National Park Service Vegetation Inventory Program
Indiana Dunes National Lakeshore
Indiana

U.S. Department of the Interior
National Park Service
U.S. Geological Survey
Assisted by NatureServe

Vegetation of Indiana Dunes National Lakeshore

MICHIGAN CITY

Lake Michigan

East

West

Heron Rookery

Pinhook Bog

PORTER

GARY

PORTAGE

Calumet Prairie

Hoosier Prairie

Hobart Prairie Grove

Composition Date: September 2009

N
W E
S

This map illustrates vegetation and land cover features of Indiana Dunes National Lakeshore (INDU) and immediate surroundings. The spatial database layer used to compose this map was produced for the National Park Service (NPS) Vegetation Inventory Program (VIP) by the U.S. Geological Survey (USGS) Upper Midwest Environmental Sciences Center (UMESC). The vegetation classification represented in this map layer was derived by NatureServe through vegetation data analyses and is based on the National Vegetation Classification (NVC) Standard (Federal Geographic Data Committee; FGDC 1997).

The vegetation classification was developed from 190 vegetation plots and 469 accuracy assessment sites. These data sets led to the identification of 38 NVC plant communities at INDU plus several more NVC alliance and formation types that could not be described at the association level.

The spatial database layer was derived from the stereo interpretation of October 2004 color infrared aerial photographs (1:12,000-scale). Prior to mapping, photointerpreters and ecologists performed fieldwork to learn photographic appearances of vegetation types and to link map classes to NVC vegetation types. The interpreted data were orthorectified with OrthoMapper Photogrammetric software, and subsequently digitized into a spatial database layer. The standard minimum mapping unit applied was 0.5 ha, although 0.1 ha was applied to the West unit for select wet shrubland and wet herbaceous types. The spatial database layer is projected in Universal Transverse Mercator, Zone 16, using the North American Datum of 1983.

This map layout shows aggregates of 67 map classes into NVC Formation level types (FGDC 1997) and modified USGS land cover and land use units (Anderson 1976). The spatial database offers finer details than shown on this map layout (e.g., individual map classes, relationship to various levels in the NVC including alliance and association types, physiognomic features of vegetation).

The spatial database reflects conditions at the time of aerial photography. A margin of error is inherent with interpreting aerial photographs. Based on results of a thematic accuracy assessment, the estimated overall accuracy for map classes representing NVC vegetation types is 78.2% (kappa index of 76.9%). Those using the database should determine for themselves the fitness of the data prior to use.

This spatial database layer resides in a geodatabase and is available, along with other project data, at http://biology.usgs.gov/npsveg.

4 0 4 8 12 16 Miles

4 0 4 8 12 16 20 Kilometers

Vegetation Map Layer

NVC Formation (FGDC 1997)

- Rounded-crowned temperate or subpolar needle-leaved evergreen forest
- Lowland or submontane cold-deciduous forest
- Temporarily flooded cold-deciduous forest
- Seasonally flooded cold-deciduous forest
- Saturated cold-deciduous forest
- Mixed needle-leaved evergreen - cold-deciduous forest
- Planted/cultivated temparate or subpolar needle-leaved evergreen forest
- Planted/cultivated cold-deciduous forest
- Cold-deciduous woodland
- Temperate cold-deciduous shrubland
- Seasonally flooded cold-deciduous shrubland
- Semipermanently flooded cold-deciduous shrubland
- Tall sod temperate grassland
- Medium-tall sod temperate or subpolar grassland
- Temporarily flooded temperate or subpolar grassland
- Seasonally flooded temperate or subpolar grassland
- Semipermanently flooded temperate or subpolar grassland
- Tall temperate grassland with a sparse cold-deciduous tree layer
- Medium-tall temperate or subpolar grassland with a sparse needle-leaved evergreen or mixed tree layer
- Permanently flooded temperate or subpolar hydromorphic-rooted vegetation
- Perennial grass crops (hayland, pastureland)
- Annual close-grown forbs and grasses and/or Annual row-crop forbs and grasses
- Dunes with sparse herbaceous vegetation
- Barren beach (non-NVC)
- Open water-body (non-NVC)
- Developed area (non-NVC)

Indiana Dunes State Park
Park Boundary
Project Boundary

Produced by the USGS Upper Midwest Environmental Sciences Center for the NPS VIP