design; the hunter who accepts the sporting code of ethics keeps his commandments in the greatest solitude, with no witnesses, or audience other than the sharp peaks of the mountains, the roaming cloud, the stern oak, the trembling juniper, and the passing animal...It is not essential to the hunt that it be successful...the beauty of hunting lies in the fact that it is always problematic...There is then, in the hunt as a sport, a supremely free renunciation by man of the supremacy of his humanity...To sum up, one does not hunt in order to kill: On the contrary, one kills in order to have hunted."

Good Hunting!

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THE FUTURE OF HUNTING IN MONTANA: SOME PERSPECTIVES FROM
THE HISTORY OF HUNTING IN NORWAY

BY

Jon E. Swenson 1/

Montana's recorded history is very short. The first white men entered what would be Montana in about 1743, the first permanent structure, a trading fort, was erected in 1807, and few people came into the state until the gold rush of the 1860's and even then there were only 28,000 people at the peak of the rush (Malone and Roeder 1976). Throughout Montana's short history, Montanans have been hunters and have enjoyed free and uncrowded hunting on public and private lands. However, an increasing population and changing attitudes seem to indicate that our hunting traditions may change.

Montana might well be at a crossroads regarding the future trends in hunting in the state, as is suggested by the topic of our meeting. Current trends seem to include the restriction of hunting on private lands and the increase in pay hunting in some areas (Eustace 1976, Montana Department of Fish and Game (MDFG) 1978a). Pay hunting is apparently common in some other states and some biologists argue that landowners must receive compensation or profit from wildlife before they will preserve or enhance wildlife habitat (Davis 1979). I will not debate the issue of pay hunting here; I will describe the effects on hunting of transferring the right of hunting from the public to the landowner, based on experiences in Norway. This may help us visualize the potential long-term effects of a similar situation if it were to occur in Montana.

A Physical Comparison of Montana and Norway

Montana, located in the western United States between 45° N and 49° N latitude, is landlocked. The western third of the state is mountainous and the eastern two-thirds is generally prairie, with some isolated mountain ranges. Norway is located much farther north, between 58° N and 71° N latitude, and occupies the western portion of the Scandinavian peninsula. It is generally mountainous to hilly, with large plateaus in the north and south-central portions. Excluding the fjords and islands, Norway has 2,650 km coastline. Norway's climate is milder and less extreme than Montana's, due to the effects of the Gulf Stream.

Montana and Norway are similar in size, but Norway's population density is seven times greater than Montana's (Table 1). However, Montana and Norway are both sparsely populated when viewed in an American and a European perspective, respectively. Both places have similar amounts of forest land, proportion of population in rural areas and game bird harvest, excluding seabirds, but Montana has twice as much public land, much more farmland, and four times as great an annual big game harvest (Table 1). Accounts of wildlife management in Montana and Norway are found in Mussehl and Howell (1971) and Myrberget (1971), respectively.

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Hunting in Norway in the Late 1800's

Historically, hunting was a public right in Norway. This is in contrast to many other European countries, where landowners have owned the game since feudal times. Feudalism was poorly developed in Norway, however, probably due to unproductive agricultural lands and low population density.

The history of the right to hunt in Norway has been summarized by the Hunting Law Committee (Jaktlovutvalget 1974). Under the first national law codified in 1274, all Norwegians were allowed to hunt for everything, except red deer on private lands, but they could not hunt with dogs on private lands. With these restrictions, the public had the right to trespass and hunt without permission on private lands. Landowners were given the right, on their land, to hunt with dogs, to hunt red deer and to set traps and snares. These provisions were kept in the recodifying of laws in 1604 and 1687, but hunting was restricted in 1730, 1818, 1845 and 1863 when more hunting rights, especially for big game, were transferred to the landowner. This was in response to the increasing effectiveness of weapons, increasing numbers of hunters and decreasing game populations.

Between 1863 and 1899, the public had the following hunting rights: unrestricted hunting of wolves and bear; hunting without dogs on private lands, excluding cultivated fields, for everything except moose, red deer and beaver; hunting without dogs in cultivated fields for nongame (waterfowl, waders, doves, thrushes, etc.): hunting with or without dogs on public lands for everything except moose, red deer, and beaver, which was regulated by the Government; and trapping of predators on public land. Landowners had the following rights on their lands: all hunting with dogs, except for wolves and bear, which was open to everyone without restriction; all hunting of moose, red deer and beaver; all hunting of game animals in cultivated fields; and all trapping.

In Norway, hunting of small game is, and has been relatively more popular than big game hunting. This is in contrast to the situation in Montana and is probably due to the relative availability of big game (see Table 1). In the late 1800's, Norwegian small game hunters enjoyed more hunting rights than present day Montana hunters. Big game hunters could hunt on public land and could hunt wild reindeer everywhere.

Statistics concerning the importance of hunting from this period are meager. In the first sociological field study in Norway, Ie Play (1877) found that the most important recreation among the factory workers in a small town in east-central Norway in 1845 was small game hunting and salmon fishing. These activities were "completely free for everyone and gave a welcome change from the usual work and important additional food" (Ie Play 1877:61). Hunting was apparently a man's sport, as berry picking was the most important recreation of women and children.

Hunting in Norway was at a crossroads in the late 1800's due to economic difficulties. Industrial development occurred late in Norway and agriculture developed slowly and encountered severe crises, especially in the 1860's and 1870's. This, plus a rapid population increase resulted in the emigration of about one million Norwegians to North America from 1825 to 1930. Because most of the emigrants were from agricultural areas, discussions about reforms to stop emigration tended to give much emphasis to the problems of the farmer (Blegen 1940, Oyen 1968). From the late 1800's to 1920, Norway underwent a period of rapid industrialization and changed from an agrarian to an industrial society (Seierstad 1968).

With this economic situation, it is perhaps not surprising that Norway enacted a comprehensive hunting law in 1899 which adopted the right of the landowner to all hunting and trapping on private land as a principle in Norwegian law. The public lost all right to hunt for free on private land except for predators (Jaktlovutvalget 1947).

Hunting in Norway Today

Hunting in Norway is regulated by a law enacted in 1951, but the principles are similar to the law of 1899. One point of the 1951 law is that nobody owns the wildlife in Norway, but landowners still have the exclusive right to hunt on their land and that right may be leased, but the lease agreement must be written.

Hunting is apparently much less important in Norway today, compared with the mid-1800's, if le Play's (1899) account is representative of the situation in Norway at that time. I calculated that about 4 percent of the Norwegians old enough to hunt (16+ years old) hunted in 1970, from data on the number of hunting licenses sold in 1970 and the population size and age structure that year (Oyen 1968, Jaktlovutvalget 1974). Almost all of these hunters were men, as very few women seem to hunt in Norway. That hunting is a relatively unimportant form of recreation on a national scale is also suggested by the fact that in Ramsøy's (1968) discussion of leisure time and recreation in Norway, he mentioned hunting and fishing only once. Also, when Nilsen (1958) sent questionnaires to adult Norwegians asking them to check from a list of 19 alternatives what they liked to do best in their leisure time, he did not include hunting or fishing among the alternatives. However, leisure time in Norway is tied to a great degree to nature and Norwegian culture drives or lures Norwegians to outdoor life (Ramsøy 1968). Although I am not aware of a movement to outlaw hunting in Norway, the Hunting Law Committee (Jaktlovutvalget 1974) noted that hunting for recreation is being criticized and that a large portion of the population can not understand hunting as recreation.

It is my impression that hunters in Norway are very specialized, hunting one species of big game, or birds or hare. They also are sedentary, as 96 percent of the resident hunters hunt in only one municipality (there are 441 hutable municipalities in Norway) (Jaktlovutvalget 1974). If hunters are to hunt on private land they must lease the hunting rights. The total value of these leases was \$6.6 million in 1971, or an average of \$60 per hunter, and this was expected to increase (Jaktlovutvalget 1974). The true average

cost of hunting rights per nonlandowning hunter was possibly as high as \$120, since a large portion of the hunters are landowners. In some areas, the cost of the big game hunting rights is based on the amount of meat on the harvested animal (Krafft 1964), or hunters are charged an added fee after the kill, based on the amount of meat they obtain. Wild meat can be sold in Norway and the value of meat and hides harvested in 1971 was estimated at \$6.6 million. Most of the estimated \$13.2 million derived from hunting was realized by people in agriculture and made an important contribution to their economy. (Jaktlovutvalget 1974). On public lands, big game hunting is limited by permit and small game hunting often is for nonresidents of the municipality.

Usually, many big game hunters will form a group and purchase the hunting rights for a big game species in an area. For example, 10 hunters may buy the rights for 4 moose. It does not matter who shoots the moose, but the meat is divided equally. All big game species are hunted by permit only. Small game hunters often are able to go hunting for only a short period each fall, when they travel to their hunting area, which they may have leased for a week, and stay in the cabin that is generally provided. Norwegian hunters are very interested in hunting dogs, field trials, etc., which may be a way in which they can maximize the enjoyment of hunting from relatively limited opportunities to actually hunt.

Hunting in Montana Today

Hunting is very important in Montana. In 1973, 35 percent of Montanans old enough to hunt (12+ years old) purchased some type of hunting license and over 55 percent of the men and over 20 percent of the women interviewed in a statewide survey in 1977 claimed to be hunters (MDFG 1978a). In 1975, over 2.4 million days of hunting recreation occurred in Montana. All wildlife is apparently important to Montanans all year long, since 70 percent of Montana's residents made special efforts to view wildlife in its natural setting, and 34 percent of Montana campers stated that wildlife observation was a major reason for camping. Fewer than one in seven Montanans oppose hunting (MDFG 1978a).

Montana's hunters are relatively unspecialized and most probably hunt more than one species of game each year. It is very common that a hunter will hunt both small and big game the same year. Montana hunters are also very mobile, about one-third of the hunters in the state hunt and fish outside the region in which they live (there are seven regions in the state) (MDFG 1978b). Wild game meat cannot be sold in Montana.

About half of the big game and much of the small game hunting in Montana occurs on private land (MDFG 1978a). Most commonly, hunting on private land is a courtesy which the landowner extends free of charge.

The Future of Hunting in Montana

It is improbable that the development of hunting in Montana will mirror

that of Norway, but there may be several parallels. A comparison of several sociological and economic parameters shows that in the importance of hunting, population density, and relative economic importance of agricultural and silvicultural industries, Montana is similar to the Norway of the late 1800's (Table 2). Our employment by economic sectors is similar to modern Norway, and is representative of a modern society and mechanized agriculture.

Montana's population will increase in the future, probably reaching one million in the 1990's (MDFG 1978b) and we are facing increased industrialization, especially in the energy-rich eastern portions of the state. This, plus the trend of landowners to charge for hunting is moving Montana closer to the situation found in modern Norway. If we may project from the changes which have occurred in Norway, this will mean that our hunting will change considerably in the next generation, along with our social and economic structure. We can probably expect hunting to be more restricted, less diverse for each hunter, more expensive and the relative importance of hunting will decline. This could have a detrimental effect on our wildlife since hunters have traditionally been the strongest supporters of wildlife conservation and habitat preservation, both politically and economically. It is encouraging that hunting still exists in Norway, but the anti-hunting forces in America may complicate a direct projection here.

General fee hunting on private lands could occur in Montana without a change in laws, in contrast to Norway, because the public does not have trespass rights in Montana. If fee hunting became common, restricting hunting on public lands would become a management necessity, as it has been in Norway. The present conditions in Montana will not cause a drastic, abrupt change in our hunting system as occurred in Norway in 1899 under difficult economic conditions, but we seem to be headed in a direction similar to that of the Norwegians in the late 1800's.

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TABLE 1. A comparison of the physical characteristics, population and game of Montana and Norway. (From MDFG 1978, Mussehl and Howell, Myrberget 1971, Anon. 1970.)

Parameter	Montana	Norway
Size	381,087 km	323,879 km
Population (1980 Estimate)	790,303	4,270,000
Population density	2.07/km	13.18/km
Proportion of population in rural areas (1970)	46.6%	48%
Percent public land	30%	12%
Proportion of the land		
Forested	25%	20%
Cultivated	22%	3.5%
Above timber line	little	47%
Below timber line	75%	25%
Major big game species:	Mule deer, white-tailed deer, elk, pronghorn antelope, big-horn sheep, Mt. goat, black bear, grizzly bear, Mt. lion	Moose, red deer, reindeer, roe deer
Average annual harvest in mid-1970's	110,00	28,000
Major terrestrial game bird species	Ducks, prairie grouse (sharp-tail & sage), Mt. grouse (blue, rock), Mt. grouse ruffed, spruce), gray partridge, pheasants, geese, chukar partridge, turkeys	Ptarmigan (willow & capercaille, black & hazel), waterfowl, woodcock
Average harvest in mid 1970's	660,000	690,000
Other species & harvest	Cottontail rabbits (?)	Seabirds (100,000) Mt. hare (75,000)

TABLE 2. A comparison of some sociological and economic parameters of Montana today, Norway in the late 1800's and Norway today.

Parameters	Montana Today	Norway in Late 1800's	Norway Today
Population Density	2.1/km ²	5.6/km ² (1875)	13.2/km ²
Percentage of people Hunting	35%	Apparently large portion of men ^a	4%
Importance rank of various industries			
Agriculture	1 ^b)	8 ^d
Forestry	5) 1 ^c	10
Mining & Petroleum	2	3(?)) 1
Manufacturing	3	2)
Percentage of employment by economic sector			
Primary	13.4% ^e	59.8% ^f	12.4% ^f
Secondary	18.5%	13.6%	37.5%
Tertiary	68.2%	20.5%	50.1%
Unreported		6.1%	

^aAccording to le Play (1877)

^bFrom Mussehl and Howell (1971)

^cAccording to information in Seierstad (1968)

^dAnon. (1970)

^eIn 1970 (U.S. Bureau of the Census 1973)

^fIn 1865 and 1965 (Seierstad 1968)

CONTRIBUTIONS OF SPECIAL MANAGEMENT UNITS: A REPORT ON THE
BLACKFOOT SPECIAL MANAGEMENT AREA
BY
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The Blackfoot Special Management Area (BSMA) is located in the Garnet Range, about 35 miles east of Missoula, Montana (Figure 1). The size of the area is approximately 42,000 acres. It is unlawful to enter the area with a motorized vehicle between 1 September and 30 November, except in areas in lower Chamberlain Creek which are designated for parking and camping. It is also illegal to obstruct traffic or block gates by improper parking, or to hunt or discharge firearms within safety zones which are posted around buildings and livestock. Landowners and Federal, state and county officials are exempted from the vehicular restrictions for administrative work or for carrying out their official duties. However, the cooperators have generally tried to avoid entry during the closure period, especially during regular hunting season. The Chamberlain Creek Elk-Logging core study area lies within the BSMA. The study area is closed to public vehicular access yearlong, and logging will not be permitted during the general hunting season.

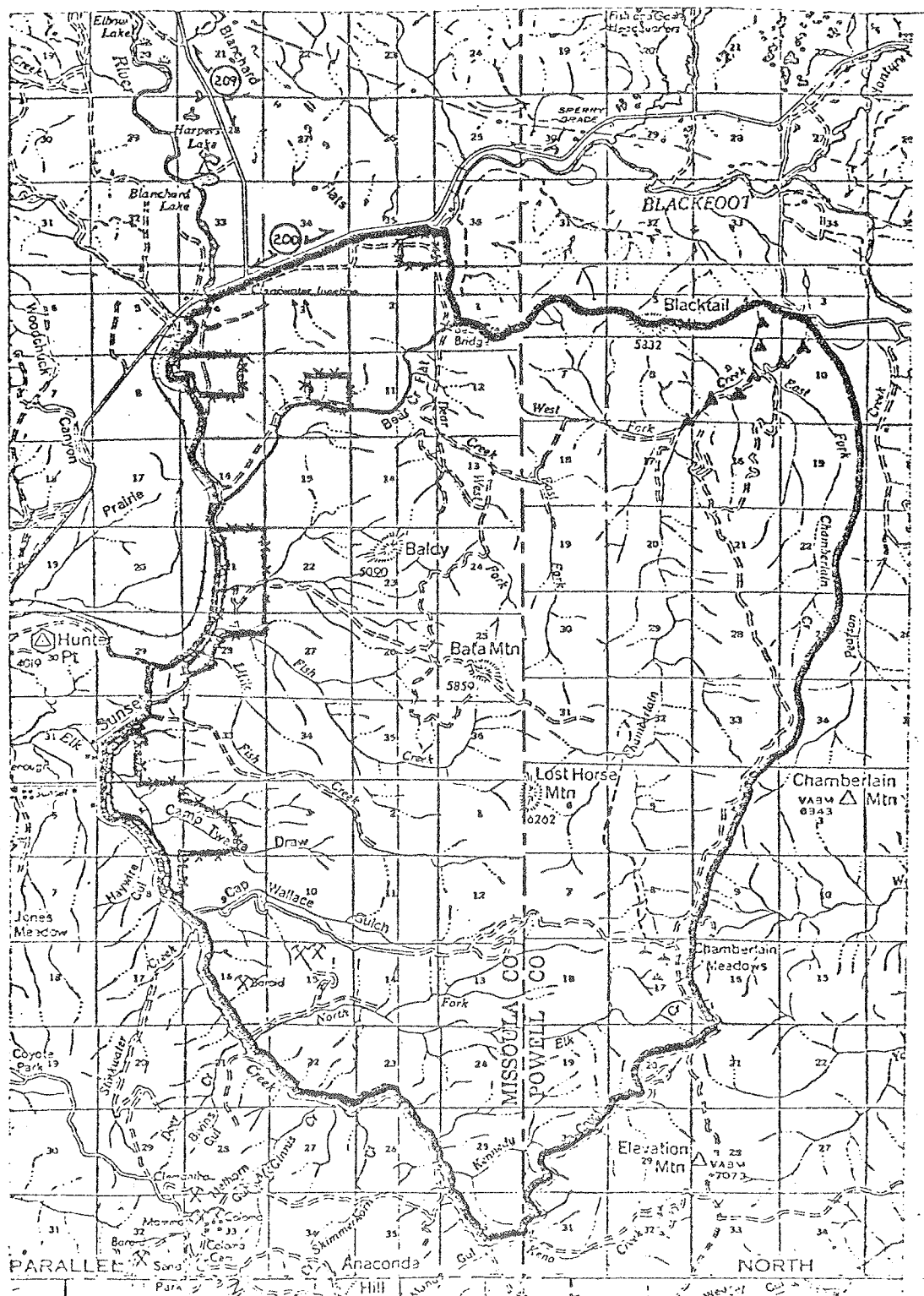
Objectives of the road closures in the BSMA are to encourage elk use in areas which have been roaded and logged, where security cover is limited; to provide a walk-in hunting area and improve the quality of hunting; to gain hunting privileges on private lands which were previously closed to the general public; and to prevent vehicular damage to soils and vegetation (McDaniel 1975).

The BSMA was initiated in 1974 by the Garnet Resource Area Office of the Bureau of Land Management (BLM) in cooperation with the Montana Fish and Game Commission and landowners in the area on an informal and experimental basis. Public comments were solicited during and after the 1974 closure, and public hearings were held at Missoula and Ovando prior to the closure of 1975 to assess the viewpoints of users and landowners. Most comments were in favor of the closure, and the public's recommendations were incorporated into the management plan for 1975 (McDaniel 1975). The informal agreement was continued during 1975, and 1976 a formal agreement was reached which continues in effect until "terminated on 30 days written notice by any signator" (Montana Fish and Game Commission 1976). At present the agreement involves 10 cooperators. Landowners include the Champion International Co., BLM, Lubrecht Experimental Forest, State of Montana, Burlington Northern, and four ranchers. The Montana State Fish and Game Commission is responsible for posting lands, and enforcing special regulations for the BSMA. All lands within the BSMA are open to hunting during regular seasons, except for the posted safety zones.




In recent years, hunting seasons for elk in BSMA (Hunting District 292) have included an either sex archery season from the second Saturday of September through the second Sunday of October, and a general season for antlered bulls from the third Sunday of October through the last Sunday

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Fig. 1. Map of the Blackfoot Special Management Area.



Legend

-  Area Boundary
-  Safety Zone—Posted "No Hunting"
-  Designated Parking and Camping Area

in November. Either sex permits given for the general hunting season increased from 50 to 75 during 1979, even though a substantial area in the western part of Hunting District was closed to either sex hunting last season.

Information about the BSMA was obtained from several sources. Data on hunter numbers, and the deer and elk harvest in the Blackfoot Valley are collected at the Bonner check station by the Montana Department of Fish, Game and Parks (Firebaugh et al. 1979). Contacts with hunters by personnel of the Chamberlain Creek Elk-Logging Study have supplemented the information available concerning the elk harvest in and adjacent to the BSMA. Also, the BLM conducted an intensive study of hunter numbers and use of the area during the 1977 closure (Norris 1977), and less intensive informal surveys during the last two years. I have been working in the area for the last five years, and have had numerous contacts with the cooperators and hunters in the area. Monitoring of radio-collared elk has provided information on their movements and distribution in the area since 1977, including the road closure periods. Haveman (pers. comm.), the game warden for the area, provided information concerning the administration of the closure.

Because detailed surveys of hunting and game harvests in the BSMA since its inception are not available, my interpretations are somewhat subjective, but I think they are accurate. Generally, the objectives for establishing the BSMA have been met. Elk are using previously roaded and logged portions of the BSMA during hunting seasons to a greater extent than they would if the roads remained open. A walk-in hunting area was established, and limited surveys indicate that hunters believe the quality of hunting in the area has improved. Hunting access for the general public on land previously closed has been achieved. Soils and vegetation have been protected from vehicular damage. In addition, because of the limited harvest of females, and relatively mild winter weather conditions during most recent years, the elk herd in the area has increased moderately. Numbers of hunters and elk harvested have also increased, especially in the last three years. However, there is no evidence that the known elk harvest is excessive, especially for the female segment of the population. In fact, if the elk population in the area continues to increase, it will probably be necessary to further increase the number of either sex permits. Perhaps the most important thing to note premise. The BSMA has benefited hunters, and I believe it has also benefited the elk. The creation of special management units in selected areas is one means of enhancing the future of hunting in Montana.

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SPORT HUNTING: RIGHT OR WRONG?

By
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As a lawyer, I view the Hunting/Anti-Hunting controversy from a perspective that is probably different from that of most hunters and wildlife biologists and the moralists between whom the battle has been joined. A lawyer views the world as composed of relationships: man's relationship with one another, and man's relationship with his environment. To a lawyer, the "law" is regarded as a stable, yet ever-changing, code of conduct which arises out of society's attempt to order and resolve conflicts springing from those relationships. Consequently, a lawyer views the "rightness" or "wrongness" of human conduct not as absolute or immutable, but, rather, subject to change depending upon the effectiveness of advocacy for maintaining the status quo or, conversely, for change.

Over the course of several million years of man's presence on earth, man has depended on hunting for his survival. It cannot even be fairly debated that hunting has been, and continues to be, an "accepted" form of conduct in man's relationship with wild animals.

Today, however, with domestication of wild animals and technological advances, the hunting of wildlife is no longer necessary for "civilized man's" continued survival. The "civilized man" who continues to hunt does so principally for sport or recreation.

Stripped of its etiological justification, the continued acceptance of hunting as a "right" form of conduct in man's relationship with wildlife has been increasingly called into question by the so-called anti-hunters. Their problem is a moral one: that any conduct of man engaged in for sport, pleasure, or recreation which involves killing of wild animals is "damnable" - "basically immoral" - "intrinsically wrong." ^{2/} From the premise, their conclusion inescapably follows: because sport hunting involves killing of wild animals it is, therefore, "intrinsically, morally wrong." Since sport hunting is "intrinsically immoral", they conclude that society should not only cease permitting such conduct, but also, by law, should expressly forbid it.

The response of those who favor continued hunting of wild animals for sport has avoided critical analysis of the anti-hunting moral position. Instead, hunting's values to the hunter and its contribution to biological management and perpetuation of wildlife species have been extolled. ^{3/} Such argument, although helpful, and, ultimately, essential to continued legal justification of hunting, fails to address directly either the anti-hunters' moral postulate or the logic of the conclusion which supposedly flows therefrom.

The postulate - that any human conduct engaged in for sport, pleasure, or recreation which involves killing of wildlife is intrinsically immoral - is fraught with empirical pitfalls and logical inconsistencies which

tarnish its initial plausibility. Because posited moral principles seem to carry with them an aura of "righteousness", I believe it imperative that the anti-hunter's moral premise not go unquestioned and that its blemishes be illuminated.

Apart from hunting, most activities of "civilized man" pursued for his pleasure or recreation have a detrimental or destructive impact on wildlife. His automobile kills almost as many wild animals each year as are killed by his gun.^{4/} His housing subdivisions have and continue to remove alarming acres of wildlife habitat.^{5/} His ski slopes impact critical habitat of threatened or endangered species.^{6/} To satiate his energy glut, he deliberately chooses to approve dams which with virtual certainty will extinguish a wild species from the face of the earth.^{7/}

However, none of these activities are conceived by society as "intrinsically immoral:" improvident, unwise, unconscionable, but not "intrinsically immoral." The singling out of sport hunting from these other activities which result in death to, or even more catastrophically, extinction of, wildlife as conduct which is intrinsically immoral is patently so illogical as to defy belief.

Assume, however, for sake of argument, that sport hunting can be legitimately singled out as "intrinsically immoral," it does not follow that society should, therefore, view such conduct as legally wrong. While a society's laws often track its moral beliefs, they need not necessarily coincide. For example, the intentional killing of another human being is regarded by the mainstream of our society as both immoral and unlawful. However, the intentional killing of an assailant in self-defense, while still viewed as immoral, is not regarded as unlawful. That even intentional killing of other human beings is regarded as neither immoral or unlawful during times of civil unrest or war is indicative, moreover, that society's determination of what is "right" and what is "wrong" turns on factors other than moral principles alone.

Conclusion

Studies indicate that hunting advocates comprise approximately 20 percent of our nation's population.^{8/} Anti-hunters claim a similar following.^{9/} Whether sport hunting will continue to be accepted as "right", therefore, depends largely on whether the remainder of society continues to recognize it as a socially valuable form of behavior.

The moral argument of society's anti-hunting segment is irrelevant to, and only serves to obfuscate rational decision-making on the question of sport hunting's legitimacy. A myriad of other factors, such as the aesthetic, psychological, and social value of sport hunting to man's enjoyment of life, protection, and perpetuation of wildlife species as a natural resource, land use conflicts, politics, and economics, among others, should, and do, play a vital role in the continued legal acceptance or rejection of sport hunting by a society. It is up to those who

appreciate hunting's values to continue their advocacy of the sport as a legitimate form of human behavior if it is to be enjoyed by this and future generations.

End Notes

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2/ "Any activity which includes killing as a pleasurable end in itself is damnable," Krutch, J. W., The Sportman or the Predator? I. A Damnable Pleasure, St. Review (August 17, 1957): 8-9 and 39-40.

"As wildlife is no longer needed for food or clothing, we believe that hunting itself is basically immoral," Statement of Bernard Fensterwald, Jr., on behalf of the Committee For Humane Legislation and Friends of the Animals, Inc., Environmental Impact Statement on Federal Aid in Fish and Wildlife Restoration Program, ;. IX-116.

"Any management activity that detracts . . . from the welfare of wildlife . . . is intrinsically wrong." State Committee, Sierra Club, Environmental Impact Statement on Federal Aid in Fish and Wildlife Restoration Program, p. IX-164.

3/ See, e.g., Knudsen, George J., "Hunting: Its Values and Importance," Hunting: Sport or Sin? (September 14, 1974) College of Natural Resources, University of Wisconsin, Stevens Point, Wisconsin; Hale, James, "How the Wildlife Profession Views Sport Hunting," Ibid.

4/ "Over 28,000 deer were killed on Pennsylvania's highways last year," Sports Afield, (Feb. 1980) p. 92.

5/ During the period 1970-1979, subdivisions in Gallatin County claimed 10,500 acres. The Bozeman Trail (December 27, 1979), p. 2; See also Transcript of record on Montana Wildlife Federation v. Sager (Gallatin County Cause No. 25482) August 15 and August 28, 1979, Eighteenth Judicial District, Gallatin County, Montana.

6/ The proposed destination ski resort "Ski Yellowstone" near West Yellowstone, Montana, being a case in point.

7/ Congressional approval of the Tellico Dam, which is forecasted to result in the extinction of the Snail Darter being a case in point.

8/ Hunting participation in the mountain states in 1965 was found to be 20% of the surveyed population. The National Survey of Fishing and Hunting (U.S.F.W.S.) 1966, 1973.

9/ Krueger, Mary Ann, "Hunting: A Slaughter and a Sin", Hunting: Sport or Sin?, op. cit. fn. 2, supra. p. 25.

THE ENDANGERED SPECIES ACT AS A MANAGEMENT TOOL

BY

Charles Jonkel 1/

Many hunters, land managers, ranchers, and corporations look upon the Endangered Species Act (ESA) as a threat to their activities. Others look upon the Act as a weapon to use against hunters, agencies, or special interests. And the Act can, in fact, be used as a weapon--but it can more properly be used as (and regarded as) a tool, a tool to care for species and to care for the land.

There can be little doubt but that many species have serious problems--in a recent book The Sinking Ark, and in the most recent IUCN Bulletin (Nov 1979), Dr. Norman Meyers predicts that because of man's activities we will have lost one million species by the year 2000, and are losing perhaps 1-10 species per day currently. That should be enough to scare any biologist into looking at the preservation of species as a serious part of his (her) job.

I say preservation rather than protection for good reason. Protection is too often static; it implies (and often constitutes) a single-minded and inflexible approach to species preservation--a narrow, "well, that's done," hand-rubbing solution. The California Condor, for example, was for too long merely protected, while its habitat was destroyed, it was indirectly and directly poisoned, and research was neglected. Now, after the species is moribund, a massive \$500,000 effort is underway to preserve the species, but it is too late. The Condor did not need the ESA to be protected, but it could have been preserved through better land and species management had the Act been created earlier.

Obviously, the preservation of species can sometimes be achieved through protection, and protection is an important part of preservation, but often much more is needed. An endangered or threatened species, its habitat, trade in its hides or products, and trade in live animals must be managed; and the activities of ANY person, agency, group, or corporation which affects the species or its habitat must be monitored/regulated to produce long-term, realistic preservation. Man has too much changed the world for many of our species to survive in their original, natural habitats--to survive without habitat manipulation. We have already mandated wildlife management. And research funds, it even means ever-increasing costs and restrictions on personal freedoms as human numbers multiply. Above all, it means "doing our job better" exponentially.

The ESA is a valuable tool for land and species managers. It has been weakened by the 1978 amendments, and some agencies seem motivated to circumventing the ESA, but it is still a powerful act. It has its faults, it duplicates and contradicts certain other legislation, it has been misinterpreted, it has been misused, but that does not make it a bad act. In fact, its very name identifies a problem, it denotes urgency, it is a rallying cry and mobilization point, and we needed (and need) that, even if we perhaps did not need some of the Act's provisions. Above all, it requires action, not just decision or the listing of worrisome items.

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The Act has taken some serious weakening blows as a result of people ineptly using it--like people losing a finger in a band saw, or fixing a watch with an axe. The fault was not an attribute of the saw or the axe. Critical habitat is an absolutely essential part of the Act for species preservation, but it has become a dirty word in some circles because of incomplete or inadequate explanations of its purpose and scope--it has become synonymous with "massive land lock up" in some circles, it means foolish and unwise interference with development to other people, and it is merely considered further evidence of government incompetence by some otherwise discerning citizens--but in fact, it is none of those. Some states tried to undermine the Act as a result of such erroneous views. Those responses would not have happened had the Act been accepted more readily for its management possibilities, and understood and ministered with more care.

The consultation process, too, can and will work to preserve species through better management of the land and species, through fostering research, through pooling brains--but it can also be misused to circumvent the Act. Incompetent, incomplete, or sloppy competent reviews and biological opinions by any level of the responsible agencies can make--has threatened to make, a mockery of the Act. That only buys biologists even less credibility with the public.

Even the listing or Recovery Plan processes can be misused and have been misused to further weaken the Act. The listing of species without following proper procedures created much state-federal animosity, more as a result of poor communication and small-mindedness, than any malicious intent. And the Recovery Teams as first organized were little more than humorous, but tragically so.

Penultimately, the Act is a good and necessary Act, and hunters, managers, landowners, politicians, agencies, and corporations should be altruistic enough to treat it so. We in the United States can afford to be easy on the land, to conserve, to protect, to preserve. And we must reverse the trend toward further losses of species--it is our world we are destroying. Gene pools are not created overnight, varied gene pools are our pleasure and may be our future. But just today, a landowner somewhere in Montana may be making a decision which will destroy the last, viable blackfooted ferret population, or next spring a hunter may shoot the last breeding pair. The Endangered Species Act can prevent this, or could have prevented it, but for too long we have neglected to use the Act to its fullest potential, we have tried to circumvent it because of agency jealousies and misguided agency loyalties, instead of readily incorporating it into our work.

Finally, then, the Act makes us do only what we should do anyhow--it makes us consider the consequences before we act. The Act ritualizes this evaluation procedure, and if the essential steps of the ritual are followed correctly, even inanimate objects such as corporations and agencies will manage correctly. The danger lies in "stylizing" the ritual, in skipping steps, or not fully and competently conducting the competent reviews, the biological opinions, the implementation, or the enforcement of provisions. There are many levels where the intent of a consultation

can be circumvented, and there are people who look for the weak spots. A common technique is to fragment the activity under scrutiny, to look only at each small part in isolation--until the patient is dead! The more complex an issue, the more federal and state agencies involved in a decision, the more chances that correct procedures will be circumvented--which means that the BIG issues are dealt with least properly. Monitoring by private citizens and groups is an attempt to enforce honesty in the ESA procedures, but private citizens cannot possibly monitor adequately the multitude of activities on all affected lands and species--people within the agency systems, you and I, must do our job right. As wildlife biologists, our Society policy requires it as well. We must not become agency pawns or "company property," we must not let the visionary legislation of the early 70s fall through the cracks in the floor of the Energy 80s.

ARE HUNTERS THEIR OWN WORST ENEMY?

BY

Bart O'Gara 1/

A small, but very vocal and influential, group of anti-hunters are influencing the opinions of many Americans who do not hunt and do not have strong pro- or anti-hunting opinions of their own. The non-hunting group is much larger than the pro- and anti-hunting groups combined and will influence future political decisions concerning the sport. Informed hunters and wildlife managers can refute the claims of the "antis" which are generally based on emotions and few facts. The concepts of wildlife management make sense and would be accepted by most of the non-hunting public, if those concepts were frequently presented. The sad fact is that we tend to talk to ourselves and are not keeping up with the antis in public information. Almost any evening of T.V. viewing will reveal some subtle anti-hunting propaganda. Youngsters, the most impressionable group of all, are sometimes subjected to anti literature and attitudes in schools. Teachers seek material of interest to students, and the antis are doing a better job of making their literature available to teachers and students than pro-hunting and management groups are.

All members of the Wildlife Society should aggressively attempt to influence their agencies and sportsmen's clubs to counter the antis propaganda. The following four points need to be impressed on everyone, especially teachers and young people.

- 1) Loss of habitat is the prime reason wildlife is diminishing in many areas. Polluters and land developers, not hunters, are the culprits.
- 2) Modern sport hunting has not contributed to any list of extinct or endangered species. Strict regulations, backed by biological studies, govern sport hunting.
- 3) Hunters annually contribute about 250 million dollars to wildlife conservation and management; anti-hunting groups spend most of their money on lobbying, salaries, administrative costs, and neutering domestic animals.
- 4) Wildlife management areas, refuges, and marshes purchased and managed with hunters' dollars support countless songbirds, shore birds, small mammals, raptors, and other non-game species.

Pro-hunters should be honest in their justification of hunting. For instance, I firmly believe that death by a bullet is more humane than death by malnutrition. However, I must admit that I hunt because I like to, not to save animals from starvation, and I defend hunting partly because hunters support my profession. We must also admit, that benefits to non-game species from game management programs, though real, have been accidental, and wildlife management agencies should give "watchable

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wildlife" more consideration. In short, we should not try to defend hunting and wildlife management on shaky grounds.

Wildlife Society members can counter anti-hunting propaganda and defend sport hunting even though we are not presently doing it very well. If the anti-hunting problem truly threatens the sport, I am confident that we will meet the challenge and expend the money and energy necessary to inform the public. However, no one can defend the actions of slob hunters, one of our biggest problems. Trespassers, poachers, sky busters, cripplers, litterers, road hunters, and game hogs have always been despised by true sportsmen. The slobs do some damage to wildlife populations and lots of damage to landowner/sportsmen relationships; they also give the anti-hunters ammunition to use against hunting. Anti-hunters use the slob's exploits to paint a sordid picture of all hunters, and such a picture can influence the opinions of many other-wise neutral people. Kelker's recent surveys indicate that more of the formerly neutral individuals became anti-hunter than anti-hunting. Such feelings are characteristic of landowners and reflect the reactions to the slob hunters. Landowners and hunters should have mutual interests and respect. If we antagonize landowners, more and more land will be posted, and fewer and fewer farmers and ranchers will maintain any wildlife habitat.

This paper has been mostly "motherhood and apple pie" so far. Now we must face some hard facts. Pogo's immortal words "we have met the enemy and he is us" ring all too true! Hunters like to say that a small percentage of hunters who are slobs give all hunters a bad name. I believe the percentage that caused problems is not small. A little time spent around a public waterfowl marsh or in an area where antelope abound on an opening weekend is enough to make one wonder if the slob hunter is the exception or the rule. Some very fine people can not stand the emotional component of hunting; in stress situations they become slobs. In our democratic society, where anyone can hunt that wants to, we will always have some problems, but the magnitude of those problems must be reduced.

The problem is easy to identify, but what can be done about it? Changing the attitude of an adult who has chased antelope with a jeep, "sky busted" and crippled waterfowl, or littered and trespassed on private land for 20 to 30 years is nearly impossible. Self policing by hunters, use of the snitch line and willingness to report violations and follow through as witnesses, would help to alleviate the problem. According to Richard Starnes, in the January 1980 issue of Outdoor Life, the Minnesota Department of Natural Resources has recognized the magnitude of the slob hunter problem and is trying to do something about it. A pilot adult-educational program there has met with some success. Hunters, understandably, did not want to be preached at or go to school. They ignored the manual prepared on hunting ethics and any meeting billed as education. The DNR is now slipping small doses of hunting ethics into clinics

on tracking, trapping, archery, etc. Personnel of the Minnesota DNR apparently do not favor compulsory hunter education, but they are considering some system of incentives, such as opening certain restricted areas only to those who have been through the DNR course. The possibility of making attendance compulsory for game law violators before they can secure another hunting license has been considered. I would think that a letter or certificate that could be presented to land owners when asking for permission to hunt would be a strong incentive for some hunters to attend a hunting-ethic school. Most importantly, young people must be introduced to an appreciation for wildlife, sportsmanship, and hunting ethics.

While we should make every possible effort to present the case for hunting and wildlife management in the schools, hunting ethics should be taught in great detail only to the youths who are going to hunt. In some European countries, hunters are highly respected because of their knowledge of, and respect for, wildlife. Such knowledge is gained primarily in schools for hunters followed by rigorous tests to be passed before hunting permits can be obtained. Most state wildlife agencies already have hunter safety courses for young hunters. Probably the best place to begin sportsmanship/ethics/game lore training would be in conjunction with those safety courses. Such training would greatly increase the time and expense now spent on training. Voluntary participation of sportsman club members would improve the program and reduce the expenses.

One foreign hunting school I attended included instruction in: hunting regulations; hunting ethics and traditions; natural history of the principle game animals in the country; tracking; waterfowl identification; ballistics; marksmanship; placing shots; and how an animal will react to shot placement; dressing and preserving game; determining ages of big game; safety; and first aid. After talking to many American hunters, I sincerely believe that most of them would benefit from instruction in the above subjects. However, the young, soon-to-be, hunters are practically the only ones we can expect to reach with such training. Development of a complete training program would take time and lots of work and money, but the start should be made immediately.

In summary, if we are going to reverse the anti-hunting sentiment in this country, we must individually and collectively work towards providing better information to the general public on hunting and management programs. Of greatest importance, we must combat slob hunters by having the guts to weed them out of the hunting fraternity, and by educating the next generation of hunters to judge a hunt by how well the game is played.

ANTAGONISTIC WILDLIFE ISSUES

BY

Howard Hash 1/

The issue of what constitutes the most appropriate and equitable use of the wildlife resources in the U.S. is presently being challenged and questioned in an unprecedented manner.

It has been generally acknowledged and accepted that the welfare and management of the resident wildlife is primarily the responsibility of the respective state governments. The migratory species are cooperatively managed by the U.S. Fish & Wildlife Service and the states. Various federal land management agencies cooperate with both governmental agencies in wildlife matters. Under this system, the task of wildlife management has been successfully accomplished through much of the twentieth century and wildlife populations have been enhanced. Many species have recovered from low population numbers to levels of abundance with the development and implementation of research, management and enforcement programs.

Regulated harvest has been one of the fundamental management components since the beginning of wildlife conservation in this country. Hunting and trapping have been the accepted, primary methods of harvest applied to the various game and furbearing species, respectively. These methods are linked to the past in a very fundamental way. They are the result of evolutionary processes that have produced the various races of man and the associated cultures and civilizations.

Most, if not all, civilizations have had members that killed wild birds and mammals for food and clothing by various hunting and trapping methods. Many of the most successful early civilizations achieved their status by developing the most effective capture techniques. The most efficient providers were usually the most respected and prestigious members of their society. This is a philosophy that grew out of the primitive requirement for food where each individual, family or tribe lived directly from the land. This principle was especially prominent among the Native American cultures and the people that subsequently settled in North America. The American hunter and trapper was considered a hero.

It has been only within the last few decades that progressive movement and sentiment against the hunting and trapping of wildlife has appeared. This movement seems to be correlated with the movement of the American population away from the rural family life-style to that of specialization and urbanization. Affluence and leisure time have greatly increased. The agrarian way of life that was predominant during the early and mid twentieth century has all but disappeared. These elements have produced the present civilization that is systematically more efficient but one in which individual self-sufficiency is poorly maintained. Subsistence hunting and trapping has gradually shifted toward a combination of recreational and partial subsistence activities.

1/ Montana Department of Fish, Wildlife, and Parks, Missoula, Montana

Everyone in the wildlife related professions is aware of the appearance of several organizations that may be loosely and collectively categorized as wildlife preservationist groups within recent years. These groups solicit cash contributions for membership and a share in some poorly defined program generally labeled as the preservation of wildlife. These groups are presently very successful in their campaigns to raise funds. It has been estimated that their cumulative contributions are currently between 30 and 50 million dollars, annually. The formation and success of these groups is primarily a result of the widespread affluence and intensive specialization in our society. It is unlikely that a successful preservationist group, similar to those of today, could have existed during the depression. The American people simply did not have the funds to contribute and there was no dramatic atmosphere associated with wildlife.

In contrast, a large portion of our people today have economic means beyond the basic requirements and wildlife is commonly regarded with a distant sense of mysticism. They are susceptible to becoming involved in dramatic wildlife issues that are presented in such a way as to enlist basic human emotion. The killing of baby seals, the trapping of furbearers and the hunting and killing of game species are typical issues. The usual strategy is to seek contributions to preserve a glamorized species or to help change a situation that is undesirable for wildlife. Occasionally funds are sought on behalf of an endangered species or other cause that warrants attention; however, most frequently there is limited biological justification for the declaration of a crisis and the ensuing dramatizations. Usually the actual problems have been previously identified and addressed by state or federal wildlife agencies.

The preservationists generally advocate opposition to the killing of game birds and animals, the trapping of furbearers and many research and management activities of wildlife agencies. The concept of hands-off management is frequently advanced; however, the resultant problems are rarely addressed.

Little of the collected revenue is ever directly expended on valid wildlife problems. The staff members typically receive salaries far above those paid to professionals in wildlife positions. Travel and expense accounts are generous. Advertising, printing and overhead costs are substantial. Most of the funds that many people contributed to be used directly for the benefit of wildlife are spent in the perpetuation of the organization.

Numerous publicity campaigns, court actions, injunctions and legislative efforts have been implemented against trapping, hunting and various aspects of wildlife programs. These actions have the effect of diverting already inadequate wildlife agency funds and personnel toward a defense of their basic programs rather than the normal implementation of these programs. This is directly detrimental to the welfare of the wildlife resource.

All wildlife professionals, most sportsmen and some citizens know that wildlife is merely a product of the land where suitable habitat exists. They are also aware that wildlife populations cannot be stored and that individuals within a population cannot be preserved.

Authorities have repeatedly documented that a hands-off policy has little validity when applied to wildlife populations. Unmanaged populations tend

to attain very high numbers and subsequently crash to very low densities. A slow recovery to some intermediate level in a cyclic fashion usually follows.

If the currently increasing levels of controversy, antagonism and interference continue, the wildlife management programs of this country will be seriously affected. Unless some way can be found to unify the basic wildlife philosophies and financial resources of the agencies and preservation groups, their continued efforts will largely cancel each other. It is time for the agencies to better educate the people regarding basic wildlife matters and principles. Every person should have the knowledge to make informed wildlife decisions in a democratic manner. The hunters must be better trained to conduct their activities in a prudent and effective manner that will stand under the scrutiny of an informed society. The trappers must be educated to be more efficient, selective and humane. Their activities must also be acceptable to our people.

It is time for the preservationists to widen the scope of their views and philosophies to include reality and the facts of wildlife biology and ecology and to more directly address their general charter, that of resource enhancement.

The spectrum of conflicts is well known. They have been identified, analyzed and repelled by both factions. There has been little effort applied to the formulation, negotiation and implementation of a reasonable settlement that will permanently stop the counterproductive activities. If the confrontations worsen, if the battles grow more bitter and the viewpoints become more divergent, the wildlife resources and the people of this country will be the losers.

SOME THOUGHTS ABOUT THE ANTIHUNTING MOVEMENT
AND THE FUTURE OF HUNTING IN MONTANA
A SLIDE TALK

BY

Mike Aderhold 1/

Can one appreciate Georgia O'Keefe's skull paintings without being a hunter?

Can you love Mickey Mouse and eat venison, too?

Can a Montana wildlife biologist really understand and appreciate the generally urban and eastern feelings against hunting?

Does one hunt in order to kill, or does one kill in order to have hunted?

Do you think a state biologist whose work and way of life are supported by hunters can be objective about hunting?

These and similar questions have been in my thoughts the last four months, first, in preparing an article for a special pro-hunting issue of Montana Outdoors and second, in preparing this presentation.

Read John G. Mitchell's 103-page article on hunting in the last five issues of Audubon magazine, or the 90-page "Perspectives" section of the Wildlife Society book _____, or scan Stephen Kellert's findings on human attitudes toward animals and you will get an idea just how involved the business of hunting is.

It's complex, hard to deal with, and most people simplify in favor of their bias and say something like "hunting is a God-given, biblically-sanctioned, constitutionally-implied right or that antihunting is a Communistic plot to get our guns" or some such inanity and walk off.

Were it that simple we could change the theme of this conference and return to an objective, scientific discussion of wildlife.

The history of hunting goes back a long way--thousands of years. Some say the activity was instrumental in our development. Certainly some people seem unusually suited to hunting. I have wondered what it is that makes a youngster between 10 and 15 choose sports, cars, books, collecting or hunting with unusual passion. Whatever it is, it is oftentimes independent of the opportunities offered.

Montana's hunting tradition is rich and traces of subsistence hunting remain. In the town of Poplar on the Fort Peck Reservation is a Sioux Indian named Ben Bushia. He is now over 80 years old and some of his story was told in a 1978 issue of Sports Illustrated. He is reputed to have killed over a thousand deer and during his life has probably hunted more than any other person in the northeast corner. He's a subsistence hunter and the niceties of "fair chase" and this business

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of "big antlers" means little to him. Most of the reservations in our state have a few such hunters; they are probably the last of their kind. Few, if any, in Montana have to hunt to survive.

The condition of the land is basic to wildlife and hunting. The land is the seat of wildlife wealth. Double the human population, double farm prices, significantly increase competition for the land surface and you diminish the quantity and quality of hunting as we know it today. Northeast Montana's boom/bust economy has shown us a couple times how easily this can happen. There are old-timers in their 60's and 70's who grew up in the area and say they never saw a deer until the early 1940's.

As the text books say, you have to have space, cover, edge, riparian habitat, clean water and plenty of it, waste areas and a relatively undisturbed situation. The more these things change, the more artificial the management required, the more involved the rules and regulations, the more restricted the predator, the less sense it all makes.

Most people in northeast Montana live in small towns or on farms and ranches. They are close to the land and identify with the outdoors. There is an almost universal interest in wildlife.

The wildlife situation in northeast Montana is good. Game populations are generally up. The annual cropping is consistent with condition of the resource.

Hunting is part of local tradition. There doesn't seem to be any psychological hang-up between the people's interest in wildlife and their interest in hunting. It's taken for granted and seldom discussed. Hunting comes with the season. You do a little canning, freeze some corn, put up some wood and potatoes, butcher a hog, smoke some fish, and put up a few birds and maybe a deer. Most people do not travel great distances to hunt; there is a detectable pulse on weekends. It seems natural.

The issue of death seems to be handled more realistically in a rural setting. You can't drive anywhere without seeing dead rabbits, ground squirrels and an occasional night killed owl or deer along the road. Weather killed wildlife is not unusual during hard winters. Natural livestock deaths are a part of farm and ranch life, as are trips to the auction yard and slaughter house. Most people pick up their meat from the market but there is little illusion about where it comes from.

Durward Allen said it well. "The reality is that you've got to have mass production and mass slaughter or the whole thing is going to pot. Life and death are the stock in trade of nature. There is no use sobbing about it because we're all part of it. It is not a matter of an animal being killed. The issue is when it's going to be killed. Nature deals in unlimited time."

John Mitchell in his first Audubon article quoted from Paul Shepard, Jr's essay, "A Theory of the Value of Hunting," "...To share in life is to participate in the traffic of energy and materials the ultimate source of which is a mystery but which has its immediate source in the bodies of plants and animals. As a society, we may be in danger of losing sight of this fact. It is kept most vividly before us in hunting."

Yale professor Stephen Kellert has identified three basic hunting types: the meat hunter, the recreational hunter and the nature hunter. These types, of course, are high points along a spectrum and they grade into each other.

The meat hunter makes up 44.5% of the hunters nationally. They are generally rural folks, self-reliant types with modest or low incomes, small landowners, senior citizens trying to get a little fat off the land. Not all buy licenses.

Recreation or sport hunters make up 38.5% of those afield. Mitchell in his first Audubon hunting article said these folks are perceived differently by different people. The researcher Kellert, based on behavioral research, saw these folks engaging in some kind of athletic endeavor requiring skill and preparation and involving competition and measures of success. These hunters see themselves as sportsmen exhibiting qualities of fairness, courtesy and good temper; they take the activity serious. Antihunters see this group as a bunch of children playing some kind of fun fantasy game where some poor critter pays with its life for their pleasure.

The third type, nature hunters, make up about 17% of the hunters nationally. These are the outdoor types who are into backpacking and camping. They have a desire to be involved with wild creatures in their natural setting and want to participate in a natural experience. This group views themselves as predators and perceives its prey with affection and respect. This is the only group among the hunting types that feels compelled to rationalize the death of the animal.

I think hunters in northeast Montana shake out about 40% meat hunters, 48% recreational hunters and 12% nature hunters.

It's my observation that as people pull away from the land, either in fact or in their minds, they begin to perceive wildlife differently. Insulated by concrete, informed by TV, fed by the supermarket, influenced by the household pet and enforced by friends in the same situation, they create a romantic image of life that parts from reality.

Again, I borrow from John Mitchell's Audubon series. In his second article he sees three elements to the antihunting movement:

The first is anthropomorphic. The wild animal is perceived individually in human terms apart from its environment. The species is viewed in terms of one or a few personalized representatives. This feeling is seldom consistent but depends on the personality of the animal.

The second element is moralistic. Guns and killing are perceived with war and human suffering and viewed as uncivilized behavior. The pursuit of wildlife for antlers or horn is seen as a waste of human energy and a natural resource. The hunter is sometimes lumped with whalers, seal clubbers or worse tied to assassins or other criminals. Somehow wild animals get lost in this argument.

The third element involves extravagant overstatements usually tied to historical market gunning. The hunter is seen upsetting the balance of nature. This view charges hunters with the near extermination of the bison, slaughtering coyotes for deer, killing prairie dogs for sheep, and are generally being held responsible for the current condition of almost all of this country's endangered and threatened mammals.

Some of these feelings are present along the Hi-line. They are not promoted, and the spread of these feelings is not organized. It is just that so much of our news, education material, magazine writing, TV entertainment, and general cultural influence comes out of urban areas where these feelings are common.

Some would blame the organized antihunting establishment for these feelings. Outfits like the Humane Society of the United States, the Fund for Animals, Friends of Animals, Animal Welfare Institute, Animal Protection Institute of America and others undoubtedly have an influence, but they are not active as organizations in northeast Montana.

In 6½ years of work along the Hi-line, only Hank Fischer of the Defenders of Wildlife has contacted us and inquired about our programs and general wildlife issues in the northeast. I see this group as being at least rational, and frankly I don't mind discussing controversial issues or having our weak areas pointed out. Of course, there is room to improve.

I think the main forces working against Montana hunting are home-grown.

The rouge shooter, not really a sportsman but tied by association because he carries a gun and sometimes buys a license, is a perennial problem. Poaching, shooting signs, wasting game and trespassing--they are responsible for more antihunting feeling than any other element. Roughly 17% of the private land is closed to hunting in Region 6, mostly because of bad experiences with people.

Even in the rural northeast there is a slow drift from the land, a tendency to move in town. Fewer youngsters are enjoying direct wildlife experiences on a day-to-day basis. What common understanding exists about wild animals and their needs is being eroded.

With the increasing number of tugs on the family unit, fewer parents are passing on hunting traditions. More and more are passing the responsibility of teaching hunting ethics, game identification and safe gun handling to hunter safety instructors who have the child for less than 20 hours.

We are experiencing problems recruiting hunter safety instructors.

The sportsmen's organizations, the rod and gun clubs, the traditional fish and game forum and the source of considerable political influence are fading from the scene.

Nationally and statewide the number of hunters is increasing, but their percent of the population is gradually decreasing and their political influence can be expected to follow.

There is constant pressure to produce more livestock and grain and to extract and consume the mineral wealth. Most of the game species are adaptable, resilient and adjust to individual land management programs and development projects. Collectively, however, there is a point where the number of changes has an impact on the resource we are responsible for. We have already documented some of this impact with grain development in Hill, Daniels and Sheridan Counties, with cattle grazing and elk in south Phillips County, and we may eventually be able to document the cumulative impacts of bentonite development in Valley and Phillips Counties, coal development in McCone County, oil and gas exploration in the Williston Basin, manipulation and revetment of the Missouri River below Fort Peck Dam, and gold mining in the Little Rocky Mountains. Our concerns are not so much with any one development as with the overall impact of all of them.

In sum, I think hunting as an activity in Montana is in good shape and will continue to be important to our state at least through the turn of this century. Some trends, however, are not encouraging.

A REPORT FROM THE LANDOWNER-SPORTSMEN RELATIONS COUNCIL

BY

John Gilpatrick 1/

Your convention theme "THE FUTURE OF HUNTING IN MONTANA" is certainly timely. It is very appropriate that wildlife professionals should lead the search for answers to the many problems confronting hunting in Montana, our nation and even the world.

Anyone with any knowledge of wildlife's needs and human desires and greed is aware of the grave threats to wildlife through loss of habitat. I truthfully feel that more Americans share your concerns than at any time before. I applaud the fact that every E I S and management plan now addresses wildlife. Only time will tell how well we will fare in the political arena where, unfortunately, the effectiveness of your wildlife plans will be determined. Those of us who care are relying on you to present strong, just programs and to defend them well. We in turn will attempt to aid you where and when possible.

This brings me to my topic, the Landowner Relations-Sportsmens Access Advisory Council, on which it has been my good fortune to participate for the last two years. I am sure you are all aware of our existence so I'd prefer to use my time exploring ideas. If any of you have questions or suggestions I'd appreciate them anytime.

Access to hunting in Montana is a complicated problem facing landowners and hunters. Approximately 60% of Montana is privately owned, and access is controlled by the owner. Also, much of that 60% blocks access to public land. Conflicts will occur if the landowners and hunters cannot reach an agreement of mutual accommodation. Also, the increased demand for outdoor recreation by an increasing number of people has put pressure on our outdoor resources unimaginable a few years ago. Correspondingly, I believe it quite natural that private landowners look around at the increasing hordes of trespassing recreationists with their expensive equipment and long vacations and think of money. After all, their friends charge landowners for goods and services provided to the landowner during the week. In addition, some landowners have experienced actual property damage. Amounts are hard to document but it is a problem much talked about by some landowners.

Thus, two areas that the Landowner Relations-Sportsmens Advisory Council must address are property damage, and landowner compensation. The property damage insurance proposal will be presented to the Commission in the morning. It is intended to be quite simple in operation and is nearly identical to the one proposed at the last legislative session. To be effective it must operate quickly and efficiently. If accepted it will accompany the tentatives around the state for public review and comment. Hopefully right will prevail.

The second, much more complicated and important area, in my opinion, is the problem of compensation to the landowner for public recreation on his

1/ Rancher, Highler, Montana

land. I realize this may be foreign to our considered right to free public hunting. However, it may well be the only way to preserve any semblance of public hunting. We all know that most of the good hunting in our heavily populated states is controlled by hunting clubs, etc. The same opportunities are very frequently offered to landowners here in Montana. True, we have public land out here, but I doubt we are all ready to go there. I think we need to recognize that the idea of something for nothing is becoming more obsolete in our society. Fewer things are done in the spirit of neighborliness. Very sad in my opinion but true I believe.

Small wonder our country cousins are beginning to think in terms of economics. I believe we must attempt to devise a program that compensates a landowner for his service, and that addresses wildlife needs and hunter desires. All three needs must be met to be acceptable to me and I feel the rest of the council agrees. We have begun to debate specifics in the council. Our search at present is centered around a great plains type contract whereby a landowner would agree to do certain things for certain compensation. Wildlife management people would have to accept the program as would the landowner. We are not locked into anything concrete at this time so input is needed. We may not be able to figure anything out. I'd like to thank those of you who have helped us to this point. Thank you.

These two areas will not be completed by the present council as our terms end this year. Hopefully our efforts will lead to proper considerations and decisions in the future.

I could review the councils recommendations such as the Toll Free Report Line, the Ex-Officio Program and the request that hunters recognize that they must police themselves, however, I prefer to wander a little. I believe the Landowner Relations-Sportsmen Access Advisory Council's greatest value may be its very existence and the recognition that an agency and a few citizens realize a problem exists and agree to work on it. I believe we can legitimize the efforts of both agency and citizens. The problem of public access to private land has long been building and it will always be with us. We should not expect any immediate solutions. I hope the council can remain relatively free of politics. I have been impressed with the sincerity of this council. It is sincere. I hope our outspoken ways have not offended too many people. I realize we are between a rock and a hard spot. Damned if we do, damned if we don't and when the politicians mix us up we have real problems.

Apparently efforts such as ours in other states have not endured. The success in Montana depends on the combined efforts of hunters, professionals, and landowners. I sometimes think that some citizen organizations operate much as a bureaucracy. They thrive on conflict; therefore they must keep many conflicts going to legitimize themselves. Let's hope this proves untrue in Montana and we are able to work toward solutions.

May I urge you as professionals to build your image. Wildlife management is a relatively new field and much misunderstood. Many of our problems relate directly to the ignorance of the public to wildlife and its needs. This is your biggest challenge in my opinion.

In case there are hunters listening may I leave you with this last thought. There are not many access problems out there that can't be solved with a polite request for access followed by a thanks and a fith or a box of candy for the landowner or his wife when you leave or at Christmas time. Try it.

YOUTH EDUCATION: WHERE ARE OUR PRIORITIES?

BY

Bill Schneider 1/

This is the first time I've given a paper before a professional organization such as the Wildlife Society, so perhaps I should apologize for it in advance.

Although I've been deeply interested in youth education all my professional life and have studied it seriously for the past eighteen months, I don't have any quantitative data to offer you today. Instead, I only have some general observations I've made and my solution to what I perceive as a very serious problem.

I'll start with a bit of history. Eleven years ago I started the Montana Outdoors magazine in its present format for the Department of Fish, Wildlife, and Parks. I was editor for nine years until I left in April 1978 to research the feasibility of a youth education magazine. Since then, I've worked on various information projects for the department with an emphasis on developing this magazine. I'm presently on leave from the department but I'm still actively searching for funding for this magazine.

Nationally, there is little doubt that the future of hunting is threatened by changing attitudes in society and the failure to comprehend the incremental loss of habitat. Although certainly not as apparent, I think this is also true in Montana--especially lack of comprehension of the disappearing habitat crisis and to a lesser extent, anti-hunting, anti-gun sentiment.

While studying the feasibility of the magazine, I met with groups of teachers all across Montana, mainly in our larger urban areas. I found some anti-hunting feelings among teachers. This was, however, very infrequent. Since I was from the Department of Fish, Wildlife and Parks, some teachers were probably reluctant to voice their opinions on hunting. Thus, there may be slightly more anti-hunting sentiment among Montana's educational community than I discovered. Nonetheless, I feel most Montana educators either hunt or support hunting but fail to understand how it fits into wildlife management.

At the same time, I frequently encountered misconceptions and lack of knowledge on how the activities of man affected wildlife and wildlife habitat. I would say that a minority of our teachers understand how serious the incremental loss of wildlife habitat is in Montana and how it will adversely affect hunting. Given this, I can speculate that the same goes for their students.

For economic reasons, I had to turn away from a Montana-only magazine and go to the regional concept. This led me to trips to Colorado, Utah and Wyoming. With the exception of the Denver urban area, these states and their educators don't differ substantially from Montana.

1/ Montana Department of Fish, Wildlife and Parks, Helena, Montana

I was greatly encouraged by the response I received from the educational community. With very few exceptions, educators supported my efforts--and nobody opposed it.

The only concern I heard was that the magazine would be filled with "Fish and Game propaganda." In other words, if the magazine became a pipeline to obviously sell the department's positions, it would most assuredly fail. However, after hearing me explain that the magazine would be balanced and fair and contain material not of direct interest to the department, support was nearly unanimous. More on the editorial philosophy later.

I interpret this "anti-propaganda" not anti-hunting sentiment. And I feel this is very prevalent among our educators. The reason seems obvious. Every organization and agency hopes to influence the opinions of our children before they mature and get "harder to reach." While involved in these discussions--and there was such a discussion in almost every meeting--I was honest with teachers. I said I hoped to influence the kids to grow up and understand wildlife management and appreciate Montana's natural amentities. This didn't seem to bother them because I felt most of them agreed. However, they were educators first and were vitally concerned about how the material was presented. Many educators avoid biased material.

In Montana, and especially in the Department of Fish, Wildlife, and Parks, we devote most of our educational effort to adults. For seven years, I've been active in the Association for Conservation Information, an international professional organization of resource communicators. That experience makes it easy for me to say that Montana still has one of the better information and education programs and certainly one of largest when considering the state's population. Also considering Montana's low population, Montana Outdoors is circulated more widely than most similar state publications.

However, most of the department's educational effort goes to adult education and youth education plays a minor role. I don't think we should reduce our adult education effort to make funds available for youth education, but perhaps any additional funds should go to youth education. I see this as the priority today. And I think the department, the Wildlife Society and every other professional organization should be much more involved in youth education.

There are many ways to achieve more emphasis on youth education, but after considering the alternatives for several years, I began supporting the Young Explorer magazine. I have a more complete prospectus for those of you who want more details, but I'll summarize my proposal here.

I've planned Young Explorer as a self-sustaining, regional magazine directed at the "middle school" children, grades four through eight. It will concentrate almost exclusively on subjects pertinent to the northern Rockies, including Montana, but not only Montana. This five-state region has many differences, but also many similarities such as topography, flora and fauna, wildlife management problems and resource issues.

Other children's magazines don't adequately cover the northern Rockies. Young Explorer will take the opposite role--in mind, filling a gap. As most of you already know, all information on wildlife management going into our schools isn't always appropriate or correct. And it leaves our children with a false impression of the outdoor environment and wildlife management.

The Idea

Children's education magazines are hardly an innovative idea; they've been around for two hundred years. Today, there are a hundred or more regularly published.

However, there is not a single magazine--at least near as I can determine that resembles what I hope Young Explorer will be. There is no regional magazine covering outdoor, wildlife, conservation subjects published under the guidance of resource professionals and with the purpose of quality youth education.

While editing Montana Outdoors, I admittedly became frustrated at times. On some subjects, it seems like no matter how much time, money and effort went into changing public opinion, nothing changed. For example, look how much effort has gone into explaining basic predator-prey relationships. Yet many Montanans still believe no "chicken hawks" mean a pheasant hunter's paradise.

However, if we started teaching these basic concepts at an earlier age--before we get old and stubborn, perhaps we could have long-term success educating the public on the principles of wildlife management.

The Purpose

It's unlikely we can put a professional resource communicator in every classroom, but we can put Young Explorer in most classrooms. So the purpose of Young Explorer is quite clear--to become a quality teaching tool for educators in the northern Rockies, to bring to our children facts on wildlife, outdoor recreation and conservation issues, to instill in our youth a deep appreciation of a quality, diverse outdoor environment.

The Format

To become a widely used teaching tool, Young Explorer must be a quality publication, professional in every aspect. Young Explorer will be published four times throughout the school year. It will be a large (56-page or larger), full-color magazine with a poster in as many issues as financially possible. The editorial presentation will rely heavily on illustration, with a minor amount of text compared with adult publications.

In developing the format of the magazine I used this philosophy: To educate, you must first entertain.

The Scope

Although some of you might disagree, I won't--at least under my present proposal--be able to restrict coverage to wildlife and wildlife management subjects. To achieve acceptance in the educational community, I must have a broader scope. I'll include articles on other natural sciences (forestry, agronomy, geology, etc.), outdoor recreation (including non-wildlife related recreation) some historical subjects and other information not directly concerned with the objectives of the Wildlife Society.

General Editorial Philosophy

As many of you know, some information going into the schools is neither fair nor accurate. Even worse, it gives children a totally unrealistic view of wildlife. Some animals eat other animals; forest fires can benefit wildlife, hunting plays an important role in wildlife population; and people don't make pets out of grizzly bears. However, after watching "Grizzly Adams" and reading some of the magazines and books distributed to schools, children often grow up with these views.

In developing the editorial philosophy for Young Explorer, the hardest decision was how to handle controversial resource issues such as energy development, rural subdivision or pesticides. Most such issues have profound impacts on wildlife and deserve treatment in such a magazine. After discussing this at length with educators, I decided to cover these issues as a minor part of the editorial presentation and in--as much as possible--an objective manner.

Some of you might not agree, but Young Explorer must present all sides of resource issues. With the magazine, I would have the responsibility to tell the complete story and allow children to make their own decisions.

I am confident, however, that when presented with the facts on these issues, most children will decide in favor of Wildlife and a quality outdoor environment. I'm also confident that they will appreciate landownership and help solve some of today's landowner/recreationist problems.

Articles will be balanced between the five-state region and balanced between the sections of the planned scope of the magazine--recreation, resource issues, natural sciences, etc.

The editorial material will be presented in a manner to get children involved in the magazine. Examples include contests (photo, art, essay, poster, etc.), reviewing articles in advance of publication, writing articles for a "Small Talk" section of the magazine and contribute to a letter-to-the-editor section called "Who Cares?"

How will it work?

Young Explorer will be primarily distributed through the elementary school system in all five states. This will account for the majority

of the magazine's circulation, but there will still be individual subscriptions. Also, most magazines will go out as bulk orders--mainly classroom sets.

The magazine will sell for \$4/subscriber/year, most of which will come in from bulk orders to schools. Most educators viewed this as acceptable.

The start-up circulation of 64,000 will be achieved by promotion through the school systems and agencies--both resource and education. I've spent a great amount of time working out a plan to promote the magazines and build-up this mailing list. The details are included in the prospectus I mentioned earlier, but basically, it depends on cooperation from the education and wildlife agencies involved in the project.

More than a magazine

Actually, I have even bigger plans. I want Young Explorer to become more than a magazine. I want it to develop into a broad-based platform for educating both children and educators on resource issues, wildlife management and related subjects.

Along with the magazine, I'll publish a Teacher's Guide which will give me a vehicle to a large portion of the teachers in the northern Rockies. I can use this publication (which will be distributed free to everybody who gets a bulk order) to educate teachers as well as students.

If the financial situation works out close to my five-year projects, Young Explorer will generate extra money for related educational projects. Possibilities include teacher workshops, camps for children, a speaker's clearinghouse, books, filmstrips, and other audio-visual activity--all promoted or distributed through the Young Explorer magazine.

The Timetable

I have seven grant proposals out to fund Young Explorer. If the money comes during the next three months, I can publish a pilot issue next winter (1980-81) and launch the magazine in September 1981. If I'm not funded by this spring, I'll be forced to wait at least one more year and shoot for start-up in September 1982.

Is it financially feasible?

This is, of course, the big question. Before I answer, I should qualify it by saying I've based all my work on the objective of producing a self-sustaining, financially solvent project--not one that requires continual subsidy as Montana Outdoors does.

With this qualification, the answer is "no" for a magazine covering only Montana and "yes" for a magazine covering the five states in the northern Rockies--Colorado, Idaho, Montana, Utah and Wyoming.

Seed Money

But how much money is necessary? Considering the magnitude of this

project and the amount of positive benefit it can have a long-term basis, I think the price tag is relatively low. I need about \$136,000 to start the Young Explorer magazine.

The prospectus contains a breakdown of how this seed money will be spent, but most of it will go for various promotional activities and the staff time to organize and produce them. All of it will be spent in one calendar year of pre-publication work, including the release of a pilot issue as a promotional project. At the end of that year, Young Explorer will be a financially self-sustaining and in the future even generate money for related youth education projects.

What can the Wildlife Society do?

I don't have an answer for this question. However, I desperately need the support of professional wildlife managers and biologists. The Wildlife Society could publish Young Explorer--if the money was available. Members can help me find funds for the magazine.

I feel very confident about my idea and my ability to pull it off once I'm funded. However, I'm not confident about my ability to find the money. I've been repeatedly told that it's such a good proposal that it will be funded sooner or later. The only trouble is: I want it sooner, not later.

I view Young Explorer as a long-term investment in the future of wildlife and the rest of the wild world that's so threatened today. I suppose the \$136,000 sounds high to most of us, but it seems like a bargain for a lifetime of quality youth education.

If it isn't already obvious, I feel very strongly about the merits of quality education and what our priority should be. If we have any hope for the wise use and management of our natural resources--including wildlife--it lies in the education of a new society.

EASTERN REGIONAL WORKSHOP REPORT

BY

Kenneth C. Walcheck 1/

The annual workshop for Region 3 was held at Eastern Montana College in Billings on December 5. Twenty-one chapter members attended the workshop.

A wide spectrum of talks ranging from a comparison of hunting in Norway and Montana to some of the accomplishments of the Landowner Relation/Sportsmen Access Advisory Council were presented to stimulate ideas for the discussion period. An anti-hunting film entitled "Love to Kill" was also shown to emphasize that there are some people out there who have different ideas about hunting than we do.

Perhaps the most meaningful statement that came out of the workshop was that made by J. Gilpatrick, member of the LR/SA council, who stated, "the future of hunting in Montana scares the hell out of me."

In tracing the evolution of hunting in Norway, it was pointed out that an erosion of hunting occurred in that country because of an increase in hunters, a decrease in wildlife, and an increasing effectiveness of more sophisticated firearms. It was pointed out in the discussion period that the European hunting system differs from the American system in three respects: (1) European hunters must join and invest in substantial sums of money in a club, association or syndicate, and accept management responsibilities in order to hunt; (2) rigorous hunting and shooting examinations are required; and (3) strong adherence to the practices of artificial propagation and stocking programs, winter feeding, and vigorous predator control. One page of history that we might borrow from the European system is a closer look at their mandatory hunting examinations in our effort to improve our current hunter safety programs. It is well recognized that the European examination of practical skills, shooting skills, and knowledge of wildlife management techniques not only improves the general level of competence of hunters, but also shifts the burden of regulation to the hunter themselves. Because of tighter controls under such a system, there is an ever present peer pressure which serves as a greater deterrent to wildlife violations rather than total reliance on enforcement of game laws by enforcement personnel.

In a discussion of Montana's youth and what the future of hunting holds for them, it was unanimously agreed that more ambitious strides must be taken by our department in working with the school systems. It is recognized that our current youth education program, despite an admirable attempt of one person, has not been very effective in reaching out into the school system. It was suggested that the Conservation-Education Division initiate an innovative teacher-education course with the University System designed and taught by department personnel to give elementary and secondary teachers a better perspective on wildlife conservation and hunting. In reference to conservation education, it was pointed out by one participant that the state of Missouri has one of the best conservation, education systems in the country, but they do not have much in the area of quality hunting. The intent of the comment was that despite ambitious

1/ Montana Department of Fish Wildlife, and Parks, PO Box 340 Miles City, MT

education programs you still have to have a place to hunt and you can't ignore the importance of hunting and maintaining a diverse, high quality wildlife habitat.

The subject of stripmining, reclamation and wildlife research was addressed at the workshop. Even though reclamation is classified as a priority item by some mining firms, it is also recognized that present and future mining operations will not enhance future hunting in Montana. Such operations are simply not designed to do so. It was also pointed out that boom areas such as Colstrip and Sidney do not attract what we would classify as quality hunters. Wildlife violations in the Colstrip area, for example, have accelerated to better than 300 percent since the onset of mining in the early 70's. With such events occurring, it is difficult to promote a positive image of the hunter with both the public and the private landowner. The current situation points out that flagrant abuses of hunting privileges can be just as damaging, if not more so, than actual loss of wildlife habitat through mining operations.

John Gilpatrick judged the LR/SA Council's first two years as a success. The council, according to Gilpatrick, served as a catalyst in promoting the ex-officio program and the toll free report line. The ex-officio program, permission booklets and hunting with permission signs furnished by the department, served as effective tool in keeping open large blocks of private land around the Miles City area. It was emphasized that the council has no "magic formula" for lessening existing conflicts between sportsmen and landowners. Habitat incentive programs designed for compensating the private landowner are currently being studied by the council as a method of keeping private lands open to hunting.

It was emphasized during the discussion period that an increasing population, expanding energy developments, and growing anti-hunting sentiments continue to serve as major deterrents to future hunting. Even though the American system of wildlife management and conservation has the best record of achievement of any in the world, we well recognize that the future of hunting as we now know it faces difficult times.

Recommendations for perpetuating and enhancing hunting in Montana focused on (1) continued efforts in preserving wildlife habitat, (2) developing a teacher-education course with the University System so that Montana's youth will be better served, (3) taking a critical look at our hunter-safety program for ways to improve the quality of the program, and (4) assisting the LR/SA Council in its future endeavors. The subject of developing a code of ethics for the hunter was not adequately addressed because of a lack of time. From the general discussion, however, it was felt that some external regulatory mechanism is required to guide its actions and assure a change in attitudes.

CENTRAL REGIONAL WORKSHOP REPORT

BY

Wayne Elliott 1/

1. Mr. Jack Atcheson - Internationally known Hunting Consultant and Guide, Butte, Montana.

Jack has been involved personally in the outfitting business nearly all his life. He understands and knows very well the opinion of outfitters and hunters by the public and private sectors of society. Basically he feels the opinion by most people is that outfitters are bad. People feel they take too much game. Actually they are regulated more than anyone else. Outfitters serve more of a purpose than most people realize. Outfitters disperse people by taking them into country with horses and outfitters brought about 23 million dollars into Montana last year.

Access is a big problem facing hunting in Montana and is probably not going to get any better. Jack's opinion is that, "we've seen as much access in Montana today as we're ever going to see." "Some form of reimbursement to the landowner is also coming," says Jack. The interest in hunting is certainly not going down and more and more land owners are becoming reluctant to permit hunters on their land. The point was made that if the landowner placed a value on the wildlife or the habitat and was reimbursed in some fashion for his support of that habitat or wildlife, then the landowner would not feel alienated from the sportsman and the Fish and Game people and would view the sportsman as the consumptive use of the wildlife or the demand for the product. Economically speaking, without the demand for the consumptive use of the product the value of the wildlife would not be as high. The habitat incentive program is one of the current efforts along this line.

Outfitters may be the future of hunting to a certain extent because they can get the hunters back to the land that is open. Jack's business has increased appreciably in the past 10 years because he feels there are more hunters afield now and they don't know how to hunt.

Is the future of hunting in Montana an outfitter-guided hunt into public land or special access areas? If so, it's going to cost. As an example, for deer and antelope with 1 guide and 2 hunters for 5 days it will cost \$700.00, 1 guide and 1 hunter for 5 days is \$1,300.00. Elk cost between \$1,750.00 per week for a 4-man camp to \$3,000.00 for a 1-man. Bighorn sheep costs between \$4-5000.00. Success rates are about 90% on a 14-day elk hunt and 50% on a 10-day. However, the point was made that these people spend 8 hours per day for 14 days of hunting, a luxury most local people can't afford. Most local hunters spend 2 days per hunt and hunt an average of 6-8 days per season.

1/ Bureau of Land Management, Butte, Montana

2. Mr. Lee Masters - President, Skyline Sportsman's Club, Butte, Montana.

Lee has been President of the Skyline Sportsman's Club for nine years and the club has been active for 20 years. Lee presented the workshop with his views on the future of hunting in Montana from a local sportsman's standpoint.

Problems facing hunting today vary from people management, posted property, energy shortages, and public opinion of hunters. A few "slob hunters" make it extremely hard on the common hunters who respect property and hunt safely. This is an important problem that seems to be getting worse.

Regulations are viewed by the local sportsmen to be too restrictive and are "hemming" the sportsmen in. Most local sportsmen are reasonable but unreasonable regulations make people unreasonable. Examples of the restrictions were not given but road closures were viewed by many sportsmen as being, in many instances, unnecessary.

Local sportsmen view present game management as being very good. Most people think there are more deer and elk now than in recent years. People management is the main problem we have to deal with today. However, it was pointed out that game management and people management are closely tied together.

Local hunters believe the biggest problem facing the future of hunting today is restricted access and high energy cost. Money is viewed by the local sportsmen to be the only means to get landowners to open their land. Local sportsmen also believe access problems result from changing attitudes of the landowners. On the other hand, it is also felt that many landowners lock their land for security and safekeeping reasons, and in some instances ego reasons than because of experiences with "slob hunters."

The following films were shown representing examples of the pro-hunting and anti-hunting or non-killing educational material:

1. A Question of Hunting - shows both sides of the hunting question today.
2. Love to Kill - a preservationist or anti-hunting movie.

Both of these were well received by the group and it was suggested that they be shown again at the annual meeting.

In summary, the following points and issues were discussed:

1. Is the threat to the future of hunting in Montana real?
Most people in the group agreed that it was.
2. Is hunting a legitimate form of recreation and, if so, how should it be conducted?
All agreed that it is a legitimate form of recreation and it must

be conducted with stringent concerns for sportsmanship, safety, laws and regulations, and conservation ethics. There are 20 million hunters in the U.S. today.

3. In recent studies conducted by the U.S. Fish and Wildlife Service it has been shown that "trophy" hunting is what the majority of the people surveyed objected to. Hunting conducted by sound game management principles was not objected to as strongly. Trophy hunting may be a thing of the past.
4. Topics for papers at the annual meeting were discussed:
 1. Is the threat to hunting real?
 2. Morality of hunting.
 3. The consequences of no hunting.
 4. Diminishing habitat and its threat to the future of hunting.

WESTERN REGIONAL WORKSHOP REPORT

BY

John Munding 1/

The Western Regional Workshop was held at the University of Montana, Missoula, on 15 December 1979. Sixteen people attended the workshop.

The format of the workshop was a group discussion of issues fundamental to the Future of hunting in Montana.

Generally, it was concluded that 1) hunters too frequently display poor sportsmanship, 2) this behavior is the most important threat to the future of hunting, and 3) that an extensive program of environmental education, with particular emphasis on programs for youth, is necessary in order to eliminate the unethical from the hunting fraternity.

The morality of killing wild animals has been addressed by several proponents of hunting. A summary of their conclusions follows. "Hunting remains . . . completely assimilated to the basic process of organic nature, in which death and life spring from each other" (Clarke 1958:426). "To share in life is to participate in a traffic of energy and materials, the ultimate origin of which is a mystery . . . As a society, we may be in a danger of losing sight of this fact. It is kept most vividly before us in hunting" (Shepard 1959:505). "Hunting is a human use of animals and it should be judged on essentially the same basis as are other human uses of animals. Hunting is a use of animals that yields benefits to society and is therefore justifiable to the extent that it does not conflict with other more socially valuable forms of behavior or the long-term social welfare" (Klein 1973:265). There is no blame in the hunter "so long as his conscience, ruled by respect for nature, governs his actions" (Clarke 1958:425).

The contrary position, that killing wild animals is immoral, results from an anthropomorphic attitude toward nature. We can argue the logic of that position because it is concerned with individual animals rather than ecosystems. Further, moral principles are relevant only to relationships between human beings (Klein 1973).

However, the resolution of the morality of killing wildlife is not germane to determining the future of hunting. Attitudes toward hunting and killing are deeply rooted in cultural differences (eg. Dahlgren et al. 1977) and it is unlikely that we can effect changes in value systems. Moreover, hunters and anti-hunters both are small segments of society. Non-hunters will determine the future of hunting. While nonhunters are not concerned with the morality of killing, they are deeply concerned with the behavior of hunters in the pursuit of their sport (Rohlfing no date).

The Ethics of hunting are central to the moral justification of hunting. Likewise, the nonhunting public has judged hunters by that standard and

1/ Montana Department of Fish, Wildlife, and Parks, Kalispell MT 59901

they perceive that 1) hunters are untrained and incompetent, 2) that hunting results in frequent crippling, and 3) that hunters disregard laws, regulations and the rights of others (Rohlfing no date). We may not agree with that characterization of hunters and hunting, but we must accept that perception as though it were established fact. The future of hunting is in jeopardy, not because killing is immoral, but because the nonhunting public perceives that we are slobs. Therefore, "it is up to hunters themselves, and those who would be advocates of the sport to bring about a reemphasis on quality in hunting and to return to hunting those high standards which have won it respect in the past" (Klein 1973:266).

Hunting in this country is closely associated with our pioneer heritage. In contrast with the European system, everyone has the right to hunt. Similarly, with large land areas in public ownership, many people have the opportunity to hunt. We endorse the concept of equal hunting opportunity, but we also recognize that the American system protects the hunting rights of those who measure hunting success in terms of game in the bag, rather than in the quality of the ecological experience. Any attempt to regulate hunter ethics will compromise the right that all people have to hunt. Yet to continue to protect the rights of the unethical hunter will result in the loss of hunting privileges for all.

The wildlife profession does not have universal support among hunters. There are indications that hunters are becoming less sympathetic toward responsible game management and less concerned with sportsmanlike conduct (Peterle 1977a). It is therefore apparent that efforts to improve hunter ethics must be associated with basic environmental education.

The Wildlife Management profession is the organized advocate of sport hunting. We stand between the anti-hunting coalition and their desire to eliminate all sport hunting. If that coalition succeeds, it will be over our dead bodies--literally. It is therefore important that we recognize our vulnerable flanks because these areas already are under attack. We have been accused of: 1) Management for game species, with no concern for nongame wildlife, 2) Management of single game species at the expense of other species through predator control, competitor control, introductions, and habitat manipulation, and, 3) Giving higher priority to sport hunting than to the wildlife resource, particularly in reference to "rare" species (e.g. grizzly bear, mountain goats, bighorn sheep, bobcat, lynx, otter, wolverine, redheads, canvasbacks, black ducks, Mexican ducks, sandhill cranes, mergansers, goldeneyes, snow geese, and certain races of Canada geese). It is in our own best interest to critically evaluate the profession in these areas, improve the deficiencies, and advertise the adequacies.

Hunters represent a very small percentage of the total population and proportional decreases in hunting have been significantly correlated with population growth (Peterle 1967, 1977 b). Hunters frequently enjoyed first hunting experience as youth. As the proportion of hunters declines, the proportion of hunters in future generations will decline at an accelerated rate. This trend is occurring simultaneously with an attempt by the anti-hunting coalition to raise a generation of children who will oppose hunting, fishing, and trapping (Goodrich 1979). Their educational material already is in distribution and it is welcomed by

the public schools primarily because the wildlife profession has not provided an alternative (Goodrich 1979). Obviously, if hunting is to remain viable, we must develop a strong program of ecological education directed to school-aged children. Montana Department of Fish, Wildlife and Parks has developed the prospectus for "Young Explorer", a youth-oriented publication that would be distributed through the school system, and this Chapter has endorsed that effort. However, the funding necessary to implement "Young Explorer" still is lacking.

The future of hunting will be influenced by our ability to provide hunters with places to hunt and the suitability of those places for providing quality hunting experiences. Issues that relate to providing places to hunt are themselves suitable workshop topics, so I will only list a few without further elaboration. They include: 1) A favorable resolution of the landowner-sportsman problem, 2) A reaffirmation of the rights of states to manage resident wildlife on public lands, 3) Adequate consideration of the wildlife resource in all economic development, and 4) Game Management based on sound ecological principles.

If we have provided a place for hunting, we also have the responsibility of providing the hunter with the environmental education that is necessary for him to enjoy a pleasurable ecological experience. Also, it is evident from the preceding discussion that environmental education is basic to the resolution of many of the issues that relate to the future of hunting in Montana. Therefore, the Western Regional Workshop spent considerable time discussing environmental education. A summary of that discussion follows:

- 1) The Western Region reaffirmed the Chapter's endorsement of Montana Department of Fish, Wildlife and Parks' efforts to develop a youth-oriented magazine.

- 2) The Hunter Safety Program is directed to those youths who already have expressed an interest in hunting. Therefore, the Hunter Safety Program, alone, does not satisfy our obligation to youth education.

- 3) Young people learn hunting ethics from their parents. Therefore, adult education is a necessary compliment to youth education.

- 4) Montana Department of Fish, Wildlife and Parks should develop a wildlife conservation series--similar to Hinterland Who's Who and What's What that are distributed by the Canadian Wildlife Service. That series should be included as a regular feature in Montana Outdoors, and reprinted for additional distribution. Wildlife Outdoors, and reprinted for additional distribution. Wildlife students at both universities could assist with the preparation of these materials.

- 5) Information officers should work with local school systems to develop environmental education. This program should make liberal use of speakers and films, rather than rely on the information officer for all presentations. National Wildlife Federation has available a series of program outlines in conjunction with Ranger Rick. These also could be used. It was pointed out that 4th and 5th graders are

the most impressionable and retentive. A school program should therefore address at least that group.

6) It was pointed out that Montana Department of Fish, Wildlife and Parks has a good film library. However, problems with distribution prevent maximum use of the films.

7) The Wildlife Film Festival at the University of Montana is designed to encourage the production of quality films. To date, the biggest problem has been to get these films used.

8) We should enlist the aid of professional media personnel in programs of environmental education. Perhaps there is a lesson to be learned from Marlin Perkins. Although his message is distorted, he has successfully reached the public.

The workshop also briefly considered possibilities for developing alternative sources of funding. We recognized that it would be difficult to raise funds for wildlife management through the state legislature without compromising the political autonomy of the Department. Suggestions included:

- 1) Increase resident hunting license fees.
- 2) Develop license structure, similar to California, in which increases are linked to inflation, without legislative approval for each increase.
- 3) Request direct appropriations from the legislature.
- 4) Increase the conservation license fee, with part of that increased earmarked for nongame.
- 5) Issue nongame stamp instead of certificate because a collectable item might sell.
- 6) License fees for nonconsumptive users.
- 7) Designate a portion of Coal tax revenues for wildlife management.
- 8) Challenge the anti-hunting coalition to fund nongame programs.

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SUMMARY OF GROUPS' DISCUSSION

1. Is the threat to sport hunting in Montana real?

The group concluded that the threat to hunting in Montana is real, and identified the following reasons:

- A. The organized anti-hunting movement is part of the threat. The shift of people from rural to urban areas, and urbanite attitudes distorted by TV programs as the sole wildlife exposure add to this movement.
- B. In Montana, the problem is more anti-hunter than anti-hunting in nature. Poor hunter ethics, littering, property damage and trespass have aggravated landowners and created hunter access problems.
- C. Human population density is increasing, while wildlife habitat is dwindling. So far, this problem hasn't affected Montana as badly as some other states, but will impact Montana more in the future.
- D. Lack of education for both hunters and non-hunters.
- E. Inability of wildlife professionals to communicate with the general public about these shortcomings.
- F. Historically, hunting in other countries has changed over time, but has not been altogether outlawed.

Education is seen as the main tool to resolve these problems, such as:

- A. The youth magazine Young Explorer and other programs aimed at school children, especially those in grade school.
- B. An enlarged hunter safety program which would include emphasis on hunter ethics and proper performance as well as rudimentary wildlife management. This course should include field trips concerned with firearm handling. Wildlife professionals and hunting adults should be more involved in course instruction.
- C. Increased work with receptive news media, using them to present accurate and unbiased information.
- D. Certain "old dogs," influential men in the community, other receptive citizens and landowners exist in each community. Meeting with these on a one to one basis perhaps listening more than talking, and attempting to understand their perspective while trying to convert.

- E. We may be failing to communicate despite our best efforts. Wildlife professionals usually receive no special education dealing with speaking to young children and we may speak over the heads of adults with which we deal. A continuing education course might be designed to attack this deficiency. This course might be held at Yellow Bay and conducted by Bill Schneider or a similar figure.
- F. In some cases, intensive management such as specialized hunts has helped hunter ethics and understanding of biological principles. Perhaps a half-day seminar on ethics and management could be required before each special hunt.
- G. Some non-hunters (not opposed to hunting) may have trouble understanding varying ethical standards imposed by our management. For example, it is legal (and considered ethical) to kill coyotes by practically every means (snowmobiles, airplanes, etc.) but it is considered unethical to hunt deer or elk in this manner. Perhaps game, predator, and non-game distinctions are not perceived by non-hunters. It might be wise to insure our management techniques are ethically consistent.

II. Is recreational hunting a legitimate pursuit?

The groups agreed that sport hunting is a legitimate recreational pursuit. One group believed more emphasis should be placed on the recreational aspects of hunting, particularly the values of the overall "outdoor experience." One group leader, citing the Kellert Study, pointed out that the general public accepts hunting for sport and meat more than hunting solely for sport. Perhaps the fact that meat is used needs to receive more attention. The validity of hunting should be addressed in the educational programs discussed above.

III. What can be done to perpetuate hunting?

The groups identified the following ideas:

- A. An incentive program may be a way of promoting participation in hunter training programs that are more comprehensive than the current Hunter Safety Courses required of young hunters. Certificates could be issued to those voluntarily completing courses including hunter ethics, sportsmanship, courtesy, first aid, safety, a knowledge of game species, and law enforcement. Landowners could be made aware of this training and might be more inclined to provide access to certified hunters. This would provide an incentive for hunters of all ages to participate. When requesting permission to hunt, the hunter would present an identification card containing the hunter's name, address, physical description, vehicle description, license number, conservation number, etc. In areas with this system, landowner response has been favorable. The program should be financially self-supporting.

- B. Mandatory continuation of hunter education through high school or 18 years of age. This would provide continuing exposure to the information as the individual matured and as they refined and accumulated experience as a hunter.
- C. Non-resident training. A correspondence course and open book exam to be submitted with the license application. Firearm certification upon arrival was discussed but no consensus reached.
- D. New residents to Montana would also be required to take the hunter training.
- E. Include along with licenses or tags information on species, code of conduct, first aid, what to do when violations are observed.
- F. Wildlife professionals and hunting advocates have a responsibility to talk not only to friendly groups such as sportsman clubs but also to civic groups, protectionist groups and others.
- G. High quality teaching material and visual aids should be developed and made available to people with opportunity and desire to use them.
- H. Work with court system so penalties upon conviction of a hunting violation will be severe enough to act as a real deterrent.
- I. Hunters as a group need more self-regulation and internal policing to combat the "slob hunter" image.
- J. In the face of dwindling wildlife habitat, we must do a better job of managing that remaining. We need better methods of habitat improvement and restoration. Incentives and fund sources need to be found for habitat projects on private lands.
- K. Increased emphasis should be placed on overall conservation education in the school systems. Wildlife education must fit into a broader perspective including all forms of natural resource conservation and teaching of basic ecological principles.

