

Vegetation of Effigy Mounds National Monument



NVCS PLANT COMMUNITIES (ASSOCIATIONS)

NVCS plant communities (associations) are arranged into Ecological Systems* units. Each association is represented by a unique color on this map. Listed below each association is the map class name. Some map classes are mapped finer than the association. Although not depicted on the map via a unique color, these map class "phases" are listed below each map class where applicable. *For a full list of plant communities, map classes, and sub-phases of a given plant community type, consult the National Vegetation Classification System (NVCS).

North-Central Interior Maple-Basswood Forest Ecological System

- Acer saccharum - Tilia americana / Ostrya virginiana - Carpinus caroliniana Forest**
 - North-Central Interior Maple-Basswood Forest Map Class (with six map class phases)
 - North-Central Interior Maple-Basswood Forest Phase
 - Disturbed Oak Phase
 - Disturbed Maple-Basswood Phase
 - Disturbed Hardwoods Phase
- Fraxinus pennsylvanica - Ulmus americana - Juglans nigra, Celtis occidentalis Forest**
- Ash - Elm - Walnut - Hackberry Semi-natural Forest Map Class**

North-Central Interior Dry-Mesic Oak Forest and Woodland Ecological System

- Quercus alba - Quercus rubra - Carya ovalis Glaciated Forest**
 - Midwestern White Oak - Red Oak Forest Map Class (with five map class phases)
 - Midwestern White Oak Phase
 - Oak - Hickory Phase
 - Stagbark Hickory Phase
 - Hogchickory Hickory Phase
 - Intermediate Slope Phase
- Quercus macrocarpa - Quercus rubra, Quercus macrocarpa - Quercus rubra, Quercus macrocarpa - Quercus rubra, Quercus macrocarpa - Quercus rubra**
- Big Red Woodland**

Paleozoic Plateau Bluff and Talus Ecological System

- Quercus muhlenbergii - Quercus (alba, velutina) - Juniperus virginiana var. virginiana Bluff Woodland**
- Chinozoyan Oak Bluff Woodland Map Class (with two map class phases)**
- Bluff Woodland Phase**

Central Tallgrass Prairie Ecological System

- Andropogon gerardii - Sorghastrum nutans - (Sporobolus heterolepis) - Liatris spp. - Rattibata pinnata Herbaceous Vegetation**
- Central Tallgrass Prairie Map Class**

North-Central Interior Floodplain Ecological System

- Acer saccharum - Ulmus americana - (Populus deltoides) Forest**
- Silver Maple - Elm - (Cottonwood) Forest Map Class (with four map class phases)**
- Maple Forest Phase**
- Hickory Forest Phase**
- Locust Forest Phase**
- Bur Oak Phase**

Populus deltoides - Salix nigra Forest

- Eastern Cottonwood - Black Willow Forest Map Class**
- Salix interior Temporarily Flooded Shrubland**
- Sandbar Willow Shrubland Map Class**
- Cephalanthus occidentalis / Carex spp. Northern Shrubland**
- Buttonbush Shrubland Map Class**
- Phalaris arundinacea Eastern Herbaceous Vegetation**
- Reed Canary Grass Eastern Marsh Map Class**
- Scheuchzeria palustris - Scheuchzeria spp. Herbaceous Vegetation**
- River Bulrush Marsh Map Class**
- (Scheuchzeria tabernaemontani - Typha spp. - (Sagittaria) spp., Juncus spp.) Herbaceous Vegetation**
- Burgrass - Cattail - Burreed Wetland Marsh Map Class**
- Sagittaria latifolia - Lemna rotundifolia Herbaceous Vegetation**
- Arrowhead - Rice Cutgrass Marsh Map Class (with two map class phases)**
- Rice Cutgrass Phase**
- Arrowhead Phase**
- Protonestora spp. - Ceratophyllum spp. Midwest Herbaceous Vegetation**
- Midwest Pondweed Submerged Wetland Map Class**
- Nelumbo lutea Herbaceous Vegetation**
- American Lotus Aquatic Wetland Map Class**
- Najas lutea spp. advena - Nymphaea odorata Herbaceous Vegetation**
- Water Lily Aquatic Wetland Map Class**

NVCS FORMATION TYPES

NVCS Formation types define either cultivated or highly disturbed vegetation. For display purposes, Formation sharing similarities are shown in one of four categories. Each group is depicted on the map by a unique color. Formation types and their respective map classes are listed below each category.

Upland Shrubland and Herbaceous Vegetation Formations

- Cold-deciduous Shrubland Formation**
- Upland Scrub Mix Map Class**
- Tall Soil Temperate Grassland Formation**
- Upland Herbaceous Mix Map Class**
- Medium-tall Soil Temperate or Subpolar Grassland Formation**
- Soil Prairie Rensselaer Map Class**

Wetland Herbaceous Vegetation Formations

- Temporarily Flooded Temperate or Subpolar Grassland Formation**
- Bottomland Herbaceous Mix Map Class**
- Seasonally Flooded Temperate or Subpolar Grassland Formation**
- Emergent Marsh Farm Pond Map Class**
- Permanently Flooded Temperate or Subpolar Hydromorphic-rooted Vegetation Formation**

Forest Plantation Formation

- Plantations (evergreen) Formation**
- Cooler Plantation Forest Map Class**

Pasture and Cropland Formations

- Perennial Grass Crops (hayland, pastured) Formation**
- Perennial Grass Crop Map Class**
- Annual Close-green Forbs and Grasses and/or Annual Row-crop Forbs and Grasses Formations**
- Crop Field Map Class**

NON-VEGETATION TYPES

For display purposes, map classes depicting non-vegetation units are shown in one of two categories; open water and land use. Each group is depicted on the map by a unique color. Map classes are listed below each category.

Open Water

- Open Water Farm Pond Map Class**
- Shallow Water and Mud Flat Map Class**
- River and Stream Map Class**

Land Use

- Residential Map Class**
- Commercial Map Class**
- Road and Railroad Map Class**
- Farmstead Map Class**
- Quarry Map Class**

BOUNDARY FEATURES

- Effigy Mounds National Monument Boundary**
- Iowa Yellow River State Forest Boundary**

U.S. Geological Survey
Upper Midwest Environmental Sciences Center
2630 Fauna Reed Road
La Crosse, Wisconsin 54603

USGS-NPS Vegetation Mapping Program



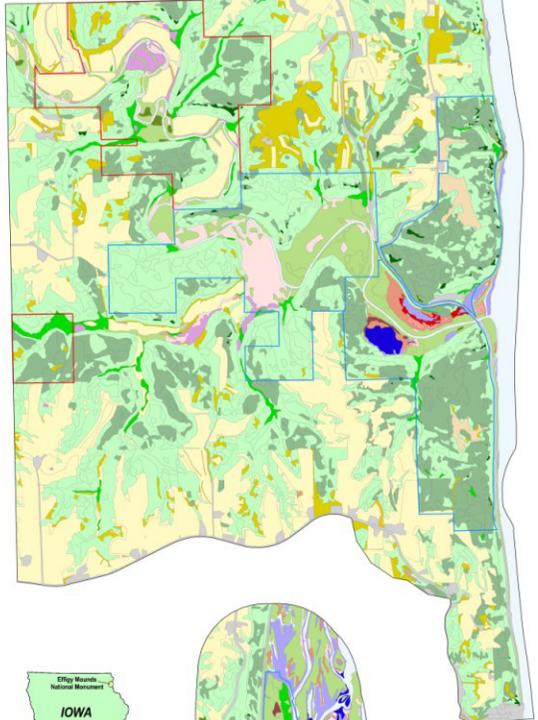
This map illustrates vegetation and land cover features of Effigy Mounds National Monument and environs. The spatial database used to generate this map was prepared by the USGS Upper Midwest Environmental Sciences Center for the USGS-NPS Vegetation Mapping Program. NatureServe provided the plant community classification based on the National Vegetation Classification System (NVCS).

The spatial database was produced from the stereo interpretation of October 2000 color infrared aerial photography (1:8,000-scale). Prior to mapping, photointerpreters performed fieldwork to learn photographic appearance of vegetation types and to link map classes to NVCS plant communities (associations). The interpreted data were georeferenced using OrthoMatch Photogrammetric software, and digitized using ArcView in ArcInfo. The standard minimum mapping unit applied was 0.25 hectares.

The spatial database offers four details than shown on this map (e.g., map class phases, relationship to NVCS hierarchical types, physiognomic features of vegetation, crown color, etc.) in other classification systems). All polygon boundaries, however, are shown to illustrate the detail of map class phases and physiognomic features mapped within a particular vegetation type.

The spatial database reflects conditions that existed at the time of aerial photography. A margin of error is inherent with interpreting aerial photography. Based on results of a thematic accuracy assessment, the estimated overall accuracy for map classes representing NVCS plant communities is 87% (Kappa Index of 0.87). Thus, using the database should determine for themselves the fitness of the data prior to use.

The spatial database, along with supporting information, is located on the Internet at <http://biohttp.msp.gov/govspg>.



Distances between park units are not to scale.

Universal Transverse Mercator, Zone 15
North American Datum of 1983

