

# Environmental Profile: Adams County, Indiana



## Information & County Contacts

### ***Adams County Visitor's Center:***

(260) 724-5300

### ***Adams County Soil & Water Conservation District:***

(260) 724-3763



## Local Clean Energy Initiatives:

### **The Thunder Spirit Wind Farm Project**



The Thunder Spirit project was originally developed by Wind Works Power Corp., which sold its shares to Allete Clean Energy (ACE), a subsidiary of Allete Inc. ACE is based in Duluth, Minnesota and owns wind farms in Minnesota, Iowa and Oregon. With the completion of the Thunder Spirit Wind project, North Dakota and Indiana will take part of the list.

Nordex has a contract to deliver 43 N100/2500 turbines at the 107 MW Thunder Spirit wind farm, located in Adams County, N.D. The deal also includes a service contract for a period of at least five years.<sup>1</sup>

<sup>1</sup> <http://www.adamscountyextra.com/2015/04/17/thunder-spirit-wind-project-bringing-benefits-to-adams-county/>



# Environmental Profile: Adams County, Indiana

## Land, Water, & Biodiversity & Conservation Efforts:

### Wabash River Heritage corridor – Bicentennial Nature trust



About 119 acres of land that is adjacent to the Wabash River is purchased by the conservation organization “Friends of the Limber lost” in Adams County. The property complements two other properties owned by the organization and contributes to the expansion of the Wabash River Heritage Corridor Trail. The property is characterized by the presence of old Wabash meanders and several areas of old growth forest of large oak, hickory, sycamore, cottonwood, ash, shrubs and other wetland species.<sup>2</sup>

## Endangered Species:

### The Indiana Bat (*Myotis sodalis*)



The Indiana bat is listed as endangered due to episodes of people disturbing hibernating bats in caves during winter, resulting in the death of large numbers of bats. They hibernate in large numbers in only a few caves in the southern part of the state. The largest hibernation caves support from 20,000 to 50,000 bats.

Most recently, the disease known as white-nose syndrome (WNS) has been mostly responsible for the Indiana bat decline. WNS is manifested through white fungus seen on the faces and body of the bats and has killed over a million bats since 2006.<sup>3</sup>

<sup>2</sup> <http://www.indiana2016.org/legacyprojects/wabash-river-heritage-corridor-bicentennial-nature-trust/>

<sup>3</sup> <https://www.fws.gov/MIDWEST/Endangered/mammals/inba/index.html>



# Environmental Profile: Allen County, Indiana

## Information & County Contacts

### *Allen County Visitor's Center:*

(260) 424-3700

### *Allen County Soil & Water Conservation District:*

(260) 484-5848



## Sustainability Initiatives:

### **The Sustainable Green Home Certificate – Allen County Extension Office Sustainable Working Group**



The sustainable green home certificate program encourages homeowners and neighborhoods to adopt sustainable practices in the landscape and garden. The Sustainable Working Group developed a list of criteria for a homeowner or neighborhood to achieve a certification level based on points earned for sustainable or environmentally friendly landscaping practices.

Those practices range from the simple, such as installing raised garden beds, using compost, removing invasive plant species and visiting a farm market, to installing a rain barrel, switching to an electric or non-motorized reel mower, and having the property's soil tested by a professional laboratory.<sup>1</sup>

<sup>1</sup> <https://api.ag.purdue.edu/api/depotws/File.ashx?t=f&i=10437>



# Environmental Profile: Allen County, Indiana

## Land, Water, & Biodiversity & Conservation Efforts:

### **Woods Nature Preserve- Bicentennial Nature trust**



The Bicentennial Wood nature preserve is a land area with old growth woods of 79 acres located in Allen County. It is home to several oaks, maples and sycamore trees and many other species of trees, wildflowers and birds. The land was acquired by Acres Land trust Inc. in partnership with the Indiana Heritage trust.<sup>2</sup>

## Endangered Species:

### **The Indiana Bat (*Myotis sodalis*)**



The Indiana bat is listed as endangered due to episodes of people disturbing hibernating bats in caves during winter, resulting in the death of large numbers of bats. They hibernate in large numbers in only a few caves in the southern part of the state. The largest hibernation caves support from 20,000 to 50,000 bats.

Most recently, the disease known as white-nose syndrome (WNS) has been mostly responsible of the Indiana bat decline. WNS is manifested through white fungus seen on the faces and body of the bats and has killed over a million bats since 2006.<sup>3</sup>

<sup>2</sup> <http://www.in.gov/dnr/naturepreserve/files/np-Bicentennial.pdf>

<sup>3</sup> <https://www.fws.gov/MIDWEST/Endangered/mammals/inba/index.html>



# Environmental Profile: Bartholomew County, Indiana

## Information & County Contacts

### ***Bartholomew County Visitor's Center:***

(812) 378-2622

### ***Bartholomew County Soil & Water Conservation District:***

(812) 378-1280 ext. 3



## Land, Water, & Biodiversity & Conservation Efforts:

### **Touch the Earth Natural Area**

Touch the Earth was purchased by Sycamore in 1995 and 1998 through the help



of Sycamore Land Trust members and many generous donors. Beginning in the fall of 2011, visitors to Touch the Earth would likely notice that many of the large bushes along the trail are now dead. As the former agricultural fields at the preserve succeeded into natural vegetation, they also became

heavily infested with many exotic invasive bushes including autumn olive, privet, and Asian bush honeysuckle.<sup>1</sup>

<sup>1</sup><http://sycamorelandtrust.org/touch-the-earth>

# Environmental Profile: Bartholomew County, Indiana



## Tangeman Woods



Tangeman Woods is a beautiful mixed hardwood forest with intermittent creeks. The Outdoor Lab nature trail, created by the Bartholomew County Soil and Water Conservation District in the 1970s, is still used for school field trips, including those conducted by Sycamore's Environmental Education Program.<sup>2</sup>

## Endangered Species:

### Rayed Bean (*Villosa fabalis*)



The rayed bean, a small mussel that only grows to about 1 1/2 inches in length, can no longer be found in much of its historic range in the Midwest and Eastern U.S.<sup>3</sup>

## Local Environmental Challenges:

### Columbus Old Municipal Landfill #1

The City of Columbus operated the approximately 19-acre Columbus Old Municipal Landfill #1 facility without a permit from 1938 until 1966. The landfill reportedly accepted municipal and industrial wastes, including solvents, acids, bases, paints, and heavy metals. Wastes were deposited on the surface of the landfill.<sup>4</sup>

<sup>2</sup><http://sycamorelandtrust.org/tangeman-woods>

<sup>3</sup><http://www.fws.gov/midwest/Endangered/clams/rayedbean/index.html>

<sup>4</sup><http://www.epa.gov/region5/superfund/npl/indiana/IND980607626.html>

# Environmental Profile: Benton County, Indiana



## Information & County Contacts

### ***Benton County Visitor's Center:***

(765) 884-1090

### ***Benton County Soil & Water Conservation District:***

(260) 484-5848



## Land, Water, & Biodiversity & Conservation Efforts:

### **Pine Creek Gamebird Habitat Area Expansion – Bicentennial Nature Trust**



Pine Creek Gamebird Habitat Area is a 700-acre grassland field. Pine Creek supports a diverse mix of wetland and upland birds associated with the restored wetlands and old field grassland habitats. During spring and fall migrations, large numbers of waterfowl and shorebirds are present when water levels are appropriate. Regular migrant waterfowl include practically all of the dabbling ducks--Gadwall, Northern Pintail, both teal species, American

Widgeon and Northern Shoveler. Pine creek is known to be home to 205 species have been since 1995.

The DNR Division of Fish and Wildlife has recently purchased 10 acres of prairie wildlife habitat in Benton County, to add to the Game Bird Habitat Areas. Management will focus on uplands and a small wetland, establishing food plots, and providing additional recreational opportunities.<sup>1</sup>

<sup>1</sup> <http://www.indianaudubon.org/Birds/DetailedBirdingLocations/PineCreek/tabid/188/Default.aspx>

# Environmental Profile: Benton County, Indiana



## Big Pine creek Watershed Project



The big pine creek watershed project is aimed at conserving and improving the natural environment while balancing interests of stakeholders in the Big Pine Creek Watershed through several best management practices (BMPs). Some of those BMPs are highlighted below:

**Grassed Waterways:** these are shaped or graded channel that are established with suitable vegetation to carry surface water at a non-erosive velocity to a stable outlet.

They are built to convey runoff from the surrounding land of higher elevation without causing erosion or flooding, to reduce gully erosion and to protecting and improve surface water quality.

**Oak Woodland Restoration:** Many oak woodlands are being lost, due to excessive grazing or their conversion to sugar maples or invasive species. Oak woodlands are restored to provide habitat for wildlife such as deer, turkey and red-headed woodpeckers, provide Food sources for pollinators, and Water retention and nutrient and sediment reduction. But luckily, this trend can be reversed with some sweat equity put into your woods.<sup>2</sup>

## Clean Energy Initiatives:

### Fowler Ridge Wind Farms

Fowler Ridge Wind Farm (FRWF) is the largest Wind farm in Benton County and one the largest onshore wind farms in the world. The plant is owned and operated jointly by BP Alternative Energy North America and Dominion Resources. FRWF has about 460 turbines with a total capacity of 750MW, which meets the power consumption requirements of 200,000 average American homes.<sup>3</sup>

<sup>2</sup> <http://www.indiana2016.org/legacyprojects/game-bird-habitat-area-bicentennial-nature-trust/>

<sup>3</sup> <http://www.power-technology.com/projects/fowlerridgewindfarm/>

# Environmental Profile: Blackford County, Indiana



## Information & County Contacts

### ***Blackford County Visitor's Center:***

(765) 284-2700

### ***Blackford County Soil & Water Conservation District:***

(765) 348-1404



## Sustainability Initiatives:

### **Petoskey Plastics recycling and distribution facility**



Hartford City is home to Petoskey Plastics 300,000 square foot recycling and distribution facility. Petoskey Plastics manufactures high performance polyethylene blown plastic film and bags that are good for the environment. In 1978 Petoskey started to manufacture the Greencore products under the “Greencore closed loop recycling program” that consists of taking used plastic out of the waste stream and putting it back into customer products.<sup>1</sup>

<sup>1</sup>[http://www.petoskeyplastics.com/Green\\_Products\\_and\\_Services/Greencore\\_Products](http://www.petoskeyplastics.com/Green_Products_and_Services/Greencore_Products)

# Environmental Profile: Blackford County, Indiana



## Land, Water, & Biodiversity & Conservation Efforts:

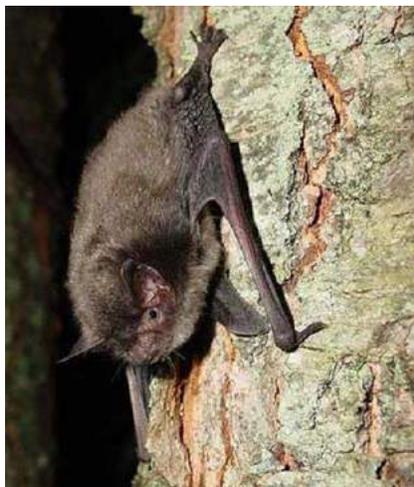
### Wilderness park expansion – Bicentennial Nature Trust



The Harford city parks department of Blackford County has purchased 16 acres to add to Wilderness Park. This acquisition aims to increase the Hartford City Park's size to 40 acres. Wilderness Park provides contains a fitness trail and a nature trail for peaceful walks or hiking.<sup>2</sup>

## Endangered Species:

### The Indiana Bat (*Myotis sodalis*)



The Indiana bat is listed as endangered due to episodes of people disturbing hibernating bats in caves during winter, resulting in the death of large numbers of bats. They hibernate in large numbers in only a few caves in the southern part of the state. The largest hibernation caves support from 20,000 to 50,000 bats.

Most recently, the disease known as white-nose syndrome (WNS) has been mostly responsible of the Indiana bat decline. WNS is manifested through white fungus seen on the faces and body of the bats and has killed over a million bats since 2006.<sup>3</sup>

<sup>2</sup> <http://www.indiana2016.org/legacyprojects/hartford-city-park-expansion-bicentennial-nature-trust/>

<sup>3</sup> <https://www.fws.gov/MIDWEST/Endangered/mammals/inba/index.html>

# Environmental Profile: Boone County, Indiana



## Information & County Contacts

### ***Boone County Visitor's Center:***

(260) 724-5300

### ***Boone County Soil & Water Conservation District:***

(260) 724-3763



## Land, Water, & Biodiversity & Conservation Efforts:

### **Farm heritage trail – Bicentennial Nature trust**



The Whitestown park department purchased about of 11.28 acres of land in Boone County. The land was associated with the Big Four Railroad in order to construct a trail. The corridor is 1.7 miles long and is part of the Farm Heritage Trail which will connect Zionsville with Lafayette.<sup>1</sup>

### **Prairie Creek Build and Design erosion Project**

The Boone County Soil and Water Conservation District is partnering with the Boone County Surveyor and working with the Department of Natural Resources, Lake and River Enhancement Program, to address two locations on Prairie Creek with severe erosion issues. The SWCD office was awarded a grant and has hired a firm to start working on this project. A complete project construction is to be designed by using the most environmentally friendly practices to stabilize the banks where the erosion is occurring.<sup>2</sup>

<sup>1</sup><http://www.indiana2016.org/nature-trust/what-is/>

<sup>2</sup> <http://www.fws.gov/midwest/endangered/mammals/inba/inbafctsh.html>

# Environmental Profile: Boone County, Indiana



## Endangered Species:

### **The Indiana Bat (*Myotis sodalis*)**



The Indiana bat is listed as endangered due to episodes of people disturbing hibernating bats in caves during winter, resulting in the death of large numbers of bats. They hibernate in large numbers in only a few caves in the southern part of the state. The largest hibernation caves support from 20,000 to 50,000 bats.

Most recently, the disease known as white-nose syndrome (WNS) has been mostly responsible of the Indiana bat decline. WNS is manifested through white fungus seen on the faces and body of the bats and has killed over a million bats since 2006.<sup>3</sup>

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<sup>3</sup> <https://www.fws.gov/MIDWEST/Endangered/mammals/inba/index.html>

# Environmental Profile: Brown County, Indiana



## Information & County Contacts

### ***Brown County Visitor's Center:***

(812) 988-7303

### ***Brown County Soil & Water Conservation District:***

(812) 988-2211



## Land, Water, & Biodiversity & Conservation Efforts:

### **Brown County State Park**



Nicknamed the “Little Smokies” because of the area’s resemblance to the Great Smoky Mountains, Brown County encompasses nearly 16,000 acres of rugged hills, ridges and fog-shrouded ravines. Glaciers from the most recent ice ages stopped

short of the “hills o’ Brown,” but their meltwaters helped create the narrow ridges, steep slopes and deep gullies of Brown County State Park. Indiana’s largest park is a traditional fall color hot spot, with nearly 20 miles of tree-lined roads and many scenic vistas overlooking miles of uninterrupted forestland.<sup>1</sup>

<sup>1</sup><http://www.in.gov/dnr/parklake/2988.htm>



# Environmental Profile: Brown County, Indiana

## Yellowwood State Forest

Yellowwood State Forest was created in 1940 when federal land was leased to the state of Indiana. The land was deeded to the state in 1956. Prior to that time, the Civilian Conservation Corps and Works Project Administration completed three



lakes, a shelter house and a residence, all still in use. Other such buildings were sawn from the forest in kit form and shipped to other public properties. More than 2,000 abandoned and eroded acres were planted to pine (red, jack, shortleaf, white and scotch), black locust,

black walnut, white and red oak. Red and white pines are the true northern pines and are still in good condition. The other pines are succumbing to insects, disease and extremely cold winters.<sup>2</sup>

## The Laura Hare Nature Preserve at Downey Hill

Purchased in 2012, the 600 acres of rugged Brown County woods that make up The Laura Hare Nature Preserve at Downey Hill qualified as Sycamore's second biggest land project ever. The preserve is located along Valley Branch Road east of Nashville. Nearly one square mile in size, The Laura Hare Nature Preserve at Downey Hill is near Brown County State Park, as well as Gnawbone Camp, which is protected as a permanent conservation easement held by the state.<sup>3</sup>

<sup>2</sup><http://www.in.gov/dnr/forestry/4817.htm>

<sup>3</sup><http://sycamorelandtrust.org/downey-hill>

# Environmental Profile: Carroll County, Indiana



## Information & County Contacts

### *Carroll County Visitor's Center:*

(765) 564-675

### *Carroll County Soil & Water Conservation District:*

(765) 564-4480



## Land, Water, & Biodiversity & Conservation Efforts:

### **Wildcat Creek Scenic Stream**



Wildcat Creek Scenic Stream Acquired in 2001, these 36.78 acres are part of a scenic stream corridor that includes stream and woodland banks of the Wildcat Creek. The state of Indiana (IDNR) recognizes much of the creek system as scenic waterway. The waterways provide recreational,

historical, as well as geological attractions. The South Fork of the wildcat begins in Howard County flowing through north-central Indiana crop lands, pastures, forests, as well as developed areas through Carroll County and into Tippecanoe County.<sup>1</sup>

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<sup>1</sup> <http://www.in.gov/dnr/outdoor/4472.htm>

# Environmental Profile: Carroll County, Indiana



## Deer Creek-Sugar Creek Watershed Project

The Deer Creek-Sugar Creek watershed includes drainages of three tributaries to the Wabash River: Deer Creek, Sugar Creek, and Buck Creek.

Deer Creek begins north of Kokomo, Indiana and flows west through Miami, Cass, Howard and Carroll Counties before emptying into the Wabash River in Delphi. Sugar Creek rises west of Flora, flowing west through Carroll and Tippecanoe Counties before entering the Wabash River near Americus; Buck Creek follows a similar path south of Sugar Creek. A small stretch of the Wabash River is included in this planning process (River Mile 330 to River Mile 319), as is the northeast corner of the City of Lafayette and Prophetstown State Park.

The Deer Creek-Sugar Creek watershed is primarily agricultural, with 83% of the 345 square mile watershed in row crop agriculture. A majority of the land is privately owned and in corn-soybean rotation. The watershed is home to more than 100 confined feeding operations and several small towns including Delphi, Flora, Camden, Galveston, and Americus.

This project is funded through an IDEM Section 319 Grant to the Carroll County SWCD. The Cost-Share Program was developed by the Deer Creek-Sugar Creek Steering Committee with full participation from the Soil and Water Conservation Districts and NRCS District Conservationists in Carroll, Cass, Howard, Miami, and Tippecanoe counties.<sup>2</sup>

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<sup>2</sup> <http://www.wabashriver.net/deer-creek-sugar-creek>

# Environmental Profile: Carroll County, Indiana



## Endangered Species:

### The Northern Long- Eared Bat (*Myotis septentrionalis*)



The northern long-eared bat is one of the species of bats most impacted by the disease white-nose syndrome. Due to declines caused by white-nose syndrome as well as continued spread of the disease, the northern long-eared bat received protection as a threatened species under the Endangered Species Act. The northern

long-eared bat is found in the United States from Maine to North Carolina on the Atlantic Coast, westward to eastern Oklahoma and north through the Dakotas, even reaching into eastern Montana and Wyoming. In Canada it is found from the Atlantic Coast westward to the southern Yukon Territory and eastern British Columbia.<sup>3</sup>

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<sup>3</sup> <http://www.fws.gov/midwest/endangered/mammals/nleb/>



# Environmental Profile: Cass County, Indiana

## Information & County Contacts

### **Cass County Visitor's Center:**

(574) 753-4856

### **Cass County Soil & Water Conservation District:**

(574) 753-4705 ext. 3



## Endangered Species:

### **Rabbitsfoot in Eel River (*Quadrula cylindrica cylindrica*)**



The rabbitsfoot, a freshwater mussel, is a threatened species. It is found in the Eel River in Wabash County. The rabbitsfoot, a freshwater mussel, is a threatened species. It is found in rivers and streams in Alabama, Arkansas, Georgia, Kansas, Kentucky, Illinois, Indiana, Louisiana, Mississippi, Missouri, Ohio, Oklahoma, Pennsylvania, Tennessee, and West Virginia. We estimate that it has been lost from about 64 percent of its historical range. While 51 of 140 historical populations are still present, only 11 populations are viable; 23 populations are at risk of extirpation and 17 populations do not seem to be reproducing at a level that can sustain the populations. Most of the existing rabbitsfoot populations are marginal to small and isolated.<sup>1</sup>

<sup>1</sup> <http://www.wabashriver.net/deer-creek-sugar-creek>



# Environmental Profile: Cass County, Indiana

## The Northern Long-Eared Bat (*Myotis septentrionalis*)



The northern long-eared bat is one of the species of bats most impacted by the disease white-nose syndrome. Due to declines caused by white-nose syndrome as well as continued spread of the disease, the northern long-eared bat received protection as a threatened species under the Endangered Species Act. The northern

long-eared bat is found in the United States from Maine to North Carolina on the Atlantic Coast, westward to eastern Oklahoma and north through the Dakotas, even reaching into eastern Montana and Wyoming. In Canada it is found from the Atlantic Coast westward to the southern Yukon Territory and eastern British Columbia.<sup>2</sup>

## Local Clean Energy Initiatives:

### The Andersons Ethanol Plant



The Andersons, Inc. is the largest equity investor in The Andersons Clymers Ethanol LLC, which opened in April 2007, adjacent to The Andersons' grain elevator in Logansport, Indiana. The Andersons manages the 110 million gallon ethanol plant, which requires 40 million bushels of corn to operate and also produces

350,000 tons of distiller dried grains annually. Ethanol, E-85, and Corn Oil are available.<sup>3</sup>

<sup>2</sup> <http://www.fws.gov/midwest/endangered/mammals/nleb/>

<sup>3</sup> <http://www.andersonsethanol.com/facilities.asp>



# Environmental Profile: Clark County, Indiana

## Information & County Contacts

### *Clark County Visitor's Center:*

(812) 282-6654

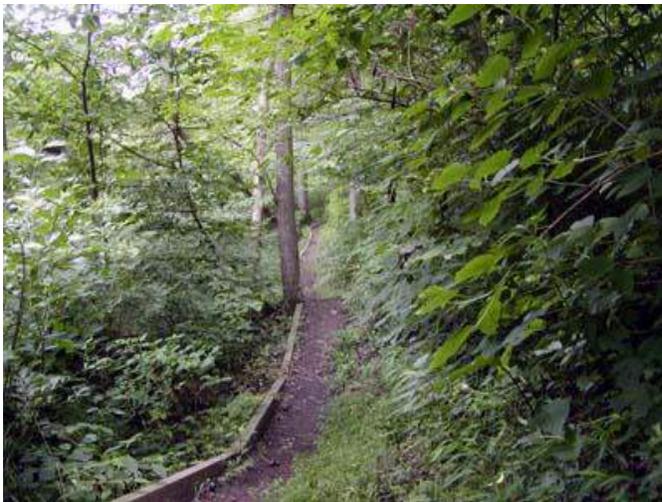
### *Clark County Soil & Water Conservation District:*

(812) 256-2331 ext. 107



## Land, Water, & Biodiversity & Conservation Efforts:

### Charlestown State Park



Once a largely undeveloped portion of the huge (15,000-acre) Indiana Army Ammunition plant, Charlestown State Park is located in southern Indiana. The park is easily accessible, located 8 miles east of I-65, on State Road 62. With scenic vistas of the Fourteen mile Creek valley and the Ohio River, with elevation changes of over 200 feet,

Charlestown has much to offer the visitor with its rugged hills and deep ravines. While hiking the rugged terrain you will see Devonian fossil outcrops and areas of karst sinkhole topography. Bird watchers will enjoy the 72 species of birds, including bluebirds, black vultures and an occasional bald eagle.<sup>1</sup>

<sup>1</sup><http://www.in.gov/dnr/parklake/2986.htm>



# Environmental Profile: Clark County, Indiana

## Endangered Species:

### Lake Sturgeon (*Acipenser fulvescens*)



Lake Sturgeon, *Acipenser fulvescens*, inhabits large river and lake systems primarily in the Mississippi River, Hudson Bay and Great Lakes basins. It has and continues to represent an important biological component of the Great Lakes fish community. By the early 1900's many populations of lake sturgeon throughout their range had been greatly reduced or

extirpated as a result of overfishing, habitat loss, the construction of dams, and pollution.<sup>2</sup>

### Black-crowned Night-Heron (*Nycticorax nycticorax*)



Black-crowned Night-Herons are stocky birds compared to many of their long-limbed heron relatives. They're most active at night or at dusk, when you may see their ghostly forms flapping out from daytime roosts to forage in wetlands. In the light of day adults are striking in gray-and-black

plumage and long white head plumes. These social birds breed in colonies of stick nests usually built over water. They live in fresh, salt, and brackish wetlands and are the most widespread heron in the world.<sup>3</sup>

<sup>2</sup><http://www.fws.gov/midwest/sturgeon/biology.htm>

<sup>3</sup>[http://www.allaboutbirds.org/guide/Black-crowned\\_Night-Heron/id](http://www.allaboutbirds.org/guide/Black-crowned_Night-Heron/id)



# Environmental Profile: Clay County, Indiana

## Information & County Contacts

### *Clay County Visitor's Center:*

(812) 448-8457

### *Clay County Soil & Water Conservation District:*

(812) 448-1108



## Land, Water, & Biodiversity & Conservation Efforts:

### **Chinook Fish & Wildlife Area**



Chinook Fish and Wildlife area is 2141 acres of rolling grasslands and wooded unreclaimed areas. Approximately 80 acres of the property is water (mostly strip pits). Originally leased as a Public Fishing Area in 1982, Chinook Fish & Wildlife opened in 1997 and

consisted of 2141 acres of surface mine land near Vigo county in western Clay County.<sup>1</sup>

<sup>1</sup> <http://www.in.gov/dnr/fishwild/3098.htm>



# Environmental Profile: Clay County, Indiana

## Shakamak State Park



Three man-made lakes offer 400 acres of water for fishing and boating while a family aquatic center provides swimming fun. About two-thirds of the campsites are in a wooded area, offering cool shade in the summer and beautiful fall colors

in autumn. Nearby is a play field area for family fun. A popular feature of the park is the group camp.<sup>2</sup>

### Endangered Species:

#### **Ornate box turtle (*Terrapene ornata*)**



The ornate box turtle (*Terrapene ornata*) has a domed, round or oval carapace (upper shell) that is dark brown to reddish-brown, often with a yellow stripe running down the centre. The shell is made up of bony plates, or scutes, which are patterned with yellow lines radiating

from the centre.<sup>3</sup>

<sup>2</sup> <http://www.in.gov/dnr/parklake/2969.htm>

<sup>3</sup> <http://www.arkive.org/ornate-box-turtle/terrapene-ornata/>

# Environmental Profile: Clinton County, Indiana



## Information & County Contacts

### *Clinton County Visitor's Center:*

(765) 654-5507

### *Clinton County Soil & Water Conservation District:*

(574) 753-4705 ext. 3



## Land, Water, & Biodiversity & Conservation Efforts:

### **Bryan Memorial Nature Preserve**



This woods stands like an oasis surrounded by farmland. As you approach the preserve notice how tall, dense and even the forest canopy is, compared to woodlots which have been more heavily grazed and timbered. In the preserve, great white oaks, 4 feet in diameter, are found with large red oak, beech, basswood, and shagbark hickory on drier sites. Smaller poorly drained spots along the northern edge of the woods have pin oak, bur oak and red maple. Spicebush, poison ivy, greenbrier, black hawk, and pawpaw are common shrubs in

drier areas, while buttonbush and winterberry surround a small pond. Spring wildflowers include yellow and white trout lilies, Dutchman's breeches,

# Environmental Profile: Clinton County, Indiana



toothwort, and spring beauty. These are soon followed by wild blue phlox, Virginia waterleaf, and wild crane's-bill.<sup>1</sup>

## **Local Environmental Challenges:**

### **Frankfort landfill clean-up project**

The city of Frankfort landfill which once was the City dump now accepts brush, limbs and concrete from old sidewalks. This initiative plays a significant role in protecting the south fork of the wildcat creek. on Tuesday, September 24, through coordination with the Clinton County Soil and Water Conservation District and support from the Bridgestone Americas Spent Tire Community Cleanup Program, 600-plus tires scattered around the landfill will be hauled off the site at no cost to the City.<sup>2</sup>

### **Infield Advantage Case Study of Success**

Since 2011, Clinton County farmers have been discussing and reviewing crop rotations, yield histories, tillage systems, cover crops, and nitrogen application forms, timing and rates through participation in INfield Advantage. Input optimization is a goal — both economically and environmentally — for today's farmers. INfield Advantage assists in understanding current practices and discovering opportunities to benefit farmers' bottom lines and the environment.<sup>3</sup>

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<sup>1</sup> <http://www.state.in.us/dnr/naturepreserve/files/Bryan-color.pdf>

<sup>2</sup> <http://frankfort-in.gov/2013/09/12/landfill-cleaned-up-through-city-and-county-collaboration/>

<sup>3</sup> <http://infieldadvantage.org/assets/media/32501->

16%20Clinton%20County%20Case%20Study%20v7\_a\_WEB%20(2).compressed.pdf

# Environmental Profile: Crawford County, Indiana



## Information & County Contacts

### *Crawford County Visitor's Center:*

(888) 755-2282

### *Crawford County Soil & Water Conservation District:*

(812) 338-3224



## Land, Water, & Biodiversity & Conservation Efforts:

### Harrison-Crawford State Forest



Harrison-Crawford State Forest lies in the central and extreme southern part of the state, bordering the Ohio River. Established in 1932, the forest contains about 24,000 acres of rugged hardwood forest in western Harrison and eastern Crawford counties. This working forest is a favorite destination for hunters, horse riders, hikers, fishermen and sightseers.

It surrounds the 2,000 acre O'Bannon Woods State Park (formerly Wyandotte Woods State Recreation Area) which offers a variety of recreational opportunities. The state park and state forest here work in a unique partnership, with many of the recreational facilities situated on state forest land but operated by the state park.<sup>1</sup>

<sup>1</sup><http://www.in.gov/dnr/forestry/4826.htm>

# Environmental Profile: Crawford County, Indiana



## Marengo Cave



Designated a National Natural Landmark in 1984 as the most highly decorated cavern in the Interior Lowlands of the U.S., the show cave level is considered a classic example of a mature trunk passage in the middle stage of development. Currently Indiana's most visited show cave.

Lower level considered the largest size cave passage of over 3,000 known Indiana caves.<sup>2</sup>

## Endangered Species:

### Gray Bat (*Myotis grisescens*)



Gray bats are distinguished from other bats by the unicolored fur on their back. Gray bats are endangered largely because of their habit of living in very large numbers in only a few caves. As a result, they are extremely vulnerable to disturbance. Arousing bats while they are hibernating

can cause them to use up a lot of energy, which lowers their energy reserves. If a bat runs out of reserves, it may leave the cave too soon and die. In June and July, when flightless young are present, human disturbance can lead to mortality as frightened females drop their young in the panic to flee from the intruder.<sup>3</sup>

<sup>2</sup><http://www.marengocave.com/media/resources/fact-sheet/>

<sup>3</sup>[http://www.fws.gov/midwest/endangered/mammals/grbat\\_fc.html](http://www.fws.gov/midwest/endangered/mammals/grbat_fc.html)



# Environmental Profile: Daviess County, Indiana

## Information & County Contacts

### *Daviess County Visitor's Center:*

(812) 254-5262

### *Daviess County Soil & Water Conservation District:*

(812)254-4780 ext. 191



## Land, Water, & Biodiversity & Conservation Efforts:

### **Glendale Fish & Wildlife Area**



Glendale Fish & Wildlife Area is dedicated to providing quality hunting and fishing opportunities while maintaining 8,060 acres of land and over 1,400 acres of lakes and impoundments. Acquisition of the land which comprises the property began in 1956, and land purchases were made through the 1960s. Several minor purchases were made in the 1970s.

The construction of the dam that formed Dogwood Lake began in 1963 and was completed in 1965. The lake was renovated in 1978 and restocked with fish in 1979. Average depth of Dogwood Lake is eight feet.<sup>1</sup>

<sup>1</sup><http://www.in.gov/dnr/fishwild/3095.htm>



# Environmental Profile: Daviess County, Indiana

## Endangered Species:

### **Pink Mucket (*Lampsilis abrupta*)**

This species is characterized as a large river species associated with fast-flowing waters, although in recent years it has been able to survive and reproduce in impoundments with river-lake conditions, but never in standing pools of water. It is found in waters with strong currents, rocky or boulder substrates, with depths up to about 1 m, but is also found in deeper waters with slower currents and sand and gravel.<sup>2</sup>



### **Fat Pocketbook (*Potamilus capax*)**

This mussel prefers sand, mud, and fine gravel bottoms of large rivers. It buries itself in these substrates in water ranging in depth from a few inches to eight feet, with only the edge of its shell and its feeding siphons exposed. Today, the fat pocketbook is found only in the lower Wabash and Ohio rivers, and in the lower Cumberland River. Impoundments and dredging for navigation, irrigation and flood control have altered or destroyed much of this mussel's habitat, silting up its gravel and sand habitat and probably affecting the distribution of its fish hosts.<sup>3</sup>



<sup>2</sup><http://www.iucnredlist.org/details/11249/0>

<sup>3</sup>[http://www.fws.gov/midwest/endangered/clams/fatpo\\_fc.html](http://www.fws.gov/midwest/endangered/clams/fatpo_fc.html)

# Environmental Profile: Dearborn County, Indiana



## Information & County Contacts

### *Dearborn County Visitor's Center:*

(800) 322-8198

### *Dearborn County Soil & Water Conservation District:*

(812) 926-2406 ext. 3



## Land, Water, & Biodiversity & Conservation Efforts:

### Gladys Russell Wildlife Refuge



While Gladys Russell is a wildlife preserve with excellent opportunities for bird watching and photography, it also offers a number of low intensity uses including hiking, picnicking, horseback riding, and fishing. Water and sanitary facilities have been added, making activity by larger groups, such as family reunions and educational

field trips, possible.<sup>1</sup>

<sup>1</sup>[http://parks.dearborncounty.in.gov/Parks/gladys\\_russell\\_wildlife\\_refuge.html](http://parks.dearborncounty.in.gov/Parks/gladys_russell_wildlife_refuge.html)

## Endangered Species:

### **Timber Rattlesnake (*Crotalus horridus*)**

Timber rattlesnakes, which are called canebrake rattlesnake in the Coastal Plain of the Southeast, are large, heavy bodied snakes with the characteristic rattles on the end of the tail. This snake occurs in a wide variety of terrestrial habitat



including lowland cane thickets, high areas around swamps and river floodplains, hardwood and pine forests, mountainous areas, and rural habitats in farming areas. Snake populations are steadily decreasing over the geographic range, primarily due to habitat destruction and other human activities. Road

construction that crosses the migratory range of this species also poses a threat as some individuals move long distances and commonly become road kill.<sup>2</sup>

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<sup>2</sup><http://srelherp.uga.edu/snakes/crohor.htm>



# Environmental Profile: Decatur County, Indiana

## Information & County Contacts

***Decatur County Visitor's Center:***

(877) 883-5447

***Decatur County Soil & Water Conservation District:***

(812) 663-8685 ext 3



## Land, Water, & Biodiversity & Conservation Efforts:

### **Greenburg Reservoir State Fishing Area**

Greenburg Reservoir is a reservoir located just 1.6 miles from Greensburg, in



Decatur County, in the state of Indiana, United States. Fishermen will find a variety of fish including bream, bluegill, largemouth bass, pumpkinseed sunfish, carp, smallmouth bass, rock bass and crappie here.<sup>1</sup>

<sup>1</sup><http://www.hookandbullet.com/fishing-greenburg-reservoir-greensburg-in/>



# Environmental Profile: Decatur County, Indiana

## Endangered Species:

### **Clubshell (*Pleurobema clava*)**

The clubshell mussel is a federally endangered species. Endangered species are animals and plants that are in danger of becoming extinct. Threatened species are plants and animals that are likely to become endangered in the foreseeable future. Reasons for its decline in the upper Ohio and Wabasha watersheds are mainly due to pollution from agricultural run-off and industrial wastes, and extensive impoundments for navigation.<sup>2</sup>



<sup>2</sup><http://www.fws.gov/northeast/pafo/pdf/clubshell%20fact%20sheet.pdf>

# Environmental Profile: DeKalb County, Indiana



## Information & County Contacts

### ***DeKalb County Visitor's Center:***

(260) 927-1499

### ***DeKalb County Soil & Water Conservation District:***

(260) 925-5620 ext 3



## Land, Water, & Biodiversity & Conservation Efforts:

### **District Cost Share Program**

The soil and water conservation district of DeKalb county holds a district cost share program which supports conservation practices on non-agricultural lands. This program allow landowners of small land plants, who are not farmers or not qualified to take part of the USDA natural resource conservation service program, to take part in conservation initiatives.

The district cost share program offers 75% reimbursement on the cost of septic systems replacements up to the cost of 15,000 USD. This incentivizes small plot landowners to take part of water conservation in the area in order to avoid water pollution.

The program also incentivizes residents of DeKalb County to install rain gardens and rain barrels on their property by sharing 75% of installation costs for rain garden projects under 500 USD and covers 25 USD cost per rain barrels installation.<sup>1</sup>

<sup>1</sup> <http://www.co.dekalb.in.us/departament/division.php?structureid=109>

## The Emerald Ash Borer



The district cost share program also incentivizes DeKalb county residents to take part into their SWCD efforts to protect plants, through their ash tree replacement program. The Emerald Ash Borer is an exotic beetle, native to Asia, which was discovered in the U.S until June 2002 and has caused the decline of many ash trees in southeast Michigan, Ontario and Canada. EAB's were discovered in Illinois in 2006. The program covers 75% up to 100 USD per tree replacement of an infected ash tree with an approved native species.

### Local Clean Energy Initiatives:

DeKalb county hosts a 75 acres solar energy operated farm owned by Gemini Power solutions west of Waterloo. The project cost about \$20 -30 million USD and consist of installing 25.000 solar panels on 35-40 acres of the 75 acre site. The solar panels will feed into the NIPSCO power grid through existing power lines in the area.<sup>2</sup>

### Local Environmental Organization:

Partnership building for conservation practices among the Soil and Water Conservation District DeKalb county government, Farmers' group, Purdue Extension.

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<sup>2</sup> <http://www.indianaeconomicdigest.com/main.asp?SectionID=31&SubSectionID=64&ArticleID=62652>

# Environmental Profile: Delaware County, Indiana



## Information & County Contacts

### ***Delaware County Visitor's Center:***

(765) 284-2700

### ***Delaware County Soil & Water Conservation District:***

(765) 747-5531 ext 3



## Land, Water, & Biodiversity & Conservation Efforts:

### **White River Watershed project**



The purpose of the White River Watershed Project is to advocate Best Management Practices (BMPs) through education, demonstration and financial incentive. BMPs are both behavioral and structural. Behavioral BMPs include day to day decision making such as conserving water, proper disposal of waste, and other conservation methods - while structural BMPs include modifications to the landscape or machinery. It is important that we implement both types BMPs when feasible in order to reduce negative environmental impacts which inhibits nature's ability to produce natural goods, and endangers the health of entire ecosystems. The mission of the WRWP is to create a better awareness of water quality issues in Delaware County and to work with local landowners to develop best management practices for their properties and landholdings.<sup>1</sup>

<sup>1</sup> <http://whiteriverwatershedproject.org/WRWP/>

## Endangered Species:

### **Northern Long-Eared Bat (*Myotis septentrionalis*)**



The northern long-eared bat is one of the species of bats most impacted by the disease white-nose syndrome. Due to declines caused by white-nose syndrome as well as continued spread of the disease, the northern long-eared bat received protection as a threatened species under the Endangered Species Act. They hibernate in caves and mines -

swarming in surrounding wooded areas in autumn. Roosts and forages in upland forests and woods.

A team of U.S. Fish and Wildlife Service biologists, with help from interested parties, developed new range wide guidance for conducting summer surveys for Indiana bats.<sup>2</sup>

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<sup>2</sup> <https://www.fws.gov/midwest/endangered/mammals/nleb/index.html>

# Environmental Profile: Dubois County, Indiana



## Information & County Contacts

### *Dubois County Visitor's Center:*

(800) 968-4578

### *Dubois County Soil & Water Conservation District:*

(812) 482-1171 ext. 3



## Land, Water, & Biodiversity & Conservation Efforts:

### Hoosier National Forest



The Hoosier National Forest, in the hills of south central Indiana, provides a wide mix of opportunities and resources for people to enjoy. Rolling hills, back-country trails, and rural crossroad communities make this small but beautiful Forest a favorite! Forest managers work with the public to develop a shared vision of how this 202,000 acre Forest

should be managed. We strive to provide outstanding stewardship by restoring, maintaining, and interpreting our public's cultural and natural resources. We offer high quality, resilient and rare ecosystems that provide diverse outdoor recreational experiences.<sup>1</sup>

<sup>1</sup><http://www.fs.usda.gov/hoosier/>

# Environmental Profile: Dubois County, Indiana



## Endangered Species:

### **King Rail (*Rallus elegans*)**



The King Rail is a large rail found locally in freshwater wetlands throughout the eastern United States and southern Ontario, with the largest populations occurring along the Gulf Coast in Louisiana and Texas. Available data indicate steep population declines throughout its range, especially for

migratory populations that breed in the Midwest and southern Ontario.<sup>2</sup>

### **Bradley's spleenwort (*Asplenium bradleyi*)**



*Asplenium bradleyi*, commonly known as Bradley's spleenwort or cliff spleenwort, is a rare epipetric fern of east-central North America. Named after Professor Frank Howe Bradley, who first collected it in Tennessee, it may be found infrequently throughout much

of the Appalachian Mountains, the Ozarks, and the Ouachita Mountains, growing in small crevices on exposed sandstone cliffs.<sup>3</sup>

<sup>2</sup>[http://www.fws.gov/midwest/MidwestBird/FocalSpecies/documents/KIRA\\_Executive\\_Summary\\_Brochure2.pdf](http://www.fws.gov/midwest/MidwestBird/FocalSpecies/documents/KIRA_Executive_Summary_Brochure2.pdf)

<sup>3</sup><http://www.inaturalist.org/taxa/136553-Asplenium-bradleyi>



# Environmental Profile: Elkhart County, Indiana

## Information & County Contacts

### *Elkhart County Visitor's Center:*

(574) 262-8161

### *Elkhart County Soil & Water Conservation District:*

(574) 533-3630 ext. 3



## Land, Water, & Biodiversity & Conservation Efforts:

### **Ox Bow County Park**



Ox Bow Park was established in 1969. The park was originally developed with matching funds by the Bureau of Outdoor Recreation through the Land and Water Conservation Fund. Prior to that date, what is now Ox Bow Park, was a self-supporting 113 acre farm for the Elkhart County Home. Residents of the County Home helped work the farm in return for room, board and medical care.

Ox Bow Park gets its name from a natural feature found within the park, an oxbow of the Elkhart River. Oxbows are U-shaped lakes that form when rivers change their course. Their shape resembles the bow of oxen yokes used by pioneers. This ancient river channel is now a wetland which supports fish and a wide variety of plant and wildlife species.<sup>1</sup>

<sup>1</sup> [http://www.elkhartcountyparks.org/properties\\_locations/ox\\_bow\\_park.htm](http://www.elkhartcountyparks.org/properties_locations/ox_bow_park.htm)

# Environmental Profile: Elkhart County, Indiana



## Endangered Species:

### **American burying beetle (*Nicrophorus americanus*)**



About an inch and a half long, the American burying beetle can be identified by its striking, distinctive coloring. The body is shiny black, and on its wing covers are four scalloped, orange-red markings. Most distinctively, there is an orange-red marking on the beetle's pronotum, a large shield-like area just behind the head.

The American burying beetle has orange facial markings and orange tips on the antennae. The beetles are strong fliers, moving as far as a kilometer in one night.

Biologists have not unlocked the mystery why the American burying beetle has disappeared from so many areas. Widespread use of pesticides may have caused local populations to disappear. The dramatic disappearance of this insect from many areas, however, took place before widespread use of DDT. Lack of small carcasses to bury would prevent the species from reproducing, and changes in land use have reduced the quantity of small- to medium-sized birds and mammals preferred by the American burying beetle. Even the extinction of the once ubiquitous passenger pigeon may have had a ripple effect on carrion feeders like this beetle.<sup>2</sup>

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<sup>2</sup> [https://www.fws.gov/Midwest/endangered/insects/ambb/abb\\_fact.html](https://www.fws.gov/Midwest/endangered/insects/ambb/abb_fact.html)



# Environmental Profile: Floyd County, Indiana

## Information & County Contacts

### ***Floyd County Visitor's Center:***

(800) 552-3842

### ***Floyd County Soil & Water Conservation District:***

(812) 945-9936



## Endangered Species:

### **Northern Red Salamander (*Pseudotriton ruber ruber*)**



Ground color is reddish-orange, irregularly peppered with large numbers of black spots. The pupils of the eyes are colored yellow. Younger individuals are the most brightly colored, often described as crimson. They are found in and around springs, seeps, and primary headwater streams,

where they usually remain hidden under leaf litter, logs, rocks, or underground. Red Salamander populations rely on sources of groundwater, such as springs, seeps, and headwater streams. Their permeable skin makes them especially susceptible to pollution, such as pesticides, herbicides, runoff, and acid mine drainage.<sup>1</sup>

<sup>1</sup>[http://ohioamphibians.com/salamanders/Red\\_Salamander.html](http://ohioamphibians.com/salamanders/Red_Salamander.html)



# Environmental Profile: Floyd County, Indiana

## Northern Scarlet Snake (*Cemophora coccinea copei*)



From above appears to have reddish, yellowish, and black bands, similar to venomous Coral Snake, but in Scarlet Snake bands are only on top and sides and do not encircle body. The Scarlet Snake is a Coral Snake mimic. The Scarlet's wide red bands are separated by much narrower black-bordered yellow bands. The Coral Snake has wide red and wide black bands separated by narrow yellow bands. A folk saying goes, "Red touch yellow, kill a fellow; red touch black, friend of Jack."<sup>2</sup>

## Southeastern Crowned Snake (*Tantilla coronata*)



The southeastern crowned snake (*Tantilla coronata*) is small, slender snake, ranging from 5.2–9.6 in (13.3-24.5 cm) in length. They can be found in a variety of habitats, but are normally collected under rocks, logs, leaf litter, and other ground debris. They are most common in sandhills and dry pine forests. Primarily an insectivore, it feeds on insect larvae, snails, spiders, and especially centipedes. It is rear-fanged but its tiny size makes it no danger to humans or their pets.<sup>3</sup>

<sup>2</sup><http://www.enature.com/fieldguides/detail.asp?recNum=AR0802>

<sup>3</sup><http://srelherp.uga.edu/snakes/tancor.htm>

# Environmental Profile: Fountain County, Indiana



## Information & County Contacts

### ***Fountain County Visitor's Center:***

(765) 793-5000

### ***Fountain County Soil & Water Conservation District:***

(765) 762-6844 ext. 3



## Endangered Species:

### **White Wartyback (*Plethobasus cicatricosus*)**



Dams and reservoirs have flooded most of this mussel's habitat, reducing its gravel and sand habitat and probably affecting the distribution of its fish hosts. Also, erosion caused by strip mining, logging and farming adds silt to many rivers, which can clog the mussel's feeding siphons and even bury it completely. Other threats include pollution from agricultural and industrial runoff. These chemicals and toxic metals become concentrated in the body tissues of filter-feeding mussels such as the white wartyback, eventually poisoning it to death.<sup>1</sup>

<sup>1</sup> [https://www.fws.gov/midwest/endangered/clams/warty\\_fc.html](https://www.fws.gov/midwest/endangered/clams/warty_fc.html)

# Environmental Profile: Fountain County, Indiana



## Fanshell (*Cyprogenia stegaria*)



This mussel is found in medium to large rivers. It buries itself in sand or gravel in deep water of moderate current, with only the edge of its shell and its feeding siphons exposed.

Dams and reservoirs have flooded most of this mussel's habitat, reducing its gravel and sand habitat and probably affecting the distribution of its fish hosts. Commercial harvesting may also be affecting this species, because only 3 of the 12 known populations are reproducing.<sup>2</sup>

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<sup>2</sup> [https://www.fws.gov/midwest/endangered/clams/fansh\\_fc.html](https://www.fws.gov/midwest/endangered/clams/fansh_fc.html)

# Environmental Profile: Franklin County, Indiana



## Information & County Contacts

### ***Franklin County Visitor's Center:***

(765) 647-6522

### ***Franklin County Soil & Water Conservation District:***

(765) 647-2651 ext. 3



## Land, Water, & Biodiversity & Conservation Efforts:

### **Brookville Lake**

A part of the Brookville Lake -Whitewater Memorial State Park Complex, Brookville Reservoir lies in the historic east fork of the Whitewater River Valley. Traces of prehistoric Native American mounds are still found throughout this



valley. The area is known by some worldwide for its significant deposit of Ordovician fossils. These 450-million-year-old fossils, reminders of a primeval inland sea, can still be seen. The area was purchased by the federal government for flood control and to provide a place for wildlife and recreation. More than 11,000 acres provide a variety of habitats for plants and wildlife. Brookville is one of the few sites in Indiana where walleye grow big enough for fisheries biologists to milk the females for eggs to supply walleye fry to many lakes in Indiana.<sup>1</sup>

<sup>1</sup><http://www.in.gov/dnr/parklake/2961.htm>

## Endangered Species:

### **Variegate Darter (*Etheostoma variatum*)**

This species is widespread in the upper and middle Ohio River basin. Habitat includes swift gravel and rubble riffles of small to medium rivers; typically this darter occurs in rubble-boulder-gravel riffles with some sand; individuals move



downstream to deep riffles and pools for winter. Eggs are laid in sand and small gravel on the downstream side of large rocks near riffles. These darters have disappeared in areas of heavy domestic, industrial, or agricultural pollution. In some areas, threats include siltation and

acidification of streams from coal mining wastes.<sup>2</sup>

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<sup>2</sup><http://eol.org/pages/207275/details>



# Environmental Profile: Fulton County, Indiana

## Information & County Contacts

### ***Fulton County Visitor's Center:***

(574) 223-2352

### ***Fulton County Soil & Water Conservation District:***

(574) 223-3220



## Land, Water, & Biodiversity & Conservation Efforts:

### **Manitou Wetland complex (Burton, Kern and Manitou Islands preserves)**



Several wetland communities are found within the preserve. Many acres of high-quality marshland are covered with cattails, lily pads, bulrushes, reed grass and other grasses, sedges and Aquatic flowers. Here and there forested islands jut up out of the

marshland. Higher islands are forested with oaks and hickories, and low islands with tamarack trees.

Wildlife abounds on the preserve. Marshland birds such as marsh wrens, rails, ducks, herons, red-winged blackbirds, and swamp sparrows are found throughout. Migration time brings even more waterfowl into the area. Muskrats, mink, deer, raccoon, skunks, and opossum are among the many animals that may be seen. <sup>1</sup>

<sup>1</sup> <http://www.in.gov/dnr/naturepreserve/files/np-ManitouBurtonKern-color.pdf>

# Environmental Profile: Fulton County, Indiana



## Endangered Species:

### **Rabbitsfoot (*Quadrula cylindrica cylindrica*)**



The rabbitsfoot, a freshwater mussel, is a threatened species. It is found in rivers and streams in Alabama, Arkansas, Georgia, Kansas, Kentucky, Illinois, Indiana, Louisiana, Mississippi, Missouri, Ohio, Oklahoma, Pennsylvania, Tennessee, and West Virginia. We estimate that it has been lost from about 64 percent of its historical range. While 51 of 140 historical

populations are still present, only 11 populations are viable; 23 populations are at risk of extirpation and 17 populations do not seem to be reproducing at a level that can sustain the populations. Most of the existing rabbitsfoot populations are marginal to small and isolated.<sup>2</sup>

<sup>2</sup> <https://www.fws.gov/midwest/Endangered/clams/rabbitsfoot/index.html>

# Environmental Profile: Gibson County, Indiana



## Information & County Contacts

### ***Gibson County Visitor's Center:***

(812) 385-0999

### ***Gibson County Soil & Water Conservation District:***

(812) 385-5033 ext. 3



## Land, Water, & Biodiversity & Conservation Efforts:

### **Patoka River National Wildlife Refuge**



The Patoka River National Wildlife Refuge and Management Area was established in 1994 and currently encompasses 6,600 acres (with an ultimate acquisition area of 22,472 acres) of wetlands, floodplain forest, and uplands along 30 miles of the Patoka River corridor. The refuge was established to provide resting, feeding,

and nesting habitat for migratory birds, to maintain and increase biodiversity, to restore, protect, and manage the river corridor of bottomland hardwood wetlands, to improve the water quality of the Patoka River, to develop citizen understanding and support for natural resources, and provide wildlife-related education and recreation opportunities.<sup>1</sup>

<sup>1</sup>[http://www.fws.gov/refuge/patoka\\_river/](http://www.fws.gov/refuge/patoka_river/)

# Environmental Profile: Gibson County, Indiana



## Endangered Species:

### **Eastern Mud Turtle (*Kinosternon subrubrum subrubrum*)**



This is a small, flattened, oval turtle whose back edge is nearly perpendicular. The head is large and irregularly streaked, spotted, or marbled with light colors. The plastron (lower shell) is relatively large with 2 obvious hinges (hinges are not developed in young). The carapace (upper shell) length is from 3-5 inches long, smooth and light brown to almost black in color. In the young turtle, the carapace is rougher and black or very dark brown, and each marginal scale bears a light spot. The male has a longer tail with prominent claw at the tip and two small horny patches on the inner surface of each hind leg.<sup>2</sup>

### **Copperbelly Water Snake (*Nerodia erythrogaster eglecta*)**



The copperbelly water snake is a non-venomous snake that grows 2 to 4 feet in length. It has a solid dark (usually black) back with a bright orange-red belly. Copperbelly water snakes need a mosaic of shallow wetlands or floodplain wetlands surrounded by forested uplands. Seasonally flooded wetlands without fish are favored foraging areas, and copperbellies frequently move from one wetland to another.<sup>3</sup>

<sup>2</sup><http://www.dgif.virginia.gov/wildlife/information/?s=030051>

<sup>3</sup><http://www.fws.gov/midwest/endangered/reptiles/cws/cwsFactSht.html>

# Environmental Profile: Grant County, Indiana



## Information & County Contacts

### **Grant County Visitor's Center:**

(765) 668-5435

### **Grant County Soil & Water Conservation District:**

(765) 651-2417



## Endangered Species:

### **Virginia Rail (*Rallus limicola*)**



A secretive bird of freshwater marshes, the Virginia Rail most often remains hidden in dense vegetation. It possesses many adaptations for moving through its habitat, including a laterally compressed body, long toes, and flexible vertebrae.

- The forehead feathers of the Virginia Rail are adapted to withstand wear from pushing through dense marsh vegetation.
- The Virginia Rail can swim under water, propelling itself with its wings. It swims in this way probably only to flee predators.
- The Virginia Rail and other rail species have the highest ratio of leg muscles to flight muscles of any birds.
- The Virginia Rail builds numerous "dummy nests" in addition to the one where eggs are actually laid.<sup>1</sup>

<sup>1</sup> [https://www.allaboutbirds.org/guide/virginia\\_rail/lifehistory](https://www.allaboutbirds.org/guide/virginia_rail/lifehistory)

# Environmental Profile: Grant County, Indiana



## Henslow's Sparrow (*Ammodramus henslowii*)



An uncommon and famously inconspicuous bird, the Henslow's Sparrow breeds in weedy grasslands of the east-central United States. Its population numbers have declined steadily over the past few decades, largely because of habitat loss.

- The Henslow's Sparrow sings most actively at dawn and dusk, but sometimes sings all night long.
- The Henslow's Sparrow takes flight only with great reluctance, preferring to flee from threats by running through the grass.
- Henslow's Sparrow was named by John James Audubon in honor of John Stevens Henslow, a botanist, minister, good friend of Audubon, and teacher of Charles Darwin.<sup>2</sup>

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<sup>2</sup> [https://www.allaboutbirds.org/guide/Henslows\\_Sparrow/lifehistory](https://www.allaboutbirds.org/guide/Henslows_Sparrow/lifehistory)

# Environmental Profile: Greene County, Indiana



## Information & County Contacts

### **Greene County Visitor's Center:**

(info@visitgc.com)

### **Greene County Soil & Water Conservation District:**

(812) 384-4781 ext. 3



## Land, Water, & Biodiversity & Conservation Efforts:

### **Goose Pond Fish & Wildlife Area**

Goose Pond Fish and Wildlife Area is dedicated to providing quality hunting, wildlife viewing and trapping opportunities while maintaining 8,064 acres of prairie and marsh habitat. Prior to the property being acquired by the Indiana



Department of Natural Resources (IDNR), the previous landowner entered into a permanent easement with the Natural Resources Conservation Service (NRCS). This permanent easement was part of the Wetlands Reserve Program (WRP)

and consisted of 7,200 acres. NRCS then assumed responsibility for the wetland restoration.<sup>1</sup>

<sup>1</sup><http://www.in.gov/dnr/fishwild/3094.htm>

# Environmental Profile: Greene County, Indiana



## Hillenbrand Fish & Wildlife Area



Hillenbrand Fish & Wildlife Area is dedicated to providing quality hunting and fishing opportunities while maintaining 3,400 acres of upland game and wetland habitat, lakes and shallow impoundments. It is located east and west of S.R. 59 approximately five miles north of Linton.

The property was purchased by the state in 1995. Wildlife management efforts began immediately on the 3,400 acres of mostly reclaimed surface mine land in Greene County. Hillenbrand is 60 percent grasslands with 125 acres of wetland habitat. The property is named after Indiana businessman John A. Hillenbrand II for his dedication to Indiana's natural resources.<sup>2</sup>

## Endangered Species:

### **Clubshell (*Pleurobema clava*)**

This mussel prefers clean, loose sand and gravel in medium to small rivers and streams. The clubshell will bury itself in the bottom substrate to depths of up to



four inches. The clubshell was once found from Michigan to Alabama and from Illinois to West Virginia. Reasons for its decline in the upper Ohio and Wabasha watersheds are mainly due to pollution from agricultural run-off and industrial wastes, and extensive impoundments for navigation.<sup>3</sup>

<sup>2</sup><http://www.in.gov/dnr/fishwild/3093.htm>

<sup>3</sup><http://www.fws.gov/northeast/pafo/pdf/clubshell%20fact%20sheet.pdf>

# Environmental Profile: Hamilton County, Indiana



## Information & County Contacts

### ***Hamilton County Visitor's Center:***

(800) 776-8687

### ***Hamilton County Soil & Water Conservation District:***

(317) 773-2181



## Land, Water, & Biodiversity & Conservation Efforts:

### **Ritchey Woods Nature Preserve**



Ritchey Woods Nature Preserve is approximately 127 acres: 42 acres is an Indiana State Designated Nature Preserve and the remaining 85 acres is under a conservation easement governed by the Department of Natural Resources. The Preserve offers ten different trails totaling 2.25 miles. Cheeney Creek

meanders through the north end of the property and is viewed best from the Creek Ridge Trail.<sup>1</sup>

<sup>1</sup> <http://www.fishers.in.us/DocumentCenter/View/278>

## Endangered Species:

### **Prairie White-Fringed Orchid (*Platanthera leucophaea*)**



This perennial plant is about 1-2' tall, forming a single central stem with occasional short side stems. The alternate light green leaves are up to 6" long and 1½" across, and become smaller in size as they ascend the stem. They are lanceolate or narrowly lanceolate, and sparsely distributed overall. Various species of Hawkmoths pollinate the flowers. While seeking the copious nectar, a moth may acquire some pollen on its head, which is then carried to the next plant in bloom.<sup>2</sup>

### **Eastern Massasauga Rattlesnake (*Sistrurus catenatus*)**



Massasaugas are small snakes with thick bodies, heart-shaped heads and vertical pupils. The average length of an adult is about 2 feet. Adult massasaugas are gray or light brown with large, light-edged chocolate brown blotches on the back and smaller blotches on the sides. Young snakes have the same markings, but are more vividly colored. Other snakes that look similar include the fox snake, milk snake and hognose snake.<sup>3</sup>

<sup>2</sup> [http://www.illinoiswildflowers.info/prairie/plantx/pwf\\_orchidx.htm](http://www.illinoiswildflowers.info/prairie/plantx/pwf_orchidx.htm)

<sup>3</sup> <http://www.fws.gov/midwest/endangered/reptiles/eama/eama-fct-sht.html>

# Environmental Profile: Hancock County, Indiana



## Information & County Contacts

### *Hancock County Visitor's Center:*

(317) 477-8687

### *Hancock County Soil & Water Conservation District:*

(317) 462-2283 ext. 3



## Local Environmental Challenges:

### **Poer Farm**

The 5-acre Poer Farm site is located on a small hill between two streams and along East County Road about three miles north of Wilkinson, Indiana. The site is an abandoned tract of land with a collapsed house and barn that have been vandalized. The surrounding area is open farmland that is being tilled.

Agricultural lands completely surround the site and the nearest residence is about 650 feet to the north. The Poer Farm site consisted of three separate areas where Norman Poer and Michael Coleman received and stored about 275 55-gallon drums of waste solvents and paint resins from 1973 until 1983. Poer and Coleman had planned to blend these materials into a low-quality paint for painting area bridges and barns. They abandoned the project and left the 55-gallon drums containing the paints and solvents on the site.<sup>1</sup>

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<sup>1</sup> [http://www3.epa.gov/region5/superfund/npl/sas\\_sites/indiana/IND980684583.html](http://www3.epa.gov/region5/superfund/npl/sas_sites/indiana/IND980684583.html)

## Endangered Species:

### **Cucumber Magnolia (*Magnolia acuminata*)**



Cucumbertree (*Magnolia acuminata*), also called cucumber magnolia, yellow cucumbertree, yellow-flower magnolia, and mountain magnolia, is the most widespread and hardiest of the eight native magnolia species in the United States, and the only magnolia native to Canada. They reach their greatest size in moist soils of slopes and valleys in the mixed hardwood forests of the southern Appalachian Mountains.

Growth is fairly rapid and maturity is reached in 80 to 120 years.<sup>2</sup>

### **Upland Sandpiper (*Bartramia longicauda*)**



A shorebird of grasslands, not shores, the Upland Sandpiper inhabits native prairie and other open grassy areas in North America. Once abundant in the Great Plains, it has undergone steady population declines since the mid-19th century, because of hunting and loss of habitat.<sup>3</sup>

<sup>2</sup> [http://www.na.fs.fed.us/pubs/silvics\\_manual/volume\\_2/magnolia/accuminata.htm](http://www.na.fs.fed.us/pubs/silvics_manual/volume_2/magnolia/accuminata.htm)

<sup>3</sup> [https://www.allaboutbirds.org/guide/Upland\\_Sandpiper/id](https://www.allaboutbirds.org/guide/Upland_Sandpiper/id)

# Environmental Profile: Harrison County, Indiana



## Information & County Contacts

### *Harrison County Visitor's Center:*

(812) 738-2138

### *Harrison County Soil & Water Conservation District:*

(812) 738-8124 ext. 3



## Land, Water, & Biodiversity & Conservation Efforts:

### **O'Bannon Woods State Park**



O'Bannon Woods State Park (formerly Wyandotte Woods State Recreation Area) lies in the central and extreme southern part of the state, bordering the Ohio River. It is nestled inside 26,000-acre Harrison Crawford State Forest, but is managed separately, along with Wyandotte Caves State Recreation Area.

Indiana's first natural and scenic river, Blue River, flows through the state park and forest.<sup>1</sup>

<sup>1</sup><http://www.in.gov/dnr/parklake/2976.htm>

## Endangered Species

### **Western Cottonmouth (*Agkistrodon piscivorus leucostoma*)**



The cottonmouth is a dark, stout, thick-bodied venomous snake. When frightened, the cottonmouth will pop its mouth open. The skin inside its mouth is bright white-and the reason it is called "cottonmouth." They are dark, grayish-brown with little or no markings. Very old cottonmouths may be entirely black. Its broad, flat head distinctly

wider than its neck, and it has an elliptical (cat-like) pupil. Western cottonmouths prefer lowland swamps, lakes, rivers, sloughs, irrigation ditches, rice fields and salt marshes, but are not confined to living in moist habitats.<sup>2</sup>

### **Peregrine Falcon (*Falco peregrinus*)**



Powerful and fast-flying, the Peregrine Falcon hunts medium-sized birds, dropping down on them from high above in a spectacular stoop. They were virtually eradicated from eastern North America by pesticide poisoning in the middle 20th century. Look for Peregrine Falcons

perching or nesting on skyscrapers, water towers, cliffs, power pylons, and other tall structures. If a mudflat full of shorebirds and ducks suddenly erupts from the ground, scan the skies.<sup>3</sup>

<sup>2</sup><https://tpwd.texas.gov/huntwild/wild/species/westerncottonmouth/>

<sup>3</sup>[http://www.allaboutbirds.org/guide/Peregrine\\_Falcon/id](http://www.allaboutbirds.org/guide/Peregrine_Falcon/id)

# Environmental Profile: Hendricks County, Indiana



## Information & County Contacts

### *Hendricks County Visitor's Center:*

(800) 321-9666

### *Hendricks County Soil & Water Conservation District:*

(317) 745-2555



## Land, Water, & Biodiversity & Conservation Efforts:

### **Burnett Woods Nature Preserve**



Located in Avon, the Burnett Woods Nature Preserve was purchased by Central Indiana Land Trust thanks to a gift from Ruth Burnett. This 80-acre woods is dominated by tall black walnut, oak, hickory, maple, and tulip poplar trees. The woods contain a rich mixture of native wildflowers and shrubs.<sup>1</sup>

<sup>1</sup> <http://www.conservingindiana.org/places-to-visit/burnett-woods-nature-preserve/>

## McCloud Nature Park



At 232-acres, McCloud Nature Park is a premier nature park in central Indiana. Visitors can enjoy over six miles of hiking trails, access to Big Walnut Creek, year-round programs at the Nature Center and a wide variety of wildlife viewing opportunities.<sup>2</sup>

### Endangered Species:

#### **Sedge Wren (*Cistothorus platensis*)**



The Sedge Wren is a small, secretive wren that breeds in short grass and sedge marshes. Perhaps because of the highly transitory nature of its nesting habitats, the Sedge Wren moves around a great deal from year to year, not staying in one place for long.<sup>3</sup>

<sup>2</sup> <http://www.hendrickscountyparks.org/index.php/your-county-parks/2-content/8-mccloudpark>

<sup>3</sup> [https://www.allaboutbirds.org/guide/Sedge\\_Wren/id](https://www.allaboutbirds.org/guide/Sedge_Wren/id)



# Environmental Profile: Henry County, Indiana

## Information & County Contacts

### *Henry County Visitor's Center:*

(800) 676-4302

### *Henry County Soil & Water Conservation District:*

(765) 529-2303 ext. 3



## Land, Water, & Biodiversity & Conservation Efforts:

### Summit Lake State Park



Summit Lake has an excellent bird watching and wildlife observation area. The property has always been an important area for waterfowl because of the many low-lying wet meadows and

prairies. Migratory species have included rare species like the black tern, bald eagle, sandhill crane, American bittern, least bittern, king rail and osprey. Zeigler Woods, in the southwest corner of the park, is Henry County's first nature preserve. Zeigler Woods has rich flora and fauna with little evidence of human disturbance.<sup>1</sup>

<sup>1</sup> <http://www.in.gov/dnr/parklake/2967.htm>

# Environmental Profile: Henry County, Indiana



## Wilbur Wright Fish & Wildlife Area



Wilbur Wright Fish & Wildlife Area is 1,070 acres of river valleys and associated uplands. The Big Blue River is the western boundary and the dark, organic soil floodplain occupies approximately one

third of the property. The remainder of the property is the adjacent uplands and the Little Blue River valley. The property has areas of mature woods, fallow cropland, prairie grasses and forbs, and other areas of early to mid-successional habitat. The property also has areas of annual and perennial wildlife food plots. There is a small wetland near the Big Blue River.<sup>2</sup>

## Stout Woods Nature Preserve



Stout Woods is a high quality example of a Central Till Plain Flatwoods, a forest type that once covered vast areas of central Indiana. Stout Woods has a rich diversity of species and a lack of invasives. There

are wetlands, salamanders, sedges, white, red, and bur oaks, tulip trees, and other species.<sup>3</sup>

<sup>2</sup> <http://www.in.gov/dnr/fishwild/3081.htm>

<sup>3</sup> [http://www.in.gov/dnr/naturepreserve/files/np-Stout\\_Woods.pdf](http://www.in.gov/dnr/naturepreserve/files/np-Stout_Woods.pdf)



# Environmental Profile: Howard County, Indiana

## Information & County Contacts

**Howard County Visitor's Center:**

(765) 457-6802

**Howard County Soil & Water Conservation District:**

(765) 457-2114 ext. 3



## Local Clean Energy Initiatives:

### **Northwestern School Corporation Wind Project**



Located in north central Indiana, Northwestern School Corporation and Howard County boasts natural wind resources. The community wind project includes one 322-foot high, three-blade 900 kW wind turbine that will directly power the school through a net metering installation with Duke Energy.

Northwestern utilized a \$2.3 million Clean Renewable Energy Bond to help finance the project. The revenue generated will benefit the school budget by offsetting approximately 70 percent of current utility operating costs and generate \$7 million in energy savings over the 25-year project life.<sup>1</sup>

<sup>1</sup> <http://www.performanceservices.com/project/northwestern-school-corporation-wind-project>



# Environmental Profile: Howard County, Indiana

## Endangered Species:

### Indiana Bat (*Myotis sodalis*)



The Indiana bat was listed as endangered in 1967 due to episodes of people disturbing hibernating bats in caves during winter, resulting in the death of large numbers of bats. Indiana bats are vulnerable to disturbance because they hibernate in large numbers in only a few caves (the largest hibernation caves support from 20,000 to 50,000 bats). Other threats that have

contributed to the Indiana bat's decline include commercialization of caves, loss of summer habitat, pesticides and other contaminants, and most recently, the disease white-nose syndrome.<sup>2</sup>

<sup>2</sup> <https://www.fws.gov/MIDWEST/endangered/mammals/inba/index.html>

# Environmental Profile: Huntington County, Indiana



## Information & County Contacts

### *Huntington County Visitor's Center:*

(260) 359-8687

### *Huntington County Soil & Water Conservation District:*

(260) 356-6816 ext. 3



## Land, Water, & Biodiversity & Conservation Efforts:

### J. E. Roush Lake



Roush Lake Fish and Wildlife area is dedicated to providing quality hunting and fishing opportunities while maintaining 7,347 acres of land, 900 acre lake, and 350 acres of impoundments. The

property is a long narrow band along the Wabash River approximately 15 miles long.

Roush Lake was constructed in 1967 and is one of the three Upper Wabash Valley Lakes operating primarily as a unit with Mississinewa and Salamonie Lakes to control flood waters along the Wabash River Basin and secondarily with other lakes downstream in reduction of lower Wabash and Ohio River floods. The lake provides benefits to nearly 60,000 acres of agricultural lands and general recreation activities associated with hunting and fishing. The Corps of Engineers partners with Indiana Department of Natural Resources under a lease agreement.

# Environmental Profile: Huntington County, Indiana



Indiana Division of Fish and Wildlife operates and maintains the recreation facilities and wildlife areas at the lake. Roush Lake was operated by Indiana Division of Reservoirs until 1998 and then by the Indiana Division of State Parks and Reservoirs until 2010.<sup>1</sup>

## Salamonie River State Forest



The name Salamonie was derived from the Native American word "O-sah-mo-nee," which means "yellow paint." Native Americans made yellow paint from the bloodroot plant which grew in great

abundance along the winding banks of the river.

Salamonie River State Forest was created as a demonstration riverside forest for the reclamation of eroded land. The state forest was established in the mid 1930's when local people assisted the state in purchasing the hilly land and bluffs along the Salamonie River. Most of the land's topsoil was eroded away, making reclamation of the area a major challenge. To deal with this challenge, a 200-member Civilian Conservation Corps (CCC) camp was created. The CCC designed and planned the forest and recreation facilities and opened a stone quarry. Several hundred acres of land were reforested and many recreation facilities were built, including Hominy Ridge Lake and the large stone shelter house that stands near the lake.<sup>2</sup>

<sup>1</sup> <http://www.in.gov/dnr/fishwild/6358.htm>

<sup>2</sup> <http://www.in.gov/dnr/forestry/4814.htm>



# Environmental Profile: Jackson County, Indiana

## Information & County Contacts

### *Jackson County Visitor's Center:*

(812) 524-1914

### *Jackson County Soil & Water Conservation District:*

(812) 358-2367 ext. 3



## Land, Water, & Biodiversity & Conservation Efforts:

### Starve-Hollow State Recreation Area



Starve-Hollow State Recreation Area encompasses approximately 280 acres offering some of the best camping in southern Indiana. Carved out of 18,000-acre Jackson-Washington State Forest, it provides fishing and boat rental on 145-acre Starve Hollow Lake, swimming on the large sandy

beach or the chance to learn about conservation at the Education Center. For the more avid outdoor enthusiast, hiking and mountain biking on nearby trails is available.<sup>1</sup>

<sup>1</sup><http://www.in.gov/dnr/forestry/4819.htm>

# Environmental Profile: Jackson County, Indiana



## Jackson-Washington State Forest



Jackson-Washington State Forest encompasses nearly 18,000 acres in Jackson and Washington counties in the heart of southern Indiana. The main forest and office area are located 2.5 southeast of Brownstown on State Road 250. This part of the state contains unique topography known as the

“knobs”. This region provides scenic views second to none and offers some breathtaking hiking opportunities. The majority of the land that now makes up Jackson-Washington was purchased by the state of Indiana in the 1930’s and 1950’s. The Heritage Trust program, which uses funds from the sale of environmental license, Division of Forestry funds generated from portions of timber sales, and assistance from other conservation partners has made possible the acquisition of additional state forest lands.<sup>2</sup>

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<sup>2</sup><http://www.in.gov/dnr/forestry/4820.htm>



# Environmental Profile: Jasper County, Indiana

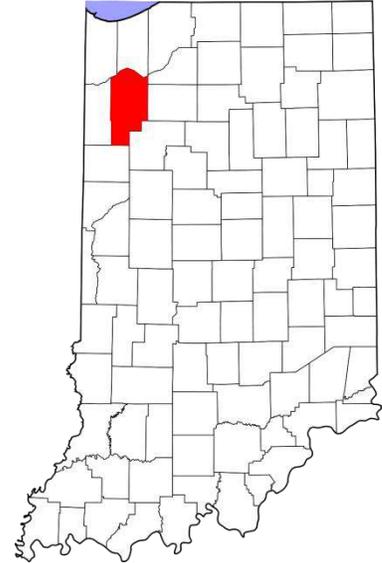
## Information & County Contacts

### *Jasper County Visitor's Center:*

(219) 989-7979

### *Jasper County Soil & Water Conservation District:*

(219) 866-8008



## Land, Water, & Biodiversity & Conservation Efforts:

### Jasper-Pulaski Fish & Wildlife Area



Jasper-Pulaski Fish & Wildlife Area is dedicated to providing quality hunting and fishing opportunities while maintaining 8,142 acres of wetland, upland and woodland game habitat. The property's suitable habitat provides an ideal stopover for migratory birds. More than 10,000 sandhill cranes stop during fall

migration.

Acquisition of the land for Jasper-Pulaski began in 1929. During the 1930s, Jasper-Pulaski was designated as a game farm and game preserve. Hunting began at the property in 1958, and in 1965, the area was designated as a fish and game area. Then in 1972 the name was changed to fish and wildlife area.<sup>1</sup>

<sup>1</sup> <http://www.in.gov/dnr/fishwild/3091.htm>

# Environmental Profile: Jasper County, Indiana



## Endangered Species:

### Northern Harrier (*Circus cyaneus*)



The Northern Harrier is distinctive from a long distance away: a slim, long-tailed hawk gliding low over a marsh or grassland, holding its wings in a V-shape and sporting a white patch at the base of its tail. Up close it has an owl-like face that helps it hear mice and voles beneath the vegetation. Each gray-and-white male may mate with several

females, which are larger and brown. These unusual raptors have a broad distribution across North America and Eurasia.

Northern Harriers are the most owl-like of hawks (though they're not related to owls). They rely on hearing as well as vision to capture prey. The disk-shaped face looks and functions much like an owl's, with stiff facial feathers helping to direct sound to the ears.<sup>2</sup>

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<sup>2</sup> [https://www.allaboutbirds.org/guide/Northern\\_Harrier/lifehistory](https://www.allaboutbirds.org/guide/Northern_Harrier/lifehistory)



# Environmental Profile: Jay County, Indiana

## Information & County Contacts

### *Jay County Visitor's Center:*

(260) 726-3366

### *Jay County Soil & Water Conservation District:*

(260) 726-4373 ext. 3



## Land, Water, & Biodiversity & Conservation Efforts:

### **Bibler Nature Preserve**



Once part of a homestead called Spring Brook Farm, this preserve has abandoned farm fields, as well as grasslands and second-growth woods of oak, hickory and maple. Rocky streams form the north and west boundaries. Visitors may see birds of field, and forest and such wildflowers as twinleaf and False Solomon's seal.<sup>1</sup>

<sup>1</sup> [http://www.acreslandtrust.org/clientimages/44551/preserve-field-guides/acres\\_jay\\_bibler.pdf](http://www.acreslandtrust.org/clientimages/44551/preserve-field-guides/acres_jay_bibler.pdf)

# Environmental Profile: Jay County, Indiana

## Madison Township School Nature Preserve



From 1854 to 1975, students attended school at this site, first in a log cabin, then in a “modern” school built in 1923. Today, a boulder with an inscription commemorates the school, and sugar maple, ash, hickory and oak trees grow where students once played. There’s an understory of smaller trees, shrubs and wildflowers. Slowly the trees are maturing, and through natural

succession, the other vegetation is changing.<sup>2</sup>

### Endangered Species:

#### Indiana Bat (*Myotis sodalis*)



The Indiana bat was listed as endangered in 1967 due to episodes of people disturbing hibernating bats in caves during winter, resulting in the death of large numbers of bats. Indiana bats are vulnerable to disturbance because they hibernate in large numbers in only a few caves (the largest hibernation caves support from 20,000 to 50,000 bats). Other threats that have contributed to the Indiana bat's

decline include commercialization of caves, loss of summer habitat, pesticides and other contaminants, and most recently, the disease white-nose syndrome.<sup>3</sup>

<sup>2</sup> [http://www.acreslandtrust.org/clientimages/44551/preserve-field-guides/acres\\_jay\\_madisontwpschool.pdf](http://www.acreslandtrust.org/clientimages/44551/preserve-field-guides/acres_jay_madisontwpschool.pdf)

<sup>3</sup> <https://www.fws.gov/MIDWEST/endangered/mammals/inba/index.html>

# Environmental Profile: Jefferson County, Indiana



## Information & County Contacts

### *Jefferson County Visitor's Center:*

(812) 265-2956

### *Jefferson County Soil & Water Conservation District:*

(812) 273-2070 ext. 3



## Land, Water, & Biodiversity & Conservation Efforts:

### **Pennywort Cliffs Preserve**



100-year-old tulip stands, flowing springs and a 30-foot waterfall makes Pennywort Cliffs an awe-inspiring experience. Walk through the Conservancy planted walnut plantation, and admire the tulip stands which are more

than 36 inches in diameter and still growing. While well-defined trails are easily followed, what is found off the beaten path is stunning. Two constantly flowing springs meet and make their way over a 30-foot waterfall before reaching Big Creek, Jefferson County's largest creek. The Cliffs are also one of the first classified forests in Indiana (1931).<sup>1</sup>

<sup>1</sup><http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/indiana/placesweprotect/pennywort-cliffs.xml>

## Chelsea Flatwoods



One of the largest, wettest and most diverse examples of the Bluegrass Tillplain flatwoods in Indiana, Chelsea Flatwoods is a forest offering various wildflowers, ferns and an

interesting mix of trees. American beech, sweet gum, sugar maple and a variety of oaks dominate the woods while a number of ferns cover the forest floor.<sup>2</sup>

## Endangered Species:

### Sheepnose (*Plethobasus cyphus*)



The sheepnose is a freshwater mussel found across the Midwest and Southeast. However, it has been eliminated from two-thirds of the total number of streams from which it was historically known. Today, the sheepnose is found in Alabama, Illinois, Indiana, Iowa, Kentucky, Minnesota, Mississippi, Missouri, Ohio, Pennsylvania, Tennessee, Virginia, West

Virginia, and Wisconsin. The sheepnose is a medium-sized mussel that grows to about 5 inches in length. It lives in larger rivers and streams where it is usually found in shallow areas with moderate to swift currents flowing over coarse sand and gravel.<sup>3</sup>

<sup>2</sup><http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/indiana/placesweprotect/chelsea-flatwoods.xml>

<sup>3</sup><http://www.fws.gov/Midwest/endangered/clams/sheepnose/index.html>

# Environmental Profile: Jennings County, Indiana



## Information & County Contacts

### *Jennings County Visitor's Center:*

(812) 346-4865

### *Jennings County Soil & Water Conservation District:*

(812) 346-3411 ext. 3



## Land, Water, & Biodiversity & Conservation Efforts:

### **Crosley Fish & Wildlife Area**



Crosley Fish and Wildlife Area is made up of 4,228 acres of rolling hills, ponds and the Muscatatuck River. Approximately 80 percent of the property is wooded. Most of the terrain is covered with steep to gently rolling hills. About seven miles of the Muscatatuck River flows through the property. The property also has 13 ponds, ranging in size from 2-14 acres.<sup>1</sup>

<sup>1</sup><http://www.in.gov/dnr/fishwild/3097.htm>

## Selmier State Forest



Selmier State Forest was donated to the state of Indiana by Mrs. Frank Selmier on behalf of her husband. Frank Selmier had a strong interest in the outdoors. He planted several acres on this property of pine, black locust, black walnut, sycamore and tuliptree from 1921 to 1934. Most of the property was placed in Indiana's Classified Forest Program between 1927 and 1931.<sup>2</sup>

## Muscatatuck National Wildlife Refuge

Muscatatuck National Wildlife Refuge was established in 1966 as a refuge to provide resting and feeding areas for waterfowl during their annual migrations.



The refuge includes 7,724 acres near Seymour, and a 78-acre parcel, known as the Restle Unit, near Bloomington. The refuge mission is to restore, preserve, and manage a mix of forest, wetland, and grassland habitat for fish, wildlife, and people. More than 280 species of birds have been seen at Muscatatuck, and the refuge is recognized as a “Continentially Important” bird area.<sup>3</sup>

<sup>2</sup><http://www.in.gov/dnr/forestry/4818.htm>

<sup>3</sup><http://www.fws.gov/refuge/muscatatuck/>



# Environmental Profile: Johnson County, Indiana

## Information & County Contacts

### *Johnson County Visitor's Center:*

(317) 736-3602

### *Johnson County Soil & Water Conservation District:*

(317) 736-9540



## Land, Water, & Biodiversity & Conservation Efforts:

### **Atterbury Fish & Wildlife Area**



Atterbury Fish & Wildlife Area was purchased by the state from Camp Atterbury, an army training installation established in 1942. In 1969, wildlife management efforts began on over 5,400 acres. The remaining military area, a training facility for the National Guard and Army Reserve units, coordinates with Atterbury Fish & Wildlife Area to authorize

limited hunting on military property when not in conflict with training operations. In October of 2010, 1,250 acres were released to the Indiana National Guard in exchange for 1,990 acres of surplus land from the Indiana Department of Corrections in Putnam County, Indiana. Presently the property totals 4,950 acres.<sup>1</sup>

<sup>1</sup> <http://www.in.gov/dnr/fishwild/3100.htm>



# Environmental Profile: Johnson County, Indiana

## Laura Hare Preserve at Blossom Hollow



Blossom Hollow is part of a large unbroken hardwood forest block that is key for migratory birds and forest interior nesting birds. Few such areas remain in central Indiana. The property also contains high-quality examples of oak woodlands on ridges and slopes, as well as bottomland hardwood forest in creek valleys. Spectacular ridges on the

property feature mature white and red oaks clinging to slopes covered with ferns and wildflowers. In addition, Blossom Hollow is home to three species considered rare in Indiana: the worm-eating warbler, hooded warbler and Eastern box turtle.<sup>2</sup>

### Endangered Species:

#### **Eastern Box Turtle (*Terrapene carolina Carolina*)**



background.<sup>3</sup>

The eastern box turtle is considered a “land” or terrestrial turtle. It has a large domed shell that varies in color from orange to yellow with an olive to brown background. The top of the shell exhibits a repeated brightly colored palmate or “blotchy” pattern on a drab

<sup>2</sup> <http://www.conservingindiana.org/places-to-visit/blossom-hollow-nature-preserve/>

<sup>3</sup> <http://www.in.gov/dnr/fishwild/3326.htm>



# Environmental Profile: Knox County, Indiana

## Information & County Contacts

### ***Knox County Visitor's Center:***

(812) 886-0400

### ***Knox County Soil & Water Conservation District:***

(812) 882-8210 ext. 3



## Land, Water, & Biodiversity & Conservation Efforts:

### **Ouabache Trails Park**



A 254-acre park, Ouabache Trails is a naturally wooded area featuring steeply rolling hills covered in deciduous growth and low flatlands. Activities range from river fishing (foot access only) to nature study, wildlife observation, camping (class A & B), picnicking, hiking, geocaching, mountain biking, wildflower walks, volleyball, basketball,

archery, horseshoes, photography and elementary school interpretative programs.<sup>1</sup>

<sup>1</sup><http://www.knoxcountyparks.com/our-parks/>



# Environmental Profile: Knox County, Indiana

## Environmental Challenges:

### **Enoco Coal Mine Reclamation Site**

The primary intent of the 2009 Enoco reclamation project was to address a lingering issue regarding high volumes of Acid Mine Drainage (AMD) discharging from the site. In order to treat AMD originating from the site, the Indiana Division of Reclamation (IDoR) employed a “Sulfate Reducing Bioreactor” (SRB). A SRB system is a passive treatment system designed to convert AMD-producing



sulfates to sulfides, which will then precipitate out of the solution and deposit in a settlement basin. The significance of SRB technology is that IDoR now has an inexpensive, highly effective, and ecologically beneficial method of treating AMD. The area required for an SRB is considerably less than that required for other passive

treatment systems such as wetlands, vertical flow ponds, or anoxic limestone drains (ALD). Excavation efforts are limited to those needed to establish a suitable depth and grade for the system to function properly. The primary source of material used within the bioreactor is often unwanted cellulose based composted material (yard waste) collected from local municipalities.<sup>2</sup>

<sup>2</sup><http://www.in.gov/dnr/reclamation/2838.htm>

# Environmental Profile: Kosciusko County, Indiana



## Information & County Contacts

### ***Kosciusko County Visitor's Center:***

(800) 800-6090

### ***Kosciusko County Soil & Water Conservation District:***

(574) 267-7445 ext. 118



## Land, Water, & Biodiversity & Conservation Efforts:

### **Greider's Woods Nature Preserve**



This is an old second-growth oak-hickory forest, with interspersed sugar maple, black walnut, white ash, and tulip. Several trees exceed 30 inches in diameter including: white ash, black oak, chinquapin oak, and red oak. The shrub layer includes woodbine, smooth black haw, mapleleaf viburnum, greenbrier, pawpaw, hazelnut, grape, gooseberry, and raspberry. In the spring, the ground is carpeted with wildflowers including: spring beauty, bloodroot, anemones, mayapple, and beds of large-flowered trillium. Later species are true and false Solomon's seal, sweet cicely, bedstraws, nettle, and appendaged waterleaf.<sup>1</sup>

<sup>1</sup> <http://www.in.gov/dnr/naturepreserve/files/np-Greiders.pdf>

# Environmental Profile: Kosciusko County, Indiana



## Wildwood Nature Preserve



This preserve has a small pond surrounded by forest, vernal pools scattered beneath the trees, a pine planting, numerous wetlands and a prairie. There are oak and hickory and many more species of trees as well as numerous species of wildflowers. And there are various birds, from wood ducks on the pond to several species of woodpeckers in the woods, including red-headed and pileated.<sup>2</sup>

## Endangered Species:

### Lake Sturgeon (*Acipenser fulvescens*)



Lake Sturgeon *Acipenser fulvescens*, inhabit large river and lake systems primarily in the Mississippi River, Hudson Bay and Great Lakes basins. It has and continues to represent an important biological component of the Great Lakes fish community. By the early 1900's many populations of lake sturgeon throughout their range had been greatly reduced or extirpated as a result of overfishing, habitat loss, the construction of dams, and pollution. Lake sturgeon are listed as either threatened or endangered by 19 of the 20 states within its original range in the United States. This ancient family of fishes has been recognized since the Upper Cretaceous period (136 million years ago), at a time when dinosaurs were at the height of their development.<sup>3</sup>

<sup>2</sup> [http://www.acreslandtrust.org/clientimages/44551/preserve-field-guides/acres\\_kosciusko\\_wildwood.pdf](http://www.acreslandtrust.org/clientimages/44551/preserve-field-guides/acres_kosciusko_wildwood.pdf)

<sup>3</sup> <https://www.fws.gov/midwest/sturgeon/biology.htm>

# Environmental Profile: LaGrange County, Indiana



## Information & County Contacts

### ***LaGrange County Visitor's Center:***

(260) 768-4008

### ***LaGrange County Soil & Water Conservation District:***

(260) 463-3471 ext. 3



## Land, Water, & Biodiversity & Conservation Efforts:

### **Bio-enhanced Sewage treatment system**

The Environmental Health Office is highly and actively involved in environmental protection services such constructed wetlands as a green alternative to treat sewage on-site. The LaGrange County Health Dept. has Indiana State Department of Health approval to install a system called a Subsurface Wetland Treatment System which takes advantage of nature's super water purification system--- PLANTS! These systems were first installed in Lagrange County going on ten (10) years ago and have functioned remarkably well with no problems reported by the owners. The State of Indiana has since approved more of these systems across the state. As compared to a septic tank and absorption field system which discharges 100% of the contaminated sewage effluent into the ground, the wetland system in the county have been removing up to 99.9% of the fecal bacteria (E. coli) and 80-100% of the other contaminates BEFORE the water is discharged into the ground.<sup>1</sup>

<sup>1</sup> <http://www.lagrangecountyhealth.com/Pages/ConstructedWetlands.aspx>

## Endangered Species:

### **Karner Blue Butterfly (*Lycaeides melissa samuelis*)**



The male and female of this small (wingspan of about one inch) butterfly are different in appearance. The topside of the male is silvery or dark blue with narrow black margins. The female is grayish brown, especially on the outer portions of the wings, to blue on the topside, with irregular bands of orange crescents inside the narrow black border. The underside of both sexes is gray with a continuous band of orange crescents along the edges of both wings and with scattered black spots circled with white.

Habitat throughout the range of the Karner blue butterfly has been lost as a result of land development and lack of natural disturbance, such as wildfire and grazing by large mammals. Such disturbance helps maintain the butterfly's habitat by setting back encroaching forests, encouraging lupine and flowering plant growth.<sup>2</sup>

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<sup>2</sup> [https://www.fws.gov/midwest/endangered/insects/kbb/kbb\\_fact.html](https://www.fws.gov/midwest/endangered/insects/kbb/kbb_fact.html)



# Environmental Profile: Lake County, Indiana

## Information & County Contacts

### *Lake County Visitor's Center:*

(219) 989-7770

### *Lake County Soil & Water Conservation District:*

(219) 663-7042



## Local Clean Energy Initiatives:

### **Lake County Solar Power plant**



The lake county solar power plant project is located on an industrial site, previously underutilized and has now been redeveloped to support the production of clean renewable energy. The plant is owned and operated by Buckeye Partners, L.P., and a leading national energy pipeline and storage company. Energy is

supplied to the Northern Indiana Public Service Company (NIPSCO) grid in both the East Chicago area of the state of Illinois and Griffith of Indiana. The site is expected to produce approximately 3,120 Megawatt hours annually, and contribute to a reduction of 2,615 tons of carbon dioxide emissions each year which is the equivalent of removing over 7,410 cars from Indiana's roads over the 15-years during which the plant is contracted to supply power.<sup>1</sup>

<sup>1</sup> <http://communityenergysolar.com/project/lake-county-solar/>



# Environmental Profile: Lake County, Indiana

## **Land, Water, & Biodiversity & Conservation Efforts:**

### **Gibson Woods Nature Preserve**

: This tract is a remnant of the very rare “ridge and swale” topography formed thousands of years ago during the retreat of glacial Lake Chicago. It contains the longest undissected dune ridge in Indiana, outside of the National Lakeshore. Communities found here include: dry-mesic sand savanna with an overstory of black oak and understory of bracken fern, mesic sand prairie dominated by big bluestem and tall coreopsis; wet-mesic forest dominated by pin oak and speckled alder. A number of very rare plants are found here, including paper birch, Kalm’s St. John’s-wort, and golden sedge. The area supports a wide variety of wildlife, including the rare Franklin’s ground squirrel.<sup>2</sup>

### **Hoosier Prairie State Nature Preserve**



The Hoosier Prairie hosts a surprising and stunning array of prairie plants and great ecological diversity amidst the industry of Northwest Indiana. The rolling topography and sandy soils create a variety of habitats that support more

than 350 native species of plants, at least 43 of which are uncommon or rarely seen in the state, such as wild white indigo.<sup>3</sup>

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<sup>2</sup> [http://www.in.gov/dnr/naturepreserve/files/np-Gibson\\_Wood.pdf](http://www.in.gov/dnr/naturepreserve/files/np-Gibson_Wood.pdf)

<sup>3</sup> <http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/indiana/placesweprotect/hoosier-prairie.xml>



# Environmental Profile: LaPorte County, Indiana

## Information & County Contacts

### ***LaPorte County Visitor's Center:***

(219) 872-5055

### ***LaPorte County Soil & Water Conservation District:***

(219) 326-6808 ext. 2116



## Land, Water, & Biodiversity & Conservation Efforts:

### **Kankakee Fish & Wildlife Area**



Kankakee is dedicated to providing quality hunting and fishing opportunities while maintaining 4,095 acres, which includes open water, marshes, riparian timber, periodically flooded crop fields and 11 miles of river.

The entire area is situated in what was the Kankakee Grand Marsh, which once covered hundreds of thousands of acres. Most of the marsh was drained in the late 1800s for agricultural use.

In 1927, the state purchased 2,312 acres of the remaining marsh for a Civilian Conservation Corps camp, housing as many as 400 men. The area later became established as a game preserve, and during the 50s, waterfowl management was undertaken by the state. In 1982, another 1,016 acres were added and in 1992 an additional 767 acres.<sup>1</sup>

<sup>1</sup> <http://www.in.gov/dnr/fishwild/3090.htm>

# Environmental Profile: LaPorte County, Indiana



## Endangered Species:

### **Mitchell's Satyr (*Neonympha mitchellii mitchellii*)**



This butterfly is medium sized (1 3/4inch wingspan) butterfly with an overall rich brown color. A distinctive series of orange-ringed black circular eyespots with silvery centers are located on the lower surfaces of both pairs of wings.

The greatest threat to the Mitchell's satyr is habitat destruction. Most of the wetland habitat that this butterfly depends on for survival has been drained and filled to make way for urban and agricultural development. Also, invasion from exotic weeds threaten the fens on which the butterflies depend.

Contamination of fen wetlands by pesticides, fertilizer, and nutrient runoff from adjacent agriculture, including livestock production, poses a threat to the butterfly's habitat.<sup>2</sup>

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<sup>2</sup> [https://www.fws.gov/midwest/endangered/insects/misa\\_fctsh.html](https://www.fws.gov/midwest/endangered/insects/misa_fctsh.html)

# Environmental Profile: Lawrence County, Indiana



## Information & County Contacts

### *Lawrence County Visitor's Center:*

(812) 849-1090

### *Lawrence County Soil & Water Conservation District:*

(812) 279-8117 ext. 3



## Land, Water, & Biodiversity & Conservation Efforts:

### Jeremy Keith Oakley Preserve



Following the untimely loss of her son Jeremy, Kathy Oakley donated this land to Sycamore Land Trust to preserve the woods her son cherished. As a young boy, this upland forest, with its stream and rich diversity of trees, wildflowers, and wildlife, was his playground. This beautiful natural area stands as an everlasting tribute to Jeremy and his connection to the land.<sup>1</sup>

<sup>1</sup><http://sycamorelandtrust.org/oakley-preserve/>

## Spring Mill State Park



Spring Mill State Park offers a powerful illustration of the link between the natural and cultural worlds. The water flowing from several cave springs led to the founding of an industrial village in the early 1800s. Pioneer entrepreneurs took advantage of a constant water source that never froze, using it to power

several gristmills, a wool mill, a saw mill, and a distillery. In turn, pioneer settlers shaped the landscape around the village, clearing land for agriculture and timber.<sup>2</sup>

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<sup>2</sup><http://www.in.gov/dnr/parklake/2968.htm>



# Environmental Profile: Fayette County, Indiana

## Information & County Contacts

### **Fayette County Visitor's Center:**

(765) 825-1523

### **Fayette County Soil & Water Conservation District:**

(765) 825-4311 ext. 3



## Endangered Species:

### **Evening Bat (*Nycticeius humeralis*)**



*Nycticeius humeralis* is dark brown except for its black ears. Its snout, wings, and tail membranes are hairless. Evening bats prefer the forest and open habitats such as river corridors and wetlands. These are forest bats and are never found in caves. Instead *N. humeralis* roosts in hollows of trees, under loose bark, or in buildings.

Temperate North American bats are now threatened by a fungal disease called “white-nose syndrome.” This disease has devastated eastern North American bat populations at hibernation sites since 2007. The fungus, *Geomyces destructans*, grows best in cold, humid conditions that are typical of many bat hibernacula. The fungus grows on, and in some cases invades the bodies of hibernating bats and seems to result in disturbance from hibernation, causing a debilitating loss of important metabolic resources and mass deaths. Mortality rates at some hibernation sites have been as high as 90%.<sup>1</sup>

<sup>1</sup>[http://animaldiversity.org/accounts/Nycticeius\\_humeralis/](http://animaldiversity.org/accounts/Nycticeius_humeralis/)

# Environmental Profile: Fayette County, Indiana



## American Bittern (*Botaurus lentiginosus*)



A stocky and well-camouflaged heron of dense reed beds, the American Bittern is difficult to see. Its far-carrying booming call is distinctive, but the bittern itself likes to keep under cover. American Bitterns are almost always solitary and can be difficult to see.

They often hide among wetland vegetation, walking slowly as they forage. American Bitterns typically hunt in low light, catching food with their bill and killing prey with biting or shaking movements. Flight is stiff and fairly clumsy with rapid wingbeats. Territorial males display at each other by approaching while hunkered down, head lowered to the level of its back, neck drawn in, and revealing white plumes at the shoulders.<sup>2</sup>

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<sup>2</sup>[https://www.allaboutbirds.org/guide/American\\_Bittern/lifehistory](https://www.allaboutbirds.org/guide/American_Bittern/lifehistory)

# Environmental Profile: Madison County, Indiana



## Information & County Contacts

### ***Madison County Visitor's Center:***

(765) 643-5633

### ***Madison County Soil & Water Conservation District:***

(765) 644-4249 ext. 3



## Land, Water, & Biodiversity & Conservation Efforts:

### **Mounds State Park**



Mounds State Park, located off I-69 east of Anderson, features 10 unique earthworks built by prehistoric Indians known as the Adena-Hopewell people. The largest earthwork, the

Great Mound, is believed to have been constructed around 160 B.C.

Archaeological surveys indicate the mounds were used as gathering places for religious ceremonies, from where astronomical alignments could be viewed.<sup>1</sup>

<sup>1</sup> <http://www.in.gov/dnr/parklake/2977.htm>

## Endangered Species:

### **Northern Riffleshell (*Epioblasma torulosa rangiana*)**



This mussel is found in a wide variety of streams from large to small. It buries itself in bottoms of firmly packed sand or gravel with its feeding siphons exposed.

Dams and reservoirs have flooded most of this mussel's habitat, reducing its gravel and sand habitat and probably affecting the distribution of its fish hosts. Reservoirs act as barriers that isolate upstream populations from downstream ones.

Erosion caused by strip mining, logging and farming adds silt to many rivers, which can clog the mussel's feeding siphons and even smother it. Other threats include pollution from agricultural and industrial runoff. These chemicals and toxic metals become concentrated in the body tissues of such filter-feeding mussels as the northern riffleshell, eventually poisoning it to death.

Zebra mussels, an exotic (non-native) species which is spreading rapidly throughout the eastern U.S., also pose a threat. By attaching in great numbers to native mussels such as the northern riffleshell, zebra mussels suffocate and kill the native species.<sup>2</sup>

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<sup>2</sup> <https://www.fws.gov/midwest/endangered/clams/n-riffleshell.html>



# Environmental Profile: Marion County, Indiana

## Information & County Contacts

**Marion County Visitor's Center:**

(800) 662-9474

**Marion County Soil & Water Conservation District:**

(317) 786-1776



## Local Clean Energy Initiatives:

### Maywood Solar Farm



Inovateus Solar has participated in the development of a ground-based solar array project installed on the newly operational Maywood Solar farm located on 43 acres near the Vertellus

Specialties, Inc. headquarters in Indianapolis, Indiana. The Maywood land is a Superfund project site that was remediated starting in 1992 under the supervision of the United States Environmental Protection Agency (US EPA) and Indiana Department of Environmental Management (IDEM), and is now in a monitoring-only status.<sup>1</sup>

<sup>1</sup> <http://www.inovateussolar.com/en/project-profiles/item/75-maywood-solar-farm>

# Environmental Profile: Marion County, Indiana



## Land, Water, & Biodiversity & Conservation Efforts:

### Eagle's Crest Nature Preserve



This preserve contains excellent examples of old second-growth mesic upland forest communities dominated by red oak, sugar maple, beech, white oak, shagbark hickory, and ash. The shoreline along the preserve's east side is an excellent area for observing birdlife.<sup>2</sup>

## Local Environmental Challenges:

### Reilly Tar & Chemical Corp. (Indianapolis Plant)

Studies indicate that groundwater is contaminated by benzene, pyridine, and ammonia, which are all raw materials that are used in the chemical production operations. Soils at the site are contaminated with a number of volatile organic contaminants (VOCs), semi-VOCs, and carcinogenic polynuclear aromatic hydrocarbons (PNAs). Direct contact risks from contaminated soils have been addressed through the cleanup plan.<sup>3</sup>

<sup>2</sup> [http://www.in.gov/dnr/naturepreserve/files/np-eagles\\_crest.pdf](http://www.in.gov/dnr/naturepreserve/files/np-eagles_crest.pdf)

<sup>3</sup> [http://www3.epa.gov/region5/superfund/npl/sas\\_sites/indiana/IND000807107.html](http://www3.epa.gov/region5/superfund/npl/sas_sites/indiana/IND000807107.html)

# Environmental Profile: Marshall County, Indiana



## Information & County Contacts

### ***Marshall County Visitor's Center:***

(574) 936-1882

### ***Marshall County Soil & Water Conservation District:***

(574) 936-2024 ext. 3

## Land, Water, & Biodiversity & Conservation Efforts:

### **Headwaters Yellow River Watershed Management Plan**

In the fall of 2014 the Marshall County Soil and Water Conservation District (SWCD) received state and federal funds to produce a watershed management plan for the Headwaters Yellow River Watershed.

The Headwaters Yellow River Watershed encompasses approximately 187,423 acres of land across Marshall, Elkhart, St. Joseph and Kosciusko Counties. Plymouth, Bremen, LaPaz, Lakeville and Nappanee are all located within the Headwaters Yellow River Watershed.

The Indiana DNR's lake and River Enhancement (LARE) Program has provided funds to collect and analyze water quality data at multiple locations throughout the watershed. United States Environmental Protection Agency funds have been provided through the Indiana Department of Environmental Management (IDEM) Section 319 Nonpoint Source Management Program. IDEM funds will be used to produce the watershed management plan, conduct education/outreach events and install a demonstration best management practice in the watershed.<sup>1</sup>

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<sup>1</sup> [http://www.marshallcountyswcd.org/main/page\\_current\\_grants.html](http://www.marshallcountyswcd.org/main/page_current_grants.html)

## Endangered Species:

### **Yellow-headed Blackbird (*Xanthocephalus xanthocephalus*)**



With a golden head, a white patch on black wings and a call that sounds like a rusty farm gate opening, the Yellow-headed Blackbird demands your attention. Look for them in western and prairie wetlands, where they nest in reeds directly over the water. They're just as impressive in winter, when huge flocks seem to roll across farm

fields. Each bird gleans seeds from the ground, and then leapfrogs over its flock mates to the front edge of the ever-advancing troupe.

- In 1825 Charles Lucien Bonaparte, nephew of Napoleon Bonaparte, gave the first detailed description of the Yellow-headed Blackbird, which was collected in 1820 by Thomas Say and Sir John Richardson.
- The Yellow-headed Blackbird often nests in the same marsh as the Red-winged Blackbird. The larger Yellow-headed Blackbird is dominant to the Red-winged Blackbird, and displaces the smaller blackbird from the prime nesting spots. The Yellow-headed Blackbird is strongly aggressive toward Marsh Wrens too, probably because of the egg-destroying habits of the wrens. When the Yellow-headed Blackbird finishes breeding and leaves the marsh, Marsh Wrens expand into former blackbird territories.<sup>2</sup>

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<sup>2</sup> [https://www.allaboutbirds.org/guide/Yellow-headed\\_Blackbird/lifehistory](https://www.allaboutbirds.org/guide/Yellow-headed_Blackbird/lifehistory)



# Environmental Profile: Martin County, Indiana

## Information & County Contacts

***Martin County Visitor's Center:***

(812) 295-4093

***Martin County Soil & Water Conservation District:***

(812) 295-3149



## Land, Water, & Biodiversity & Conservation Efforts:

### Martin State Forest



Martin State Forest was established in 1932 with the purchase of 1,205 acres. A firetower and a small picnic area were soon built. In 1933, the Civilian Conservation Corps built several shelterhouses. Three fishing ponds were constructed in 1957. Each pond measured 3 to 4 acres. In the mid-1960s a 26-site, primitive campground was developed. The property has grown to 7,863 acres through additional land purchases and trades with the U.S. Forest Service. Most of the land was eroding, abandoned farmland or heavily cut-over woodland when acquired. With years of intensive management, including the planting of thousands of trees, countless hours fighting wildfires and hundreds of acres of selective improvement harvests, the area has been transformed into a lush, healthy, growing forest.<sup>1</sup>

<sup>1</sup><http://www.in.gov/dnr/forestry/4822.htm>

# Environmental Profile: Martin County, Indiana



## Hoosier National Forest



The Forest is managed to provide a diverse mix of opportunities and resources for people to enjoy. The Hoosier National Forest comprises about half of the public forest land in Indiana. As such, the Forest has a key role in providing forest ecosystems which enhance

biological diversity on a regional scale. Wildlife habitat management occurs on some portions of the forest, timber harvests, prescribed burns, wetland development, and other practices occur in areas defined for appropriate uses. Each decision on a management practice is a commitment to enhancing the Forest. Forest managers work closely with the public to develop a shared vision of how the Forest should be managed. The challenge is to provide a Forest with the values and benefits people want while responsibly providing for the unique ecosystems on the Hoosier National Forest.<sup>2</sup>



<sup>2</sup><http://www.fs.usda.gov/main/hoosier/about-forest>



# Environmental Profile: Miami County, Indiana

## Information & County Contacts

**Miami County Visitor's Center:**

(765) 472-1923

**Miami County Soil & Water Conservation District:**

(765) 473-6753 ext. 3



## Endangered Species:

### **Blanding's Turtle (*Emydoidea blandingii*)**



The Blanding's turtle hibernates completely underwater from late October or early November until the early spring. The cold-blooded reptile only needs to burrow itself in cold, muddy bottoms to stay warm. Its

metabolism also slows so little oxygen is needed and it doesn't have to search for food. Unlike most turtles, the Blanding's is quite happy in the cold water; on occasion it is seen slowly swimming underneath the ice in areas where they winter - like the Great Lakes.

Blanding's turtle is also vulnerable because they tend to reproduce late in life. Females become sexually mature around eighteen years old while males mature around twelve. Hatchlings also have a low survival rates due to the appetites of nearby raccoons, foxes and skunks. If the hatchling can become an adult and survive within its habitat, the Blanding's turtle can live as long as 70+ years!<sup>1</sup>

<sup>1</sup> <http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/indiana/journeywithnature/blandings-turtles.xml>

# Environmental Profile: Miami County, Indiana



## Greater Redhorse (*Moxostoma valenciennesi*)



The largest of the redhorse (*Moxostoma*) species, the greater redhorse (*Moxostoma valenciennesi*) is a large, stout freshwater fish with a dark brown

to copper back, yellowish sides and a whitish belly. The scales on the back and sides have a dark spot at their base. The greater redhorse's tail fin is red, and the other fins are yellow to orange or reddish.

Like other fish in the Cyprinidae family, the greater redhorse does not have teeth in its jaws, instead processing food using specialized bones in the throat. Known as 'pharyngeal teeth', these are thin and bladelike in this species.

The greater redhorse is listed as a 'Species of Concern' by the U.S. Fish and Wildlife Service. There have been few specific conservation measures targeted at this species, but it is likely to have benefitted from general improvements in water quality and from efforts to restore stream habitats and riverside vegetation, as well as to improve fish passage at dams.<sup>2</sup>

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<sup>2</sup> <http://www.arkive.org/greater-redhorse/moxostoma-valenciennesi/>



# Environmental Profile: Monroe County, Indiana

## Information & County Contacts

### ***Monroe County Visitor's Center:***

(812) 334-8900

### ***Monroe County Soil & Water Conservation District:***

(812) 334-4325 ext. 115



## Land, Water, & Biodiversity & Conservation Efforts:

### **Lake Monroe**

Indiana's largest lake, near the Indiana University campus, features a scenic stone-bluffed shoreline and wooded hills. Monroe Lake is located in south central



Indiana. The lake was completed by the Corps of Engineers in 1965. While this area of southern Indiana is known as the "The Limestone Capital of the World," at one time it also had several salt deposits, creating a lucrative trade by rafting the mined salt down the

creek that would one day become Monroe Lake. Hence the name, Salt Creek.<sup>1</sup>

<sup>1</sup><http://www.lake-monroe.com/html/about.html>



# Environmental Profile: Monroe County, Indiana

## Morgan-Monroe State Forest

Morgan-Monroe State Forest encompasses more than 24,000 acres in Morgan and Monroe counties in south central Indiana. The forest land encompasses many steep ridges and valleys, and is forested with some of the state's finest hardwoods. The original settlers of the area cleared and attempted to farm the ridges, but were frustrated by rocky soil unsuitable for agriculture. The state purchased the eroded, abandoned land to create Morgan-Monroe State Forest beginning in 1929.<sup>2</sup>



### Local Environmental Challenges:

#### Bennett Stone Quarry

The Bennett Stone Quarry, which is also known as the Bennett's Dump site, consists of two adjacent parcels totaling about four acres and is located approximately 2.5 miles northwest of Bloomington. The site was formerly a limestone quarry pit, filled with various waste materials, including demolition debris, household wastes, and electrical parts.<sup>3</sup>

<sup>2</sup><http://www.in.gov/dnr/forestry/4816.htm>

<sup>3</sup><http://www.epa.gov/region5/superfund/npl/indiana/IND006418651.html>



# Environmental Profile: Montgomery County, Indiana

## Information & County Contacts

### **Montgomery County Visitor's Center:**

(765) 362-5200

### **Montgomery County Soil & Water Conservation District:**

(765) 362-1194 ext. 3



## Land, Water, & Biodiversity & Conservation Efforts:

### **Shades State Park**



The beautiful sandstone cliffs overlooking Sugar Creek and numerous shady ravines provide the backdrop for your journey through this nature lover's paradise.

Also on the property is Pine Hills Nature Preserve, which affords spectacular topography for those willing to take a fairly long hike.

From November-March, Shades State Park is open for day use only (8 a.m. until dusk). All visitors must leave the park at dusk. There is no camping available. Overnight camping is available at Turkey Run State Park just 15 miles to the southwest. Turkey Run also has an inn and cabins. In the event of heavy snow or ice, the property management may delay opening the gate to accommodate for snow removal efforts.<sup>1</sup>

<sup>1</sup> <http://www.in.gov/dnr/parklake/2970.htm>

# Environmental Profile: Montgomery County, Indiana



## Endangered Species:

### Indiana Bat (*Myotis Sodalis*)



The scientific name of the Indiana bat is *Myotis sodalis* and it is an accurate description of the species. *Myotis* means “mouse ear” and refers to the relatively small, mouse-like ears of the bats in this group. *Sodalis* is the Latin word for “companion.” The Indiana bat is a very social species; large numbers cluster together during hibernation.

The species is called the Indiana bat because the first specimen described to science in 1928 was based on a specimen found in southern Indiana's Wyandotte Cave in 1904.

The Indiana bat is quite small, weighing only one-quarter of an ounce (about the weight of three pennies). In flight, it has a wingspan of 9 to 11 inches. The fur is dark-brown to black. The Indiana bat is similar in appearance to many other related species. Biologists can distinguish it from similar species by comparing characteristics such as the structure of the foot and color variations in the fur.<sup>2</sup>

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<sup>2</sup> <https://www.fws.gov/midwest/endangered/mammals/inba/inbafctsht.html>



# Environmental Profile: Morgan County, Indiana

## Information & County Contacts

***Morgan County Visitor's Center:***

(765) 346-5611

***Morgan County Soil & Water Conservation District:***

(765) 349-2060



## Land, Water, & Biodiversity & Conservation Efforts:

### **Fred and Dorothy Meyer Nature Preserve**



The land comprises large forest blocks unbroken by roads and a forest interior habitat that serves as home to rare native species like the hooded and worm-eating warblers, and Eastern Box Turtle, as well as the state endangered cerulean warbler. Plants characteristic of the acidic, sharply-drained, poor soil of the ridges are chestnut oak, black oak, pignut

hickory, greenbriar, cleft phlox, and star chickweed. American beech, red oak, white ash, painted sedge, yellow trout lily, and bloodroot are found in the more protected ravines of this beautiful property.<sup>1</sup>

<sup>1</sup><http://www.conservingindiana.org/places-to-visit/fred-and-dorothy-meyer-nature-preserve/>



# Environmental Profile: Morgan County, Indiana

## Morgan-Monroe State Forest



Morgan-Monroe State Forest encompasses more than 24,000 acres in Morgan and Monroe counties in south central Indiana. The forest land encompasses many steep ridges and valleys, and is forested with some of the state's finest hardwoods. The original settlers of the area cleared and attempted to farm

the ridges, but were frustrated by rocky soil unsuitable for agriculture. The state purchased the eroded, abandoned land to create Morgan-Monroe State Forest beginning in 1929.<sup>2</sup>

### Endangered Species:

#### Alligator Snapping Turtle (*Macrochelys temminckii*)



The prehistoric-looking alligator snapping turtle is the largest freshwater turtle in North America and among the largest in the world. With its spiked shell, beaklike jaws, and thick, scaled tail, this species is often referred to as the "dinosaur of the turtle world."<sup>3</sup>

<sup>2</sup><http://www.in.gov/dnr/forestry/4816.htm>

<sup>3</sup><http://animals.nationalgeographic.com/animals/reptiles/alligator-snapping-turtle/>



# Environmental Profile: Newton County, Indiana

## Information & County Contacts

### ***Newton County Visitor's Center:***

(219) 989-7979

### ***Newton County Soil & Water Conservation District:***

(219) 285-2217



## Land, Water, & Biodiversity & Conservation Efforts:

### **Efroymson Restoration at Kankakee Sands**



The Efroymson Restoration at Kankakee Sands is a birder's and wildflower enthusiast's paradise. The more than 7,000 acres hosts an amazing array of birds, wildflowers, plants and animals that fills the prairie with song and sights to behold. As a restoration project, the beauty of the Sands will only get better for generations to come.<sup>1</sup>

<sup>1</sup> <http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/indiana/placesweprotect/kankakee-sands.xml>

# Environmental Profile: Newton County, Indiana



## Endangered Species:

### Eastern Mud Turtle (*Kinosternon subrubrum*)



Eastern mud turtles are small turtles and will do well in captivity, provided they are given the opportunity to access land. Thus, this species is a good candidate for a display containing both aquatic and terrestrial habitats. They may spend a good amount of time buried under humus and leaves, and thus be out of sight. Eastern mud turtles may sometimes bite and can deliver a painful nip with their sharp, hooked beak.

Eastern mud turtles require shallow water and are not strong swimmers. They rarely bask, if ever.

Eastern mud turtles are carnivorous and will eat small insects, tadpoles and earthworms. They will readily accept chopped meat and fish.<sup>2</sup>

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<sup>2</sup> <http://www.reptilesmagazine.com/Turtle-Tortoise-Species/Eastern-Mud-Turtle/>



# Environmental Profile: Noble County, Indiana

## Information & County Contacts

### ***Noble County Visitor's Center:***

(260) 854-2115

### ***Noble County Soil & Water Conservation District:***

(260) 636-7682 ext. 3



## Land, Water, & Biodiversity & Conservation Efforts:

### **Art Hammer Wetlands**



The Art Hammer Wetlands is ACRES' largest preserve. It has a variety of habitats, swamp forest with cottonwood and sycamore trees, upland forest with oaks and hickories, a small lake, a length of shore of the Elkhart River and areas of low wetlands. Birds and wildflowers are diverse. Wood ducks, mallards, other ducks and coots have been seen on the water, woodland birds fly among the trees, and great blue and green herons walk along the shores. Cardinal flowers,

marsh marigolds, blue flag iris and marsh mallow are a few of the flowers that bloom here.<sup>1</sup>

<sup>1</sup> [http://www.acreslandtrust.org/clientimages/44551/preserve-field-guides/acres\\_noble\\_arthammerwetlands.pdf](http://www.acreslandtrust.org/clientimages/44551/preserve-field-guides/acres_noble_arthammerwetlands.pdf)



# Environmental Profile: Noble County, Indiana

## Detering Nature Preserve



This was a “Green Grocer” farm where vegetables were grown and sold to the residents of Kendallville and the surrounding area. Now trees, including many redbuds, grow where corn and beans and other produce once grew. Round Lake forms a wetland boundary along the northeast part of the preserve. Plants include shrubby cinquefoil, red osier dogwood, cattails and sedges. Birds are as varied as the plants, and deer are frequently seen.<sup>2</sup>

## Lloyd W. Bender Memorial Forest



Enter this preserve on a short boardwalk in a wetland, then go uphill and downhill, traversing a wetland forest, an upland forest, an area of forested floodplain of the Little Elkhart River called The Spreads and a brushy section of sedge meadow. The variety of habitats is matched by the variety of trees, birds and wildflowers. There are burr oaks, white oaks, hickories, swamp white oaks, red elms, black willows, green and black ash, cottonwoods and red maples. Plants include royal and cinnamon fern.<sup>3</sup>

<sup>2</sup> [http://www.acreslandtrust.org/clientimages/44551/preserve-field-guides/acres\\_noble\\_detering.pdf](http://www.acreslandtrust.org/clientimages/44551/preserve-field-guides/acres_noble_detering.pdf)

<sup>3</sup> [http://www.acreslandtrust.org/clientimages/44551/preserve-field-guides/acres\\_noble\\_lloydbender.pdf](http://www.acreslandtrust.org/clientimages/44551/preserve-field-guides/acres_noble_lloydbender.pdf)



# Environmental Profile: Ohio County, Indiana

## Information & County Contacts

### *Ohio County Visitor's Center:*

(812) 438-4933

### *Ohio County Soil & Water Conservation District:*

(812) 438-1241



## Endangered Species:

### **Henslow's Sparrow (*Ammodramus henslowii*)**



An uncommon and famously inconspicuous bird, the Henslow's Sparrow breeds in weedy grasslands of the east-central United States. The Henslow's Sparrow takes flight only with great reluctance, preferring to flee from threats by running through the grass. Its population numbers have declined steadily over the past few decades, largely because of habitat loss.<sup>1</sup>

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<sup>1</sup>[http://www.allaboutbirds.org/guide/Henslows\\_Sparrow/id](http://www.allaboutbirds.org/guide/Henslows_Sparrow/id)



# Environmental Profile: Ohio County, Indiana

## Northern Harrier (*Circus cyaneus*)



The Northern Harrier is distinctive from a long distance away: a slim, long-tailed hawk gliding low over a marsh or grassland, holding its wings in a V-shape and sporting a white patch at the base of its tail. Up close it has an owl-like face that helps it hear mice and voles beneath the vegetation. Each gray-and-white male may mate with several

females, which are larger and brown. These unusual raptors have a broad distribution across North America and Eurasia.<sup>2</sup>

## Running Buffalo Clover (*Trifolium stoloniferum*)

Running buffalo clover is a perennial species with leaves divided into three leaflets. Running buffalo requires periodic disturbance and a somewhat open habitat to successfully flourish, but it cannot tolerate full-sun, full-shade, or severe disturbance. Clearing land for agriculture and development has led to elimination of populations, loss of habitat, and fragmentation of the clover populations that remain. Small, isolated populations of running buffalo clover are prone to extinction from herbivory, disease, and inbreeding.<sup>3</sup>



<sup>2</sup>[http://www.allaboutbirds.org/guide/Northern\\_Harrier/id](http://www.allaboutbirds.org/guide/Northern_Harrier/id)

<sup>3</sup><http://www.fws.gov/midwest/endangered/plants/runningb.html>

# Environmental Profile: Orange County, Indiana



## Information & County Contacts

### **Orange County Visitor's Center:**

(812) 936-3418

### **Orange County Soil & Water Conservation District:**

(812) 723-3311 ext. 3



## Endangered Species:

### **Northern Cavefish (*Amblyopsis spelaea*)**



Northern cavefish are small, eyeless fish that are white-clear in color due to lack of pigments in their skin. These fish have no eyes or skin pigments due to the complete darkness of the cave streams; eyes were not used and so slowly stopped developing in new

generations through many years. Also, because of the darkness, camouflage is not needed to avoid predation. Northern cavefish have small pelvic fins, unlike most cave fishes which do not have pelvic fins. They also have rows of sensory papillae on their skin that help them to navigate their environment without light.<sup>1</sup>

<sup>1</sup>[http://www.in.gov/dnr/fishwild/files/fw-northern\\_cavefish.pdf](http://www.in.gov/dnr/fishwild/files/fw-northern_cavefish.pdf)

## Kirtland's snake (*Clonophis kirtlandii*)



Kirtland's snake is a rare, non-poisonous reptile that resides strictly in the Midwest. Indiana, Illinois, Ohio and southern Michigan are the only places in the world that the Kirtland's snake makes its home. What makes the Kirtland's snake so unique from other snakes is the coloring of their scaly skin. Habitat loss, land degradation and fragmentation are the biggest threats to the Kirtland's snake. Land development and agriculture has taken away much of the native wet prairies that the species prefers.<sup>2</sup>

## Evening Bat (*Nycticeius humeralis*)



Evening bats are dark brown except for their black ears. There is no hair on the snout, wings, or tail membranes. Evening bats prefer the forest and open habitats such as river corridors and wetlands. These are forest bats and are never found in caves. Instead *N. humeralis* roosts in hollows of trees, under loose bark, or in buildings. Temperate North American bats are now threatened by a fungal disease called "white-nose syndrome." This disease has devastated eastern North American bat populations at hibernation sites since 2007.<sup>3</sup>

<sup>2</sup><http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/indiana/journeywithnature/kirtlands-snake.xml>

<sup>3</sup>[http://www.biokids.umich.edu/critters/Nycticeius\\_humeralis/](http://www.biokids.umich.edu/critters/Nycticeius_humeralis/)



# Environmental Profile: Owen County, Indiana

## Information & County Contacts

### *Owen County Visitor's Center:*

(812) 714-8110

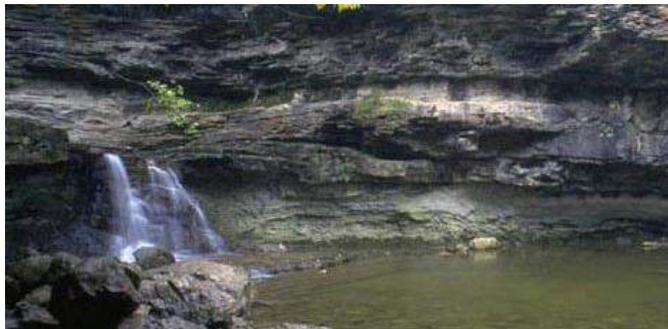
### *Owen County Soil & Water Conservation District:*

(812) 829-2605



## Land, Water, & Biodiversity & Conservation Efforts:

### **McCormick's Creek State Park**



Explore the spectacular limestone canyon, flowing creek, and scenic waterfalls that highlight Indiana's first state park. Hike trails featuring diverse forest trees, spicebush,

and native wildflowers, including a trail through Wolf Cave Nature Preserve and an accessible trail at the recently renovated nature center. Experience history as you climb the fire tower, use shelter houses or cross the stone arch bridge created by the Civilian Conservation Corps, or examine the historic Statehouse Quarry near White River, which furnished limestone used for the Indianapolis Statehouse.<sup>1</sup>

<sup>1</sup> <http://www.in.gov/dnr/parklake/2978.htm>

# Environmental Profile: Owen County, Indiana



## Green's Bluff Nature Preserve



Green's Bluff is a large wooded riparian habitat with uplands, ravines, tributary valleys, steep cliffs, karst features, hemlock forest and floodplain forest. The preserve also features a great blue heron rookery as well as an old grist mill whose remnants can be found in a bend of Raccoon Creek.<sup>2</sup>

## Local Environmental Challenges:

### Neal's Dump (Spencer)

The Neal's Dump site is a one-half acre parcel of property, located approximately four miles southwest of the town of Spencer, Indiana. From about 1966 until 1971, Neal's Dump was used as a disposal site for industrial wastes. During its operational period, contract waste haulers dumped electrical capacitors containing polychlorinated biphenyls (PCBs), capacitor parts, and PCB-contaminated rags, and sawdust at the site. The PCB contaminated wastes originated from an electrical equipment plant, owned by the Westinghouse Electric Corporation (Westinghouse), now doing business as Viacom, Inc. PCBs have been found in monitoring wells onsite.<sup>3</sup>

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<sup>2</sup> <http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/indiana/placesweprotect/greens-bluff.xml>

<sup>3</sup> [http://www3.epa.gov/region5/superfund/npl/sas\\_sites/indiana/IND980794549.html](http://www3.epa.gov/region5/superfund/npl/sas_sites/indiana/IND980794549.html)



# Environmental Profile: Parke County, Indiana

## Information & County Contacts

### *Parke County Visitor's Center:*

(765) 569-5226

### *Parke County Soil & Water Conservation District:*

(765) 569-3551 ext. 3



## Land, Water, & Biodiversity & Conservation Efforts:

### **Turkey Run State Park**



A walk into one of the ravines takes you on a trip through time, for the sandstone gorges represent 600 to 300 million years of nature's handiwork. The exposed bedrock is Mansfield sandstone, after Mansfield, Indiana. This deposit was formed during the Carboniferous Period when the buildup of sand at the mouth of the ancient Michigan River was slowly compacted and cemented into solid rock. The swampy environment of this period gave birth to vast coal deposits. Coal was mined here in the

late 1800's and early 1900's. Seams of coal are still visible along many of the trails.<sup>1</sup>

<sup>1</sup> <http://www.turkeyrunstatepark.com/geology/index.htm>



# Environmental Profile: Parke County, Indiana

## Sugar Creek Conservation Area



The Wabash River and Sugar Creek project area spans more than 43,000 acres. It begins along the tributary Sugar Creek at Shades State Park and runs southwest to where it joins the Wabash.

Following the Wabash south-southwest, the project area ends at Fairbanks Landing Fish & Wildlife Area, south of Terre Haute. The project area follows 94 river miles along the Wabash and stretches across five counties: Montgomery, Parke, Sullivan, Vermillion and Vigo.<sup>2</sup>

## Mossy Point State Nature Preserve



Mossy Point Nature Preserve is a 191-acre property located along 3/4 of a mile of Sugar Creek frontage. The preserve is characterized by dramatic high ridges interspersed with shady

ravines and views of beautiful Sugar Creek. The high, dry ridges found throughout the property are crowned with White Oak and Shagbark Hickory. Rocky points extending down to the creek host mature stands of the Eastern Hemlock. In the shade of the Hemlocks are found such unusual plants as Partridgeberry, Witch Hazel, and Ginseng.<sup>3</sup>

<sup>2</sup> <http://www.in.gov/dnr/healthyriver/7640.htm>

<sup>3</sup> <http://www.conservingindiana.org/places-to-visit/mossy-point-state-nature-preserve/>



# Environmental Profile: Perry County, Indiana

## Information & County Contacts

### ***Perry County Visitor's Center:***

(812) 547-7933

### ***Perry County Soil & Water Conservation District:***

(812) 547-4686



## Endangered Species:

### ***Cerulean Warbler (*Dendroica cerulean*)***



A small bird of the deciduous forest treetops, the sky-blue Cerulean Warbler is hard to see. It nests and forages higher in the canopy than most other warblers. When renesting after a failed first nest, the female often uses spider web from the old nest to start construction on the new nest. Fresh

lining is gathered for the new nest, but spider web may be too valuable and time-consuming to waste. Cerulean Warbler is one of the species of highest concern in the eastern United States because of a small total population size and significant declines throughout its range.<sup>1</sup>

<sup>1</sup>[http://www.allaboutbirds.org/guide/Cerulean\\_Warbler/id](http://www.allaboutbirds.org/guide/Cerulean_Warbler/id)

# Environmental Profile: Perry County, Indiana



## Loggerhead Shrike (*Lanius ludovicianus*)



The Loggerhead Shrike is a songbird with a raptor's habits. A denizen of grasslands and other open habitats throughout much of North America, this masked black, white, and gray predator hunts from utility poles, fence posts and other conspicuous perches, preying on insects, birds, lizards, and small mammals. Lacking a raptor's talons, Loggerhead

Shrikes skewer their kills on thorns or barbed wire or wedge them into tight places for easy eating. Loggerhead Shrikes sometimes go hunting on cold mornings, when insect prey are immobilized by low temperatures.<sup>2</sup>

## Barn Owl (*Tyto alba*)



Ghostly pale and strictly nocturnal, Barn Owls are silent predators of the night world. Lanky, with a whitish face, chest, and belly, and buffy upperparts, this owl roosts in hidden, quiet places during the day. By night, they hunt on buoyant wingbeats in open fields and meadows. You can find them by listening for their eerie, raspy calls,

quite unlike the hoots of other owls. Despite a worldwide distribution, Barn Owls are declining in parts of their range due to habitat loss.<sup>3</sup>

<sup>2</sup>[http://www.allaboutbirds.org/guide/Loggerhead\\_Shrike/id](http://www.allaboutbirds.org/guide/Loggerhead_Shrike/id)

<sup>3</sup>[http://www.allaboutbirds.org/guide/Barn\\_Owl/id](http://www.allaboutbirds.org/guide/Barn_Owl/id)



# Environmental Profile: Pike County, Indiana

## Information & County Contacts

### *Pike County Visitor's Center:*

(812) 354-8155

### *Pike County Soil & Water Conservation District:*

(812) 354-6120 ext. 3



## Land, Water, & Biodiversity & Conservation Efforts:

### **Columbia Mine Preserve**



Sycamore's largest property, this preserve is a keystone piece in the Patoka River National Wildlife Refuge. Columbia Mine Preserve provides diverse habitat for many uncommon species, such as bobcats, river otters, and Indiana bats. Columbia Mine and the neighboring refuge create a contiguous habitat block of 5,000 acres. Acquisition of this land has been a top priority for the managers of Patoka River NWR for over five years, but a deal failed to materialize. Peabody Energy ultimately agreed to sell the property to Sycamore Land Trust, who will have an agreement with the US Fish and Wildlife Service allowing the agency to manage the property as part of the refuge even though it will remain privately owned.<sup>1</sup>

<sup>1</sup><http://sycamorelandtrust.org/columbia-mine/>



# Environmental Profile: Pike County, Indiana

## Ferdinand State Forest



In 1933, a local conservation club raised funds to buy 900 acres to build a lake and establish an area to hunt and fish. They offered management of the project to the Indiana Department of Conservation the following year, and this marked the establishment of Ferdinand State Forest.<sup>2</sup>

### Endangered Species:

#### Short-eared Owl (*Asio flammeus*)



The Short-eared Owl is a medium-sized owl with relatively long wings, and tiny, often concealed ear-tufts set near the center of the forehead. Generally nocturnal, but often become active 30-60 minutes before sunset; some owls may be active during the day (to a much lesser extent) during the breeding season. Short-eared Owls inhabit wide open spaces such as grasslands, prairie, agricultural fields, salt marshes, estuaries, mountain meadows, and alpine and Arctic tundra. Breeding habitat must have sufficient ground cover to conceal nests and nearby sources of small mammals for food.<sup>3</sup>

<sup>2</sup><http://www.in.gov/dnr/forestry/4824.htm>

<sup>3</sup><http://www.owlpages.com/owls.php?genus=Asio&species=flammeus>

# Environmental Profile: Porter County, Indiana



## Information & County Contacts

### *Porter County Visitor's Center:*

(219) 465-3400

### *Porter County Soil & Water Conservation District:*

(219) 462-7515 ext. 4



## Land, Water, & Biodiversity & Conservation Efforts:

### Indiana Dunes State Park



Indiana Dunes consists of 2,182 acres of primitive, beautiful, historic and unique Hoosier landscape. It lies at the north end of State Road 49 in Porter County, and includes more than three miles of beautiful

beach along Lake Michigan's southern shore. In the early 1900s scientists, recreationists and nature enthusiasts, recognizing the value and potential of the Indiana dunes area, fought to have the region preserved. As a result, in 1925, the state park was established.

# Environmental Profile: Porter County, Indiana



Large sand dunes, located beyond the entire shoreline, have taken thousands of years to form, and tower nearly 200 feet above Lake Michigan. A wide range of habitats and plant species are found in the park, with vegetation stabilizing some of the sand. These habitats provide homes for many types of plants and animals. The lake also provides habitat for many aquatic species, as well as a constantly changing fishery.<sup>1</sup>

## Local Environmental Challenges:

### **Town Of Pines Groundwater Plume**

EPA tested residential drinking water wells in the town of Pines in May 2002, based on high levels of the metals boron and molybdenum found in drinking water wells by the Indiana Department of Environmental Management. The metals appeared to come from coal combustion by-products, or CCBs, composed primarily of fly ash that was disposed of in a nearby landfill called Yard 520. Other areas in the town were also identified as having CCB materials. Ash, primarily bottom ash, was used as fill in residential yards as well as road surfaces and subsurfaces. CCBs are the result of burning coal to make electricity.

In 2003 and 2004, Northern Indiana Public Service Company, Brown, Inc., Ddalt Corp., and Bulk Transport, the companies determined to be responsible for the contamination, agreed to provide municipal water to about 270 homes in and near the town of Pines. About 70 more homes received bottled water pending the results of an ongoing investigation.<sup>2</sup>

<sup>1</sup> <http://www.in.gov/dnr/parklake/2980.htm>

<sup>2</sup> <https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0508071>



# Environmental Profile: Posey County, Indiana

## Information & County Contacts

### *Posey County Visitor's Center:*

(812) 838-5576

### *Posey County Soil & Water Conservation District:*

(812) 838-4191 ext. 3



## Land, Water, & Biodiversity & Conservation Efforts:

### Goose Pond Cypress Slough



Goose Pond Cypress Slough is a slice of the Deep South found in southwest Indiana. The pond is actually a series of small sloughs - old side channels in the Ohio River floodplain - that run about four

miles along the river. Stately bald cypress trees and cypress knees line the slough, and this preserve is perhaps the easiest place to view these unusual-to-the-state trees. Visiting this site in the wetter months can be tricky, but is definitely worth it.<sup>1</sup>

<sup>1</sup><http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/indiana/placesweprotect/goose-pond-cypress-slough.xml>

# Environmental Profile: Posey County, Indiana



## Harmonie State Park



Harmonie State Park is located "on the banks of the Wabash" 25 miles northwest of Evansville. A beautiful swimming pool, shady picnic areas, ravines and pristine landscape await you here. This is a trail lover's paradise! Trails for walking, biking and nature hikes will lure you for a visit.<sup>2</sup>

## Endangered Species:

### Interior Least Tern (*Sterna antillarum athalassos*)



Least Terns are the smallest North American terns. Nesting habitat of the Interior Least Tern includes bare or sparsely vegetated sand, shell, and gravel beaches, sandbars, islands, and salt flats associated with rivers and reservoirs. The birds prefer open habitat, and tend to avoid thick vegetation and narrow beaches. Sand and gravel bars within a wide unobstructed river channel, or open flats along shorelines of lakes and reservoirs, provide favorable nesting habitat. Channelization, irrigation, and the construction of reservoirs and pools have contributed to the elimination of much of the tern's natural nesting habitat in the major river systems of the Midwest.<sup>3</sup>

<sup>2</sup><http://www.in.gov/dnr/parklake/2981.htm>

<sup>3</sup><https://tpwd.texas.gov/huntwild/wild/species/leاستtern/>



# Environmental Profile: Pulaski County, Indiana

## Information & County Contacts

***Pulaski County Visitor's Center:***

(574) 946-3869

***Pulaski County Soil & Water Conservation District:***

(574) 946-3243 ext. 3



## Land, Water, & Biodiversity & Conservation Efforts:

### Tippecanoe River State Park



In the 1600s and 1700s, this was the land of the Potawatomi. The early explorers were French fur traders or “Voyagers” who came from Montreal, Canada, the center of fur trading, laden with goods. They sought Native

American encampments, eager to acquire beaver pelts in exchange for blankets, utensils and any other items the Potawatomi wished to barter.

The Tippecanoe River was a major highway for this trade; both groups plied its waters. Settlement came slowly but inevitably to the area. In the 1830s, clearing, draining and farming of the lands was taking place. The Potawatomi were removed to a Kansas reservation. New settlers poured in. The land in the vicinity of the park was slowly cleared. Farming and grazing became the prime activity as most wildlife disappeared. The area remained this way until the Great Depression in the early 1930s.



# Environmental Profile: Pulaski County, Indiana

At about that time, the U.S. Department of the Interior, through its National Park Service, acquired about 7,353 acres of land in an area bordering Tippecanoe River and U.S. 35, approximately 5 miles north of Winamac, in Pulaski County. Most of the land, which has a high sand content, was not well suited for agricultural use. The area was called the Winamac Recreation Demonstration Area. The Works Progress Administration (WPA) developed most of the existing facilities at that time, under the direction of the National Park Service.

In 1943, the land was transferred to the Indiana Department of Conservation for operation as a state park. On Jan. 1, 1959, 4,592 acres was transferred to the DNR Division of Fish and Wildlife and named the Winamac Fish and Wildlife Area. All of the 4,592 acres lie west of U.S. 35. The remaining 2,761 acres, which lie east of U.S. 35, are still part of the state park.<sup>1</sup>

## Endangered Species:

### **Hellbender Salamander (*Cryptobranchus Alleganiensis*)**



Also called such unflattering names as “mud devil,” “devil dog” and “ground puppy,” the hellbender salamander is the largest aquatic salamander in the United States, growing as long as 29 inches, though the average is 12-15 inches.

It can be found slowly crawling across the bottoms of clear, silt-free mountain streams from south New York to north Alabama. A separate subspecies, the Ozark hellbender, is confined to a small part of southeast Missouri and northeast Arkansas.<sup>2</sup>

<sup>1</sup> [http://www.in.gov/dnr/parklake/files/tippecanoe\\_river\\_trail.pdf](http://www.in.gov/dnr/parklake/files/tippecanoe_river_trail.pdf)

<sup>2</sup> <http://www.nature.org/newsfeatures/specialfeatures/animals/amphibians/hellbender-salamander-facts.xml>



# Environmental Profile: Putnam County, Indiana

## Information & County Contacts

### *Putnam County Visitor's Center:*

(800) 829-4639

### *Putnam County Soil & Water Conservation District:*

(765) 653-5716 ext. 135



## Land, Water, & Biodiversity & Conservation Efforts:

### **Big Walnut Preserve**



Big Walnut Preserve is a dazzling scenic area situated among the rolling hills and steep ravines of Big Walnut Creek Valley. Since 1985, the preserve has been co-managed by the Conservancy and the Indiana Department of Natural Resources Division of Nature

Preserves (DNP). This successful partnership has protected more than 2600 acres and has ensured the long-term viability of this biologically important natural area.<sup>1</sup>

<sup>1</sup> <http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/indiana/placesweprotect/big-walnut.xml>

# Environmental Profile: Putnam County, Indiana



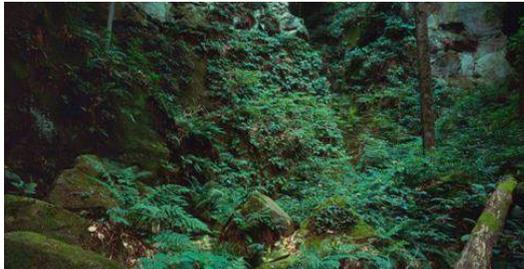
## Deer Creek Fish & Wildlife Area



Possession of the land which comprises Deer Creek Fish & Wildlife Area began in 2010 with a transfer of 1,962 acres from the Putnamville Correctional Facility to the Department of Natural Resources, Division of Fish &

Wildlife. The property is comprised of rolling interspersed agriculture and mature oak hickory dominated woods.<sup>2</sup>

## Fern Cliff Preserve



Steep forested, sandstone cliffs, lush wooded ravines, and a profusion of ferns and bryophytes characterize this popular preserve. Its unique vegetation makes the preserve a botanists' floral paradise.<sup>3</sup>

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<sup>2</sup> <http://www.in.gov/dnr/fishwild/6297.htm>

<sup>3</sup> <http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/indiana/placesweprotect/fern-cliff.xml>

# Environmental Profile: Randolph County, Indiana



## Information & County Contacts

### ***Randolph County Visitor's Center:***

(765) 584-3266

### ***Randolph County Soil & Water Conservation District:***

(765) 584-4505 ext. 3



## Local Clean Energy Initiatives:

### **Indiana Community Wind Project**

Randolph County in eastern Indiana boasts natural wind resources. For this reason, the county wanted to be the first community in its state to generate wind power for the benefit of a school corporation and a city. It all started with a science teacher's idea to build a small turbine for classroom education. The school system and city realized that they could also generate profits from the sale of renewable energy.

With the promise of revenue from carbon credits and electricity sales, the community decided to construct two 330 foot, two-blade turbines—one for the Randolph Eastern School Corporation and the other for the City of Union City. Each 1 MW turbine is estimated to produce over 2,000 MWh of electricity annually, equivalent to powering 250 homes per year. These turbines are expected to generate a profit of \$3 million for the city and school over the next 25 years.<sup>1</sup>

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<sup>1</sup> <http://www.nativeenergy.com/indiana-community-wind-project.html>

# Environmental Profile: Randolph County, Indiana



## Land, Water, & Biodiversity & Conservation Efforts:

### McVey Memorial Forest



McVey Memorial Forest is a 249 acre forest located in Randolph County. Edna McVey established this nature park in her will so that generations to come would enjoy it. McVey Memorial

Forest is a wonderful example of upland forest, river bottom, prairie, and wetlands, as well as a 30 year restoration project. Bush Creek meanders through the woods to the Mississinewa River. The property's trails traverse the hardwood forest over bridges and varied terrain. The McVey Memorial Forest is also adjacent to hundreds of acres of DNR forest; making this area one of the largest wildlife corridors in East Central Indiana.<sup>2</sup>

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<sup>2</sup> <http://www.fortheland.org/mcvey/>



# Environmental Profile: Ripley County, Indiana

## Information & County Contacts

### ***Ripley County Visitor's Center:***

(812) 689-7431

### ***Ripley County Soil & Water Conservation District:***

(812) 689-6410



## Land, Water, & Biodiversity & Conservation Efforts:

### **Versailles State Park**

Take a drive through the beautiful rolling hills of southeastern Indiana with Versailles State Park, Indiana's second-largest state park, as your destination. This



area has deep history rooted in both the Civil War and the Civilian Conservation Corps. Versailles State Park dedicated a CCC commemorative statue in 2010. Numerous fossils tell the story of an ancient sea that covered the region. During the Civil War, Morgan's Raiders

made their way through the area that is now the park. The town of Versailles was briefly under Confederate control.<sup>1</sup>

<sup>1</sup><http://www.in.gov/dnr/parklake/2963.htm>



# Environmental Profile: Ripley County, Indiana

## Big Oaks National Wildlife Refuge

Big Oaks NWR hosts a variety of different habitat types, providing for a diversity of wildlife species. The refuge is unique in that it contains one of the largest



contiguous forest blocks and grassland complexes in southeast Indiana. The refuge provides breeding habitat for a variety of rare birds, including

Henslow's Sparrow, Cerulean Warbler, Worm-eating Warbler, Hooded Warbler, Black and White Warbler, Blue Grosbeak, and many more. A landscape habitat mosaic comprised of grasslands, shrublands, forests, and wetlands provides wonderful opportunities for wildlife viewing. Also offered are a host of other recreational activities, including fishing, hunting, birdwatching, wildlife photography, refuge tours, and hiking.<sup>2</sup>

## Brum Woods

The 80 acres of woods donated to The Batesville Community by Lena Brum (1900-



1993). Lena was a lifelong resident of Batesville who loved nature. She attended Batesville schools and worked as a switchboard operator at the phone company. She retired when the telephone company no longer used switchboards and spent the rest of her life taking care of her family and their land.<sup>3</sup>

<sup>2</sup><http://www.indianaaudubon.org/Birds/DetailedBirdingLocations/BigOaksNationalWildlifeRefuge/tabid/171/Default.aspx>

<sup>3</sup><http://www.indianatrails.com/content/brum-woods-trails-batesville>



# Environmental Profile: Rush County, Indiana

## Information & County Contacts

### *Rush County Visitor's Center:*

(765) 932-2880

### *Rush County Soil & Water Conservation District:*

(765) 544-2051 ext. 6



## Local Clean Energy Initiatives:

### **Flat Rock Wind Project**

Apex Clean Energy has acquired the development rights to and is exploring the feasibility of constructing Flat Rock Wind, a utility-scale wind energy project, in rural southern Henry County and northern Rush County, Indiana. The Flat Rock Wind farm could offer an opportunity to address Indiana's growing electricity demand and replace the energy lost by fossil fuel plant closings in the Midwest with clean domestic energy. The project will diversify Henry and Rush Counties' economies and support the rural farm community.<sup>1</sup>

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<sup>1</sup><http://www.flatrockwindpower.com/>



# Environmental Profile: Rush County, Indiana

## Endangered Species:

### **Clubshell (*Pleurobema clava*)**



The clubshell mussel is a federally endangered species. This mussel prefers clean, loose sand and gravel in medium to small rivers and streams. The clubshell will bury itself in the bottom substrate to depths of up to four inches. Reasons for its decline in the upper Ohio and Wabasha watersheds are mainly due to pollution

from agricultural run-off and industrial wastes, and extensive impoundments for navigation. An added threat now is the zebra mussel, a fast spreading exotic species that was accidentally introduced in ballast water from the Caspian Sea. These tiny mussels reproduce in enormous numbers which then cover and suffocate native mussels.<sup>2</sup>

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<sup>2</sup><http://www.fws.gov/northeast/pafo/pdf/clubshell%20fact%20sheet.pdf>



# Environmental Profile: Scott County, Indiana

## Information & County Contacts

### ***Scott County Visitor's Center:***

(812) 752-9211

### ***Scott County Soil & Water Conservation District:***

(812) 752-2269 ext. 3



## Land, Water, & Biodiversity & Conservation Efforts:

### **Clark State Forest**



Clark State Forest, established in 1903, is the oldest state forest in Indiana. The original appropriations to purchase a 2,000 acre tract took place during the administration of Governor Winfield Durbin. In the ensuing 96 years, additional acquisitions have increased this area to the present 24,000 acres. Much of this land was originally part of Clark's Grant, lands

provided by a clause in the Virginia Cession of Claims to the Northwest Territory on December 20, 1783. Clark State Forest was used as an experimental forest for many years, early in the development of forestry into a science and profession. More than 150 experimental tree plantings, established from 1905 through 1935, can still be observed in many areas throughout the forest.<sup>1</sup>

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<sup>1</sup><http://www.in.gov/dnr/forestry/4827.htm>



# Environmental Profile: Scott County, Indiana

## Endangered Species:

### Indiana Bat (*Myotis sodalis*)



The Indiana bat was listed as endangered in 1967 due to episodes of people disturbing hibernating bats in caves during winter, resulting in the death of large numbers of bats. Indiana bats are vulnerable to disturbance because they hibernate in large numbers in only a few caves (the largest hibernation caves support from 20,000 to 50,000 bats). Other threats that have contributed to the Indiana bat's decline include commercialization of caves, loss of summer habitat, pesticides and other contaminants, and most recently, the disease white-nose syndrome. Indiana bats are found over most of the eastern half of the United States. Almost half of them hibernate in caves in southern Indiana. The 2009 population estimate was about 387,000 Indiana bats, less than half as many as when the species was listed as endangered in 1967.<sup>2</sup>

<sup>2</sup><http://www.fws.gov/Midwest/Endangered/mammals/inba/index.html>

# Environmental Profile: Shelby County, Indiana



## Information & County Contacts

### *Shelby County Visitor's Center:*

(317) 398-9623

### *Shelby County Soil & Water Conservation District:*

(765) 544-2051 ext.7



## Land, Water, & Biodiversity & Conservation Efforts:

### Meltzer Woods



Meltzer Woods is a 60 acre preserve located in Shelbyville. Meltzer Woods was the last unprotected old growth forest remaining in Indiana. The Indiana Bicentennial Nature Trust provided the leadership gift allowing the Central Indiana Land Trust to buy and forever

protect and preserve the woods. By definition, old-growth forests include trees more than 150 years old and have been relatively undisturbed for a century. Located 35 minutes from downtown Indianapolis, Meltzer Woods will open to the public in 2016 for hiking and enjoying nature.<sup>1</sup>

<sup>1</sup><http://www.conservingindiana.org/places-to-visit/meltzer-woods/>

## Endangered Species:

### **Rayed Bean (*Villosa fabalis*)**



The rayed bean is a freshwater mussel that has been extirpated from Illinois, Kentucky, and Virginia but is still found in Indiana, Michigan, New York, Ohio, Pennsylvania, Tennessee, West Virginia and Ontario, Canada. It is a small mussel, usually less than 1.5 inches long. Generally, it lives in smaller, headwater creeks, but is sometimes found in large rivers and wave-washed areas of glacial lakes. The rayed bean prefers gravel or sand substrates, and is often found in and around roots of aquatic vegetation.<sup>2</sup>

### **Northern Riffleshell (*Epioblasma torulosa rangiana*)**



This mussel survives in less than 5 percent of its former range. This mussel is found in a wide variety of streams from large to small. It buries itself in bottoms of firmly packed sand or gravel with its feeding siphons exposed. Dams and reservoirs have flooded most of this mussel's habitat, reducing its gravel and sand habitat and probably affecting the distribution of its fish hosts. Reservoirs act as barriers that isolate upstream populations from downstream ones.<sup>3</sup>

<sup>2</sup><http://www.fws.gov/midwest/Endangered/clams/rayedbean/index.html>

<sup>3</sup><http://www.fws.gov/midwest/endangered/clams/n-riffleshell.html>



# Environmental Profile: Spencer County, Indiana

## Information & County Contacts

### ***Spencer County Visitor's Center:***

(812) 937-4199

### ***Spencer County Soil & Water Conservation District:***

(812) 649-9136 ext. 3



## Land, Water, & Biodiversity & Conservation Efforts:

### **Lincoln State Park**



Discover the boyhood home of the 16th president of the United States, Abraham Lincoln. Among the rolling hills and thick forest, young Lincoln learned many life lessons. Lincoln State Park offers 10 miles of hiking trails, two scenic lakes, and an interpretive center to help you experience early life of settlers in southern Indiana.

Your entire family can enjoy a relaxing time

at one of the campgrounds, cabins or group cottages. Tour the Colonel Jones Home, the historic home of the merchant and Civil War officer who employed young Lincoln. The 1,747-acre park was established in 1932 as a memorial to Lincoln's mother, Nancy Hanks. The Little Pigeon Creek Baptist Church and Cemetery, located on the property, is where Lincoln's sister Sarah is buried.<sup>1</sup>

<sup>1</sup><http://www.in.gov/dnr/parklake/2979.htm>



# Environmental Profile: Spencer County, Indiana

## Little Pigeon Creek Fish & Wildlife Area



Little Pigeon Creek Fish & Wildlife Area, Warrick and Spencer Counties - Acquired in 1999 and 2000, these 78.58 acres add to the existing area and contain floodplain forests, emergent wetlands and open water.<sup>2</sup>

## Endangered Species:

### Lake Cress (*Armoracia aquatica*)



This is a semi-aquatic species. Its natural habitats are wetlands, floodplains or wharf of rivers and lakes in eastern North America (humid subtropical and temperate climates). This plant has long and strong stem. There is wide, arranged opposite in

pairs leaves with different shape on the stem. The leaf blade can be ovate with smooth margins, elliptic with sinuate margins or pinnatisect with serrated margins. Shape of the leaves depends on age of the plant, its degree of immersion in water (partially or completely submerged) and light intensity. The plant blooms late spring or early summer. Then white and fine flowers appear on the stem.<sup>3</sup>

<sup>2</sup><http://www.in.gov/dnr/heritage/4519.htm#>

<sup>3</sup><http://www.inaquarium.com/armoracia-aquatica.php>

# Environmental Profile: St. Joseph County, Indiana



## Information & County Contacts

### *St. Joseph County Visitor's Center:*

(800) 519-0577

### *St. Joseph County Soil & Water Conservation District:*

(574) 936-2024



## Land, Water, & Biodiversity & Conservation Efforts:

### Potato Creek State Park



Native Americans once collected plants with potato-like roots on this area's creek banks. The early settlers' English translation for the name those people gave that plant was "wild potato," hence the name "Potato" Creek.

Darcey Worster and fellow conservation club members first proposed a man-made reservoir on Potato Creek in the late 1930s. Their project was halted by World War II. Worster kept that dream alive by sending his hand-crafted insects to state officials to "bug" them about creating a park. His efforts succeeded when the area was designated to become a park in 1969.<sup>1</sup>

<sup>1</sup> [http://www.in.gov/dnr/parklake/files/potato\\_creek\\_trail.pdf](http://www.in.gov/dnr/parklake/files/potato_creek_trail.pdf)

# Environmental Profile: St. Joseph County, Indiana



## Spicer Lake Nature Preserve



St. Joseph County Parks Department is excited to announce that with the help of several organizations including Indiana Heritage Trust, Indiana Department of Natural Resources, the South Bend/Elkhart Audubon Society, and numerous private donors, an additional 75 acres adjacent to Spicer Lake Nature Preserve was purchased in 2004. The new property offers 35 acres of woodland, a buttonbush swamp, a sedge meadow and a portion of Lancaster Lake basin. Lancaster Lake is a kettle-hole lake and once development is complete, trails through this area will border the basin and the buttonbush swamp.<sup>2</sup>

## Endangered Species:

### Spotted turtle (*Clemmys guttata*)



As its common name implies, this small turtle is easily recognized by the distinctive yellow to orange spotting on its smooth, brownish-black upper shell (carapace). This pattern of spotting extends onto the dark upper surface of the head and limbs, while the lower surfaces of the legs and neck are orange to pink or salmon-red. There is also usually a large yellow or orange blotch on each side of the head. The lower shell (plastron) is yellow to orange with large black patches on each scute, which normally become darker and more extensive with age.<sup>3</sup>

<sup>2</sup> [http://www.sjcparks.org/pdf/files/spicer\\_lake\\_brochure.pdf](http://www.sjcparks.org/pdf/files/spicer_lake_brochure.pdf)

<sup>3</sup> <http://www.arkive.org/spotted-turtle/clemmys-guttata/>



# Environmental Profile: Starke County, Indiana

## Information & County Contacts

### ***Starke County Visitor's Center:***

(574) 772-0896

### ***Starke County Soil & Water Conservation District:***

(574) 772-3066 ext. 3



## Land, Water, & Biodiversity & Conservation Efforts:

### **Kankakee Fish & Wildlife Area**



The entire FWA is situated in what was the Grand Kankakee Marsh, which once covered hundreds of thousands of acres. Most of the marsh was drained in the late 1800s for agricultural use.

In 1927, the state purchased 2,312 acres of the remaining marsh for a Civilian Conservation Corps. camp,

housing as many as 400 men. The area later became established as a game preserve, and during the 50s, waterfowl management was undertaken by the state. In the 1980s and the 90s, 1,783 acres were added to the property. An additional 104 acres were added in 2010.<sup>1</sup>

<sup>1</sup> <http://www.in.gov/dnr/fishwild/3090.htm>

# Environmental Profile: Starke County, Indiana



## Endangered Species:

### **American burying beetle (*Nicrophorus americanus*)**



About an inch and a half long, the American burying beetle can be identified by its striking, distinctive coloring. The body is shiny black, and on its wing covers are four scalloped, orange-red markings. Most distinctively, there is an orange-red marking on the beetle's pronotum, a large shield-like area just behind the head.

The American burying beetle has orange facial markings and orange tips on the antennae. The beetles are strong fliers, moving as far as a kilometer in one night.

Biologists have not unlocked the mystery why the American burying beetle has disappeared from so many areas. Widespread use of pesticides may have caused local populations to disappear. The dramatic disappearance of this insect from many areas, however, took place before widespread use of DDT. Lack of small carcasses to bury would prevent the species from reproducing, and changes in land use have reduced the quantity of small- to medium-sized birds and mammals preferred by the American burying beetle. Even the extinction of the once ubiquitous passenger pigeon may have had a ripple effect on carrion feeders like this beetle.<sup>2</sup>

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<sup>2</sup> [https://www.fws.gov/Midwest/endangered/insects/ambb/abb\\_fact.html](https://www.fws.gov/Midwest/endangered/insects/ambb/abb_fact.html)



# Environmental Profile: Steuben County, Indiana

## Information & County Contacts

### ***Steuben County Visitor's Center:***

(800) 525-3101

### ***Steuben County Soil & Water Conservation District:***

(260-665-3211 ext. 3)



## Land, Water, & Biodiversity & Conservation Efforts:

### **Pokagon State Park/Trine State Recreation Area**



Pokagon State Park is located near Angola, just off I-69. The park was originally called Lake James State Park when proposed to be the fifth Indiana State Park in 1925. The name was changed to Pokagon State Park to acknowledge the

rich Native American heritage of the state and region. Leopold and Simon Pokagon were father and son and the last two most notable leaders of the Potawatomi. The park's Potawatomi Inn takes its name from these Native Americans, who made their home in the area. The inn, with its up-north fishing-lodge theme, is one of the Midwest's most popular resorts and conference centers.

Being one of the state's original parks, Pokagon features the unique work of the Civilian Conservation Corps, whose members lived and worked at Pokagon from



## Environmental Profile: Steuben County, Indiana

1934 to 1942. The “boys of the CCC” built the beautiful stone and log structures that dot the park landscape and provide accent to the rolling wooded hills, wetlands and open meadows.

Natural lakes created by glaciers that melted 10,000 to 15,000 years ago, highlight Steuben County, which has more lakes than any other Indiana county. The park is framed by Lake James and Snow Lake, which offer abundant opportunities for boating, swimming, fishing and scenic sunsets.<sup>1</sup>

### Endangered Species:

#### **Prairie Fringed Orchid (*Platanthera leucophaea*)**



The orchids produce flower stalks up to 47 inches tall. Each stalk has up to 40 white flowers about an inch long. The western prairie fringed orchid's flowers are somewhat larger than those of the closely related eastern prairie fringed orchid.

The greatest threat to the prairie fringed orchids is habitat loss, mostly through conversion to cropland. Competition with introduced alien plants, filling of wetlands, intensive hay mowing, fire suppression, and overgrazing also threatens these species.<sup>2</sup>

<sup>1</sup> <http://www.in.gov/dnr/parklake/2973.htm>

<sup>2</sup> <https://www.fws.gov/midwest/endangered/plants/prairief.html>



# Environmental Profile: Sullivan County, Indiana

## Information & County Contacts

**Sullivan County Visitor's Center:**

(812) 905-0131

**Sullivan County Soil & Water Conservation District:**

(812) 268 5157 ext. 3



## Land, Water, & Biodiversity & Conservation Efforts:

### **Shakamak State Park**



Dedicated in September 3, 1928, Shakamak State Park's main attractions are the three man-made lakes that are used for fishing, boating and swimming. A large wooded area and camping sites are also included on the property.<sup>1</sup>

### **Greene-Sullivan State Forest**



This state forest was founded in 1936 by 3,000 acres of land donations from local coal companies. The property is now over 9,000 acres and contains over 120 unique lakes stocked with various freshwater fish including bass, channel catfish and bluegill.<sup>2</sup>

<sup>1</sup> <http://www.in.gov/dnr/parklake/2969.htm>

<sup>2</sup> <http://www.in.gov/dnr/forestry/4821.htm>



# Environmental Profile: Sullivan County, Indiana

## Endangered Species:

### Indiana Bat (*Myotis sodalis*)

The Indiana bat was listed as endangered in 1967 due to episodes of people disturbing hibernating bats in caves during winter, resulting in the death of large



numbers of bats. Indiana bats are vulnerable to disturbance because they hibernate in large numbers in only a few caves (the largest hibernation caves support from 20,000 to 50,000 bats). Other threats that have contributed to the Indiana bat's decline include commercialization of caves, loss of

summer habitat, pesticides and other contaminants, and most recently, the disease white-nose syndrome.<sup>3</sup>

<sup>3</sup> <http://www.fws.gov/Midwest/Endangered/mammals/inba/index.html>



# Environmental Profile: Switzerland County, Indiana

## Information & County Contacts

### **Switzerland County Visitor's Center:**

(800) 435-5688

### **Switzerland County Soil & Water Conservation District:**

(812) 427-3126 ext. 3



## Endangered Species:

### **Elusive Clubtail (*Stylurus notatus*)**



The males of most of the "hanging" clubtails (genus *Stylurus*) have long, slender abdomens. When perched on leaves, the bodies are pulled down by their weight, creating the appearance of "hanging" clubtails. This greenish yellow, slender dragonfly is striped with black. Ranging in eastern United States, from Tennessee to

Ontario, the Elusive Clubtail often likes large rivers and large lakes with sandy bottoms, sometimes also with silt and gravel.<sup>1</sup>

<sup>1</sup><http://wiatri.net/inventory/odonata/SpeciesAccounts/SpeciesDetail.cfm?TaxaID=112>

# Environmental Profile: Switzerland County, Indiana



## Eastern Hellbender (*Cryptobranchus alleganiensis alleganiensis*)



Eastern hellbenders are the largest salamander in North America. Adults are capable of reaching 29 inches in length; however, most individuals are typically 11-24 inches long. This North American giant salamander has short limbs and widely flattened head and body. A fleshy fold of skin extends along the sides of the body between the front and hind limbs giving them

an overall wrinkly appearance. Body color is often variable, ranging from a greenish to yellowish brown. Dark spotting is typically present along the back and tail. Although adults are quite large, they are rarely seen. They spend most of their time hiding beneath large, flat rocks during the day and forage for crayfish at night. Hellbender populations are declining across their range, from Missouri to New York. This decline, which affects the hellbender population in Indiana's Blue River, is likely caused by human influences such as habitat degradation and destruction. The stream-bottom habitat of hellbenders can be degraded by sediment from eroded banks and fields and destroyed when streams are dammed or dredged. Hellbenders are also captured inadvertently by anglers or purposefully for illegal sale in the pet trade.<sup>2</sup>

<sup>2</sup><https://ag.purdue.edu/extension/hellbender/Pages/default.aspx>

# Environmental Profile: Tippecanoe County, Indiana



## Information & County Contacts

### *Tippecanoe County Visitor's Center:*

(765) 447-9999

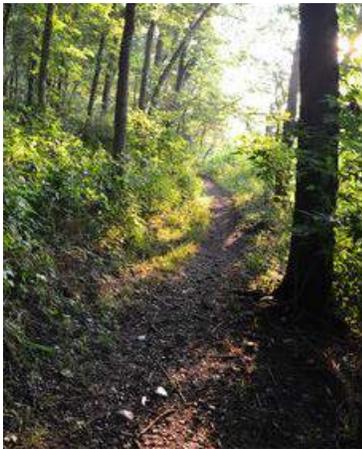
### *Tippecanoe County Soil & Water Conservation District:*

(765) 474-9992 ext. 3



## Land, Water, & Biodiversity & Conservation Efforts:

### Prophetstown State Park



Prophetstown State Park sits at the edge of a tallgrass prairie that greeted Native Americans and European settlers who first lived in what is now northwestern Indiana.

A vast sea of tallgrass stretched as far as the eye could see. Small, open oak woodlands dotted the prairie landscape. Steep, narrow bluffs dropped to connecting rivers. Over time, the land has been shaped by ice, water, fire and human hands.

The glaciers made their mark first. Vast quantities of ice moved slowly across this place at least three times, carving the land into gently rolling topography. As the ice receded, rocks carried from the northern part of our continent were left behind. These range in size from large boulders called glacial erratics to the abundant gravel and sand deposits mined commercially today.

# Environmental Profile: Tippecanoe County, Indiana



As the ice melted, river channels and streams formed, some of which were on the surface; some of which formed the basis for the ample groundwater supply below.

In addition, a gravel and soil “dam” holding back glacial Lake Maumee north of what is now Fort Wayne may have burst. Water cascaded southwest, impacting the flow and direction of the Wabash River and further carving the landscape. The Tippecanoe River meets the Wabash just upstream from the state park, creating a seasonal wetland that is now an attractive stopping place for shorebirds and waterfowl.<sup>1</sup>

## Prophetstown Fen Nature Preserve

This preserve consists of one of the largest and highest quality fens known in Central Indiana. Other natural communities found within this preserve include sedge meadow, wet prairie, and Wabash Valley bluff dry-upland forests. Harrison Creek, named for William Henry Harrison, is a permanent, high quality seepage-fed stream that runs through much of the preserve. Harrison Creek arises within the fen and meanders through a peatland scattered with boulders left by glacial ice. Noteworthy species found in this preserve include Riddell’s goldenrod (*Solidago riddellii*), and Obedient-plant (*Physostegia virginiana*).<sup>2</sup>

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<sup>1</sup> [http://www.in.gov/dnr/parklake/files/prophetstown\\_trail.pdf](http://www.in.gov/dnr/parklake/files/prophetstown_trail.pdf)

<sup>2</sup> [http://www.in.gov/dnr/naturepreserve/files/np-prophetstown\\_fen.pdf](http://www.in.gov/dnr/naturepreserve/files/np-prophetstown_fen.pdf)

# Environmental Profile: Tipton County, Indiana



## Information & County Contacts

### *Tipton County Visitor's Center:*

(765) 675-7533

### *Tipton County Soil & Water Conservation District:*

(765) 675-8900



## Endangered Species:

### **Black Rail (*Laterallus jamaicensis*)**



The smallest rail in North America, the Black Rail is perhaps the most secretive too. This small denizen of shallow salt and freshwater marshes is rarely seen and its distinctive "kick-ee-doo" call is heard primarily at night.

Black Rails nest in high portions of salt marshes, shallow freshwater marshes, wet meadows, and flooded grassy vegetation.<sup>1</sup>

<sup>1</sup> [https://www.allaboutbirds.org/guide/Black\\_Rail/lifehistory](https://www.allaboutbirds.org/guide/Black_Rail/lifehistory)

# Environmental Profile: Tipton County, Indiana



## Awned Sedge (*Carex atherodes*)



Awned sedge is a loosely tufted grass-like perennial that grows in patches. There are two kinds of stems on the plants. One type has flowers and fruits (reproductive stems) and the other lacks these structures (vegetative stems). Reproductive stems are less common than the vegetative stems and are often lacking. Reproductive stems are 35-125 cm tall. Leaves are 3-10 mm wide, usually hairy, and are clustered towards the top of the vegetative stems. The upper half

of the reproductive stems have 3-11 narrowly cylindrical flower/fruit clusters (spikes). The upper 1-6 are composed of male flowers. The lower 2-5 spikes are mostly composed of female flowers which mature into fruits (perigynia). The fruits are 6.5-12.0 mm long and have a two pronged beak at their apex.

*Carex atherodes* occurs in marshes, shrub swamps, wet successional fields, and pond and stream edges, sometimes in standing water. It can form dense monospecific patches and likes wet thin soils over limestone.<sup>2</sup>

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<sup>2</sup> <http://acris.nynhp.org/guide.php?id=9456>



# Environmental Profile: Union County, Indiana

## Information & County Contacts

### ***Union County Visitor's Center:***

(765) 935-8687

### ***Union County Soil & Water Conservation District:***

(765) 825-4311 ext. 3



## Land, Water, & Biodiversity & Conservation Efforts:

### **Whitewater Memorial State Park**



The land for the park was originally purchased by the surrounding counties of Union, Fayette, Franklin and Wayne as a memorial to the men and women who served in World War II. It became the 16th park in the Indiana

State Park system in 1949.<sup>1</sup>

<sup>1</sup><http://www.in.gov/dnr/parklake/2962.htm>

# Environmental Profile: Union County, Indiana



## Endangered Species:

### **Redside dace (*Clinostomus elongates*)**



The redside dace is a small minnow with a distinct white-yellow band extending from the snout to the tail that separates the dark back of the fish from a distinct red band on the lower side of the fish. It has a large

pointed snout, large oblique mouth, and forked caudal fin. The body has small scales and is laterally compressed with a complete, slightly decurved lateral line. Redside dace occur in small streams with moderate to high gradients, adequate overhanging vegetation to provide ample shading of the stream, abundant coarse woody structure, and clean rocky substrates. Redside dace use clean rocky riffles for spawning and pools during non-breeding season.<sup>2</sup>

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<sup>2</sup><http://mnfi.anr.msu.edu/explorer/species.cfm?id=11307>



# Environmental Profile: Vanderburgh County, Indiana

## Information & County Contacts

### *Vanderburgh County Visitor's Center:*

(800) 433-3025

### *Vanderburgh County Soil & Water Conservation District:*

(812) 423-4426 ext. 3



## Land, Water, & Biodiversity & Conservation Efforts:

### Eagle Slough Natural Area



Eagle Slough is an oasis of wetland and mature bottomland forest, home to over 160 species of birds. The preserve offers a walking trail with interpretive signage along an old rail bed, and a series of observation decks overlooking the wetlands and open water lake. The healthy bald cypress stands at Eagle

Slough contain some of the largest bald cypress trees in the state.<sup>1</sup>

<sup>1</sup><http://sycamorelandtrust.org/eagle-slough/>

# Environmental Profile: Vanderburgh County, Indiana



## Endangered Species:

### **American Burying Beetle (*Nicrophorus americanus*)**



The American burying beetle is a large black insect with two distinct orange bands on each elytra (wing covers). The pronotum (shield-like structure behind the head) is orange with a black border. Each antennae is tipped with orange and there is an orange patch on the head. Populations of American burying beetles have been extirpated from 90% of their original range.<sup>2</sup>

## Local Environmental Challenges:

### **Jacobsville Neighborhood Soil Contamination**

The Jacobsville Neighborhood Soil Contamination (Jacobsville) Superfund site is located in Evansville, Indiana. Over time, soil had become contaminated with lead and arsenic due to emissions from former facilities in the area. Operations of some of these companies date back as far as the 1880s, but all had ceased operating by the 1950s. Lead levels above the Jacobsville site cleanup level of 400 parts per million (ppm) were found in residential soils in both OU1 and OU2 of the site. Lead is harmful because it can cause high blood pressure, digestive problems, nerve disorders, memory and concentration problems, and muscle and joint pain.<sup>3</sup>

<sup>2</sup><http://www.fws.gov/southdakotafielddoffice/BEETLE.HTM>

<sup>3</sup><http://www.epa.gov/R5Super/npl/indiana/INN000508142.html>

# Environmental Profile: Vermillion County, Indiana



## Information & County Contacts

### *Vermillion County Visitor's Center:*

(800) 383-4386

### *Vermillion County Soil & Water Conservation District:*

(765) 492-3705



## Local Clean Energy Initiatives:

### **White Construction Renewable Energy Projects Contractor**

White Construction, Inc., a Vermillion County-based contractor for renewable energy projects throughout North America, will expand its operations, creating up to 70 new jobs by 2012.

The company, which constructs wind farms, solar farms, biomass and geothermal power plants, among other heavy industrial and heavy highway construction projects, will invest \$10.2 million to construct and equip a new 50,300 square-foot, LEED-certified headquarters facility here.

White Construction, which currently employs more than 130 associates throughout Indiana, plans to begin hiring engineers, information technology associates and supervisory staff later this year as work on the new facility begins.<sup>1</sup>

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<sup>1</sup> <http://whiteconstruction.com/white-construction-to-expand-in-indiana/>

# Environmental Profile: Vermillion County, Indiana



## Land, Water, & Biodiversity & Conservation Efforts:

### **Bicentennial Nature Trust**

Purchase of 128 wooded acres in the Healthy Rivers Initiative Wabash River Conservation Area by the DNR division of fish and wildlife in Vermillion County. Acquisition of 254 acres located in the Healthy Rivers Initiative Wabash River Conservation Area, including 11 acres of wetlands. The site will increase access to outdoor activities such as hunting and bird watching. This acquisition is located in Vigo and Vermillion Counties.<sup>2</sup>

### **Healthy Rivers Initiative**

In June 2010, former Governor Mitch Daniels announced the ground-breaking Healthy Rivers Initiative, the largest land conservation initiative to be undertaken in Indiana. The initiative includes a partnership of resource agencies and organizations who are working with willing landowners to permanently protect over 43,000 acres located in the floodplain of the Wabash River and Sugar Creek in west-central Indiana and over 26,000 acres of the Muscatatuck River bottomlands in southeast Indiana. The project area follows 94 river miles along the Wabash River and stretches across five counties: Montgomery, Parke, Sullivan, Vermillion and Vigo counties.<sup>3</sup>

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<sup>2</sup> <http://www.indiana2016.org/legacyprojects/wabash-river-conservation-area-bicentennial-nature-trust-5/>

<sup>3</sup> <http://www.in.gov/dnr/healthyriver/6580.htm>



# Environmental Profile: Vigo County, Indiana

## Information & County Contacts

***Vigo County Visitor's Center:***

(800) 366-3043

***Vigo County Soil & Water Conservation District:***

(812) 232-0193 ext. 3



## Land, Water, & Biodiversity & Conservation Efforts

### Wabashiki Fish & Wildlife Area



The current site encompasses 2,400 acres along the west bank of the Wabash River between Terre Haute and West Terre Haute. All portions of the

property offer excellent bird watching opportunities for many species of birds. The pond southeast of Dewey Point is especially attractive to herons, egrets and many other species in late summer.<sup>1</sup>

<sup>1</sup> <http://wabashvalleyaudubon.org/WabashikiFWA.aspx>



# Environmental Profile: Vigo County, Indiana

## Flesher Memorial Woods Nature Preserve

R. Kermit Flesher Memorial State Nature Preserve is a unique flood plain forest located in the bottom land of Prairie Creek Township, just west of the little town of Hutton and not far from the Wabash River. Having been left in its natural state, silver maple, green ash, swamp white oak, shagbark and shellbark hickory, and other flood plain species dominate the woods. In addition, an impressive number of pecan trees and other trees primarily restricted to southwest Indiana, such as the overcup oak, are located in the woods.<sup>2</sup>

## Local Environmental Challenges:

### Elm Street Ground Water Contamination

In the 1980s, several wells in Terre Haute's Elm Street municipal well field were found to have volatile organic compound (VOC) contaminants in them. The Indiana Department of Environmental Management (IDEM) identified three potential source areas for the VOC contamination through the site assessment process. Contaminants observed at the Elm Street site and its potential source areas include VOCs such as tetrachloroethene (PCE), trichloroethene (TCE), trans-1,2-dichloroethene (DCE), 1,1,1-trichloroethane (TCA), 1,1-dichloroethane (DCA), and xylene. Ingestion of contaminated water or dermal contact with contaminated soil could lead to human health effects.<sup>3</sup>

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<sup>2</sup> <https://www.vigocounty.in.gov/departement/division.php?fDD=16-55>

<sup>3</sup> [http://www3.epa.gov/region5/superfund/npl/sas\\_sites/indiana/INN000509938.html](http://www3.epa.gov/region5/superfund/npl/sas_sites/indiana/INN000509938.html)



# Environmental Profile: Wabash County, Indiana

## Information & County Contacts

### ***Wabash County Visitor's Center:***

(260) 563-7171

### ***Wabash County Soil & Water Conservation District:***

(260) 563-7486 ext. 3



## Land, Water, & Biodiversity & Conservation Efforts:

### **Salamonie River State Park**



The name Salamonie was derived from the Native American word "O-sah-mo-nee," which means "yellow paint." Native Americans made yellow paint from the bloodroot plant which grew in great abundance along the

winding banks of the river.

Salamonie River State Forest was created as a demonstration riverside forest for the reclamation of eroded land. The state forest was established in the mid 1930's when local people assisted the state in purchasing the hilly land and bluffs along the Salamonie River. Most of the land's topsoil was eroded away, making reclamation of the area a major challenge. To deal with this challenge, a 200-member Civilian Conservation Corps (CCC) camp was created. The CCC designed and planned the forest and recreation facilities and opened a stone quarry. Several hundred acres of land were reforested and many recreation facilities were



# Environmental Profile: Wabash County, Indiana

built, including Hominy Ridge Lake and the large stone shelter house that stands near the lake. Today the forest encompasses 850 acres and offers many recreational opportunities to its visitors.<sup>1</sup>

## Kokiwanee Nature Preserve



Kokiwanee nature preserve is 139.5 Acres. Kokiwanee features bluffs along the Salamonie River and streams tumbling down waterfalls to flow into the river. This is a place of many species of trees; wildflowers, including snow trillium; and many birds from wood ducks on the river to great blue herons wading where the water is shallow, and many woodland species.<sup>2</sup>

## Asherwood Nature Preserve

This preserve is owned by Marion county schools and is managed by ACRES. The preserve straddles Asher Creek, and includes deep, moist ravines and narrow ridge tops. There are good examples of mesic upland forest, dominated by beech and sugar maple, and dry- mesic upland forest, dominated by several species of oak and hickory. A small amount of floodplain forest is also present, with several small seep springs along the stream.<sup>3</sup>

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<sup>1</sup> <http://www.state.in.us/dnr/forestry/4814.htm>

<sup>2</sup> <http://www.visitwabashcounty.com/outdoor-recreation/kokiwanee-nature-preserve/>

<sup>3</sup> <http://www.in.gov/dnr/naturepreserve/files/np-AsherwoodNP.pdf>



# Environmental Profile: Warren County, Indiana

## Information & County Contacts

### **Warren County Visitor's Center:**

(765) 762-6055

### **Warren County Soil & Water Conservation District:**

(765) 762-2443 ext. 3



## Land, Water, & Biodiversity & Conservation Efforts:

### **Black Rock Barrens Nature Preserve**

Black Rock Barrens is owned by NICHES Land Trust Corp. It is a 45 acre state dedicated nature preserve, protecting a portion of the very rare sandstone/siltstone barrens. The southern exposure combined with the thin acid soils slows the growth of trees on the site.<sup>1</sup>

The siltstone barrens community found here is very rare in the Midwest. There is a variety of spring woodland wildflowers, harbinger-of-spring, sessile trillium, blue woodland phlox, and a very large mass of wild hyacinth are found in the mesic areas below the slopes. On the drier slopes there is service berry (an early blooming shrub), rue anemone, bird's-foot violet, yellow pimpernel, and downy phlox. Forty acres of bottomlands were reforested in 2001. This property was originally purchased by The Nature Conservancy, which was able to donate it to NICHES after receiving a grant from the Indiana Heritage Trust.<sup>2</sup>

<sup>1</sup> <http://www.nicheslandtrust.org/properties/black-rock-nature-preserve/>

<sup>2</sup> [http://www.in.gov/dnr/naturepreserve/files/np-Black\\_Rock\\_Barrens.pdf](http://www.in.gov/dnr/naturepreserve/files/np-Black_Rock_Barrens.pdf)

# Environmental Profile: Warren County, Indiana

## Endangered Species:

### The Northern Long- Eared Bat (*Myotis septentrionalis*)



The northern long-eared bat is a medium-sized bat with a body length of 3 to 3.7 inches but a wingspan of 9 to 10 inches. Their fur color can be medium to dark brown on the back and tawny to pale-brown on the underside. As its name suggests, this bat is distinguished by its long ears, particularly as compared to other bats in its genus, *Myotis*.

No other threat is as severe and immediate as the disease, white-nose syndrome. If this disease had not emerged, it is unlikely the northern long-eared bat would be experiencing such a dramatic population decline. Since symptoms were first observed in New York in 2006, white-nose syndrome has spread rapidly from the Northeast to the Midwest and Southeast; an area that includes the core of the northern long-eared bat's range where it was most common before this disease. Numbers of northern long-eared bats (from hibernacula counts) have declined by up to 99 percent in the Northeast. Although there is uncertainty about the rate that white-nose syndrome will spread throughout the species' range, it is expected to spread throughout the United States in the foreseeable future.<sup>3</sup>

<sup>3</sup> <https://www.fws.gov/midwest/endangered/mammals/nleb/nlebFactSheet.html>



# Environmental Profile: Warrick County, Indiana

## Information & County Contacts

**Warrick County Visitor's Center:**

(812) 858-3555

**Warrick County Soil & Water Conservation District:**

(812) 897-2840 ext. 3



## Land, Water, & Biodiversity & Conservation Efforts:

### Blue Grass Fish & Wildlife Area



Blue Grass Fish & Wildlife Area is a unique natural resource area because all of the land has been strip-mined. Blue Grass covers approximately 2,532 acres and features about 28 pits and lakes (600 acres of water). Blue Grass is dedicated to providing and maintaining quality hunting, fishing and wildlife watching opportunities. The area is

named after Blue Grass Creek, which lies just east of the property. Amax Coal Company began mining operations in October 1973, and ceased operations in 1993. Re-vegetation was carried out using herbaceous cover and woody species planted in clumps and strips. This is a unique area, one that offers outdoor enthusiasts an array of opportunity.<sup>1</sup>

<sup>1</sup><http://www.in.gov/dnr/fishwild/3099.htm>



# Environmental Profile: Warrick County, Indiana

## Interlake State Recreation Area



Interlake State Recreation Area (ISRA), former coal mine land straddling Pike and Warrick Counties, is now open as a multi-use recreational facility. Interlake is approximately 3550 acres of land with three separate areas of mining and

reclamation. From steep rugged spoil banks to rolling hilly grasslands, man-made lakes and final cut strip pits, Interlake is a diverse array of topography and scenic views.<sup>2</sup>

### Endangered Species:

#### **Virginia Rail (*Rallus limicola*)**



A secretive bird of freshwater marshes, the Virginia Rail most often remains hidden in dense vegetation. It possesses many adaptations for moving through its habitat, including a laterally compressed body, long toes, and flexible vertebrae. The forehead feathers of the Virginia Rail are adapted to withstand wear from

pushing through dense marsh vegetation.<sup>3</sup>

<sup>2</sup><http://www.in.gov/dnr/outdoor/4226.htm>

<sup>3</sup>[http://www.allaboutbirds.org/guide/Virginia\\_Rail/id](http://www.allaboutbirds.org/guide/Virginia_Rail/id)



# Environmental Profile: Washington County, Indiana

## Information & County Contacts

**Washington County Visitor's Center:**

<http://www.washingtoncountytourism.com/index.html>

**Washington County Soil & Water Conservation District:**

(812) 883-3704 ext. 101



## Land, Water, & Biodiversity & Conservation Efforts:

### Knobstone Trail



The rugged terrain of this 58 mile backcountry hiking trail is often compared to the Appalachian Trail, and many people use it to train for the AT. The Indiana Department of Natural Resources manages the Knobstone Trail in Clark, Scott, and Washington counties in southern Indiana. It is Indiana's longest footpath, passing through Clark State

Forest, Elk Creek Public Fishing Area, and Jackson-Washington State Forest.<sup>1</sup>

<sup>1</sup>[http://www.indianaoutfitters.com/Destinations/Knobstone\\_trail.htm](http://www.indianaoutfitters.com/Destinations/Knobstone_trail.htm)

# Environmental Profile: Washington County, Indiana



## Twin Creek Valley & Henderson Park



Twin Creek Valley is a mesic oak forest peppered with limestone glades, rock outcrops, scenic cove waterfalls and numerous caves. This valley is a beautiful habitat for special cave animals, gorgeous spring wildflowers and for anyone

who loves nature. Henderson Park is just a portion of Twin Creek Valley, but is the only area developed for visitation. Henderson Park is owned by the City of Salem and is managed by The Nature Conservancy through a conservation easement designed to protect the forest, glades and caves at the site.<sup>2</sup>

### Endangered Species:

#### **Sedge Wren (*Cistothorus platensis*)**



The Sedge Wren is a small, secretive wren that breeds in short grass and sedge marshes. Perhaps because of the highly transitory nature of its nesting habitats, the Sedge Wren moves around a great deal from year to year, not staying in one place for long. It nests in dense tall sedges and grasses in wet meadows, hayfields, and marshes.<sup>3</sup>

<sup>2</sup><http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/indiana/placesweprotect/twin-creek-valley-1.xml>

<sup>3</sup>[http://www.allaboutbirds.org/guide/Sedge\\_Wren/lifehistory](http://www.allaboutbirds.org/guide/Sedge_Wren/lifehistory)



# Environmental Profile: Wayne County, Indiana

## Information & County Contacts

### **Wayne County Visitor's Center:**

(800) 828-8414

### **Wayne County Soil & Water Conservation District:**

(765) 966-0191 ext. 3



## Land, Water, & Biodiversity & Conservation Efforts:

### **Buskirk Conservation Agreement**

This special waterfall is in one of the two wooded ravines that make up the Buskirk Conservation Easement. Located just south of Richmond, this hilly, wooded site is a favorite place to observe wildlife and spring wildflowers.<sup>1</sup>

## Endangered Species:

### **Brown Spiketail (*Cordulegaster bilineata*)**



Habitat includes sandy or mucky seeps and small streams, usually obviously flowing but sometimes found in areas of almost imperceptible flow. Males patrol low and slow, monotonously back and forth along the habitat, often stopping forward progress to hover. Frequently perch, obliquely on plant stems,

<sup>1</sup> <http://www.fortheland.org/red-tail-sites/>

# Environmental Profile: Wayne County, Indiana



typically very low to the ground. Females often found in same areas, also perching low.<sup>2</sup>

## Cobblestone Tiger Beetle (*Cicindela marginipennis*)

Cobblestone tiger beetles are found on the edges and islands of small to medium sized rivers with swift flowing water. They are restricted to scour areas along these rivers where the substrate is comprised of wet pebbles, cobblestone sand,



and sparse vegetation. The larvae dig burrows in pockets of wet sand found interspersed among cobblestones. The most significant threats to the cobblestone tiger beetle are alteration and destruction of habitat from impoundments and other alterations of stream channels such as

channelization, water quality degradation (primarily from urbanization, agriculture, pesticides and other chemicals), and loss of riparian forests.<sup>3</sup>

<sup>2</sup> <http://www.giffbeaton.com/DG%20pdfs/Brown%20Spiketail.pdf>

<sup>3</sup> <http://www.naturalheritage.state.pa.us/ccvi/cobblestone%20tiger%20beetle.pdf>



# Environmental Profile: Wells County, Indiana

## Information & County Contacts

### ***Wells County Visitor's Center:***

(260) 824-0510

### ***Wells County Soil & Water Conservation District:***

(260) 824-0624 ext. 3



## Local Clean Energy Initiatives:

### **Wells County Wind Farm**

The Wells County Wind farm is a planned 200 MW wind energy facility currently being developed in Wells County, Indiana.

Project capacity: 200 Megawatts (enough to power 65,000 average US homes)

Number of turbines: Approximately 100

Project size: Approximately 43,000 acres

(The footprint of the actual facilities will be much smaller. Each turbine requires less than a quarter acre of land and agricultural uses can easily continue around them.)

Landowner Support: Over 380 local landowners have signed agreements to participate in the project.<sup>1</sup>

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<sup>1</sup> <http://www.apexwindpower.com/midwest/endangered/mammals/nlba/>



# Environmental Profile: Wells County, Indiana

## Land, Water, & Biodiversity & Conservation Efforts:

### Acres Along the Wabash



Here along the Wabash River are sycamore, hackberry, burr and red oak trees that have stood along the river since Native Americans roamed the land, and that early explorers passed as they paddled down the river. On the bluffs are sugar and black maple trees and red elms. In spring, there are warblers and other migrating birds in the trees. In summer, there are nesting birds such as the wood thrush and red-eyed vireo. Woodland wildflowers, including shooting star and wild hyacinth, decorate the woodland floor in season.<sup>2</sup>

### Anna Brand Hammer Reserve



This is a forest oasis with a stand of mature red and white oak, hickory, cherry, beech and maple trees surrounded by cultivated fields. More trees have been planted on six adjacent acres to enlarge this oasis. A small stream, which dries up during periods of drought, winds through the forest, and several species of salamander live here. Bloodroot, squirrel corn, spring beauty, wild phlox, Dutchman's breeches and many other wildflowers grow abundantly beneath the trees.<sup>3</sup>

<sup>2</sup> [http://www.acreslandtrust.org/clientimages/44551/preserve-field-guides/acres\\_wells\\_acresalongwabash.pdf](http://www.acreslandtrust.org/clientimages/44551/preserve-field-guides/acres_wells_acresalongwabash.pdf)

<sup>3</sup> [http://www.acreslandtrust.org/clientimages/44551/preserve-field-guides/acres\\_wells\\_annabrandhammer.pdf](http://www.acreslandtrust.org/clientimages/44551/preserve-field-guides/acres_wells_annabrandhammer.pdf)



# Environmental Profile: White County, Indiana

## Information & County Contacts

**White County Visitor’s Center:**

(574) 583-7220

**White County Soil & Water Conservation District:**

(574) 583-7622 ext. 3



## Local Clean Energy Initiatives:

### **Meadow Lake Wind Farms**



Meadow Lake Wind Farm is owned and operated by EDP Renewable North America, LLC, is a multi-phase commercial wind farm located in the southwest corner of White County. The five-phase project will cover over 92,000 acres of land with the potential for additional phases.

The first four phases are complete and consist of 303 turbines with an installed capacity of 500 megawatts. This is enough electricity to power over 150,000 average Indiana homes with clean energy each year. The wind farm co-exists well with the agricultural land use in the area, allowing farmers to continue growing crops while

generating revenue from the wind turbines.<sup>1</sup>

<sup>1</sup> <http://meadowlakewindfarm.com/>



# Environmental Profile: White County, Indiana

## Waste No Energy, LLC

Waste No Energy, LLC owns and operates a biomass anaerobic digester facility serving central and northern Indiana. The facility is located in White county, Indiana east of Monticello. The Monticello, Ind. facility improves the local environment by transforming organic waste products into clean, renewable energy and useful nutrient rich fertilizer substitutes, ultimately reducing the community's overall carbon footprint. In addition to producing clean, renewable energy that will be purchased by Northern Indiana Public Service Company (NIPSCO), the facility's digester will convert a mix of manure and food waste to produce organic liquid fertilizer. As a result, the process will replace demand for chemical fertilizers that can be harmful to the environment. While operating continuously, the digestion process will require no use of fresh water or chemical additives of any kind and produce zero waste products, thereby reducing the area's carbon footprint.<sup>2</sup>



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<sup>2</sup> <http://www.wastenoenergyllc.com/>



# Environmental Profile: Whitley County, Indiana

## Information & County Contacts

### ***Whitley County Visitor's Center:***

(260) 248-8131

### ***Whitley County Soil & Water Conservation District:***

(260) 244-6266 ext. 3



## Land, Water, & Biodiversity & Conservation Efforts:

### **Crooked Lake Nature Preserve**



Crooked Lake is spring-fed and Indiana's second deepest lake at 108 feet. ACRES' deep ravine, heavily forested with large beech, maple, ironwood and shagbark hickory, is located between the Crooked Lake Nature Preserve to the south and the Indiana University Biology Station to the north. Great blue

heron, green heron, scarlet tanagers, kingfishers and wood ducks are frequent visitors to the Crooked Lake shores. ACRES' trust 1-acre tract lies along the Lake (on the north) side of the Noble-Whitley County border. ACRES trust helped Indiana



# Environmental Profile: Whitley County, Indiana

Department of Natural Resources acquire the 150 acres of land on the south side of the county line and maintain the 2-1/2 miles of trails on their tracts<sup>1</sup>

## Evelyn and Wendell Dygert Nature Preserve



This forested highland cut by ravines has a long list of trees: beech, maple, oak, hickory, cherry and many more. There are many species of birds here, including the red-tailed hawk, great horned owl, blue jay, cardinal and red-eyed vireo. Plus, there are downy, hairy and red-bellied woodpeckers. You'll also find an abundance of wildflowers: blue-eyed Mary, Jack-in-the-pulpit, spring beauty and firepink, as well as blue, white and yellow violets and many others.<sup>2</sup>

## Local Environmental Challenges:

### Wayne Waste Oil, Columbia City, In

The 35-acre Wayne Waste Oil site is located in Columbia City, Indiana. Wayne Waste Oil, a division of Wayne Reclamation and Recycling, Inc., deposited about one million gallons of oil-related wastes on site from 1975 to 1980. The site contained leaking drums, waste areas covered with sands, and disposal ponds. Waste disposal operations contaminated soil and groundwater with hazardous chemicals.<sup>3</sup>

<sup>1</sup> <http://www.acreslandtrust.org/crookedlake>

<sup>2</sup> [http://www.acreslandtrust.org/clientimages/44551/preserve-field-guides/acres\\_whitley\\_evelynwendelldygert.pdf](http://www.acreslandtrust.org/clientimages/44551/preserve-field-guides/acres_whitley_evelynwendelldygert.pdf)

<sup>3</sup> <https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0501439>