WILD HORSES

The Pryor Mountain Wild Horse Range was created by order of Secretary of the Interior, Stewart L. Udall on September 9, 1968 (see Figure 3.7). As a result, the area is administered primarily for the protection and management of wild horses, wildlife, watershed, recreation, archeological and scenic values. See Appendix 3.5 for the agreement between Montana and Wyoming BLM for the administration of the horse range. The designation directs that management of the wild horses and their habitat be within a balanced program which considers all public values without impairment to the productivity of the land (*Federal Register* Notice, September 12, 1968, Vol. 33, No. 178).

At the present time, the rangeland available for wild horse use consists of 36,600 acres of designated wild horse range and 7,696 acres of undesignated land; a total of 44,296 acres. This total includes Federal, state and privately-owned lands critical to the management of the wild horses.

Upon designation, BLM constructed several improvements on the range to facilitate wild horse management. An outer boundary fence was constructed, water traps have been built, older traps have been maintained and extended, and corrals built at Britton and Sykes Springs. The water facilities developed include a pipeline on Layout Creek, two water catchments and two springs. These developments set the stage for the existing wild horse management program.

When the PMWHR was designated in 1968, it contained about 200 wild horses. When the Wild Horse and Burro Act passed on December 15, 1971, the range contained over 200 horses. There are now about 130 horses on the range. Updated inventory data and grazing capacity information suggest that the wild horse range will support 121 wild horses on three separate herd areas: the Dry Head area, the Sykes Ridge area and the Tillett Ridge herd area (see Figure 3.7). This population figure is the total number of horses on the PMWHR at the beginning of the winter grazing season. Approximately 80% of these horses will be 2 years old or older. The grazing capacity estimates by herd area include 31 head on the Dry Head area, 44 head on the Sykes Ridge area and 46 head on the Tillett Ridge area. These numbers represent total horses without differentiation between age, class or sex. Grazing capacity was determined using current range condition inventory information and applying the Soil Conservation Service (SCS) stocking rate guides to each range site and condition class. One horse requires 1.25 AUMs.

The 1981 Ecological Site Inventory indicated that 2,775 acres were in good range condition; 12,498 in fair; 7,900 in poor condition; 15,040 are unsuitable for wild horse grazing.

The current production of the area available to wild horses is 1,458 horse animal unit months and will support 121 horses yearlong. The potential production is 2,146 horse AUMs which would support 179 horses.

These figures indicate that the range has been severely grazed by horses in the past, resulting in less than satisfactory soil and vegetative condition. For this reason there are less horses on the range now than when established in 1968.

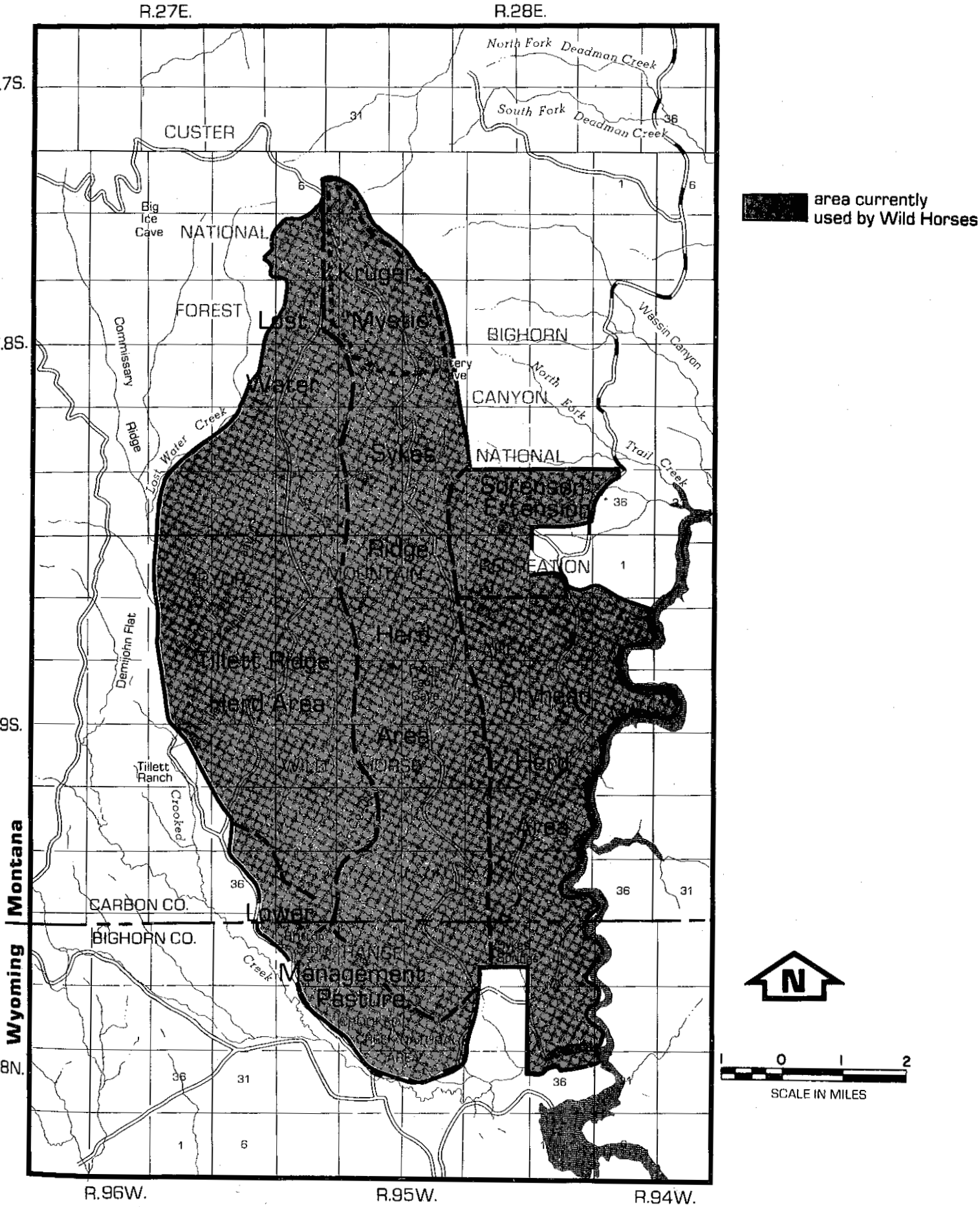
Beginning in 1971, capture and excess operations were conducted to bring the horse number down to carrying capacity. In addition, a severe winter death loss in the winter of 1977-78 caused a natural reduction in numbers. These actions resulted in the current population of 130 wild horses.

The current sex ratio is 2:1, favoring females. Fifty-three percent of the horses are 4 years or younger, with a uniform age-class distribution of horses older than 4 years. The reproduction rate is about 25% of the total population, annually.

Not all of the environment used by wild horses is designated a part of the PMWHR. The Lost Water Canyon area of the Custer National Forest, the Sorenson extension area of the Bighorn Canyon National Recreation Area, and the Mystic allotment, controlled by private interest, are other areas available for grazing by wild horses (see Figure 3.7). The continued availability of these areas is dependent on the proper management of wild horses, including population control. The use of these lands is by agreement or lease arrangements and is subject to revocation at any time. These privately-owned areas amount to about 754 AUMs.

Even though the country is rough, horses travel great distances to existing water sources. As a result, grazing use around present water sources is heavy.

Figure 3.7: Area Currently Used by the Pryor Mountain Wild Horses



The availability of water on the horse range is limited due to low rainfall. Two existing man-made water catchments add to the natural water sources and help to disburse the horses. Water right applications have been filed on these catchments, but no permits have yet been issued.

The general public has shown interest in the PMWHR and management of the wild horses. Five signs (three on BLM-administered lands and two within the Bighorn Canyon National Recreation Area) indicate the boundary of the horse range. A film shown by Park Service personnel at the National Park Service Visitor Center in Lovell, Wyoming is the only interpretation of wild horses and the PMWHR.

The resource area has an approved activity plan, "Windrinker Overlook", that constitutes a substantial development for wild horse viewing. This plan has considerable public support in the town of Lovell, Wyoming located approximately 13 miles south of the proposed site.

WILDLIFE

Public lands within the Billings Resource Area provide all or significant portions of habitat types required by a very diverse array of wildlife species. Vegetative types such as grassland, grassland-shrub, shrub, deciduous woodland, coniferous forest, riparian and agricultural lands and special habitat features such as cliffs, snags, springs, natural potholes, reservoirs, lakes and islands are represented in the Billings Resource Area. Maintenance of these habitat types is critical to the continued existence of diverse, viable populations of wildlife. The Federal Land Policy and Management Act of 1976 recognized wildlife habitats as one of the public land's many valuable resources and chartered BLM with the responsibility of maintaining or enhancing habitat conditions through the land use planning process.

The wildlife occurrence map in the map pocket portrays the general distribution of key game species found within the resource area. Detailed overlays displaying crucial habitat areas and a listing of known or potential game and nongame species which may occur within the resource area is available for review in the Billings Resource Area office.

For discussion purposes, this resource management plan/environmental impact statement (RMP/EIS) will place emphasis on identifying and analyzing potential impacts on those species whose populations or habitats could be affected by one or more of the land use proposals contained in this document. Species with limited populations or known crucial habitat areas will be given special consideration in the evaluation of impacts presented in Chapter 4 of this document. Table 3.10 summarizes the known habitats within the resource area and provides the percent which occurring public lands.

Big Game

Deer

Mule and white-tailed deer are the most widely distributed big game species and occupy the greatest variety of habitat types. Mule deer are most abundant in the coniferous forest areas and the rough, broken side slopes of drainages and mountain foothills. However,

TABLE 3.10: WILDLIFE HABITAT STATISTICS

Description	Total-All Ownership	Federal Ownership	%
Mule Deer Winter Concentration Range	339,150 acres	51,800 acres	15.3
Antelope Winter Concentration Range	439,750 acres	119,300 acres	27.1
Elk Winter Concentration Range	160,500 acres	1,500 acres	1.0
Chukar Yearlong Range	90,000 acres	75,000 acres	83.3
Turkey Yearlong Range	29,000 acres	1,760 acres	6.1
Prairie Dog Colonies (Whitetail and Blacktail)	7,500 acres	2,000 acres	26.7
Sage Grouse Mating Grounds (Number)	110 each	28 each	25.5
Sharptail Grouse Mating Grounds (Number)	60 each	17 each	28.3

they have also been sighted in upland areas where sagebrush is the dominant shrub (BLM Observation Reports). Their utilization of trees, shrubs, forbs and grasses varies seasonally and is generally associated with the availability of the various plant communities (U.S. Fish and Wildlife Service [USFWS], 1978). Approximately 339,000 acres of mule deer winter range are identified in the resource area of which 51,800 acres (15.3%) are on public land. In addition to this, approximately 1,960 acres of mule deer yearlong range overlays Federally-owned coal reserves/privately-owned surface which is being carried forward for lease consideration pending further study and final application of the coal unsuitability criteria in the Bull Mountain coal field. The Bureau of Land Management will be required to make mitigation and/or reclamation recommendations for these areas should any development occur.

In the spring, deer typically feed extensively on succulent green grasses until forbs become available. They will use forbs, supplemented by some browse throughout the summer and turn heavily to the use of browse in the fall, winter and early spring. Hiding and thermal cover is important in maintaining deer populations. Woody vegetation is important in reducing the effects of weather and providing adequate concealment. Without adequate cover, fawns are susceptible to predators and bad weather. Deer also use woody vegetation for bedding cover during the heat of the day and at night (Julander, 1966; and Swank, 1958). During severe winters, private agricultural lands play an important role in the maintenance of certain populations. These lands can be severely damaged due to overutilization.

White-tailed deer are not as widely distributed in the resource area and tend to occupy drainage bottoms where riparian vegetation is abundant. Their dietary preference and cover requirements are very similar to those of mule deer and are generally dictated by availability (USFWS, 1978).

Antelope

Antelope habitat and populations are abundant and widely distributed throughout the resource area. They use a variety of vegetative types throughout the year depending on availability, palatability and succulence (USFWS, 1978). The most commonly used vegetative types are the grassland, grassland-shrub, shrub and agricultural lands (BLM Observation Reports). Browse, primarily sagebrush, constitutes a very large portion of yearlong forage, and is usually used the most during the fall and winter seasons. Seasonal forbs are then used through the summer and early fall (USFWS, 1978). Crucial winter habitat includes sagebrush and shrubs between 12-24 inches in height, especially during periods of heavy snow cover. In the spring, succulent green grasses are used until forbs become available.

Approximately 440,000 acres of antelope winter range are identified in the resource area of which 119,300 acres (27.1%), are on public lands. Vegetative cover is also necessary for fawning as it protects the young from predators and severe winters (Autenrieth, 1978). Sagebrush, 12-24 inches in height with 20% canopy cover generally located in a basin type of topography, will adequately meet this particular need (USFWS, 1978).

Elk

Small, isolated elk herds occur in the Bull, Snowy and Pryor Mountains. The heaviest habitat use occurs in the ponderosa pine, grassland, grassland-shrub and agricultural areas. The ponderosa pine areas appear to be most significant, providing resting areas, escape and thermal cover.

The Bull Mountain elk herd showed a heavy seasonal dependence on grasslands, ponderosa pine and agriculture lands. The changing seasons of the year change the degree of dependency on these vegetative types and would include the use of the grassland shrub type during the winter (Dusek, 1978). Approximately 160,000 acres of elk winter range have been identified in the resource area of which 1,500 acres (1%), are on public lands. Also of concern are approximately 1,680 acres of winter range which overlies Federally-owned coal reserves/privately-owned surface which is being carried forward for lease consideration pending further study and final application of the coal unsuitability criteria. The BLM will be required to recommend mitigation and/or reclamation of these habitat areas should development occur.

Little information is currently available on the movements and subsistence habits of the Pryor Mountain herd. Most, if not all of their movement is confined to the Custer National Forest portion of the Pryor Mountains.

Black Bear

Black bear occur in the Pryor and Big and Little Snowy Mountains. They occur primarily in heavily forested and intermittent hardwood areas (BLM Observation Reports). These dense stands of timber provide them with excellent escape cover as well as denning and feeding sources. During the winter, they seek hollow trees, caves or cliff overhangs for hibernation. The young are born while the female is still in the den.

The black bear is omnivorous and eats plant material such as berries, roots, carrion and an occasional fresh mammal kill (USFWS, 1978).

Bighorn Sheep

Rocky Mountain bighorn sheep are found in the Pryor Mountains. The resident herd is estimated at 10 to 20 individuals (BLM Observation Reports). They generally inhabit the very rough, steep rocky ridges bordering grassland, grassland-shrub and forested areas (BLM Observation Reports). Grasses and forbs provide the major portion of the species yearlong diet which is supplemented with browse types such as curlleaf mountain mahogany and sagebrush (USFWS, 1978). Little information is currently available on the migratory routes of this herd.

Upland Game Birds

Sage Grouse

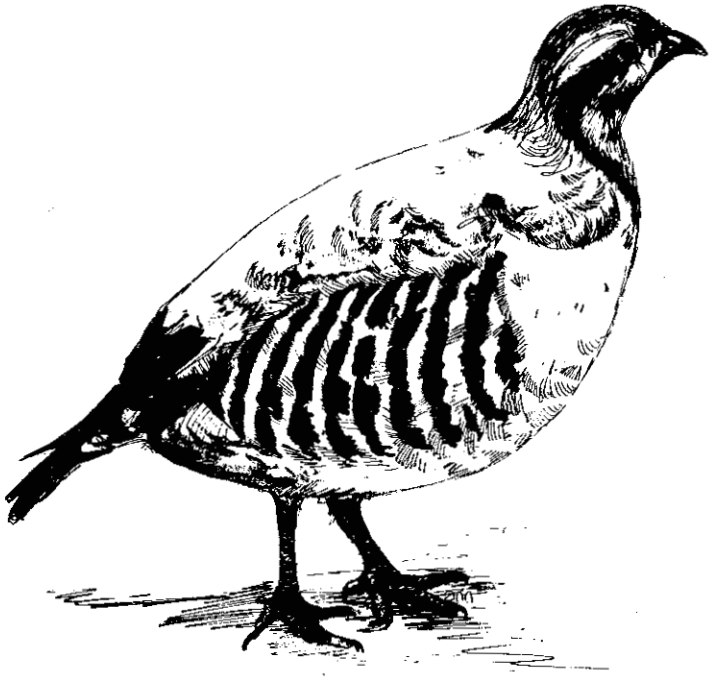
Sage grouse are the most widely distributed and abundant game bird species on public lands. They are primarily associated with sagebrush communities in grassland-shrub and shrub vegetation types. Sage grouse prefer sagebrush for cover and food with a canopy coverage greater than 15%. They eat only soft material because of their lack of a muscular gizzard (Patterson, 1952). Their diet is comprised primarily of sagebrush, especially during the fall and winter months. However, in the spring, forbs become an important part of the diet for both adults and juveniles. Nesting habitat is located under sagebrush, usually within 2 miles of mating grounds (Wallestad and Pyrah, 1974; Martin, 1970; Gill, 1965). Approximately 110 mating grounds have been identified in the resource area, of which 28 (25.5%) are on public land. The tallest and most robust sagebrush in the stand is generally used, ranging from 6.6 to 31.6 inches with canopy cover between 20-50% (Wallestad and Schladweiler, 1974; Wallestad and Pyrah, 1974).

Sharp-tailed Grouse

This species is widely distributed in the resource area, and are generally found in the grassland, grassland-shrub and woodland vegetation areas. Females nest and raise their broods in the grassy uplands usually within 1 mile of mating grounds. Approximately 60 mating grounds are identified in the resource area of which 17 (28.3%) are on public lands. During the winter, a major portion of their diet consists of insects and twig tips of various trees and shrubs. In the spring, there is a major shift to greens such as grasses, flower parts, clover, forbs and cultivated grains (Johnsgard, 1973). In the summer, insects are utilized heavily and supplemented with leaves from succulent plants, dry seeds and fleshy fruits (Edminster, 1954). In the fall, their diet shifts again to grasses, seeds, cultivated grains and the fruits of various trees and shrubs (Johnsgard, 1973).

Pheasants

Pheasants are generally found where there are grain crops and weeds for food, and woodland and riparian habitat for cover (Janson, et al., 1971). Cattail and bulrush in wetlands also provide additional escape and winter cover. In spring and summer, green grasses and forbs provide food for the adult birds. Chicks primarily eat insects for their first 4-6 weeks before changing to vegetation. Small grains and weed seeds are heavily utilized during the fall and winter seasons (USFWS, 1978).



Waterfowl

Waterfowl use, both migratory and yearlong, occurs throughout the resource area. The most intensive use occurs in the northern and westcentral portions of the resource area, where an abundance of reservoirs and lakes such as Halfbreed and Big Lake, exist for resting and nesting. The Yellowstone and Clarks Fork drainages are used heavily by Canadian geese and some species of ducks for nesting purposes. Nesting occurs mostly on established islands and brushy wetland and riparian areas where abundant cover provides escape and protection from predators. Studies show a 60% occupancy of geese on reservoirs with islands versus 2% on reservoirs without islands (Eng, et al., 1978). Many studies have documented the relationship of high quality nesting cover to nesting ducks. If good shoreline cover is available, nesting pairs are attracted to the pond (Eng, et al., 1978). Approximately 463 reservoirs exist in the resource area which could produce 8,334 ducks annually (Prairie Potholes Habitat Management Plan, 1978).

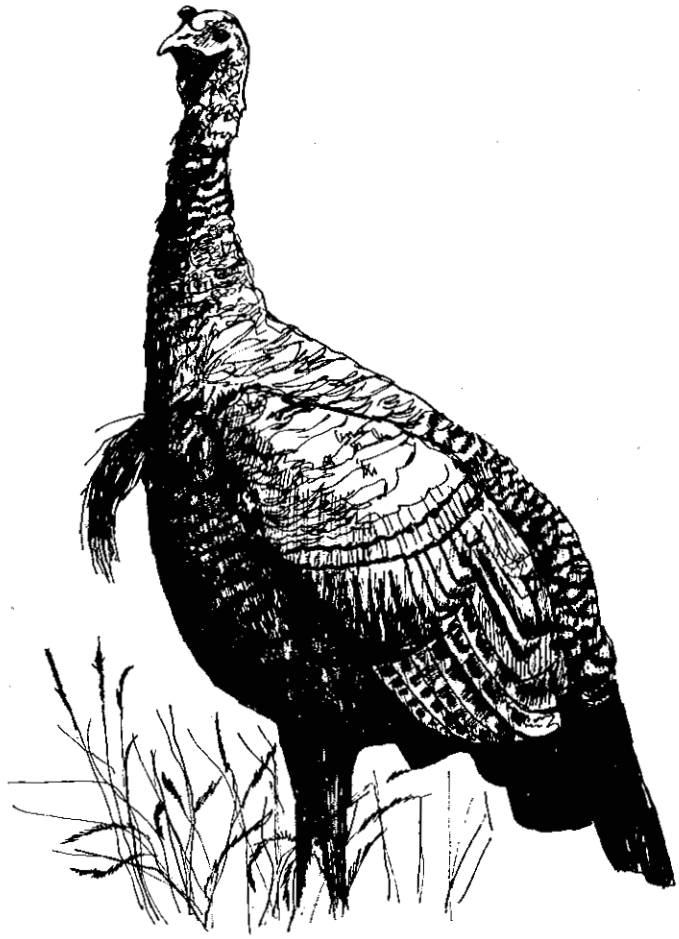
Chukar Partridge

These birds are found primarily in the southern portion of the resource area in the grassland, grassland-shrub vegetative areas where sagebrush and cheatgrass are abundant (BLM Observation Reports). Approximately 75,000 acres (83.3%) of potential habitat are identified on public lands.

Chukar partridge prefer brushy slopes and draws for most activities, and grain fields where available, are used for feeding purposes. They are heavily dependent upon free water sources and will cluster around these sources during periods of drought. In the spring, chukars feed on green leaves of grasses and forbs. During the summer, they expand their diet to include available seeds and insects. During the fall, if available, fruit such as chokecherry are used. During the winter months, they rely heavily upon available seeds and leaves of grasses and forbs (Game Management in Montana, 1970).

Turkey

Turkey can be found in the Bull and Snowy Mountains. In the spring, they use the ponderosa pine, grassland and agricultural vegetative types for food and cover. During the summer, turkeys inhabit grasslands. Fall and winter observations indicate heaviest use of the grassland and ponderosa pine areas, since ponderosa pine are extremely important as escape cover and roosting sites (Dusek, 1978). Approximately 29,000 acres of turkey yearlong habitat are identified in the Bull Mountains, of which 1,760 acres (6.1%) are on public lands. An additional 1,960 acres of this yearlong habitat overlies Federally owned coal reserves over privately owned surface which is being carried forward for lease consideration pending further study and final application of the coal unsuitability criteria which will require mitigation and/or reclamation should development occur.



Threatened and Endangered Species

Historical and potential habitat for three species of wildlife which are Federally classified as threatened or endangered, occurs within the resource area. The three species, as confirmed through consultation with the U.S. Fish and Wildlife Service pursuant to Section 7 of the Endangered Species Act of 1973, are the bald eagle, peregrine falcon and black-footed ferret.

Bald Eagle

Yellowstone and Clarks Fork River drainages provide major winter concentration areas for the bald eagle. Winter aerial flight surveys conducted by BLM in 1979 and 1980 documented concentrations of up to 100 individuals along the two drainages. The bald eagle is a frequent carrion feeder and the open waters along these rivers provide excellent feeding sites. BLM ownership is very limited along these drainages, generally confined to small isolated tracts adjacent to the river or islands. No active nesting sites have been confirmed recently on the Federal land tracts or islands, but numerous sightings of roosting eagles have been documented. BLM will continue to protect these sites from land use proposals which may adversely affect the habitat or species of concern residing in the area.

Peregrine Falcon

Information pertaining to peregrine falcons within the resource area is quite limited. However, confirmed sightings in recent years near Broadview, Montana, verify their existence. No active nesting sites have been located on public lands to date. The abundance of rocky cliffs and outcrops used for roosting and nesting purposes associated with the large expanses of open grassland and grassland shrub vegetative types preferred by prey species offer excellent potential habitat for the birds. Historically, peregrine falcons inhabited the Bighorn Canyon/Pryor Mountain area. BLM is continuing to survey and evaluate these areas with the intent to select and propose sites for potential reintroduction in support of the peregrine falcon recovery plan.

Black-footed Ferret

There have been no recent confirmed sightings of the black-footed ferret within the resource area. Ferrets are generally closely associated with active prairie dog colonies. There are approximately 7,500 acres of active prairie dog colonies within the resource area, of which an estimated 2,000 acres (27%) are located on public lands. BLM is continuing to survey and monitor prairie dog colonies on public land for the occurrence of ferrets. Additionally, each prairie dog town is being evaluated to document the suitability for introduction of black-footed ferrets utilizing criteria outlined in the Black-footed Ferret Recovery Plan as guidance.

Furbearers

The most abundant terrestrial furbearers in the resource area are the bobcat, lynx, red fox and coyote. Aquatic species include the beaver, mink and muskrat.

Nongame Animals

Numerous nongame mammals, birds, and reptiles occur within the resource area. Some species of interest, due to uniqueness or special habitat requirements, include the golden eagle, osprey, prairie falcon, merlin, long-billed curlew, burrowing owl, mountain plover, black-tailed prairie dog and white-tailed prairie dog. These species receive special management consideration in all phases of the land use planning process for maintenance or enhancement of their respective habitats.

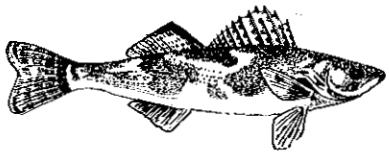
Fisheries

Fisheries within the resource area are varied, but primarily confined to the Musselshell, Yellowstone and Clarks Fork River drainages and their associated tributaries. Three perennial creeks, Sage Creek, Crooked Creek and Bluewater Creek originate in the Pryor Mountains. All of these perennial waters support active sport fisheries.

The primary game fish found in the major drainages include rainbow trout, brown trout, mountain whitefish, sauger, ling, walleye, channel catfish, black crappie, smallmouth bass and yellow perch. The smaller, cool water tributaries support populations of brook and cutthroat trout.

Approximately 30 miles of BLM-administered public lands are located along these drainages and associated tributaries. Most are less than 1 mile in length and, as such, do not lend themselves to management options that could greatly benefit the existing fishery.

The most abundant nongame fish includes longnose dace, mountain sucker, longnose sucker, mottled sculpin, stonecat, short-head redhorse, river carpsucker, flathead chub, black bullhead, goldeye, smallmouth buffalo, carp, lake chub, plains minnow, silvery minnow and fathead minnow (Brown, 1971).



LANDS

Lands managed by BLM acreages are identified (on BLM recreation maps) as public lands (PL), land utilization (LU) lands, other and subsurface. Public lands have always been under Federal management. Land utilization lands were in private ownership at one time but were purchased through the Bankhead-Jones Farm Tenant Act of 1937. This act allowed farm families to sell their homesteads at their option, and start again during this financial crisis. Lands classified as "other" have been withdrawn from multiple use management for possible use as power sites, stock driveways, etc. Subsurface acres are those where the Federal Government reserved the mineral rights.

The following is a breakdown by county of PL, LU, "other" and subsurface acres in the resource area. The surface figures were obtained from Form 1165-4, "Public Lands Under Exclusive Jurisdiction of the BLM, fiscal year 1981" at the BLM Montana State Office. The subsurface figures are from the files at the Billings Resource Area Office.

Acreages of the Billings Resource Area:

Carbon County

PL—204,565
LU—None
Other—2,583
Subsurface—326,881.67

Golden Valley County

PL—8,195
LU—None
Other—80
Subsurface—43,780.83

Wheatland County

PL—2,195
LU—None
Other—None
Subsurface—22,340.68

Musselshell County

PL—15,186
LU—89,500
Other—None
Subsurface—253,030.37

Yellowstone County

PL—15,180
LU—70,693
Other—None
Subsurface—126,093.41

Big Horn County

Subsurface—501.08