

Forage Extension Program

Wildlife Enhancement and Development

Habitat Management Suggestions for Selected Wildlife Species

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In Montana country, wildlife has been an essential part of human culture for at least 12,000 years. Prehistoric occupants hunted wild animals for food, and used the by-products for clothing, shelter, and tools. Beginning with the white man's culture, about 160 years ago, beaver pelts were important in commerce and were an inducement to the exploration and settlement of the mountainous West. Later, in the gold rush days following 1860, wild animals were a major, and frequently only, source of subsistence food. In modern times, game has become a major recreational, aesthetic and economic asset to Montana.

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Many wild animals have obviously survived to this point in history. Others have become extinct, or nearly so. The survivors have accomplished this by adaptation through millions of years of slowly changing geologic, climatic, vegetative, and genetic stages. Drastic modifications of the natural systems by man can, and have, resulted in disruptions of habitat capable of destroying the previously self-maintaining populations of wild animals. The rapid clearing of forests, drainage of swamps, damming of rivers, plowing of land, over-grazing of rangeland, and other artificial and drastic disruptions to land, water and plant complexes have severely affected the numbers and distribution of the native, wild occupants. Such rapid environmental changes are not consistent with the slow, natural biological limitation for adaptation inherent in wild animals. Therefore, hopes that the wildlife assets can survive as a peripheral or incidental by-product to domestic land and water uses may be only wishful thinking. Their ability to survive will depend upon their limited adaptability, preservation of vestiges of a natural, diversified environment, and the deliberate and knowledgeable application of suitable substitutes.

On public lands the utility of the wildlife resource as a recreational and economic asset contributing to human welfare has been reassessed. Administrative policy for public lands includes provisions for management specifically aimed at wildlife enhancement. Likewise, private land operators are discovering the social and economic advantages in supplementing their traditional agricultural products by accommodating and managing for harvestable game crops. Frequently only slight modifications in land use practices are required to insure optimum wildlife resources.

Improved range management for livestock, which encourages the growth of vigorous climax or sub-climax plant complexes, are beneficial to both livestock and wild animals. The variety of grasses, forbs, and shrubs frequently resulting from such management is consistent with maintaining proper soil moisture conditions, and also provides the seasonal food and cover requirements for both domestic and wild species. Diversified plant complexes also decreases the potential for competition between the various animal species, domestic and wild. The relationship of the various classes of animals to each other, and to the plants upon which they feed, may be highly variable and complex. Consequently positive recommendations regarding practices adaptable to all combinations of circumstances have limited practicality. For the purposes of this handbook, however, certain suggestions with general application will be summarized.

- Taller grasses provide better cover for wildlife than short grasses.
- Native brush species are an essential item for the survival of many wild species. Vigorous, palatable shrubs are especially required for the proper nutrition of wintering big animals and are used extensively by upland game birds during all seasons of the year for food and cover.
- Wildlife reacts favorable to a diversification of plant communities and species that provide a maximum variety of food and cover choices within a minimum area.
- Residual native grasses and forbs found in fence rows, on ditch banks, and within waste areas well interspersed with cultivated land or heavily grazed areas frequently mean the difference between no wildlife and abundant wildlife on agricultural lands.
- When planting to enhance habitat for wildlife, plant species contiguous to each other or in combinations that provide for seasonal variations in plant growth, maturity, and other food and cover qualities consistent with the seasonal requirements of the wildlife desired.
- When consistent with local or state weed laws or cultural practices, do not spray fence rows, ditch or stream banks, and other natural or waste areas with chemical herbicides. Existing areas of forbs, grasses, and shrubs are major sources of food, winter protection, and nesting cover for wildlife in
- Montana. Shrub growth on ditch and stream banks provide an efficient control on stream bank erosion and meandering at little or no cost to the landowner.
- Although proper grazing management of livestock is generally consistent with wildlife production, it may be necessary to provide additional seasonal protection to key areas and certain species of grasses, forbs, and shrubs for the benefit of wildlife.

Wildlife and Land Management

Wildlife is a product of the land. The presence or abundance of a particular species is directly related to the quality, diversity, and extent of its required habitat. Productive, well-managed agricultural lands have a tremendous potential to support vigorous wildlife populations as they provide the kinds and diversity of habitat elements needed by wildlife. Often, however, as intensity of agricultural use of farm and rangeland increases, diversity and other elements essential to wildlife are lost and abundance declines, species change, or wild animals that may have lived in harmony with farming become pests.

Wildlife responds to the way the land is managed. If a part of the landscape is managed in a way to benefit wildlife habitat, the response can be dramatic. Many land management practices that are beneficial to wildlife may, in turn, be beneficial to agricultural production and result in positive economic returns.

The importance of the role of Montana's farms and ranches in providing wildlife habitat should not be underestimated. Most of the pheasants, partridge, waterfowl, and antelope, and many of the deer and grouse in the state are found on agricultural crop and pasturelands comprising Montana's farms and ranches. There are many opportunities where farmers and ranchers can develop and implement land and water conservation practices that will result in needed control of the loss of soil and water, and, at the same time, greatly enhance those areas for wildlife production. Examples of the possible effects of various land management practices on wildlife, agricultural, and economic resources are given in the "Land Management Practices" Table.

Plant Species for Enhancing Wildlife Habitat Values

Many plant species useful in meeting food and cover needs of wildlife can be employed in windbreaks and other conservation plantings for soil and water conservation or simply to attract wildlife or enhance wildlife habitat on the farm or ranch. Examples of such plants and recommendations for their use are listed in the following tables:

Descriptions and Information on Adaptations, Establishment, Care and Wildlife uses of various Woody Plants

- Cover and food plants for upland game birds
- Cover and food plants for waterfowl
- Food plants for native grazing animals
- Shrubs and trees that provide cover and/or food for upland game, songbirds and other wildlife
- Grasses for use in streambank protection
- Shrubs for streambank protection