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A Program for
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habitat on the
national forests
in Montana

A PROGRAM FOR FISH & WILDLIFE HABITAT

On The National Forests In MONTANA

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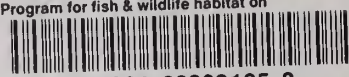
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**A PROGRAM FOR
FISH & WILDLIFE
HABITAT**

**On The National Forests In
MONTANA**

Prepared By

Montana Department of Fish and Game

and

US Forest Service

R-1-76-26 Montana

January 1977

FOREWORD

Comprehensive fish and wildlife plans, developed in concert by the Montana Department of Fish and Game and the Forest Service, are essential in sustaining fish and wildlife resources for future generations. The Sikes Act (P.L. 93-452, passed by Congress October 18, 1974) provides a vehicle for cooperative fish and wildlife management in the Montana National Forests. This plan provides information on supply and demand and the capability of the National Forests to produce fish and wildlife.

Habitat for species as diverse as grizzly bear and cutthroat trout provided by the nearly 17 million acres of National Forests in Montana. Nearly 50 years of Montana Department of Fish and Game and Forest Service cooperation vivifies the inseparability of management of fish and wildlife and their habitat. While Montana has a seemingly unlimited land area, there is a limit to its ability to produce high quality habitat for wildlife. Much of the habitat in Montana is not publicly owned and is being changed through urban development, intensified agricultural and industrial uses of the land. Intensive management of the wildlife habitat in National Forests, as dictated by the Multiple Use, Sustained Yield, Forest and Range Resource Planning Acts, and the funding provisions of the Sikes Act, are important in sustaining many wildlife populations.

Through the Sikes Act, Congress and the American people have expressed their desire to improve the status of fish and wildlife in the National Forests. Implementation of this comprehensive plan, over the next 5 years, will go a long way in providing quality habitats and healthy fish and wildlife populations.

Robert H. Torheim
Regional Forester, Region One

12-16-76
Date

Wes Woodgerd
Director, Montana Department Fish and Game

12-18-76
Date

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INTRODUCTION

Aldo Leopold, father of our wildlife management profession, defined game management as "the art of making land produce sustained annual crops of wild game for recreation use." Refinements and expansions of Leopold's words have continued through the decades. For example, "Wildlife management is the science and art of changing the characteristics and interactions of habitats, wildlife populations and men in order to achieve specific goals for wildlife and fish resources. In its broadest and simplest terms, wildlife management is human effort to scientifically manipulate the natural resources of soil, water, plants and animals for the purpose of producing desired numbers and kinds of animals for the overall best interest of wildlife, fisheries and man, whether esthetic, economic, commercial, or recreational.

Many wildlife species have benefited from the development of sound wildlife and fish management practices. As our management knowledge is bolstered by new research facts, we are developing practices designed to directly benefit more species. Much progress has been made through techniques based on accurate information, field experience and good judgment.

Three factors create a unique situation for the use of wildlife in Montana: these include National Forest land, a diversity of wildlife and fish species, and low human population. Specifically:

1. Ten National Forests occupy more than 16.6 million acres, about 18 percent of the State of Montana.
2. An abundance of game species; including 12 species of big game, 10 upland game bird species, 33 species of migratory waterfowl and 24 species of game fish. Non-consumptive use is made of at least 400 species.
3. Montana's population density averages 4.5 persons per square mile, a rate less than one-tenth the national average.

Montana residents and non-residents enjoy wildlife and fish resource in a relatively natural setting. Montana's National Forest lands make a significant contribution to wildlife and fish use in this State and will become more important in the future.

The specific goals of this plan are:

1. Produce more fish and wildlife on National Forest habitat, consistent with land capability and demand.
2. Realize wildlife based recreational potentials and related economic benefits, maintain and enhance various levels of opportunities for outdoor recreation.
3. Intensify fish and wildlife management and protection activities to maintain and enhance existing populations.
4. Sustain, and where feasible, improve the diversity of the National Forest habitat through direct improvement and resource use coordination.

This comprehensive plan is the product of a joint effort by the Northern Region, Forest Service, and the Montana Department of Fish and Game, under the provisions of the Sikes Act (P.L. 93-452). The Act directs increased emphasis on development and protection of National Forest fish and wildlife habitats.

This plan is a dynamic instrument. It will be updated annually in response to understanding of supplies, demands, and capabilities of Montana's wildlife and fish habitats.

DEMAND

The public demands on the fish and wildlife resources in this country have been dynamic. Initially, these demands were for the purposes of providing commodity goods to satisfy human needs or to protect human life and property. Public demands for the purposes often resulted in depletion and occasionally the elimination of a species.

As populations increase, new demands will continue to evolve and change. New demands are recreational fishing and hunting, esthetic and scientific studies.

National Scene

Habitat upon which wildlife and fish resources are produced is becoming less abundant from increased agricultural, industrial and urban development. The expanding human population is placing a greater demand on this resource. The resource manager is now faced with the challenge of providing for future wildlife and fish supplies.

Present human use of the wildlife and fish resource is either consumptive or non-consumptive. Consumptive users are for the most part hunters and fishermen. As for the scope of this report, as it pertains to Montana the commercial use is insignificant. While the number of hunters continues to increase in the United States, the popularity of hunting, as a sport, is declining. This may be attributed to several factors. Urbanization does not foster the hunting ethic. Participation in recreational hunting involves less than 10 percent of the public in most urban areas-- while it may reach as high as 50 percent in rural communities. Projections indicate the highest increases in hunter participation will be in those states where big game are the principal species. As other recreational opportunities increase, hunting, especially among youth, will decrease.

Fishing, on the other hand, has shown greater increases than hunting; almost 17 percent between 1965 and 1970 compared to less than 6 percent for hunting. An important factor in this increase is that fishing is available to more people. Only 6.6 percent of the residents of the metropolitan areas participated in hunting while three times that (18.8 percent) participated in fishing. Also, recreational fishing is more of a social activity and can be more easily combined with other recreational activities; back-packing, camping and various water sports.

Montana Scene

Montana in 1974 was fourth in resident fishing and hunting license sales and first in non-resident fishing and hunting sales in the 11 western states. The Montana Department of Fish and Game estimates the big game demand for the 4-year period 1971 to 1974 averaged 1.8 million man-days per year of recreation. The projected figure for 1980 will be 2.2 million man-days of big game hunting; in addition, an estimate of .4 million man-days related to upland game, waterfowl, and furbearers (Figure 1). Fishing estimates are 2.8 million man-days annually. The projected figure for 1980 will be 2.9 million man-days. Resident and non-resident angler use for 1975-1976 is shown in figure 3.

Nonconsumptive wildlife use is rapidly increasing. These uses include photography, nature studies, bird-watching. Such activities are social in nature and many persons can participate concurrently. The activities are available to a large segment of the public and as human population densities increase, the demand for nonconsumptive uses will become more important.

The present demand is primarily directed to deer, elk, and trout (Table 1). Other demands include upland game birds, waterfowl, furbearers, and predators.

Endangered and threatened species--grizzly bear, peregrine falcon, and Rocky Mountain wolf are demanding a great deal of attention and concern.



TABLE 1

STATEWIDE

TABULATION OF LICENSE SALES (1969-1975)

Year	Resident					Non-Resident				
	Fishing	Sportsman	Big Game	Bird*	1-day	Fishing 6-day	Season	Big Game	Bird	*Includes Turkey
1969	141,347	553	249,633	60,326	109,789	23,582	6,828	20,404	792	
1970	142,079	611	267,266	59,880	130,024	24,007	6,968	25,217	1,046	
1971	148,566	924	271,466	60,600	145,251	25,207	7,457	32,192	1,191	
1972	154,478	1,391	288,810	64,536	170,148	29,961	7,925	34,232	1,432	
1973	160,510	1,697	330,564	66,946	169,876	26,424	8,640	35,897	1,352	
1974	161,407	2,188	317,116	63,754	144,164	17,092	9,964	35,629	1,388	
1975	158,368	2,526	289,741	63,320	135,253	17,451	10,286	35,687	1,451	

Montana Department of Fish and Game

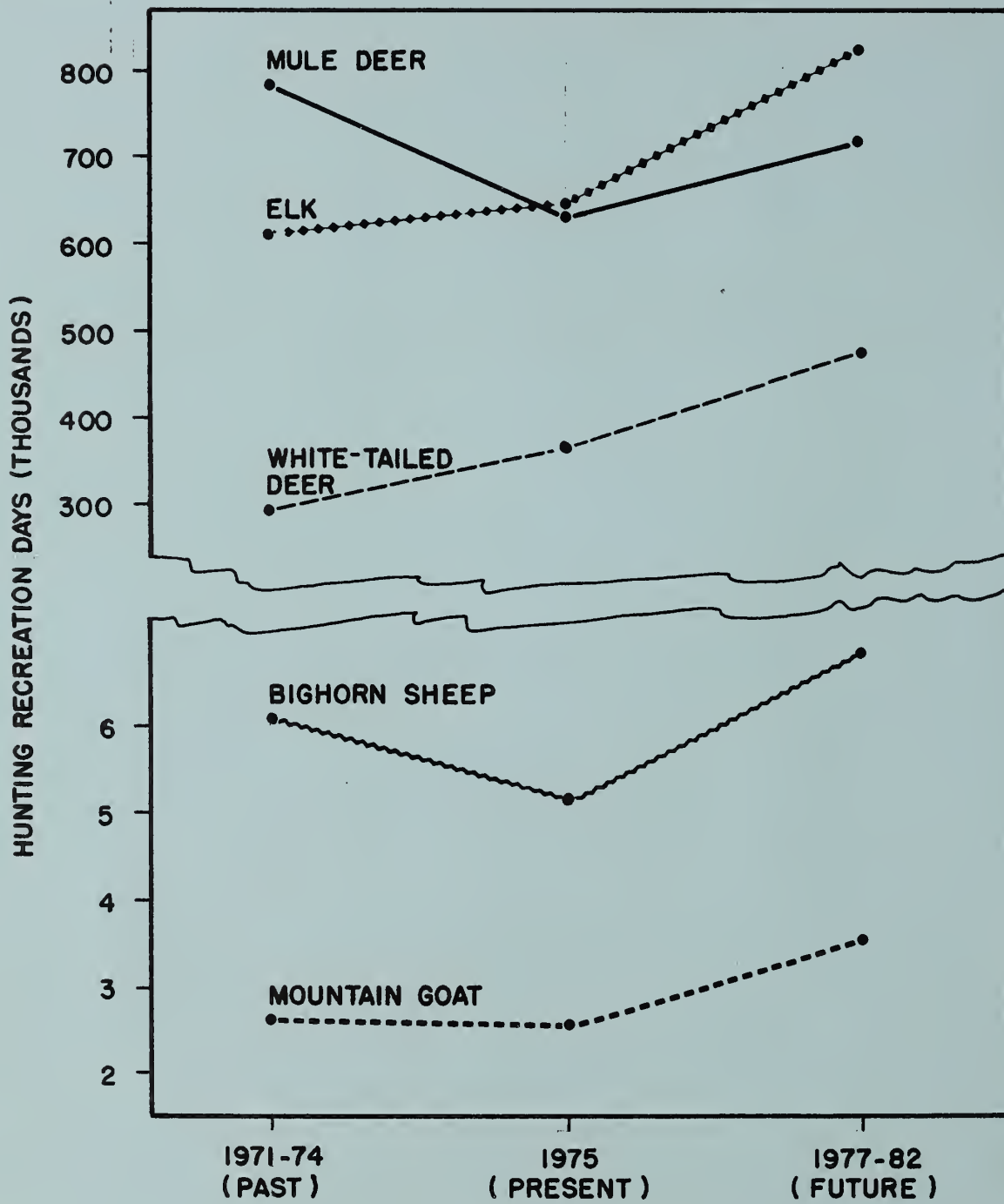


FIGURE 1. PROJECTIONS OF BIG GAME HUNTING DAYS (STATEWIDE) MONTANA

SUPPLY

Montana offers a wide spectrum of fish and wildlife species and habitat. The diversity of fish and wildlife habitats ranges from the plains country to alpine mountaintops. The National Forests in Montana contain 18 percent of the land base (16.6 million acres).

The estimates of supplies for the species groups presented in this plan are provided from the Montana Department of Fish and Game records, as well as individual biologists, both within the Forest Service and Fish and Game.

In an effort to conform with the context of this report, the supply data are given by species groups and pertain to those species only in which a program is planned.

Endangered and Threatened

The Secretary of the Interior under provisions of the Endangered Species Act of 1973 (P.L. 93-205) has listed the following wildlife species as either endangered or threatened in Montana:

Endangered

American peregrine falcon
Black-footed ferret
Northern Rocky Mountain wolf

Threatened

Grizzly bear

All Federal agencies are required under Section 7 of the Act, to, carry out programs for conservation, and insure that actions do not jeopardize the continued existence of the species.

Information on which to base habitat management is extremely limited for all four species. The range and distribution of the Northern Rocky Mountain wolf in Montana are unknown at this time. Approximately three peregrine falcon nest sites have been located in Montana. We are not aware of any black-foot ferret sighting in Montana over the past 10 years.

Big Game

Big game species provided for in this program proposal are the elk, mule deer, whitetail deer, moose, Bighorn sheep, mountain goat, mountain lion, and black bear.

Current harvest of big game and the attendant use are listed in Table 2. The 1975 deer harvest is down considerably from that of 1974. Black bear, mountain goat and moose are slightly down. Bighorn sheep harvest is stable. Elk harvest and hunter success is up considerably over the 1974 season.

TABLE 2

STATEWIDE

MONTANA BIG GAME HARVEST, 1966-1975

	Antelope			Deer	Elk	Goat		Moose	Sheep	
	Bear	Limited	Unlimited			Limited	Unlimited			
1966	No. Hunters.....	19,556	106,180	55,113	459	836	666	74	281	
	Harvest.....	13,865	98,100	13,400	225	250	510	44	32	
	Percent Success....	71	92	23	49	30	74	59	11	
1967	No. Hunters.....	18,052	115,185	71,883	589	256	616	78	145	
	Harvest.....	12,599	88,640	14,500	294	90	433	56	12	
	Percent Success....	70	77	21	50	35	70	73	8	
1968	No. Hunters.....	16,150	125,711	79,623	598	200	643	75	172	
	Harvest.....	11,500	99,250	16,700	263	29	457	55	13	
	Percent Success....	71	79	21	44	14	71	74	7	
1969	No. Hunters.....	19,871	128,177	73,848	537	213	645	77	279	
	Harvest.....	14,543	102,800	12,100	267	66	457	50	17	
	Percent Success....	73	80	16	49	31	71	65	7	
1970	No. Hunters.....	23,697	136,903	77,819	573	223	670	59	447	
	Harvest.....	18,023	110,988	13,988	303	51	518	43	31	
	Percent Success....	76	80	18	52	23	86	73	7	
1971*	No. Hunters.....	24,802	141,243	72,337	547	215	677	64	452	
	Harvest.....	18,403	116,716	11,785	238	59	474	50	40	
	Percent Success....	74	83	16	44	27	70	78	9	
1972*	No. Hunters.....	27,762	152,545	75,951	546	0	651	72	574	
	Harvest.....	19,710	112,996	10,867	234	0	427	50	54	
	Percent Success....	71	74	15	43	0	66	70	9	
1973*	No. Hunters.....	28,062	167,359	87,746	556	0	766	76	754	
	Harvest.....	19,303	137,441	17,498	280	0	597	57	35	
	Percent Success....	69	82	20	50	0	78	75	5	
1974*	No. Hunters.....	27,163	154,110	89,369	571	0	780	98	776	
	Harvest.....	18,810	103,656	10,930	306	0	532	80	54	
	Percent Success....	69	67	12	54	0	68	82	7	
1975	No. Hunters.....	25,022	148,109	91,956	508	0	736	121	631	
	Harvest.....	17,298	77,496	15,750	237	0	498	89	10	
	Percent Success....	69	52	17	47	0	65	74	2	

*Figures for deer and elk adjusted from previous reports.

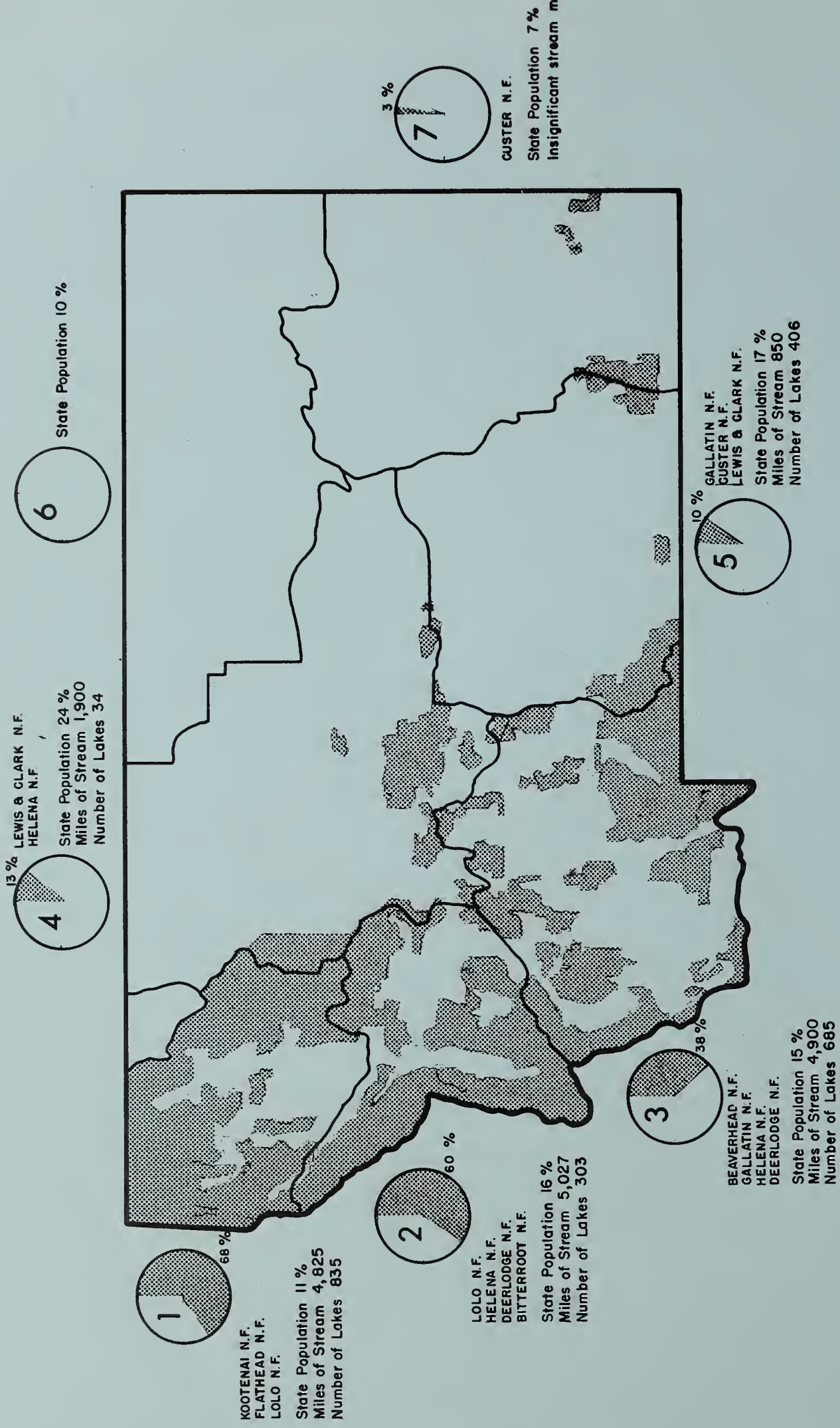
The population trend is down for mule deer throughout the State, a downward trend also exists for mountain goat in the four western Forests. Elk and Bighorn sheep trends are up in the six eastern Forests. Stable population trends throughout the State exist for whitetail deer, moose and black bear. Elk and Bighorn sheep are stable in the western Forests. Mountain goats are stable in the eastern Forests.

The ability to sustain current supplies of big game will depend upon the amount and availability of quality habitat. Assessments of habitat trends have been made for the National Forests in Montana. These trends are based on the quantity of habitat and refer to acres of seasonal use such as winter, spring-fall and summer ranges.

Cold Water Fish

Six species of cold water fish are represented in this program. They are westslope and Yellowstone cutthroat; rainbow, brook and lake trout; and the grayling.





(Stream miles denote all waters contributing to the fishery on National Forests)

FIGURE 2. MONTANA FISH & GAME REGIONS AND NATIONAL FORESTS

Montana contains approximately 12,000 miles of salmonid streams with catchable size trout (6 inches or greater). In addition to these streams, the National Forests of Montana contain several thousand miles of streams which provide for such things as water quality, spawning and nursery areas (Fig. 2). Of the total catchable size trout waters, 32 percent of the fish produced is on public lands where public use is permitted, and 52 percent is on private but open to public and the remaining 16 percent is private where angling is restricted or prohibited.

Each year there is an increased restriction of fisherman use on private land so the importance of public ownership will increase in the future. Although only one-third of the current total fishery is on public land, these streams form the major tributaries of the larger streams and have a significant contribution to the overall fishery.

Also, a vast amount of lake acreage is available to the trout fisherman. The Forests in Montana contain over 2100 lakes; however, many of these are the smaller high-mountain salmonid waters. Approximately 48 percent of the state-wide fishing pressure (1.3 million angler days) results from lake fishing (Fig. 3).

Four major river drainages transect Montana: The Yellowstone, Missouri, Kootenai and Clark Fork. These and their tributaries form the foundation for Montana's seven Blue Ribbon trout streams which include such excellent fisheries as Rock Creek, Gallatin, Yellowstone, Big Hole and Madison Rivers with parts of the Flathead and Missouri Rivers.

Virtually all of Montana's Blue Ribbon trout streams emanate on National Forest land. Although large segments of these streams are private or state-owned, the majority of the overall drainage complexes for these streams are administered by the Forest Service. It is these tributary streams that are of the utmost importance to the water quality and fish species recruitment of the Blue Ribbon trout streams of Montana. Thus, it is paramount that good land ethics be established within the National Forest watersheds if these fisheries are to remain at the present high quality condition. The supply of fish in any given area is dependent upon the quantity and quality of the available habitat.

A program of habitat management, rehabilitation projects, and monitoring the physical habitat and water quality is important in providing a sound management program.

Non-Game Species

Population levels are not known for most of the non-game species. It is generally believed that decreases in population levels are directly correlated with changes of habitat. Some species are believed to be decreasing on some Forests while others are either stable or may even be on the increase. Programs are needed to determine some of the unknowns. Supply information, especially in reference to numbers of animals and its habitat are included in the program for song birds, raptors, cavity nesters and sandhill crane.

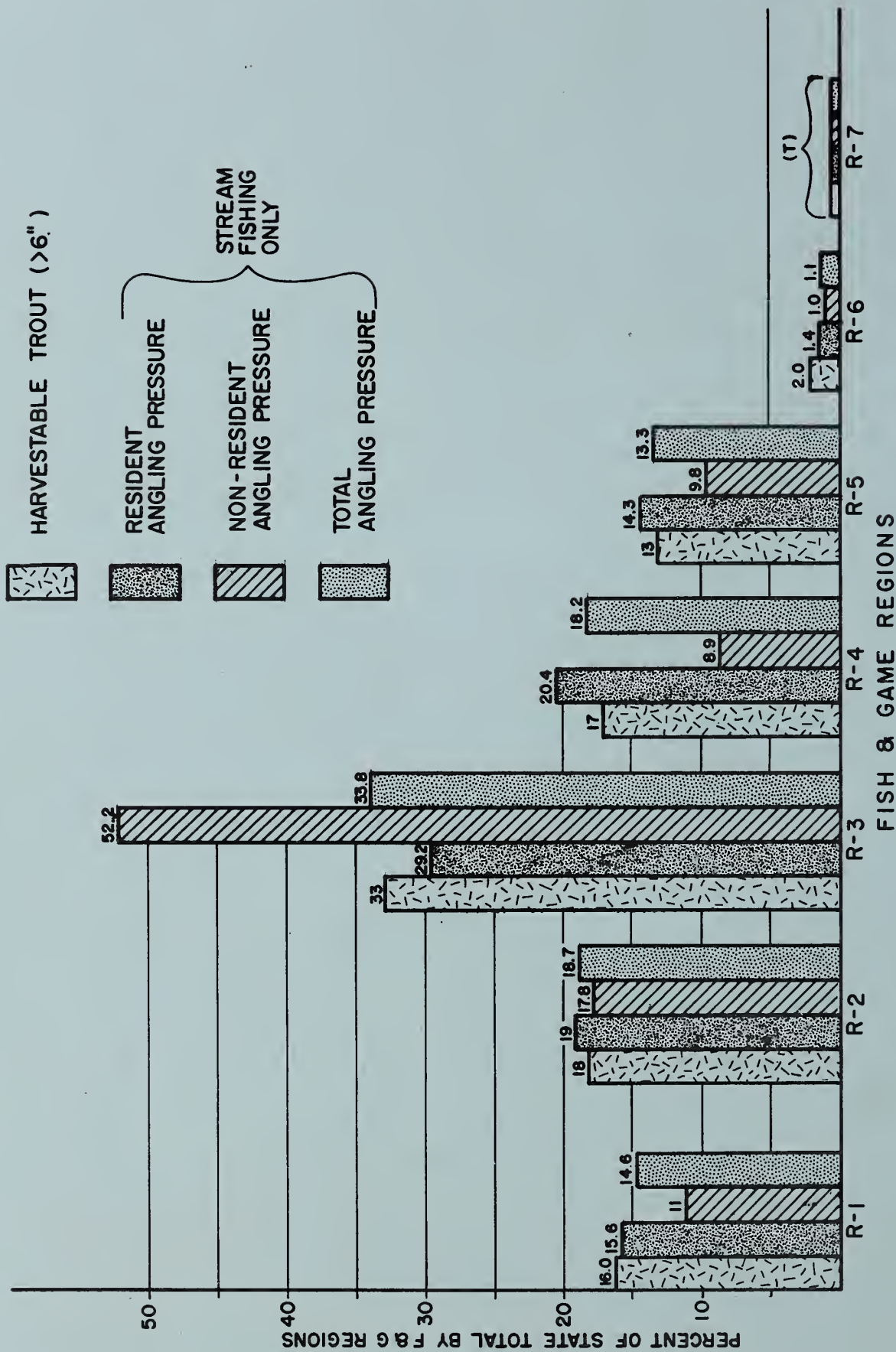
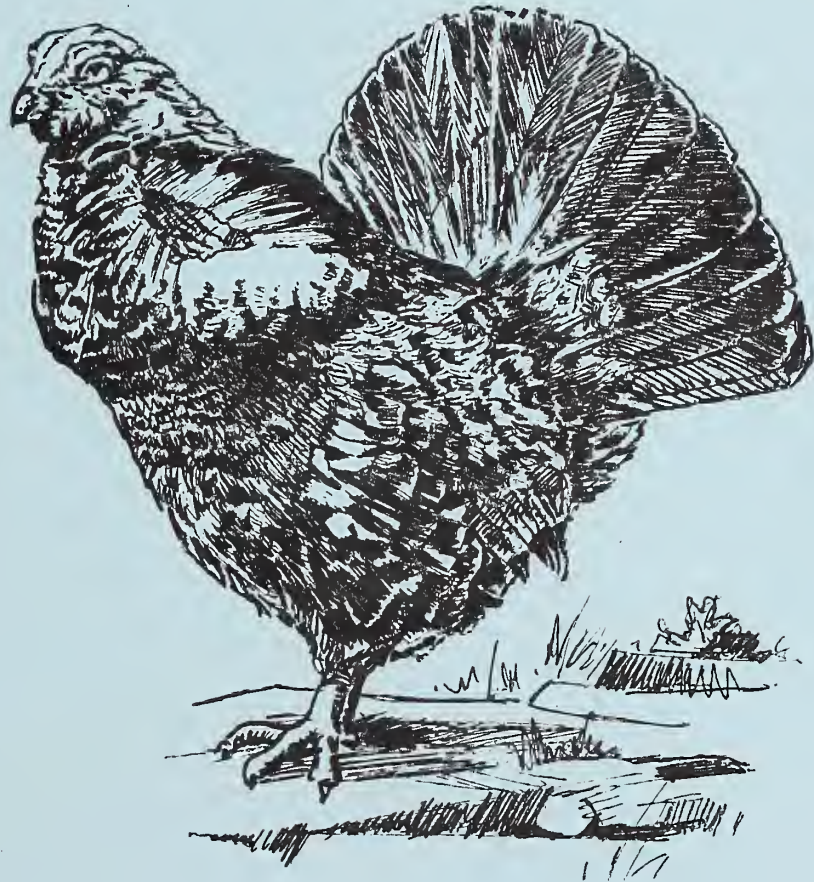


FIGURE 3. PERCENT OF HARVESTABLE TROUT, RESIDENT & NON-RESIDENT TROUT STREAM ANGLING PRESSURE BY MONTANA DEPT. OF FISH & GAME REGIONS see Figure 2 for Fish & Game Region - National Forest relationship

Upland Game Birds

Of the 10 species of upland game birds found in Montana, six are covered by project proposals. These are: blue grouse, ruffed grouse, spruce grouse, sage grouse, sharptail grouse and wild turkey.

Native grouse species; blue, spruce and ruffed are commonly found on National Forest lands in Montana. The Merriams turkey, sagehen and sharptail also are found on National Forest lands in southeastern Montana. Activities such as timber cutting and livestock grazing could have considerable impacts on these birds. Populations of native grouse occur in response to weather conditions. Supply data for upland game birds relative to numbers and distribution are rather limited. Population trends will remain static in the near future.



Furbearers

This plan includes project proposals for beaver, marten and lynx. The lynx, under legal Montana definition is not classified as a furbearing mammal; however, due to its present high fur and aesthetic values, it is being considered in this plan.

The population estimates and habitat trends are stable for beaver, marten and lynx. Some concern has been expressed over beaver habitat in eastern Montana.

Waterfowl

Montana is located in both the Central and Pacific flyways. Approximately 33,000 waterfowl hunters participated in this activity in 1975. The National Forests in Montana play a minor role in overall waterfowl breeding habitat and hunting areas. However, there are some excellent opportunities to manage and improve wetland habitat for nesting and production. Population trends for the Canada goose and mallard duck are generally stable in the western Forests.

Warm Water Fish

Warm water fish habitat is extremely limited in the National Forests of Montana. Most of these waters are confined to the Custer National Forest in the southeastern portion of the state. However, the potential does exist to impound waters and create habitat for black bass, crappie and sunfish. This demand is expected to increase in the next 10 to 15 years.

CAPABILITY

Capability is defined as the biological potential to sustain or increase a species. Estimates of capability have been made in Montana for the broad zones east and west of the Continental Divide. These estimates are based on analysis of the following factors:

1. Species adaptability as determined by preference or specificity to various habitat types.
2. Species vulnerability based on the use of one or more successional stages.
3. Current knowledge of limiting factors for the species.
4. Availability of proven management practices to enhance habitat.
5. Reproductive potential of the species.
6. Suitability of National Forest programs for habitat management.
7. Adaptability to multiple use management programs.

Subjective ratings were developed for each category by National Forest biologists in consultation with state biologists. Cumulative ratings were categorized as high, moderate or low capability (see Tables 3 and 4) which lists those species covered in this plan. The implication of this rating is the relative management emphasis to be given a species. For example, a species rated "high" capability offers a greater opportunity for more significant return than a species rated "moderate" or "low" capability.



Table 3.--Relative capability to increase supplies of wildlife and fish species for National Forest lands in western Montana is presented

High Capability	Moderate Capability	Low Capability
<p>Mule Deer White-tailed Deer Elk Shiras Moose Black Bear Mountain Lion</p> <p>Rainbow Trout Cutthroat Trout</p> <p>Blue Grouse Ruffed Grouse Spruce Grouse</p> <p>Marten Lynx</p>	<p><u>Endangered and Threatened</u></p> <p>No. Rocky Mtn. Wolf Grizzly Bear</p> <p><u>Big Game</u></p> <p>Bighorn Sheep Rocky Mtn. Goat</p> <p><u>Cold Water Fish</u></p> <p>Arctic Grayling Kokanee Lake Trout E. Brook Trout</p> <p><u>Non-Game</u></p> <p>American Kestrel</p> <p><u>Upland Game</u></p> <p>Merriams Turkey</p> <p><u>Furbearers</u></p> <p>Beaver</p> <p><u>Waterfowl</u></p>	<p>Peregrine Falcon</p> <p>Prairie Falcon Osprey Bald Eagle</p> <p>Canada Goose Mallard</p>

Table 4.--Relative capability to increase supplies of wildlife and fish species for National Forest lands in eastern Montana is presented

High Capability	Moderate Capability	Low Capability
<p>Mule Deer White-tailed Deer Elk Shiras Moose Black Bear</p> <p>Rainbow Trout Cutthroat Trout</p> <p>Blue Grouse Spruce Grouse Ruffed Grouse</p> <p>Sunfishes</p>	<p><u>Endangered and Threatened</u></p> <p>No. Rocky Mtn. Wolf Grizzly Bear</p> <p><u>Big Game</u></p> <p>Bighorn Sheep Rocky Mtn. Goat</p> <p><u>Cold Water Fish</u></p> <p>Lake Trout E. Brook Trout</p> <p><u>Non-Game</u></p> <p>Prairie Falcon American Kestrel Golden Eagle</p> <p><u>Upland Game</u></p> <p>Merriams Turkey</p> <p><u>Furbearers</u></p> <p>Marten Beaver</p> <p><u>Waterfowl</u></p> <p>Canada Goose</p> <p><u>Warm Water Fish</u></p> <p>Largemouth Bass Crappie</p>	<p>Peregrine Falcon Black-footed Ferret</p> <p>Arctic Grayling</p> <p>Osprey Bald Eagle</p> <p>Sage Grouse Sharptail Grouse</p> <p>Mallard Sandhill Crane</p>

PROGRAM

Program proposals are listed under eight broad species categories. A total of 240 projects are presented by the Forest Service and the Montana Department of Fish and Game.

<u>Species Category</u>	<u>No. Projects</u>
1. Endangered and Threatened	29
2. Big Game	106
3. Cold Water Fish	73
4. Non-game	10
5. Upland Game	9
6. Furbearers	5
7. Waterfowl	7
8. Warm Water Fish	1

Of the 240 total projects proposed in this plan, 96 are direct habitat improvements, 63 are census needs, 35 are access programs, 25 are research studies, 7 are livestock range needs and rehabilitation, 5 protection, 4 law enforcement, 3 live trapping and transplanting, and 1 propagation proposal. The projects submitted and included in table 5 are the result of cooperative efforts by the local personnel of the Montana Department of Fish and Game and the Forest Service. This 5-year program will be revised and updated annually to be current with the demands, supplies and capabilities.

TABLE 5 - 5 YEAR PROGRAM

ENDANGERED AND THREATENED SPECIES

Program	No. of Proj.	Forest	5 Yr. Cost Estimate					Outputs	M-days/Plans Benefits	Remarks
			1st. Yr.	2nd.	3rd.	4th.	5th.			
Research (Biol. data)	3	Fhd, Gal, Hel.	100,000	70,000	59,000	55,000	55,000	Mgmt P1 Rpt	Impvvd Mgmt	Grizzly Bear
Census	25	Bvhd, Brt, Dlg, Gal, Cus, Hel, Lolo, L&C, Koot.	231,000	153,000	144,000	109,000	84,000	Mgmt Plan Rpt	" "	Gr. Br, Wolf, Bl-footed Ferret, Peregrine Falcon
Hab. Mgt	1	Lolo	-	6,000	5,000	6,000	6,000	-	-	-
Totals	29		331,000	229,000	208,000	170,000	145,000			

TABLE 5 (CONT.)

BIG GAME

Program	No. of Proj.	Forest	5 Yr. Cost Estimate					5th.	Outputs	M-days/Plans Benefits	Remarks
			1st. Yr.	2nd.	3rd.	4th.					
Protection	5	Lolo, Gal, Dlg	13,000	4,000	6,000	6,000	2,000	23,000 Ac.	850 M-days	Fencing for Hab. Pro	
Research	12	Lolo, L&C, Cus, Koot, Fhd Brt	247,000	235,000	196,000	106,500	80,000	12 Res. Rpts		Better Mgmt.	
Census	14	All Mt. Forests	62,000	52,000	42,000	28,000	23,000	5 Plans and/or Rpts 362,000 Ac.			
Law Encfemt.	4	Dlg, Fhd,	80,000	75,000	75,000	72,500	72,500	Plan and Need for Rd Closure Enforcement			
Hab. Mgmt. (Seeding & Pltg. Prescribed Burning Protection Fencing Purchase & Other)	30	All Mt. Forests	247,000	476,000	412,000	153,000	155,000	- 3,000 Ac. 23,000 Ac. 40 Miles 65,000 Ac.	4 Plans	Rehabilitation of Winter Range	
Live Trap- ping & Transplanting	3	Lolo, Bvhd	12,000				8,000	1 Plan, 140 Big Horn Sheep for Estab. Popula.			
Regulated Take	1	Lolo	3,000	4,000	4,000			1 Hunting Unit Control			
Public Use Access & Cont.	30	Gal, Dlg, L&C	93,000	425,000	349,000	425,000	155,000	1 End of Road Facility 50 Miles Rd. Constructed 40 Miles Trail 775,000 Acres	Opened to Access 6500 Man-days		
Livestock Rge & Rehabilitation	7	Bvhd, Dlg, Hel, Gal, L&C	38,000	41,000	16,000	8,000	14,000	100 fence Openings for Big Game. 2 Improvements 4 Plans	200 Man-days		
Totals	106		795,000	1,312,000	1,100,000	799,000	509,500	1,251,000 Acres 26 Plans 152 Miles	7,550 M-days		

TABLE 5 (CONT.)

COLD WATER FISH

Program	No. of Proj.	Forest	5 Yr. Cost Estimate					Outputs	M-days/Plans Benefits	Remarks
			1st. Yr.	2nd.	3rd.	4th.	5th.			
Hab. Mgmt. (Barrier Removal Lake Stabiliz., " Constr., Hab. Imprvmt.)	48	Btr, Bvh, Cus, Gal, Hel, Fhd, Koot, L&C, Lolo	389,000	480,000	871,000	570,000	266,000	12,800 Ac.	185,000 M-days	
Census	13	Dlg, Koot, Fhd, Gal, Lolo, L&C.	53,000	41,000	55,000	25,000	15,000	3,700 Ac.	7,600 M-days	
Propagation	1	Lolo	-	-	1,000	1,000	2,000	5 Acres	500 M-days	Cutthroat Trout
Access	5	Gal, Hel, Lolo, L&C	85,000	109,000	14,000	26,000	4,000	168 Acres	7,000	
Research	6	Bvh, Fhd, Lolo	61,000	79,000	66,000	57,000	32,000	-	3,500 M-days	Guidelines
Totals	73		588,000	709,000	1,007,000	679,000	319,000	16,673 Ae.	20,360 M-days	

TABLE 5 (CONT.)

NONGAME

Program	No. of Proj.	Forest	5 Yr. Cost Estimate					Outputs	M-days/Plans Benefits	Remarks
			1st. Yr.	2nd.	3rd.	4th.	5th.			
Hab. Mgmt.	6	Gal, Koot Brt.	43,000	45,000	48,000	31,000	31,000	20 Nest Platforms 1 Mi. Trail 2 Mgmt Plans	Imp. Mgmt. Sandhill Crane & increase Hunting Success	Osprey, Bald Eagle
Research	1	Cus	18,000	18,000	17,500	500	500	1 Report	Improve Mgmt for Song Birds	
Census (Inventory)	3	Cus, Hel, Lolo	36,00	39,000	32,000	5,000	4,000	3 Reports	Imp. Mgmt for Raptors, cavity Nesters	
Totals	10		97,000	102,000	97,500	36,500	35,500	20 N. Platforms 1 Mi. Trail 2 Mgmt. Plans 4 Reports		

TABLE 5 (CONT.)

UPLAND GAME

Program	No. of Proj.	Forest	5 Yr. Cost Estimate					M-days/Plans		Remarks
			1st. Yr.	2nd.	3rd.	4th.	5th.	Outputs	Benefits	
Hab. Mgmt.	2	Bvhd, L&C	7,500	7,500	7,500	7,500	7,500	25 Ac. Fence & Springs 2 Reports	Inc.Hab.& Hunter Suc.	Mtn. Grouse
Census (Inventory)	1	Dlg	500	500	500	500	500	Provide Inventory		Mtn. Grouse
	1	L&C	6,000	6,000	2,000	500	500	1 Report		Merriam Turkey
	1	Cus	15,000	20,000	20,000	-	-	Improv.Hunting & 1 Mgmt. Plan		Sharptail Grouse
	4	Cus,Dlg, L&C,Bvhd	31,500	34,000	22,500	1,000	1,000	Impr. Mgmt & Huntg Success Repts., Mgmt. Guidelines		Mtn. Grouse, Turkey, Sharptail Grouse & Sage G.
Totals	9		60,500	68,000	52,500	9,500	9,500	25 Acres 4 Reports 4 Plans		

TABLE 5 (CONT.,)

FURBEARERS

Program	No. Proj.	Forest	5 Yr. Cost Estimate					Outputs	Benefits	Remarks
			1st. yr.	2nd.	3rd.	4th.	5th.			
Research (Hab. Relationship)	3	Bvhd, Hel, L&C	20,500	25,500	24,000	15,000	15,000	3 Reports	Imp. Mgmt & Guidelines	Beaver, Martin & Lynx
Census (Plans)	1	Gal	1,000	1,000	500	500	500	1 Mgmt. Plan	Impr. Mgmt.	Beaver
Hab. Mgmt. (Integration w/Other Programs)	1	Lolo	17,000	39,000	28,000	-	-	5,000 Ac. 1 Report	Impr. Mgmt.	Marten
Totals	5		38,500	65,500	52,500	15,500	15,500	4 Reports 1 Plan 5,000 Acres		

TABLE 5 (CONT.)

WATERFOWL

Program	No. Proj.	Forest	5 Yr. Cost Estimate					Outputs	Benefits	Remarks
			1st. yr.	2nd.	3rd.	4th.	5th.			
Hab. Mgmt.	5	Cus, Gal, Koot.	24,500	39,500	40,500	26,200	24,700		Increase Waterfowl Recreation Habitat Improvement	
	1	Lolo	-	-	2,000	2,000	6,000		Increase Rec. Hab. Impr for Geese	
	1	Lolo	-	-	3,000	2,000	2,000		Increase Rec. M-days and Habitat Improvement	
Totals	7		24,500	39,500	45,500	30,200	32,700	2,185 Acres 5,800 M-days		

TABLE 5 (CONT.)

WARM WATER FISH

Program	No. Proj.	Forest	5 Yr. Cost Estimate					Outputs	Benefits	Remarks
			1st. yr.	2nd.	3rd.	4th.	5th.			
Hab. Mgmt.	1	Cus.	1,000	1,000	100,000	500	500	25 Acres 1,000 M-days/Yr.	Construction of a Pond for Fishing & Other Recreation. (Black Bass, Crappies & Blue Gill)	
Totals	1		1,000	1,000	100,000	500	500	25 Acres 1,000 Man-days		

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