

Montana Sedimentary Plains (13,828,142 acres)



Figure 24. Montana Sedimentary Plains Focus Area

The gently sloping to rolling Montana Sedimentary Plains area contains scattered buttes and badlands. It sits on heavy clay soils and consists of mostly dry shrublands and mixed-grass prairies. It receives very little precipitation and is interspersed with woody draws that contain ponderosa pine, juniper, and snowberry. Agricultural practices can be found throughout the area that support many dryland native wildlife species such as antelope, mule deer, and greater sage-grouse.

Landscape Characteristics

This area includes plains and hills formed in residuum and alluvium from shale and sandstone. Some lacustrine sediments also occur. Elevations range from 2,100 to 4,150 feet. Drainage density is moderate. Mean annual precipitation ranges from 10 to 14 inches, with about 30 percent falling as snow. Soil temperature and moisture regimes are frigid and arctic ustic. The primary natural disturbances are fire and drought. Other important natural biotic disturbances include beaver activity in riparian areas and prairie dog complexes in grassland areas. Land use is predominantly livestock grazing with a small amount of dryland farming. The breakdown for land stewardship in the Montana Sedimentary Plains area is as follows:

U.S. Federal Agencies:	1,617,799 acres, or 11.7% of total area, which include:
BLM:	1,414,184 acres, or 10.2% of total area
USFS:	134,240 acres, or 1% of total area
USFWS:	10,934 acres, or less than 0.1% of total area
NPS:	680 acres, or less than 0.1% of total area
State Agencies:	792,405 acres, or 5.7% of total area

Tribal Lands: 566,427 acres, or 4.1% of total area
 Private: 10,822,908 acres, or 78.3% of total area
 County and City: 1,050 acres, or less than 0.1% of total area

Associated Habitats

Habitat	Habitat Tier	Percentage of Area
Xeric Shrub Grassland Associations	I	2.31
Moderate/High Cover Grasslands	I	2.42
Very Low Cover Grasslands	I	2.71
Agricultural Lands - Irrigated	III	2.86
Ponderosa Pine	II	4.52
Wetland and Riparian	I	4.64
Badlands	II	4.66
Sagebrush	I	6.77
Agricultural Lands - Dry	III	9.06
Mixed Xeric Shrubs	I	10.47
Low/Moderate Cover Grasslands	I	41.13

Note: A total of 91.54% of the Montana Sedimentary Plains area is represented; 8.46% is made up of a combination of other habitat types.

Associated Species of Greatest Conservation Need (Tier I Species)

There are a total of 346 terrestrial vertebrate species that are found within the Montana Sedimentary Plains Focus Area. Tier I species are listed below. All associations can be found in Table 28.

Amphibians: Northern Leopard Frog

Reptiles: Snapping Turtle, Spiny Softshell, Western Hog-nosed Snake, and Milksnake

Birds: Common Loon, Bald Eagle, Greater Sage-Grouse, Whooping Crane, Mountain Plover, Long-billed Curlew, Interior Least Tern, Black Tern, and Burrowing Owl

Mammals: Spotted Bat, Townsend’s Big-eared Bat, Black-tailed Prairie Dog, Meadow Jumping Mouse, Black-footed Ferret, Canada Lynx, and American Bison

Conservation Concerns & Strategies

Conservation Concerns	Conservation Strategies
Loss of habitat as a result of conversion of native prairie to agriculture	Policy-based approaches that encourage the conservation of natural communities, rather than support their conversion
	Support public and private conservation programs/activities that encourage and support private land use stewardship
	Increased cooperative efforts to maintain ecological features or processes on public, private, and tribal lands
Fragmentation of habitat due to fossil fuel exploration and development activities	Education and research on fossil fuel development and its impacts on natural landscape
	Work with corporations, land owners and other agencies to reduce impacts of exploration
Invasive or exotic plant species	Cooperative efforts to reduce the abundance of exotic plant species
Range or forest management practices	Support government and private conservation activities that encourage and support sustainable land management practices (example; rest and rotation schedules)
Streamside residential development	Develop statewide riparian best management principles
Disruption of natural disturbance processes, especially fire	Work with other agencies, tribes and private organizations to restore the natural disturbance processes

References

The Nature Conservancy. 2005. Unpublished report.

The Nature Conservancy. 1999. Ecoregional Conservation in the Northern Great Plains Steppe. Northern Great Plains Steppe Ecoregional Planning Team. 76 pp.

U.S. Fish and Wildlife Service. 2004. Conservation Focus Areas of the Great Divide: a vast region encompassing the Upper Missouri, Yellowstone and upper Columbia watersheds. Publisher: USFWS, Benton Lake Wildlife Refuge, Great Falls, MT. 77 pp.