

Regional Assessment of the Wisconsin Driftless Natural Division

Characteristics

The Wisconsin Driftless Natural Division is part of an area extending from the northwestern corner of Illinois into Iowa, Wisconsin and Minnesota that apparently escaped Pleistocene glaciation. Bordered by the Mississippi River Bottomlands on the west and characterized by rugged terrain that was originally mostly forested with some prairie, the division contains northern and pre-Ice Age relict species (e.g., Iowa Pleistocene snail), dolomite outcrops, hill prairies, extensive savannas, cool-water streams and caves. The Driftless area is so named because it has little or no "drift" - the sediments deposited across the remainder of northern and central Illinois by glaciers that bypassed this corner of the state. The rough, unglaciated terrain features wooded uplands, rolling hills, narrow valleys, numerous streams, springs, and cliffs and bluffs.

Major Habitat Types & Challenges

Streams (Galena, Plum and Apple River Systems): siltation, excessive nutrient loads, impacts from grazing, thermal degradation of coolwater streams; the Galena River below the city of Galena suffers from excessive erosion due to the channelization of the stream; increases in boat traffic, particularly jet skis, in narrow, highly erodible streams may be problematic

Forest - fragmentation and loss of forests from developments (e.g., subdivisions and houses) and other disturbances, insufficient oak regeneration due to fire suppression and other factors which has fostered invasion of sugar maple and other species, impacts from livestock grazing, impacts from exotic invasive species (bush honeysuckle, buckthorn, garlic mustard), exotic insect pests, excessive deer browse

Open woodland, Savanna - fragmentation, impacts from livestock grazing, impacts from exotic species (bush honeysuckle and buckthorn), excessive deer browse, woody species invasion or natural succession to forest due to fire suppression and other factors

Grassland - fragmentation, impacts from grazing, woody species invasion or natural succession to forest due to fire suppression and other factors

Cave - filling of sinkholes, groundwater contamination, degraded habitat in recharge areas

Primary Communities (dolomite cliffs, algific slopes) - disturbances to blufflands above cliffs, e.g., development, grazing, and logging

Opportunities

The Wisconsin Driftless Natural Division has a high proportion of its land in forest and grassland cover. Agriculture is the dominant land use with croplands and grasslands (mostly

pasture) combining for almost three-fourths of the land. Due to the rugged terrain, less farmland in this area are in row crops (32% of agricultural land compared to 70% statewide). Most of the forested areas are found on the slopes along rivers and streams. Several large tracts of upland forest and/or grassland habitat are protected by public ownership which facilitates landscape-scale management in cooperation with public and private partnerships. The Conservation Reserve Program has created tracts of warm-season grass plantings and tree plantings providing additional wildlife habitat and reducing erosion.

Management Guidelines

Landscapes

Forest - A net increase of 11,000 acres will achieve wildlife objectives. Riparian forests should be at least 2 times as wide as the adjacent stream for all drainages. Forests should grade into open woodland or savanna habitats on adjacent uplands. Forested blocks of at least 500 acres should be inventoried and prioritized for addition or linking to other forests blocks. Encourage sound management practices to promote healthy upland forests through landowner education/assistance, prescribed burning, timber stand improvements, and exotics control (mechanical, chemical, or fire).

Open Woodland, Savanna - Increase by 4,000 acres. Savanna or open woodland habitats should be encouraged in all isolated woodlots under 15 acres in size. Encourage sound management practices to promote healthy upland forests through landowner education/assistance, prescribed burning, timber stand improvements, and exotics control (mechanical, chemical, or fire).

Grassland - On highly erodible farm land, terraces should be encouraged, and grass waterways planted in the valleys. Enhance the quality of existing pastures and idle grasslands with fescue conversion, improved grazing practices, prescribed fire, soil disturbance and other techniques. Protect, restore and encourage sound management to maintain and increase the extent of prairie remnants and hill prairies to historic boundaries through landowner education and assistance, prescribed burning, selective woody vegetation removal and invasive species control (mechanical, chemical, or fire).

Streams - Livestock should be fenced away from the stream, and should be watered using single, small "cattle crossings" or alternate water sources. Riparian habitat (forest, open woodland or grassland, as site-appropriate) should be at least 2 times as wide as the adjacent stream for all drainages.

Caves - Protect and manage forest and savanna habitat in cave recharge areas.

Natural communities

High-gradient coolwater streams, upland forest, sand prairie, dolomite prairie, loess hill prairie, sand hill prairie, savanna, sand savanna, sedge meadow, spring seepages, high-gradient creek, dolomite cliff, cave, algific slope

Critical species

Insects - Gorgone checkerspot (*Chlosyne gorgone*), prairie walking stick (*Diaperomera velii*), leafhopper (*Polyamia herbida*), leafhopper (*Polyamia obtecta*), Edward's hairstreak (*Satyrium edwardsii*), leafhopper (*Scaphytopius cinereus*), lead plant flower moth (*Schinia lucens*), regal fritillary (*Speyeria idalia*)

Crustaceans - Iowa Pleistocene snail, Iowa amphipod

Mussels - slippershell mussel, black sandshell

Fish - longnose dace, largescale stoneroller, Ozark minnow, brook trout

Amphibians - four-toed salamander

Reptiles - timber rattlesnake, lined snake

Birds - upland sandpiper, loggerhead shrike, cerulean warbler

Mammals - bobcat

Emphasis Game Species

Smallmouth bass, brown trout, walleye, white-tailed deer, wild turkey

Nongame Indicator Species

Stream - northern hogsucker, southern redbelly dace, honeyhead chub, suckermouth minnow, northern hogsucker, spotted sucker

Grassland - grasshopper sparrow, Henslow's sparrow, lark sparrow, savannah sparrow, dickcissel, bobolink, western meadowlark, eastern meadowlark

Forest - veery, ovenbird, scarlet tanager, wood thrush

Recreational Opportunities

In addition to the excellent smallmouth bass fishery, the Apple River is stocked each spring with adult size rainbow trout as a "put and take" fishery. Canoeing is popular in the Galena River to the mouth at the Mississippi River. Apple River Canyon State Park and Mississippi Palisades State Park provide camping, hiking, bird watching, hunting, and other activities.

Hunting for upland game, deer, wild turkey; ecotourism - wildlife viewing, particularly bird watching, in forested block areas such as Mississippi Palisades and Hanover Bluff

Educational/Interpretive

U.S. Fish & Wildlife Service's Mississippi River Interpretive Center, Lost Mound Unit and Visitor Center, Apple River Canyon State Park, Mississippi Palisades State Park. The Boy Scout's Ulysses S. Grant Pilgrimage attracts thousands of scouts to the Galena area in late April. The U.S. Army Corps of Engineers maintains wildlife viewing areas at the Lock and Dams along the Mississippi River. The Mississippi River Aquarium & Museum in Dubuque has fish, wildlife and historical displays relating to the Mississippi River.

Natural Resource Commodities

Highlighting the recreational aspects of the area, especially the excellent fishing opportunities, helps to focus attention on the streams in the area, and encourages local citizens to protect the streams. White-tailed deer and wild turkey hunting opportunities are important, as are forest products.

Conservation Opportunity Areas

Lost Mound - Hanover Bluff - Mississippi Palisades

Protected Lands: Upper Mississippi River National Fish & Wildlife Refuge - Lost Mound unit, Hanover Bluff Nature Preserve, Mississippi Palisades State Park

Conservation Philosophy: Restoration of the continuum of riverine (Mississippi River bottomlands), prairie (Lost Mound), and upland forest (Hanover Bluff, Mississippi Palisades) as an ecosystem landscape. Protect, manage, and restore the natural communities of the sites.

Partners: U.S. Fish & Wildlife Service, Illinois Department of Natural Resources, The Friends of the Depot, The Prairie Enthusiasts, The Nature Conservancy, Jo Daviess Natural Areas Guardians, Driftless Area Partnership, Natural Land Institute, Jo Daviess Conservation Foundation, Blufflands Alliance, National Wild Turkey Federation, Illinois Nature Preserves Commission

* See also Upper Mississippi River and Illinois River Bottomlands and Illinois River and Mississippi River Sand Areas natural divisions.

Wisconsin Driftless Forest

Protected Lands: Witkowsky State Wildlife Area, Winston Tunnel, Tapley Woods

Priority resources: extensive oak-hickory forests, open woodland/savanna, and primary communities

Conservation Philosophy - Protect, manage, and restore the natural communities of the

site and provide for compatible recreational activities.

Partners - Illinois Department of Natural Resources, National Wild Turkey Federation, Jo Daviess Natural Areas Guardians, The Prairie Enthusiasts, Jo Daviess Natural Areas Guardians, Driftless Area Partnership, Natural Land Institute, Jo Daviess Conservation Foundation, Blufflands Alliance, The Nature Conservancy

Apple River

Protected Lands - Apple River Canyon State Park, McKeague Nature Preserve, Thompson Prairie Nature Preserve, Salem Unit, and protected lands of the Lost Mound-Hanover Bluff-Mississippi Palisades Conservation Opportunity Area (see above) along the lower Apple River

Priority Resources - coolwater streams and fishes, freshwater mussels, primary habitats; Trout Unlimited's nascent Driftless Area Restoration Initiative recognizes the need for restoration of hydrologic function, condition, and aquatic populations to coolwater streams, and the opportunity of broad scale interest in brook trout stream restoration within the Driftless area.

Conservation Philosophy - protect, manage and restore the natural communities of the area and provide for compatible recreational activities. Restore the continuum of the Upper Apple River Illinois Natural Areas Inventory site (coolwater stream with significant primary communities and associated wildlife habitats) to the Lower Apple River Illinois Natural Areas Inventory site (mussel beds, bottomland habitat and significant cultural sites) and the Lost Mound-Hanover Bluff-Mississippi Palisades Conservation Opportunity Area

Partners - The Prairie Enthusiasts, Jo Daviess Conservation Foundation, Trout Unlimited, The Nature Conservancy, Jo Daviess Natural Areas Guardians, Driftless Area Partnership, Natural Lands Institute, Blufflands Alliance, National Wild Turkey Federation, Illinois Department of Natural Resources, U.S. Fish & Wildlife Service

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