### Montana Shale Plains (2,403,965 acres)



Figure 32. Montana Shale Plains Focus Area

Much of the Montana Shale Plains area can be considered mountain foothill terrain that contains many woody draws with ponderosa pine and cedar stands throughout.

## **Landscape Characteristics**

This subsection consists of dissected plains, hills, terraces, fans, and floodplains that formed in shale, siltstone, and sandstone. Elevations range from 1,500 to 3,500 feet. Drainage density is moderate to high. Mean annual precipitation ranges from 10 to 14 inches, with about 30 percent falling as snow. The soil temperature and moisture regimes are frigid and aridic ustic. Summers are dry. Primary natural disturbances are drought and erosion. Another important natural disturbance regime is prairie dog complexes. Land use is predominantly livestock grazing with some dryland farming. The breakdown for land stewardship in the Montana Shale Plains area is as follows:

U.S. Federal Agencies: 278,550 acres, or 11.6% of total area, which include:

BLM: 275,461 acres, or 11.5% of total area USFWS: 3,089 acres, or 0.1% of total area State Agencies: 158,889 acres, or 6.6% of total area Private: 1,965,538 acres, or 81.8% of total area

#### **Associated Habitats**

Habitat	Habitat Tier	Percentage of Area
Wetland and Riparian	1	2.46
Agricultural Lands - Dry	III	4.66
Xeric Shrub Grassland Associations	1	4.68
Moderate/High Cover Grasslands	1	5.04
Very Low Cover Grasslands	1	6.45
Badlands	II	8.04
Sagebrush	1	8.48
Mixed Xeric Shrubs	I	16.51
Low/Moderate Cover Grasslands	I	36.35

Note: A total of 92.67% of the Montana Shale Plains area is represented; 7.33% is made up of a combination of other habitat types.

## **Associated Species of Greatest Conservation Need (Tier I Species)**

There are a total of 307 terrestrial vertebrate species that are found within the Montana Shale Plains Focus Area. Tier I species are listed below. All associations can be found in Table 35.

Amphibians: Northern Leopard Frog

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

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

**Mammals:** 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
Invasive or exotic plant species	Cooperative efforts to reduce the
	abundance of exotic plant species
Disruption of natural disturbance	Work with other agencies, tribes and
processes or fire regimes	private organizations to restore the
	natural disturbance processes
Conversion of natural habitat to	Policy-based approaches that
croplands	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
Range or forest management practices	Support government and private conservation activities that encourage and support sustainable land management practices (example; rest and rotation schedules)

#### References

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.