The Indiana Division of Nature Preserves

2008 Report

Loblolly Marsh, Jay County

Director's Letter

Greetings,
Here is the Division of Nature Preserves' Annual Report for 2008. It is a pleasure to report on the work that has been done in the past year as we strive to protect and manage Indiana's nature preserves for the benefit of future generations. In 2008, six new preserves were dedicated. As envisioned by the authors of the Nature Preserves Act, partnerships are the key to acquiring, protecting, and managing nature preserves, with 2008 being no exception. The dedicated preserves are owned by The Nature Conservancy, Central Indiana Land Trust (CILTI), Acres, Inc., the Division of State Parks and Reservoirs, the Division of Forestry, and the Division of Nature Preserves. Details are included in this report. There are now 225 dedicated nature preserves, encompassing almost 33,000 acres.

The Indiana Heritage Trust continues to be an important vehicle enabling partners to come together to acquire natural areas. Seventeen new areas and additions to existing nature preserves were acquired in 2008, encompassing over 1,100 acres. Many partners, and in some cases grants from federal agencies, were involved in these successful transactions; details are provided in this report.

We continue to try to find ways to get a lot of the important and necessary restoration and management work done by utilizing funding from grants. These grants come from a number of agencies with similar missions. Significant amounts of acreage were restored , rare species monitored, and data on rare species acquired. These grants have enabled us to continue our important work: benefiting Hoosiers while minimizing the cost to all of us.

Much of this important work is accomplished by our staff. Many of the folks who work in the Division of Nature Preserves have been here for quite a few years. In 2008, we had some sad news. Bill Barnes, the first director of the Division of Nature Preserves, passed away. Additionally, Colleen Baker, a former staff ecologist, and an extremely talented artist, also passed on. Memorial services for both brought together many present and former colleagues. Additionally, in 2008, there were some important changes in our staff. Hank Huffman, an ecologist on our staff especially knowledgeable regarding caves and subterranean ecology, retired. And we welcomed Ben Eddy, who is our Protection Director, and Sergio Mendoza, who serves as Director of Planning for the Lake Michigan Coastal Program.

We continue to strive in working with our partners to identify, protect, and manage Indiana's natural areas and coastal resources. We hope you continue to enjoy and appreciate your nature preserves. Please visit them, and let us know what you think. I also encourage you to visit our website, and give us feedback: www.in.gov/dnr/naturepreserve

John Bacone, Director

Staff

Administrative Staff
John Bacone, Director
Cary Floyd, Operations Coordinator

Natural Heritage Data Center
Cloyce Hedge, Coordinator
Ron Hellmich, GIS specialist, Data Manager
Roger Hedge, Ecologist
Mike Homoya, Botanist
Ben Eddy, Protection Director

Nature Preserve Management
Lee Casebere, Assistant Director

The Lake Michigan Coastal Program
Mike Molnar, Director
Jenny Newman,admin assistant
Jenny Orsburn,Program specialist
Joe Exl, Coastal Non-Point Coordinator
Sergio Mendoza, Planning Director

Regional Ecologists
Tom Post, northwest region
Brian Abrell, southwest region
Rich Dunbar, northeast region
Ken Brunswick, Limberlost, east central region
Tom Swinford, central region
Derek Nimtz, Grand Calumet region
John Ervin, coastal region
Jason Larson, southeast region

Indiana Heritage Trust Program

In 2008, the Division of Nature Preserves forged partnerships with a number of organizations and agencies, enabling 17 significant areas and additions to existing nature preserves and other public conservation lands, encompassing 1,134.4 acres for the benefit of future generations. Funding from the Indiana Heritage Trust Program helped purchase the following properties:

Site	Partners	Ecosystem Type	County	No. of Acres
Fisher Oak Savanna	NICHES	Pin Oak Flats, Savanna	Jasper	20
Burnett Woods	CILTI	Forest Restoration	Hendricks	10.5
Loblolly Marsh	Friends of Limberlost	Upland Forest	Jay	2
Lime Lake NP	TNC	Fen	Steuben	6.5
Fryar Woods	SDCF, NRD	Boreal Flatwoods	LaPorte	67
Hemlock Ridge	CILTI, TNC	Woodlands	Putnam	10.1
Sugar Creek Corridor	TNC, CILTI, DF	Forest, Canyons	Parke	296
Mud Lake	ACRES, TNC	Sedge Meadow, Fen	Noble	62
Pine Knob Park	DOR, DFW, LaGrange Parks	Forest, Swamp	LaGrange	40
Black Rock	Niches, TNC	Forest, Geological Features	Warren	45
Limberlost Addition	Friends of the Limberlost,NRCS	Wetland Restoration	Jay, Adams	95
Back Creek Hemlock	Sycamore Land Trust	Hemlock Bluffs	Lawrence	42.7
Lower Duning Woods	WVLT	Upland Forest	Wayne	25
Oak Ridge Prairie	Lake Co. Parks, LMCP, TNC	Savanna	Lake	8.6
Cave River Valley	USFWS, DSPR, TNC, DFW	Caves, Forest	Washington	316
Mann Site	Dept. of Historic Sites	Cypress Swamp	Posey	48
Mechanicsburg Woods	Redtail Conservancy	Forest	Henry	40

CILTI=Central Indiana Land Trust; TNC=The Nature Conservancy; SDCF=Save the Dunes Conservation Fund; NRD=Natural Resource Damages (fund); DF=Division of Forestry; DOR=Division of Outdoor Recreation; DFW=Division of Fish and Wildlife; WVLT=Whitewater Valley Land Trust; LMCP=Lake Michigan Coastal Program; USFWS=United States Fish and Wildlife Service

INDIANA LAKE MICHIGAN COASTAL PROGRAM

The tall ship Denis Sullivan

Coast Week

Along with its numerous partner organizations, the Lake Michigan Coastal Program (LMCP) reached out to Hoosiers in the Lake Michigan Basin with a week-long celebration of the region's future. 2008 marked the sixth year of Coast Week which gives the many communities, NGO's, and other organizations involved in renewing Indiana's coastal region a chance to draw attention to the multi-pronged effort to revitalize the infrastructure and environment of the Region.

To this end, Dune hikes, press conferences, informational fairs, and volunteer water-quality monitoring were conducted to engage public interest. The highlight of the week was the sailing of the tall ship Denis Sullivan. The LMCP chartered the three-masted sailboat to make daily trips into Lake Michigan's open waters. These trips were offered free of charge to anyone interested.

For more information concering the Lake Michigan Coastal Program go to:

www.in.gov/dnr/lakemich

Relatively new to the Division of Nature Preserves, the Lake Michigan Coastal Program (LMCP) is a dynamic program oriented towards the sustainable development of Indiana's northwest coast. The LMCP acts as a liason between the National Oceanic and Atmospheric Administration (NOAA) and the communities, NGO's, etc. in Indiana's Lake Michigan Basin; this relationship is known as the Coastal Zone Management Program (CZMP). The CZMP is a federal-state partnership designed to protect, restore,and plan for the future of coastal regions nationwide. Indiana participates in the CZMP through the LMCP.

Coastal Rain Gardens

Urban/suburban run-off contributes significantly to water pollution, particularly in heavily industrialized northwest Indiana. Heavy metals, among other things, are swept into rivers and streams, ultimately flowing into Lake Michigan. To reduce the impacts of run-off, LMCP has developed a manual providing a step-by-step guide for creating rain gardens. Using native plants, rain gardens, either at home, work, or otherwise, use ecosystem processes to remediate polluted water. Rain gardens not only create beneficial habitat for birds and pollinators, they establish a system where microbial activity removes pollutants from water as it trickles through the soil. The manual is available at: www.in.gov/dnr/lakemich/issues/cprprogram.htm

Moving Marquette Forward: An Update on the Plan

Last year we introduced you to the Marquette Plan: Rep. Pete Visclosky's idea to transform Indiana's coastal region from industrial super complex into a more liveable and pedestrian-friendly area. The three primary principles of the Plan are 1) The creation of a continuous, multi-purpose trail along the shoreline from Illinois to Michigan; 2) Increase public access to shoreline to 75%; 3) Require a minimum of 200-foot setback (from Lake Michigan) for any new, non water-dependent development. The LMCP is the lead funding agency for the development of the Marquette Plan.

TAPP

The core element of CZMP is planning; planning for natural resource management, comprehensive plans, code revisions, etc. LMCP introduced the Technical Assistance Planning Program (TAPP) in 2008 in order to provide technical and financial assistance to coastal communities, local governments, and other qualified agencies to enable their continued planning efforts during the economic downturn.

The Lake Michigan Basin

Presently, there are 14,653 "elements" in our database: 4598 vertebrate animals, 3,702 invertebrate animals, 5013 vascular plants, 1304 special status habitats, 25 animal assemblages, 10 international vegetation classifications, and 1 critical habitat area

Indiana Natural Heritage Program

Environmental Review

Having current, accurate data on the locations of rare species and special habitats allows us to help guide development projects in a timely manner, while minimizing impacts to important natural features.

NatureServe is a non-profit umbrella organization which represents an international network of more than 80 natural heritage programs and conservation data centers that tirelessly gathering information on biological diversity in their respective states provinces, and nations. The NatureServe website contains a directory of member programs as well as a link to the NatureServe Explorer, the online encyclopedia of plants, animals, and ecosystems of the U.S. and Canada. (http://www.natureserve.org).

The Indiana Wildlife Diversity Section

The Indiana Wildlife Diversity Section (WDS), a key partner with the DNP and the Natural Heritage Program, is responsible for endangered and special concern animal conservation in the State. Data from animal surveys are stored in the Natural Heritage Database for use in conservation planning and environmental review. The WDS is also responsible for Indiana's statewide Wildlife Conservation Plan as part of its relationship with the U.S. Fish and Wildlife Service. The partnership results in the Indiana Conservation Action Plan which can be found at

www.in.gov/apps/icap/

This website allows conservation partners to enter specific data for projects that benefit wildlife throughout the State.

The idea of the Natural Heritage Program is borne from an international movement to catalogue the World's biodiversity. Presently, there are more than 80 Natural Heritage Programs representing all 50 states, Canadian provinces, Mexican states, and Central and South American nations, with a common goal of inventorying the biota of the Western Hemisphere. Working with NatureServe, the organization which maintains central data, including taxonomy, global ranks, stewardship, and related information, this network of Natural Heritage Programs record which are known as "element occurrences", or locations of special status plant and animal species as well as unique or imperiled habitats.

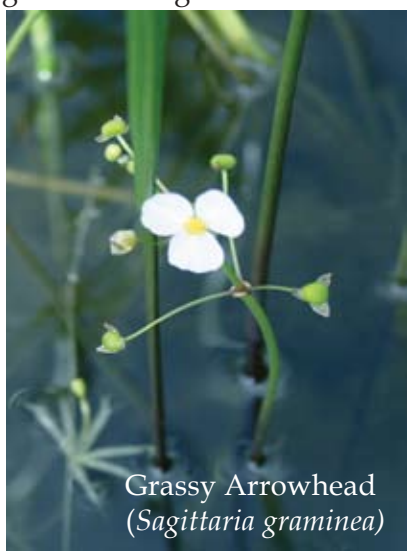
The Division of Nature Preserves houses the Indiana Natural Heritage Program, and maintains the Indiana database. DNP scientists, university biologists, and amateur naturalists scour the State in search of rare species to populate the Natural Heritage Database. Once found, the location data are used by DNP staff and partners to target conservation projects and guide development activity. The Database also serves as the Lands Unsuitable Database which secures the Department of Natural Resources , Division of Reclamation's primacy for the State's coal mining program.

The Landowner Incentive Program

The DNR administers the US Fish and Wildlife Service funded Landowner Incentive Program (LIP) for the state of Indiana. The LIP is designed to help develop relationships with private citizens owning property with endangered or special status species. The Natural Heritage Database is the foundation for the LIP. Specific location data are analyzed to determine which species and natural communities require protection, and subsequently used to provide us with guidance in contacting landowners of those species and communities. LIP funding allowed us to provide an internship for a local graduate student who writes personalized letters to Hoosiers fortunate enough to have special ecological features on their property.

Protection Statistics

When we consider Indiana, we see 58 distinct natural communities, and 12 Natural Regions defined by their unique geological and ecological characteristics. Although not every natural community is present in each Natural Region, the Division of Nature Preserves' vision is to protect at the very least, one example of each natural community occurring in it's respective Region. For example, a "gap analysis" using the Natural Heritage Database shows that of the **29** natural communities found in the Northwestern Moraine Natural Region found on the shores of Lake Michigan, we have **28** or **96%** under protection.



Grassy Arrowhead
(*Sagittaria graminea*)

"As part of the continuing growth of the population and the development of the economy of the State of Indiana it is necessary and desirable that areas of unusual natural significance be set aside and preserved for the benefit of present and future generations before they have been destroyed."

New Preserves

IC 14-31-1 The Nature Preserves Act, 1967

In 2008, the Division of Nature Preserves dedicated six new preserves located throughout the state, totaling more than 500 acres.

Dunes Prairie, Porter County

Though only 58 acres, Dunes Prairie is a botanical gem containing habitats rare not only in the highly-developed northwestern region of Indiana, but worldwide. In their natural state, the sand prairies and oak savannas of the Dunes burned frequently, allowing fire-dependent plants to flourish. Decades of fire suppression changed all of that by allowing non-native and invasive plants to colonize the area. With assistance from a Lake Michigan Coastal Grant, the fragile habitats in Dunes Prairie are being restored to their natural state. Controlled burns are prescribed to keep the area in healthy ecological condition. The Dunes Prairie nature preserve is located in the western portion of the Indiana Dunes State Park.

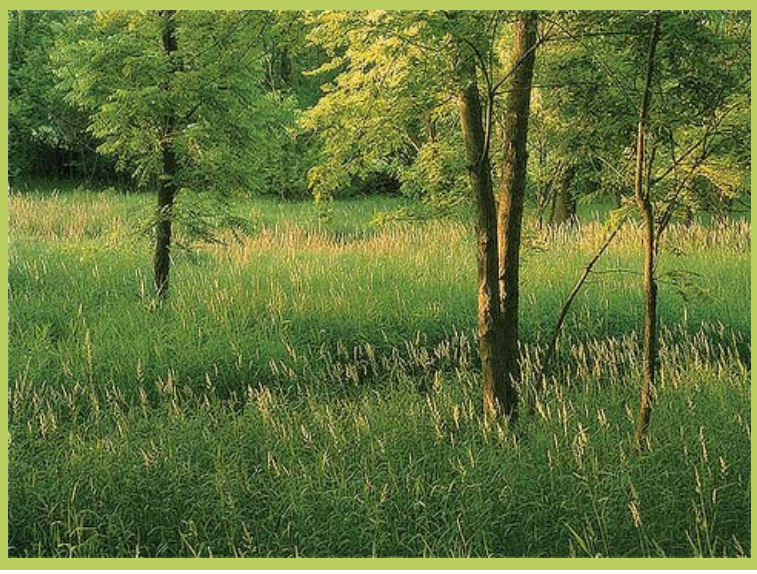
Sweedy Hollow, Monroe County

About ten miles north of Bloomington, in the Morgan-Monroe State Forest, is Sweedy Hollow nature preserve. Of all the valuable habitats in this preserve, the most notable are the sandstone cliffs. Sandstone cliffs are restricted in the Highland Rim Natural Region in the Brown County Hills Section of Indiana. Sweedy Hollow is also valuable for its collection of uncommon plants, including the very rare green adder's mouth orchid (*Malaxis unifolia*). Birders value Sweedy Hollow for the special-status birds that utilize the Hollow as a summer nesting ground. Worm-eating warbler (*Helmitheros vermiforous*), cerulean warbler (*Dendroica cerulean*) and the black and white warbler (*Mniotilta varia*) have all been recorded in the newly dedicated preserve.

Sweedy Hollow

Prophetstown Fen, Tippecanoe County

Fens are a special type of wetland fed by groundwater bestowing a chemical composition different from rain-fed wetlands. The Prophetstown Fen, running along the banks of Harrison Creek in Prophetstown State Park, is one of the largest, and ecologically valuable fens in the state. The rare fen habitat supports a host of special status species including sedge wren (*Cistothorus platensis*), shining ladies tress (*Spiranthes lucida*) a native Indiana orchid, and Canada burnet (*Sanguisorba canadensis*). Upland from the fen are oak bluffs harboring prairie violet (*Viola pedatafida*). In addition to the preserve's unique geological and ecological value, Prophetstown figured prominently in the Battle of Tippecanoe.



Wooded Fen at Prophetstown

New Preserves

Hathaway Preserve at Ross Run, Wabash County

Ross Run, a tributary of the Wabash River, is deeply incised into a bedrock gorge of limestone and dolomite, both products of the Silurian age (400 million years ago). The astonishing geology of the creek includes cliffs fifty feet high, waterfalls, flumes, and fossil reefs (also known as bioherms). Surrounding Ross Run is a biologically-rich upland forest with deep ravines. Acres, Inc. owns this preserve, purchasing it with partial funding from the Indiana Natural Heritage Trust Project.

Millard Sutton/Amos W. Butler Audubon Sanctuary, Johnson County

Heron Rookery

The Central Indiana Land Trust (CILTI), with funding from the Amos W. Butler Audubon Society, Indianapolis' Audubon chapter, acquired the largest known blue heron (*Ardea herodias*) nesting site, or rookery, in Indiana. The rookery is located in a floodplain along the White River. The seventy six acre preserve is home to more than 500 blue heron nests.

Mayme Hinton Glade, Harrison County

Glades are rare, naturally-occurring forest openings where bedrock lies at or near the surface and typically found on south or west-facing slopes. The Mayme Hinton Glade is formed by limestone bedrock. Glades are considered globally rare among biological communities, and for this reason, The Nature Conservancy was excited to dedicate it as a state nature preserve. This preserve supports populations of state-rare plants including the orange coneflower (*Rudbeckia fulgida*), angle pod (*Matela obliqua*), and crested coalroot (*Hexalectris spicata*), as well as the cobweb skipper (*Hesperia metea*), a rare butterfly species.

Cobweb Skipper

Field Notes


Scutellaria saxatilis

Division of Nature Preserves staff keep an inventory of the State's endangered, rare, and threatened (ETR) plant species. Our botanists are among Indiana's leading authorities on native plants, and maintain a geographic database of the location and population size of Indiana's imperiled species. This knowledge allows us to not only protect, but to encourage the growth of ETR populations through restorative measures.

Hoosier National Forest Regional Forester Sensitive Species (RFSS) Inventory

Mike Homoya and Roger Hedge, two of our best botanists conducted their second year of surveying the Hoosier National Forest for sensitive species. They found species such as *Scutellaria saxatilis* (right); Hoosier National Forest is the only known location for this species in Indiana. Also found were the state endangered umbrella magnolia (*Magnolia tripetala*), *Saxifraga virginiensis*, which is on the state watch list, and the state endangered green salamander (*Aneides aeneus*).

Indiana Reservoir Botanical Inventories

DNR's Division of Forestry consults us prior to timber cuts. For several sites scheduled to be logged in 2009, our botanists conducted habitat quality assessments and surveyed for ETR species at several forest blocks around Indiana's reservoirs. Salamonie, Roush, Mississinewa, Brookville, Monroe, and Patoka reservoirs were scoured by Mike Homoya and Roger Hedge in their attempt to find habitats and/or species requiring special consideration.

New Botanical Discoveries


Reed Bent Grass

Reed Bent Grass (*Calamagrostis porteri porteri***)**
DNP botanists found this subspecies growing in southern Indiana's Crawford County in 2008. This discovery marks the first time the grass has been recorded in the state. This record was found growing in dry woods above a sandstone cliff.

Clustered Poppy Mallow (*Callirhoe triangulata*)
This species is actually a rediscovery; the plant was believed to be extinct in Indiana. Clustered poppy mallow was found along a railroad right of way in Knox County, where it was growing in sandy soil.


Clustered Poppy Mallow

Drummond's Halfchaff Sedge (*Lipocarpha drummondii*)
This peculiarly-named sedge is also a rediscovery previously believed to be extinct.

Field Notes

Research

Indiana's Nature Preserves serve as an important living laboratory for researches from around the country. Due to their unique ecological properties, and the DNP's efforts in maintaining their natural state, Nature Preserves are widely used for scientists looking to conduct research where human impact is minimal. Institutions conducting research include the Morton Arboretum, Purdue University, Franklin College, the United States Geological Service, Biological Resources Division, Ball State University, Taylor University, St. Joseph's College, and the Chicago Field Museum. The following is a list, though not comprehensive, of research conducted in Indiana's Nature Preserves during 2008:

* Inventory of reptiles and amphibians in northwest Indiana
* Floristic inventory in central Indiana
* Genetic analysis of the federally-threatened dune thistle (*Cirsium pitcheri*) in the Indiana Dunes
* Monitoring seed production of the federally-threatened Mead's milkweed (*Asclepias meadii*)
* Aquatic insect sampling in Fall Creek, a high-quality stream in western Indiana
* Statewide study of earthworm and slug invasion and their role in leaf litter depth and how these species affect the germination of invasive garlic mustard (*Alliaria petiolata*)
* Vegetation analysis of barrens and siltstone glade habitats in southern Indiana
* Liana and vine sampling in northwest Indiana
* Mushroom and macro-fungi sampling to document fungal communities
* Monitoring of the Allegheny woodrat (*Neotoma magister*) populations in nature preserves along the Ohio River

Indiana's Wild Ginseng

Wild ginseng **(***Panax quinquefolius***)**, a relative of the Asian variety, has similar chemical properties to its relatives and thus, in high demand for holistic medicines both stateside and abroad. Wild ginseng grows on shaded hardwood forest floors throughout Indiana, producing bright red fruit around mid-August.

The Convention of International Trade in Endangered Species' (CITES) concern over increasing wild ginseng exports spurred federal laws mandating protective measures. In order to maintain Indiana's $2 million annual ginseng trade, while complying with federal laws, the DNP administers a statewide licensure program and records harvest data to follow the rare plant's annual status.

Ginseng Stats

Harvest Season	No. of Dealers	Pounds Harvested	Roots Per Pound
2008-09	35	4623	318
2007-08	30	3888	430
2006-07	26	5096	488
2005-06	29	4923	373
2004-05	31	4819	426

Stewardship

In 2008, DNP regional ecologists and their crews planted trees, restored wetlands, and controlled invasive species on more than 1,900 acres.

Prescribed Burning

Historically, Indiana's varied habitats burned frequently due in part to natural causes such as lightning strikes, especially savannas and grasslands. Soil samples and tree-ring analysis reveal that Indiana's grasslands burned, on average, every two years, while savannas appear to have burned at least once every three to five years. There is strong evidence that Native Americans encouraged habitat productivity by deliberately setting fire to their hunting and gathering grounds.


Paul Osborn

European settlement altered the natural fire cycle through wildfire suppression and the replacement of native plants with cultivated crops and ornamentals. Because fire is a critical component of healthy Indiana ecosystems maintaining an early successional state and what is known as "nutrient cycling" (or the return of nutrients to the soil from plants when they decompose or burn), the face of our natural areas have changed in its absence.

Charged with maintaining the ecological integrity of some of Indiana's most valuable natural areas, the Division of Nature Preserves employs a system of prescribed burning mimicking regenerative, pre-settlement wildfires. Often, areas requiring burns are near population centers; to ensure safe, controlled burns, DNP staff undergoes extensive controlled-burn training through the US Forest Service, National Park Service, and Indiana Division of Forestry. Our people have a collective prescribed burn experience totaling more than 200 years!

To maximize the benefits and range of our prescribed burn schedule, we worked closely with our partners in 2008. Help from DNR Fire Headquarters (within the Division of Forestry), the Division of State Parks and Reservoirs, The Nature Conservancy, Lake County Parks, Elkhart County Parks, and the Division of Fish and Wildlife allowed us to successfully and safely burn more than 1,217 acres throughout the state.

We also want to give credit to the many local police and fire departments, whose names are too many to list, but whose help was crucial.


Prairie Burn at Prophetstown State Park

Stewardship

Duneland Invasive Species Removals

Derek Nimitz, our Grand Calumet region ecologist, has been hard at work combating the encroachment of invasive plant species threatening the ecological integrity of Indiana's beautiful and valuable dune habitats. Derek has sucessfully leveraged funding from the Grand Calumet River Natural Resources Damage Assessment Fund and the Lake Michigan Coastal Program to help fund his invasive species control projects. Derek also enlisted the help of Envirocop, The Nature Conservancy and Lake County Parks staff.

Before: Gibson Woods Nature Preserve
Choked by native, but invasive willows

After: Gibson Woods Nature Preserve
similar to its pre-settlement landscape

Dawn at Prophetstown State Park

Prophetstown Restoration

Tom Swinford, DNP's central region ecologist worked closely with the Indiana Department of Transportation and the DNR's Division of State Parks and Reservoirs in his efforts to restore parts of Prophetstown State Park to its pre-settlement landscape. Prophetstown is the historic location of Tecumseh and his brother Tenskawatawa's (The Prophet) stand against European westward settlement. Habitats undergoing restoration include oak bluff woodlands, and a rare prairie fen wetland.

Protecting the Pipewort

Pipewort Pond Nature Preserve in Elkhart County has one of the healthiest populations of the peculiar wetland plant, pipewort (*Eriocaulon aquaticum*).Pipewort is unique in its dependence on the ebb and flow of water levels in the peat swamps where it grows. Rich Dunbar, the DNP's northeast regional ecologist was hard at work creating an environment where pipewort can flourish. To do this, Rich is restoring the preserve to its pre-settlement condition, clearing 11.5 acres of invasive trees and shrubs from wetlands as well as an upland oak woodland. Visitors now have an unobstructed view of Indiana's best example of pipewort habitat.

Stewardship

Northwest Region Highlights

Glossy Buckthorn (*Rhamnus frangula*) is one of Indiana's greatest threats to native biodiversity. A European native, planted as an ornamental, glossy buckthorn spreads quickly through moist woodlands, aggressively out-competing indigenous trees and shrubs and growing up to 30 ft tall in dense monocultures. Tom Post, DNP's northwest regional ecologist, launched an 11-acre glossy buckthorn removal project in 2008. The project took place at Hoosier Prairie near Merrillville. Costing $35,000, the ambitious project was funded in part by a Lake Michigan Coastal Program grant.

Glossy Buckthorn: Wanted dead, not alive!

Leavenworth Barrens Restoration

Leavenworth Barrens Nature Preserve in Crawford County derives its name from the barren space between its sparsely distributed trees. The dry, infertile soil supports a unique assemblage of drought-adapted prairie grasses as well. Fire suppression and encroachment by invasive species have changed the composition of the unique barrens habitats in recent decades. Brian Abrell, our regional ecologist for southwest Indiana worked with staff from the Harrison-Crawford State Forest to remove woody species, including large trees, as well as invasive exotics in an effort to restore the barrens to pre-settlement conditions.

(Right) Hoosier Prairie Nature Preserve at dawn.

Sensitive Habitat Restoration at Hoosier Prairie Nature Preserve

Driving through NW Indiana, you'll notice the roads are often bordered by tall plants with cottony tops. One is the common cattail (*Typha sp.*), the other is the non-native common reed grass (*Phragmites australis*). Unchecked, both plants tend to choke wetlands, outcompeting native plants and forming single-species tracts known as monocultures.

Combating these plants is difficult enough; in sensitive areas, where endangered species are present, their removal is doubly difficult.

In 2008, our coastal region ecologist, John Ervin, undertook perhaps the most nuanced invasive species removal in recent years, employing GPS and Geographic Information Systems (GIS) technology to minimize collateral damage to endangered species in the removal area. In the end, 12 acres were cleared of the above-mentioned species.

The DNP is pleased to have more than doubled State monies with matching federal dollars in 2008.

Grants

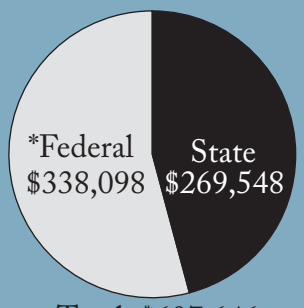
The Division of Nature Preserves receives funding to perform habitat restoration and management, species and habitat surveys, landowner contact, conservation planning, and natural heritage data management. These funds come from a variety of sources, including the U.S. Fish and Wildlife Service, the U.S. Forest Service, Animal and Plant Health Inspection Service, Natural Resources Conservation Service, Office of Surface Mining (through IDNR, Division of Reclamation), National Oceanic and Atmospheric Administration (through IDNR, Indiana Lake Michigan Coastal Program), DNR Natural Resources Damage Assessment, The Nature Conservancy (including corporate funding from ALCOA), and NatureServe, the not-for-profit umbrella organization for the Natural Heritage Program.

Federally endangered Karner Blue Butterfly (*Lycaeides melissa samuelis*)

Habitat restoration and management projects included rare-species habitat management at several state nature preserves; restoration of savanna, dune and swale, calcareous fen, prairie and dune lands in the coastal region; wildlife habitat improvement of forest, prairie fen, wetland, and barrens habitat. Natural Resource Damage Assessment funding helps support a regional ecologist as well as habitat restoration projects in the coastal zone. In addition to habitat restoration, National Oceanic and Atmospheric Administration, through the IDNR's Lake Michigan Coastal Program also funds a Coastal Region ecologist. Survey projects ranged from rare plants in the Hoosier National Forest , to federally-listed Mitchell's satyr butterflies, to the noxious giant hogweed. Conservation planning continued for Mitchell's satyr and Karner blue butterflies, the latter in partnership with The Nature Conservancy which prepared a Safe Harbor Agreement paving the way for Karner blue habitat restoration; wild lupine plantings and rearing and release of Karner blue's in northwest Indiana's nature preserves were part of said restoration. USFWS funds were used to develop conservation plans for federally-listed plants, while funds from NatureServe were used to develop wetland integrity assessment methods that will be used in a national wetlands assessment conducted by the USEPA.

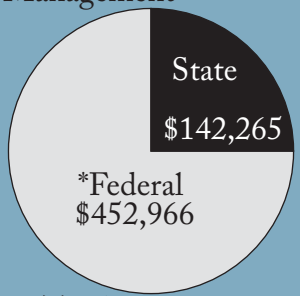
Using Office of Surface Mining Funds, through the Division of Reclamation, the DNP maintains the Lands Unsuitable Database, thereby securing the State's primacy for its coal mining program. Landowner Incentive Program funding allowed the DNP to further develop our Natural Areas Registry Program, nurturing relationships with landowners of significant natural areas and species populations.

Habitat Restoration Funding



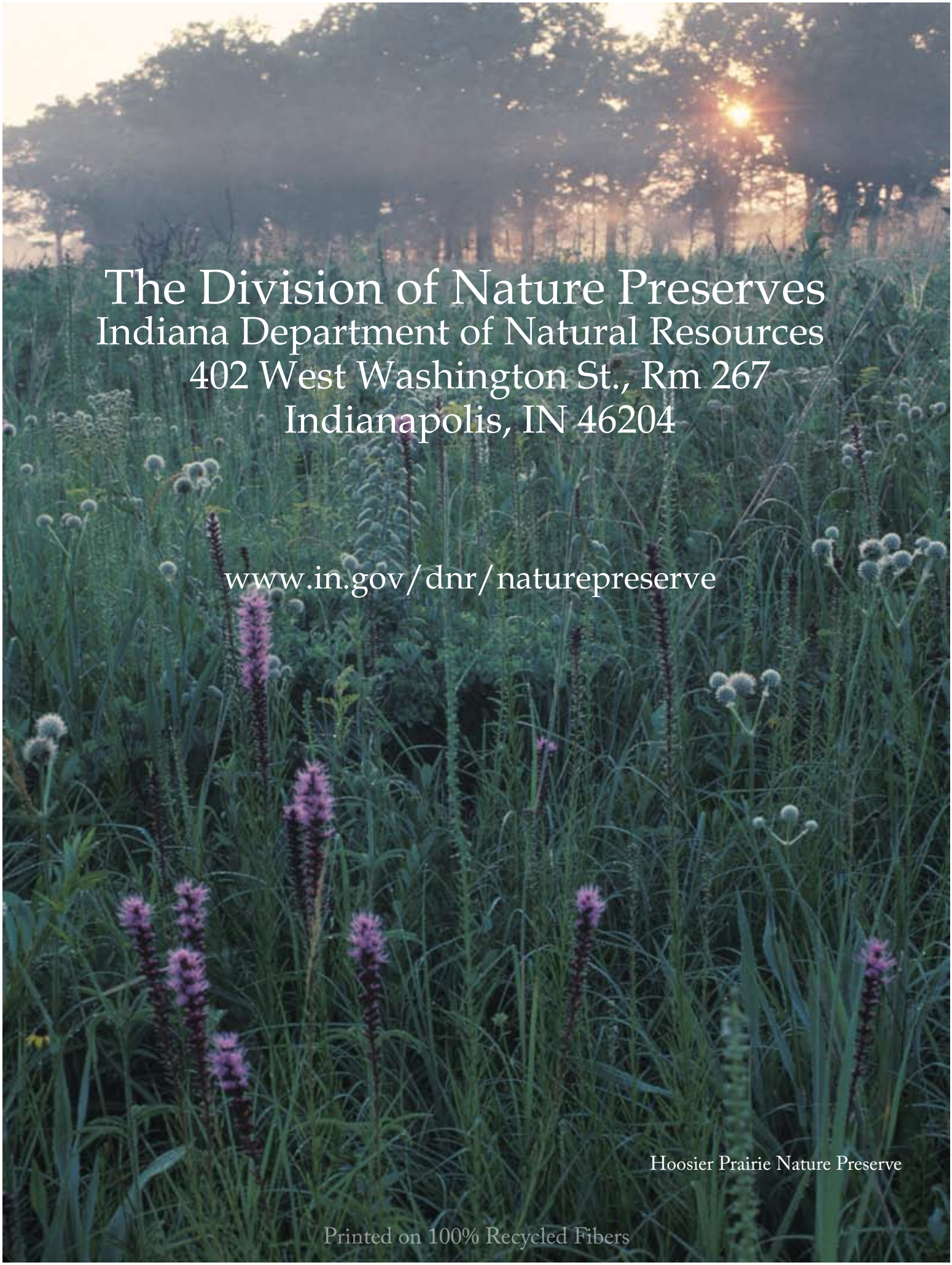
Total: $607,646

Planning, Survey, Landowner Contact, and Data Management



Total: $441,449.00

*Grants Active in 2008



The Division of Nature Preserves

Indiana Department of Natural Resources
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Indianapolis, IN 46204

www.in.gov/dnr/naturepreserve

Hoosier Prairie Nature Preserve

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