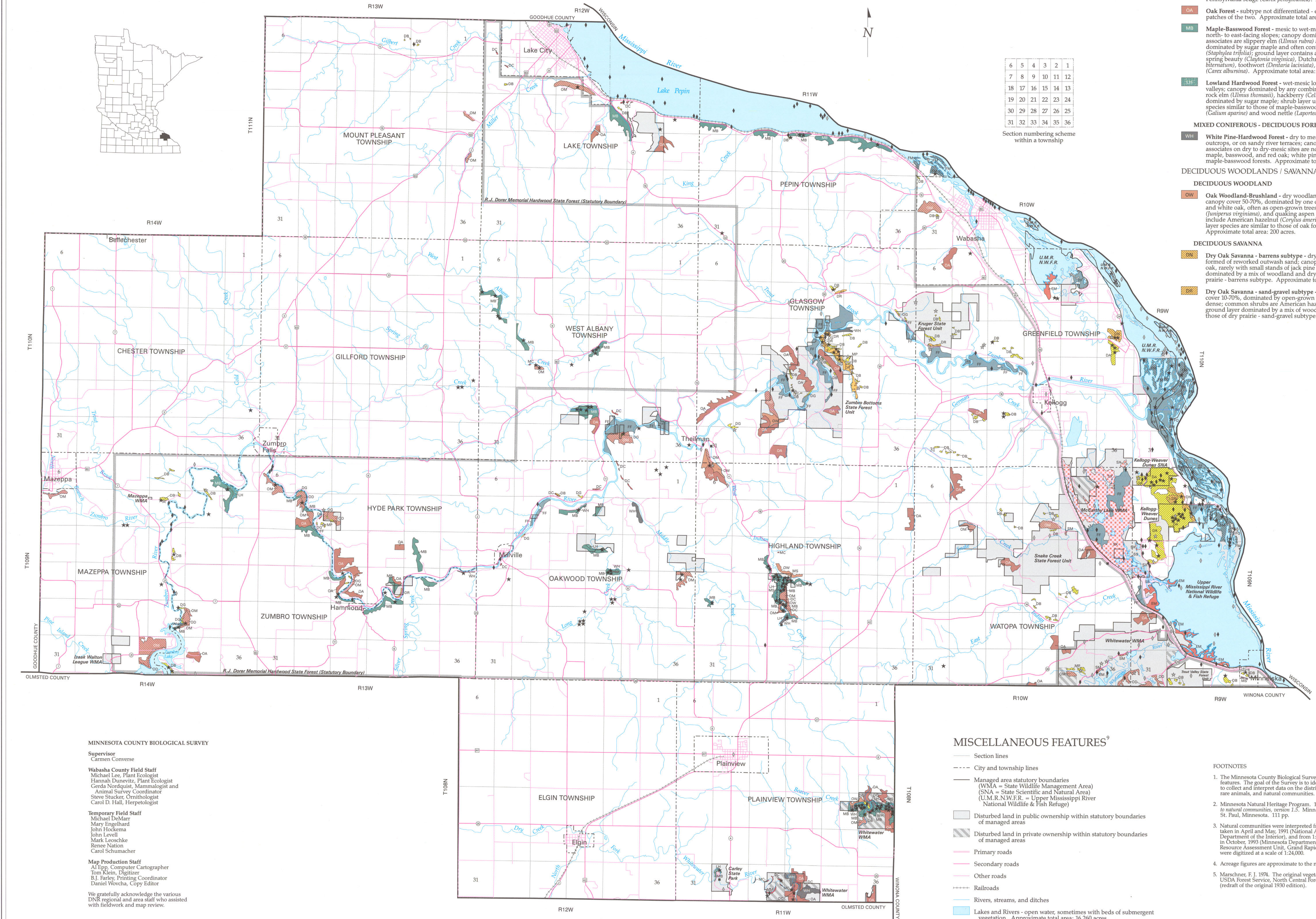
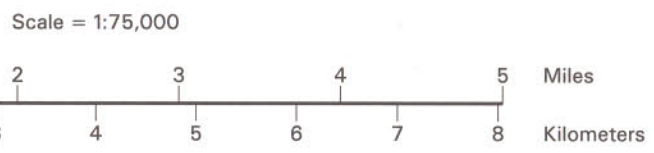


NATURAL COMMUNITIES AND RARE SPECIES OF WABASHA COUNTY, MINNESOTA

by the
Minnesota County Biological Survey¹



MISCELLANEOUS FEATURES⁹

- Section lines
- City and township lines
- Managed area statutory boundaries (WMA = State Wildlife Management Area; SNA = State Scientific and Natural Area; U.M.R.N.W.F.R. = Upper Mississippi River National Wildlife & Fish Refuge)
- Disturbed land in public ownership within statutory boundaries of managed area
- Disturbed land in private ownership within statutory boundaries of managed areas
- Primary roads
- Secondary roads
- Other roads
- Railroads
- Rivers, streams, and ditches
- Lakes and Rivers - open water, sometimes with beds of submerged vegetation. Approximate total area: 16,260 acres.

FOOTNOTES

- The Minnesota County Biological Survey is a systematic survey of rare biological features. The goal of the Survey is to identify significant natural areas and to collect and interpret data on the distribution and ecology of rare plants, rare animals, and natural communities.
- Minnesota Natural Heritage Program. 1993. *Minnesota's native vegetation: A key to natural communities*, version 1.5. Minnesota Department of Natural Resources, St. Paul, Minnesota. 111 pp.
- Natural communities were interpreted from 1,400-color infrared photography taken in April and May, 1991 (National Aerial Photography Program, U.S.G.S., U.S. Department of the Interior), and from 1:5,840 color infrared photography taken in October, 1991 (Minnesota Department of Natural Resources, Division of Forests, Resource Assessment Unit, Grand Rapids, Minnesota). Natural community boundaries were digitized at a scale of 1:50,000.
- Area figures are approximate to the nearest ten acres.
- Marchand, F. J. 1971. The original vegetation of Minnesota (map, scale 1:500,000). USDA Forest Service, North Central Forest Experiment Station, St. Paul, Minnesota (reprint of the original 1920 edition).
- Data are available from the Minnesota Natural Heritage Information System, Department of Natural Resources, St. Paul, Minnesota. Phone (612) 296-2835.
- Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.). Minnesota Statutes, section 84.0895, and Minnesota Rules, Parts 6122.1000 to 6122.2200. Additional information on rare species is available in *Minnesota's Endangered Flora and Fauna*, edited by R. Coffin and L. Plummer, University of Minnesota Press, Minneapolis, 1988.
- These species were listed under the provisions of the Minnesota Endangered Species Statute when the Minnesota County Biological Survey was conducted in the county. New information on their distribution and abundance has since resulted in their removal from the state list.
- Civil division, transportation, water features, and managed area boundaries data were obtained from the Department of Natural Resources, St. Paul, Minnesota. Every effort was made to obtain current versions of these data, however, errors may exist on this map. Land ownership within managed areas is sometimes obscured by natural community map units.

NATURAL COMMUNITIES

Natural communities are groups of native plants and animals that interact with each other and their abiotic environment in ways not greatly altered by modern human activity or by introduced organisms. These groups of native species form recognizable units, such as an oak forest, or a prairie, or a marsh. Natural communities are generally classified and described by considering vegetation, hydrology, landforms, soils, and natural disturbance regimes. The natural community types and subtypes on this map are classified primarily by vegetation and major habitat features. The Minnesota County Biological Survey located areas of natural communities in Wabasha County from 1991 to 1996 using aerial photo interpretation followed by field survey of selected sites. The description and approximate acreage of each natural community type and subtype given below are based on the results of the Survey. While the light gray areas on the map represent land where modern human activities such as farming, overgrazing, non-sustainable logging, draining, and residential and commercial development have destroyed or greatly altered the natural vegetation. Natural communities covered approximately 12,490 acres, or 3.7% of the land area of Wabasha County at the time of the Survey.

UPLAND FORESTS

DECIDUOUS FOREST

- DM Oak Forest - mesic subtype** - dry-mesic to mesic forests on loess, colluvium, or outwash, often on north- to east-facing slopes and broad ridge crests; canopy dominated by one or more oak species, usually including red oak (*Quercus rubra*); other important oak species are northern pin oak (*Quercus elipoidalis*), white oak (*Quercus alba*), and bur oak (*Quercus macrocarpa*); common associated or codominant canopy species include basswood (*Tilia americana*), black cherry (*Prunus serotina*), and paper birch (*Betula papyrifera*); common subcanopy and shrub-layer species include ironwood (*Ostrya virginiana*), bitternut hickory (*Carya cordiformis*), and occasionally sugar maple (*Acer saccharum*); ground layer dominated by summer-blooming species such as pointed-leaved tick-trefoil (*Desmodium illinoense*), wild geranium (*Geranium maculatum*), honeysuckle (*Lonicera canadensis*), sweet cicely (*Osmorhiza clypeolata*), and white snakeroot (*Eupatorium rugosum*). Approximate total area: 970 acres.

- DO Oak Forest - dry subtype** - dry forests on outwash, colluvium, or loess, often on south- to west-facing slopes; canopy dominated by one or more oak species, including northern pin oak, black oak (*Quercus velutina*), and bur oak; common canopy associates include white oak, black cherry, and occasionally shagbark hickory (*Carya alba*); ground layer dominated by summer-blooming species such as elm-leaved goldenrod (*Solidago ulmifolia*), woodland sunflower (*Helianthus divaricatus*), shining bedstraw (*Galium cuneatum*), and Pennsylvania sedge (*Carex pensylvanica*). Approximate total area: 310 acres.

- DA Oak Forest** - subtype not differentiated - either intermediate between mesic and dry oak forest, or composed of patches of the two. Approximate total area: 2,180 acres.

- DM Maple-Basswood Forest** - mesic to wet-mesic forests on colluvium, loess, or alluvium, most often on steep north- to east-facing slopes; canopy dominated by sugar maple, basswood, and red oak; common canopy associates are slippery elm (*Ulmus rubra*) and black ash (*Fraxinus nigra*); subcanopy and shrub layer usually dominated by sugar maple and often contain blue beech (*Carpinus caroliniana*), ironwood, and bladder-nut (*Staphylea trifolia*); ground layer contains a diverse assemblage of spring-blooming species including Virginia spring beauty (*Claytonia virginica*), Dutchman's breeches (*Thalictrum occidentale*), false rue-anemone (*Thalictrum flavum*), toothwort (*Dentaria laciniata*), white trout-lily (*Erythronium albidum*), and white-bear sedge (*Carex albiventer*). Approximate total area: 1,600 acres.

- DL Lowland Hardwood Forest** - wet-mesic lowland forests on rich alluvial soil above normal flood levels in small valleys; canopy dominated by a combination of basswood, black ash, American elm (*Ulmus americana*), rock elm (*Ulmus rupestris*), hackberry (*Celtis occidentalis*), bur oak, and sugar maple; subcanopy often dominated by sugar maple; shrub layer usually poorly developed; ground layer contains spring-blooming species similar to those of maple-basswood forests but becomes dominated later in the season by cleavers (*Gallium aparine*) and wood nettle (*Laportea canadensis*). Approximate total area: 160 acres.

MIXED CONIFEROUS - DECIDUOUS FOREST

- DM White Pine-Hardwood Forest** - dry to mesic forests on steep slopes, often associated with cliffs and bedrock outcrops, or on sandy river terraces; canopy dominated by white pine (*Pinus strobus*), American elm (*Ulmus americana*), sugar maple, basswood, and red oak; white pine is often the only species that distinguishes this type from oak and maple-basswood forests. Approximate total area: 240 acres.

DECIDUOUS WOODLANDS / SAVANNAS

DECIDUOUS WOODLAND

- DM Oak Woodland-Brushland** - dry woodlands on loess, colluvium, and outwash on south- to west-facing slopes; canopy cover 50-70%, dominated by one or more oak species including black oak, northern pin oak, bur oak, and white oak, often as open-grown trees; common canopy associates are paper birch, eastern red cedar (*Juniperus virginiana*), and quaking aspen (*Populus tremuloides*); shrub layer often dense; common shrubs include American hazelnut (*Corylus americana*) and gray dogwood (*Cornus florida* ssp. *racemosa*); ground-layer species are similar to those of oak forest - dry subtype; scattered prairie openings often present. Approximate total area: 200 acres.

DECIDUOUS SAVANNA

- DM Dry Oak Savanna - barrens subtype** - dry savannas on the Mississippi River floodplain on rolling dunes formed of reworked outwash sand; canopy cover 10-70%, dominated by open-grown black oak and northern pin oak, rarely with small stands of jack pine (*Pinus banksiana*); shrub layer patchy to dense; ground layer dominated by a mix of woodland and dry prairie forbs and graminoids; prairie species include those of dry prairie - barrens subtype. Approximate total area: 160 acres.

- DM Dry Oak Savanna - sand-gravel subtype** - dry savannas on outwash terraces of the Zumbro River; canopy cover 10-70%, dominated by open-grown northern pin oak, bur oak, and black oak; shrub layer patchy to dense; common shrubs are American hazelnut, blackberries (*Rubus* spp.), and smooth sumac (*Rhus glabra*); ground layer dominated by a mix of woodland and dry prairie forbs and graminoids; prairie species include those of dry prairie - sand-gravel subtype. Approximate total area: 180 acres.

PRAIRIES

UPLAND PRAIRIE

- DM Dry Prairie - barrens subtype** - dry prairies on the Mississippi River floodplain on rolling dunes formed of reworked outwash sand; common graminoids include little bluestem (*Schizachyrium scoparium*), June grass (*Eriogonum fasciculatum*), Indian grass (*Sorghastrum nutans*), side-oats grama (*Bouteloua curtipendula*), and hairy grama (*Bouteloua hirsuta*); common forbs include gray goldenrod (*Solidago nemoralis*), cylindric blazing star (*Liatris cylindrica*), downy paintbrush (*Castilleja spiculifera*), sky aster (*Aster sericeus*), purple prairie-clover (*Trifolium purpureum*), and prairie bed-foot violet (*Viola pedicularis*); lead-plant (*Ampelopsis canadensis*) is a common shrub. Approximate total area: 280 acres.

- DM Dry Prairie - bedrock bluff subtype** - dry prairies on thin loess over bedrock on steep south- to west-facing bluffs; rock outcrops frequent; common graminoids include little bluestem, plains muhly (*Muhlenbergia capillaris*), Indian grass (*Sorghastrum nutans*), side-oats grama (*Bouteloua curtipendula*), and hairy grama (*Bouteloua hirsuta*); common forbs include gray goldenrod (*Solidago nemoralis*), cylindric blazing star (*Liatris cylindrica*), downy paintbrush (*Castilleja spiculifera*), sky aster (*Aster sericeus*), purple prairie-clover (*Trifolium purpureum*), and prairie bed-foot violet (*Viola pedicularis*); lead-plant (*Ampelopsis canadensis*) is a common shrub. Approximate total area: 280 acres.

- DM Dry Prairie - sand-gravel subtype** - dry prairies on outwash terraces (with gravel fraction > 10%) along the Zumbro River; common graminoids include little bluestem, porcine grass, side-oats grama, big bluestem (*Andropogon gerardii*), and slender nut-sedge (*Cyperus lupulinus*); common forbs include prairie larkspur (*Delphinium bicolor*), early buttercup (*Ranunculus flammula*), western spiderwort (*Thalictrum occidentale*), Drummond's rock-ress (*Arabis drummondii*), Indian paintbrush (*Castilleja coccinea*), and bluests (*Hesperis longifolia*). Approximate total area: 50 acres.

- DM Mesic Prairie** - dry-mesic prairies on loess on broad ridge crests and alluvial terraces; common graminoids include big bluestem, Indian grass, and little bluestem; common forbs include gray-headed coneflower (*Rudbeckia hirta*), stiff goldenrod (*Solidago rigida*), white prairie-clover (*Trifolium pratense*), wild bergamot (*Monarda didyma*), Dutchman's breeches (*Thalictrum occidentale*), and Canada tick-trefoil (*Desmodium canadense*). Approximate total area: 30 acres.

FORESTED WETLANDS

FLOODPLAIN FOREST

- DM Floodplain Forest - silver maple subtype** - lowland forests on alluvium on river bottoms flooded for weeks at a time during seasonal high water; canopy dominated by silver maple (*Acer saccharum*); other canopy associates include river birch (*Betula nigra*) and green ash (*Fraxinus pensylvanica*); subcanopy and shrub layer generally absent; ground layer typically sparse and composed of few species; often restricted to seedlings of silver maple. Approximate total area: 650 acres.

- DM Floodplain Forest - swamp white oak subtype** - lowland forests on river bottoms along the Mississippi River, flooded only during very high water; canopy dominated by swamp white oak (*Quercus bicolor*); subcanopy and shrub layer generally absent; ground layer typically sparse and composed of few species; often restricted to seedlings of swamp white oak. Approximate total area: 100 acres.

- DM Floodplain Forest** - subtype not differentiated - lowland forests on alluvium on river bottoms usually flooded for only a few days at a time during seasonal high water; canopy dominated by a combination of silver maple, cottonwood, peach-leaved willow (*Salix amygdaloides*), and black willow (*Salix nigra*), often with basswood, American elm, rock elm, and green ash; shrub layer poorly developed; common ground-layer species include wood nettle, tall coneflower (*Rudbeckia laciniata*), hornwort, blue phlox (*Phlox divaricata*), Virginia bluebells (*Campanula virginiana*), and eastern narrowleaf sedge (*Carex amphibia* var. *turgida*). Approximate total area: 2,460 acres.

HARDWOOD SWAMP FOREST

- DM Mixed Hardwood Swamp** - seepage subtype - lowland forests on saturated soil in groundwater seepage areas at bases of slopes on narrow valley floors; canopy dominated by black ash with a mix of other lowland hardwood species including basswood, bur oak, and elm; shrub layer poorly developed; ground layer contains a very diverse assemblage of herbs, many restricted to seepage areas, including skunk cabbage (*Sagittaria arifolia*), marsh-marigold (*Galium palustre*), false nettle (*Lamium maculatum*), smooth-leaved sedge (*Carex lasiocarpa*), and low manna grass (*Cyperus stratus*). Approximate total area: 30 acres.

SHRUB WETLANDS

SHRUB SWAMP

- DM Shrub Swamp** - wet shrub communities bordering mixed emergent marshes and wet meadows along old channels of the Zumbro River; shrub cover > 70%, dominated by willows (*Salix* spp.), red-osier dogwood (*Cornus sericea*), and speckled alder (*Alnus incana*); graminoids and forbs are those typical of wet meadows or mixed emergent marshes. Approximate total area: 130 acres.

OPEN WETLANDS

EMERGENT MARSH

- DM Mixed Emergent Marsh** - open wetlands along stream margins or in river backwaters on floodplains of the Mississippi River and its tributaries; standing water present throughout most of the growing season; dominant species vary but often include distinct zones of broad-leaved cattail (*Typha latifolia*), river bulrush (*Scirpus flaccidulus*), broad-leaved arrowhead (*Sagittaria latifolia*), and occasionally giant bur-reed (*Sparganium angustifolium*). Approximate total area: 360 acres.

WET MEADOW / FEN

- DM Wet Meadow** - open wetlands occurring as dense mats of floating vegetation in old channels of the Zumbro River; dominated by graminoids including lake sedge (*Carex lasiocarpa*), tussock sedge (*Carex stricta*), brittle sedge (*Carex canadensis*), and giant bur-reed; common forbs include tall loosestrife (*Lythrum hyssagifolium*), spotted Joe-pye weed (*Eupatorium maculatum*), northern marsh fern (*Thelypteris palustris*), common milk (*Mentha arvensis*), and Labrador bedstraw (*Galium labradoricum*); species more typical of rich fens, including prairie sedge (*Carex praeux*), sage-loved willow (*Salix candida*), and bog birch (*Betula glandulifera*), are occasional. This type mapped only as a component of the meadow-marsh-swamp complex (see below).

- DM Seepage Meadow** - open wetlands on organic soil in areas of continuous groundwater discharge at bases of bluffs and river terraces; dominated by graminoids, most often including tussock sedge, beaked sedge (*Carex rostrata* var. *utricularia*), brittle sedge, hairy-fruited sedge (*Carex richarsonii*), rice cut-grass (*Leersia oryzoides*), and low manna grass; common forbs include swamp saddlebag (*Scirpus perfoliatus*), rough bedstraw (*Galium aparine*), marsh-marigold, and spotted touch-me-not (*Impatiens capensis*). Approximate total area: 10 acres.

PRIMARY COMMUNITIES

- DM Dry Cliff** - dry communities generally on south- to west-facing dolomite or sandstone cliffs; lichens often common; vascular plants sparse, but include smooth cliff-brake (*Pellaea glabella*), harebell (*Campanula rotundifolia*), cliff goldenrod (*Solidago scirpifolia*), slender lip-fern (*Cheilanthes foen*), columbine (*Aquilegia canadensis*), and species typical of adjacent dry prairies, such as plains muhly. Approximate total area: 50 acres.

- DM Moist Cliff** - moist to wet communities on north- to east-facing dolomite or sandstone cliffs; mosses, liverworts, and lichens common; vascular plants include bullet fern (*Cystopteris bulbifera*), slender cliff-brake (*Cyrtopteris dielsii*), columbine, jeweled shooting star (*Docletanthus amurensis*), and species typical of adjacent mesic forests, such as milkwort (*Millettia diphylla*). Approximate total area: 10 acres.

- DM Moist Cliff - moderate subtype** - moist to wet communities on north-facing dolomite cliffs associated with tributaries of the Whitewater River; restricted to areas continuously cooled by air draining through ice-filled caves and fissures beneath the rock face; often heavily moss-covered, with liverworts and lichens common; vascular plants include those of moist cliffs; cool microhabitat supports relict populations of rare land snail and plant species that were more widespread in the region during the Pleistocene epoch when the climate was cooler. Approximate total area: 10 acres.

- DM Talus Slope - alpine subtype** - wet-mesic communities on dolomitic talus on steep north-facing slopes along tributaries of the Whitewater River; restricted to areas continuously cooled by air draining through ice-filled caves and fissures beneath the talus; often heavily moss-covered; vascular plants species uncommon in southeastern Minnesota, such as mountain maple (*Acer glabrum*), yellow birch (*Betula alleghaniensis*), moschate (*Adiantum musciculatum*), and swamp sagittaria; cool microhabitat supports relict populations of rare land snail and plant species that were more widespread in the region during the Pleistocene epoch when the climate was cooler. Approximate total area: 5 acres.

NATURAL COMMUNITY COMPLEXES

- DM Meadow-Marsh-Swamp Complex** - mosaic of wet meadow, emergent marsh, and shrub swamp in old channels of the Zumbro River near its confluence with the Mississippi River; wet meadow often occurs as dense sedge mat floating on 2-5 feet of water; emergent marsh occurs in areas where mat has disintegrated and around margins of open water; both types grade into shrub swamp. Approximate total area: 1,450 acres.

RARE SPECIES AND ANIMAL AGGREGATIONS

Locations of rare plants, rare animals, and selected animal aggregations are maintained in the Natural Heritage Information System. The following rare species and animal aggregations have been found in Wabasha County and locations include both historical records and Minnesota County Biological Survey field results. Most Minnesota County Biological Survey plant and animal surveys were done from 1993 to 1996. Most rare species are protected under the provisions of the Federal Endangered Species Act or the Minnesota Endangered Species Statute and associated Rules. An asterisk (*) indicates that no recent observation (1970-1996) of that species has been confirmed. A dagger (†) indicates that the species has been documented in the county but its exact location is unknown.

Plants, federally- or state-listed

- Moschatel (*Adonis moschatellina*)
- Round-stemmed false foxglove * † (*Aureolaria anemoneifolia*)
- Ses-beach needlergrass (*Andropogon scoparius*)
- Clasping milkweed (*Asclepias speciosa*)
- Downy speltwort (*Setaria pumila*)
- White wild indigo (*Baptisia bracteata* var. *leucophaea*)
- Cerulean warbler (*Coccyus erythrorhynchos*)
- Sweet-smelling Indian plantain (*Plantago virginica*)
- Yellow-fruited sedge (*Carex canescens*)
- Carry's sedge (*Carex canescens*)
- Raven's foot sedge * (*Carex canescens*)
- Davis' sedge (*Carex davisi*)
- Jones' sedge (*Carex lasiocarpa*)
- Smooth-sheathed sedge (*Carex lasiocarpa*)
- Spreading sedge (*Carex lasiocarpa*)
- Plantain-leaved sedge (*Carex lasiocarpa*)
- Cattail sedge (*Carex lasiocarpa*)
- Wood's sedge (*Carex lasiocarpa*)
- Cyanus hill (*Carex lasiocarpa*)
- Stemless tick-trefoil (*Desmodium nudiflorum*)
- Goldenrod (*Solidago canadensis*)
- Narrow-leaved speltwort (*Setaria pumila*)
- Goldenrod (*Solidago canadensis*)
- Battleground-master * † (*Eryngium yuccifolium*)
- False mermaid (*Ficaria verna*)
- Crystal darter (*Perca cristallina*)
- Twinkled (*Utricularia intermedia*)
- Butternut (*Juglans nigra*)
- Creeping juniper (*Juniperus horizontalis*)
- Catchfly grass (*Lythrum hyssagifolium*)
- Rock sandwort (*Minuartia nemorosensis*)
- Glade mallow (*Oenothera petaloidea*)
- Rhombic-petaled evening primrose (*Oenothera biennis*)
- Clustered broomrape (*Oenothera uniflora*)
- One-flowered broomrape (*Oenothera uniflora*)
- American glasswort (*Salicornia virginica*)
- Purple cliff-brake (*Pteridium aquilinum*)
- Broad-leaved fern (*Pteridium aquilinum*)
- Tubercled reed-orchid * † (*Platanthera flexilis* var. *herbacea*)
- Ox-eye-leaved skullcap (*Scutellaria ovata*)
- Cliff goldenrod (*Solidago scirpifolia*)
- Rough-seeded fennelwort (*Thalictrum flavum*)
- Golf's-rue (*Trifolium repens*)
- Purple sand-grass (*Valeriana alba* var. *ciata*)
- Silverleaf grape * (*Vitis aestivalis*)

Plants, previously state-listed

- Buttonbush (*Cephalanthus occidentalis*)
- Illinois tick-trefoil (*Desmodium illinoense*)
- Walker's barnyard warts (*Sanicula canadensis*)
- Canada black snakeroot (*Trientalis americana*)
- Ohio sparrowwort (*Trientalis americana*)

Animal Aggregations

- Bald eagle winter roost site *
- Bat concentration

Animals, federally- or state-listed

- Mammals
 - Eastern pocket mouse (*Perognathus parvus*)
 - Eastern spotted skunk * † (*Spilogale putorius*)
- Birds
 - Henslow's sparrow * (*Ammodramus hesleri*)
 - Red-shouldered hawk (*Buteo lineatus*)
 - Cerulean warbler (*Coccyus erythrorhynchos*)
 - Acanth flycatcher (*Empidonax traillii*)
 - Prothonotary warbler (*Protonotaria citrea*)
 - Golden-crowned kinglet (*Regulus satrapa*)
 - Bald eagle (*Haliaeetus leucocephalus*)
 - Louisiana waterthrush (*Seiurus motacilla*)
- Reptiles
 - Smooth scutshell (*Apalone musica*)
 - Wood turtle (*Clemmys insculpta*)
 - Racer (*Crotalus cerastes*)
 - Timber rattlesnake (*Crotalus horridus*)
 - Banding's turtle (*Emydoidea blandingii*)
 - Western hognose snake (*Heterodon nasicus*)
 - Copper snake (*Phrynosoma macleodii*)
 - Masticus * † (*Sistrurus catenatus*)
- Fish
 - Lake sturgeon (*Acipenser fulvescens*)
 - Crystal darter (*Perca cristallina*)
 - Blow sucker (*Cyprinella elongata*)
 - Yellow bass (*Notropis mississippiensis*)
 - Pallid shiner * (*Notropis pallidus*)
 - Paddlefish (*Polyodon spathula*)
- Mollusks
 - Blue mussel (*Mytilus edulis*)
 - Purple wartyback mussel (*Cycloma tuberculata*)
 - Fluted-shell mussel (*Cycloma tuberculata*)
 - Black sandshell mussel (*Ligumia recta*)
 - American glasswort (*Salicornia virginica*)
 - Round pigtoe mussel (*Pleurobema excavatum*)
 - Monkeyface mussel (*Quadrula menziesii*)
 - Bluff vertigo (*Vertigo maculosa*)
- Spiders
 - A species of jumping spider * (*Phidippus opifex*)
- Butterflies
 - Ottie skipper (*Hesperia ottoe*)
- Other animals, previously state-listed
 - Birds
 - Upland sandpiper (*Betula longicauda*)
 - American bittern (*Botaurus lentiginosus*)
 - Sandhill crane (*Grus canadensis*)
 - Osprey (*Pandion haliaetus*)
 - Reptiles
 - Eastern hognose snake (*Heterodon nasicus*)
 - Eastern hognose snake (*Heterodon nasicus*)
 - Milk snake (*Lampropeltis triangulum*)
 - Fish
 - American brook lamprey (*Lampetra appendix*)
 - Pugnose minnow (*Natoptes ensis*)
 - Shovelnose sturgeon (*Scaphirhynchus platyrhynchus*)