

FOOTPRINTS ACROSS THE DUNES



Indiana Division, Indiana State Library

This poster is one of a series of thirty-eight posters issued by the South Shore Line from 1925 to 1929.



IHB
Indiana Historical Bureau
State of Indiana

THE INDIANA HISTORIAN EXPLORING INDIANA HISTORY

PUBLISHED BY THE INDIANA HISTORICAL BUREAU, STATE OF INDIANA

Focus

This issue focuses on the dunes along Indiana's Lake Michigan boundary. The history of this area demonstrates how geography, geology, and natural history can play vital roles in a state's development and public policy. In this issue, we examine the dunes history into the 1930s.

On this page, we introduce Frank Dudley. His work as an artist provides one form of historical evidence.

On page 3, there is a brief introduction to the state parks movement in Indiana.

On pages 4 and 5, the effect of glaciers on Indiana's landscape and the importance of the dunes are introduced. The walk through the dunes on pages 6 and 7 provides a closer look at the beauty and some unique features of the dunes.

The material on pages 8 through 13 looks at the human impact on the dunes. There has been extensive debate regarding land use in the United States since at least the late nineteenth century. The Indiana dunes provide a very rich illustration of that continuing debate.

A puzzle on page 14 tests your dunes knowledge. The Apple on page 15 provides further resources.

As we researched and prepared this issue, we became fascinated by the rich and varied material that we located. As others have before us, we felt the mystery of the dunes in the stories of the people associated with the dunes. We hope that you will move beyond the limitations of the issue and discover the mystery on your own.

Cottage 108

Frank Virgil Dudley (1868-1957) found his life's work painting in the Indiana dunes area and helping to preserve it. According to Dudley in a 1945 letter, "I felt I could do something in my own way that might help some." Dudley's 1918 one-man show of dunes paintings at the Art Institute of Chicago was part of the movement for a dunes national park.

In 1921, Dudley and his wife built a house and studio in the dunes, which became known as Cottage 108. After the Dunes State Park was established, the state of Indiana leased the cottage to Dudley for an annual rent of one painting of the dunes.

Dudley painted in the dunes for over forty years. His cottage was razed in the 1960s. His paintings, however—many housed in the Indiana State Museum—preserve the images of the dunes that he loved.

Sources: "Cottage 108 Revisited: The Paintings of Frank V. Dudley," Indiana State Museum, February 25-July 17, 1994 (exhibit guide); Susan O. Chavers, *A Guide to Art Smart: Indiana* (Lafayette: Greater Lafayette Museum of Art, 1986), 110-11; Dudley to Shoemaker, March 30, 1945, Greater Lafayette Museum of Art.



Frank Dudley painting on the dunes, circa 1935.

Indiana State Museum and Historic Sites

A Worthy Memorial

In January 1916, the Indiana Historical Commission voted "to leave a worthy and permanent Centennial Memorial" by establishing a state park committee. Colonel Richard Lieber was named to head the effort. The Commission was created by the General Assembly in 1915 to celebrate the centennial of statehood.

Lieber and his committee wanted the spectacular glacial-carved gorges and deep forests of Turkey Run, in Parke County, to be the first park. They could not, however, raise enough money to buy the land.

Instead, McCormick's Creek, in Owen County, with extraordinary geological features, became Indiana's first state park in 1916. Turkey Run was purchased later in 1916-1917 using donated funds and an appropriation from the General Assembly.

In 1919, the General Assembly created the Department of Conservation. Lieber became director. Clifty Falls became the third state park in 1920. The Dunes State Park was authorized in 1923. Sources: Phillips, *Indiana In Transition*, 220-23; Harlow Lindley, ed., *The Indiana Centennial, 1916* (Indianapolis: Indiana Historical Commission, 1919), 49.

You Be the Historian

- The National Park Service was established in 1916. Find out more about the national parks movement and its effect on the creation of state parks.
- Find out more about Lieber and Indiana's state park system.
- What conservation work is now going on in your community or area? How does this work relate to statewide or national efforts?
- Conservation efforts often bring controversy. Investigate and analyze the pros and cons of a current conservation question and debate the issues.

The Father of Indiana's State Parks

Richard Lieber served as an Indiana delegate to President Theodore Roosevelt's National Conservation Conference in Washington, D. C. in 1908. Roosevelt's ideas and enthusiasm captivated the young man. As Lieber put it, "I became absorbed in the Theodore Roosevelt cause."

Lieber's work with the Indiana Historical Commission, and later the Department of Conservation, was most important in achieving a state parks system. Lieber later wrote: "In 1915 began my life's work, creating state parks For fourteen years, the happiest of my life, I worked at the task."

In November 1932, Governor James P. Goodrich wrote to Lieber: ". . . so long as the State shall stand the countless thousands of men women and children who throng the beautiful parks . . . will . . . remember the great service you have rendered"

Twelve state parks were created under Lieber. Sources: Lieber, *Richard Lieber*; Governor Goodrich to Richard Lieber, November 10, 1932, Indiana Division, Indiana State Library.



Richard Lieber (left) with Governor Harry G. Leslie at Dunes State Park, circa 1930.

Indiana Division, Indiana State Library

How Was the Dunes Area Formed?

Four major glaciers determined the geography of Indiana many thousands of years ago. The Wisconsin Glacier, the last of the four, created the area now known as the Indiana Dunes.

Glaciers are formed when the earth experiences low temperatures over a long period of time—commonly called an ice age. A glacier forms when cold air keeps snow from melting. Century after century, snow accumulates in layers, sometimes thousands of feet thick. The great weight of the snow presses the bottom layers into ice. Glaciers then begin to move very slowly—the **advance**. See *Diagram 1*.

The Wisconsin Glacier was formed approximately 70,000 years ago in the area that is now the Hudson Bay. It slowly advanced across a wide area, including what is now central and northern Indiana. As it moved, it collected and dragged with it **glacial till**—clays, soils, and rocks ranging in size from sand particles to boulders.

The heavy glacier flattened the

landscape, pushing everything like a gigantic very, very slow-moving bulldozer. Glacial till caught beneath the ice, scraped and gouged the land.

As temperatures began to warm, the glacier eventually stopped moving and began to melt. Scientists call this melting process **retreat**. The debris the glacier had been pushing left moraines—hills of glacial till. One of several **moraines** in Indiana is the Valparaiso Moraine, formed between 14,000 and 16,000 years ago.

The melting ice created rushing streams of water. Glacial till carried away with the water is called **outwash**.

Outwash plains were formed where this debris was deposited.

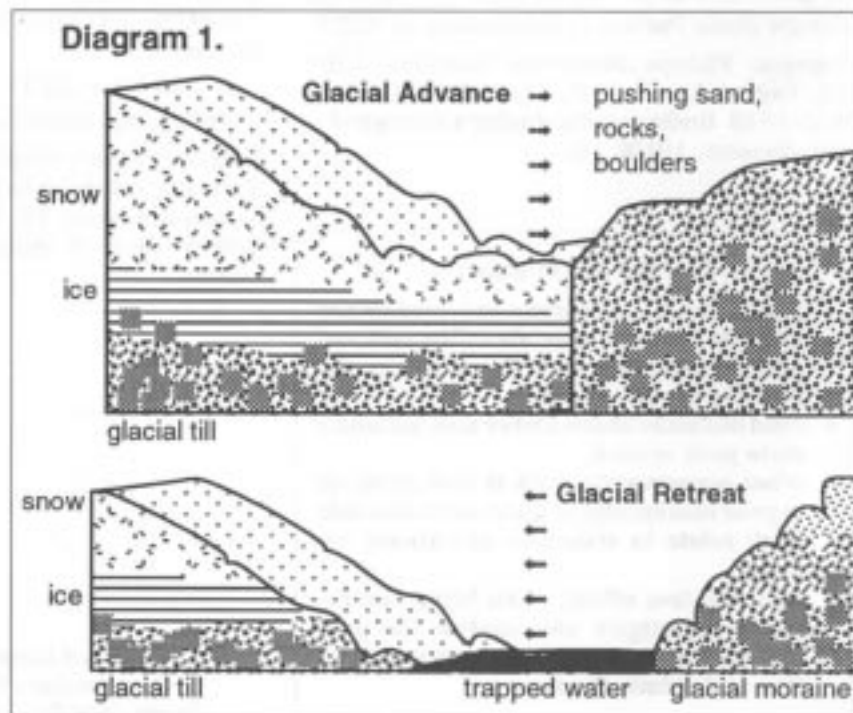
Sometimes huge chunks of ice broke off and were trapped among the outwash. When the ice melted, it created a **kettle lake**. Pinhook Bog in the Indiana Dunes is a good example of a kettle lake.

Sources: Hill, *Indiana Dunes*; Daniel, ed., *Indiana Dunes Story*.

You Be the Historian

- Find out more about the glaciers that affected Indiana.
- What glacier(s) affected your local area? What were the results?

Source for Diagram 1: Hill, *Indiana Dunes*.



Why Are the Dunes Important?

The Wisconsin Glacier formed Lake Michigan thousands of years ago. The sand that forms the dunes was carried there as part of the glacial till. As Diagram 2 indicates, glacial Lake Chicago was much larger than the present Lake Michigan. Water drainage and other factors significantly changed the size of the lake three times. The reduction of the lake also resulted in changes to the shoreline.

As Diagram 3 indicates, the present topography of the dunes area in Indiana clearly demonstrates the changes in the shoreline over time as a result of changes in the lake size. The constant action of wind and water molds and remolds the sands on a continuing basis. The dunes formed 14,000 years ago have the most highly developed plant life and forests. The more recent dunes have less complex plants.

This evolution of plant life was documented—with publication in 1899—by a young biology teacher from the

University of Chicago, Henry Chandler Cowles. As a result, Cowles became a pioneer in the field of plant ecology. His discovery—called plant succession—was proved through careful observation and recording of changes in plant life from the barren beaches, through the marshes, bogs, ponds, and pine trees, to the dense beech, maple, and oak forests on the oldest dunes.

Cowles' plant succession techniques inspired future researchers and documented the vast diversity and uniqueness of the plant life of the Indiana Dunes.

The Indiana Department of Natural Resources lists fifty-four endangered, threatened, or rare plant species in Dunes State Park.

Sources: Hill, *Indiana Dunes*; Daniel, ed., *Indiana Dunes Story*; Franklin and Schaeffer, *Duel for the Dunes*; Ronald P. Hellmich, DNR, to Paula Bongen, September 14, 1994.

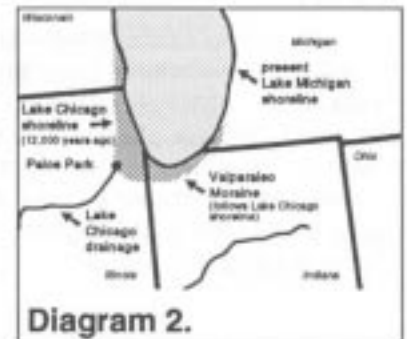
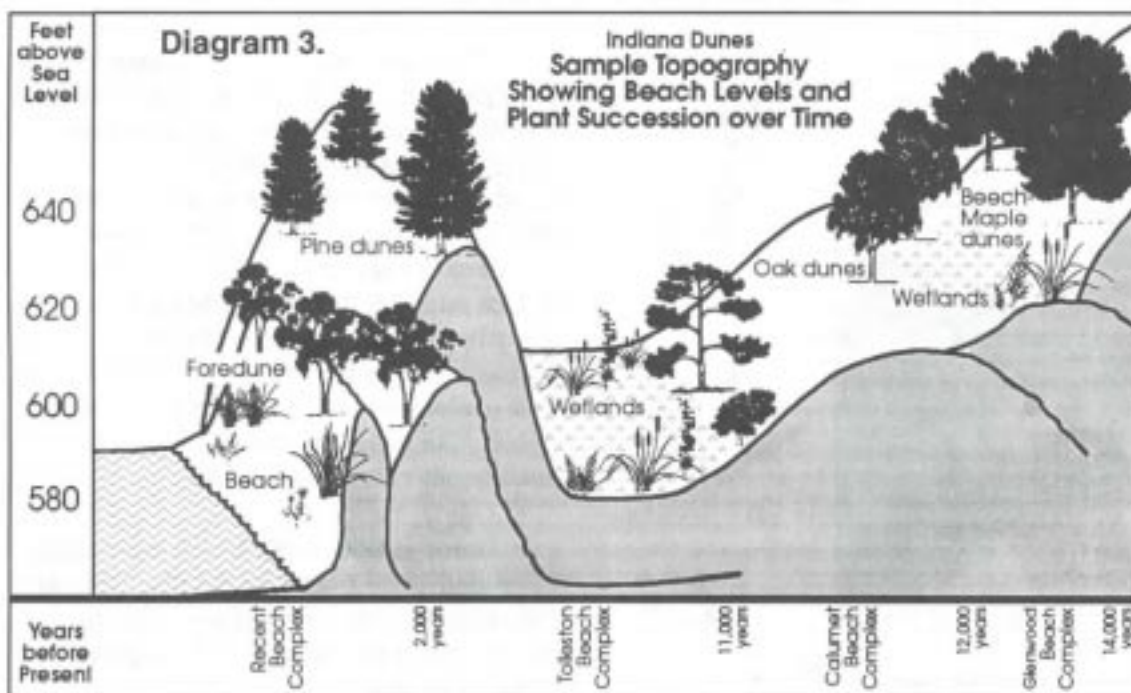


Diagram 2.

You Be the Historian

- Today, two-thirds of the Dunes State Park is a nature preserve. What is the purpose of a nature preserve? Locate a preserve in your area and investigate why it has been established.
- Find out more about dunes and how wind and water action affect coastlines.



Sources for Diagrams 2 and 3: Hill, *Indiana Dunes*, 2-3, 7-8; Mark Reshkin, Herman Feldman, Wayne E. Kiefer, Carl H. Krekeler, *Basic Ecosystem Studies of the Indiana Dunes National Lakeshore* ([Gary]: IU Northwest School of Public and Environmental Affairs, 1975), 4-66.

A Walk through the Dunes

Join a tour of the Indiana Dunes as it looked in the late 1920s when photographer Frank M. Hohenberger of Nashville, Indiana took many of these photographs for the Indiana Department of Conservation. Imagine Professor Henry Cowles leading students along his favorite trail to demonstrate his theory of plant succession.

The storm beach (A), nearest the lake, rarely has plants. The sand however, can produce a musical tone when a person walks over it. Only a few other beaches in the world, with the same quartz sand and moisture content, have this "singing sand."

Walking away from the lake (B), we see the first plants beyond the reach of the highest waves. Annual plants like sea rocket (C) and bugseed (D) are very common. The sand-colored sand spiders (E), Fowler's toads, and white-footed or deer mice can be found here also.

Marram grass is one of the first dune-building plants that we see. Its special root system pushes its stems upward fast enough that blowing sand can't bury it. At the same time, it spreads out broadly to hold and stabilize the sand as it forms a dune.



A

Indiana Division, Indiana State Library



B

Indiana Division, Indiana State Library



F

Cadmus Regional Archives



Indiana Division, Indiana State Library



C



D



E

G

The front ridges of the dunes are the youngest or most recently formed dunes. The first trees on these foredunes are usually cottonwoods, which can grow in sand, unlike most other trees which need the organic nutrients of soil to grow.

Behind the recent dunes, older sand dunes support more complex and numerous plants and animals. The back sides of many dunes face the south. More sun and protection from the wind provide a desert-like environment where even prickly pear cactus grow (F).

Bank swallows (G) build their nests in eroded sand banks and hills. They are only one of over 100 species of birds living among or migrating through the Indiana Dunes.

**H**

The next trees we see after the cottonwoods are pine forests (**H**). Jack pine, red cedars, and common junipers are the most important trees on these dunes.

The Jack pine forests at the Indiana Dunes are many miles farther south than any other Jack pine forests in the Great Lakes area. The Dunes' Jack pines are left over from Indiana's glacial past. The bearberry, also a cold climate plant, grows in the pine forests. Its low, woody growth protects the young Jack pine seedlings from wind and blowing sand.

Ponds, swamps, marshes, and bogs are also part of the Dunes' ecology (**I**). These wetlands contain many rare and beautiful plants and animals.

Tamaracks are special trees associated with bogs. Tamaracks are conifers like pine trees, but their needles turn yellow and fall every year like maples or other deciduous trees.

Some bog plants like the sundew (**J**), trap and eat insects. The sundew's round leaves are covered with hairs. The ends of the hairs are sticky. When an insect lands on a leaf, it gets stuck, and the leaf closes around it and eventually digests it.

Other plants grow so densely in the shallow swamps that they can support the weight of a human. Sphagnum moss and sedge are such plants.

**K**

As we move farther inland, forests of oak trees appear on the dunes. These older dunes have accumulated enough soil to support more complex root systems. Moving farther, we see that the oldest dunes are heavily forested with beech and maple trees (**K**).

Sources: Daniel, *Dune Country*; Elliot R. Downing, *A Naturalist in the Great Lakes Region* (Chicago: University of Chicago Press, 1922).

**I**

Some Beginnings

Native Americans occupied the Great Lakes area for thousands of years. Ancient Indian trails crisscrossed the area and were later used by the French, English, and Americans.

In 1680, Potawatomi migrated from Wisconsin into the area which is now northern Indiana, called the Calumet Region. Other tribes, such as the Miami, Ottawa, and Sauk, visited the Region, but the Potawatomi made it their home.

The French were the first Europeans to arrive in the Calumet Region. Father Jacques Marquette may have been the first missionary—in 1675. Explorers, such as La Salle, followed. The French later established trading posts and forts to protect their rich fur trade.

One such fort was built in what is now the Dunes State Park. Fort Petite was built between 1750 and 1755 at the mouth of Trail Creek. On December 5, 1780, it was the site of a battle of the American Revolution—the British beat

the Americans.

By the early 1800s, Chicago and Detroit had become major population centers. Travel between the two cities was constant but difficult. Major routes were Lake Michigan and the Chicago [Fort Dearborn]-Detroit Road, which followed the shoreline of the lake.

When Indiana became a state in 1816, the Calumet Region, including the shore of Lake Michigan, was included in its boundaries. John Tipton, helping to survey the boundary in 1821, described the dunes area:

... most of the Way the margin of Lake is lined with small hills of white sand elevated from 5 to 10 feet above the level of the country Back of them it is my opinion they are formed by the sand beating out of the Lake by the waves when it Becomes Dry the hard wind which prevails here from the north drives it into those heaps. immediately behind those hills the country falls off into pond and marshes that never can admit of settlement nor never will be of much service to our state. . . .

... the hills of sand becoming much higher at the point where we left the L[ake] the sand hills are fifty feet high the summit of some of them covered with pine Bushes some intirely Bare of grass or any other vegetation

In 1822, Joseph Bailly, a French fur trader, was issued a license by the United States government and allowed to trade in the Calumet Region. He moved his family to the Little Calumet River and built a cabin. Traders and Indians were regular visitors. Bailly was well-educated and had a library of over 300 books in English and French.

In 1833, the Chicago-Detroit Stage Company was established. As a result, primitive inns were built to house travelers. Solon Robinson, an early resident of Crown Point, described these inns:

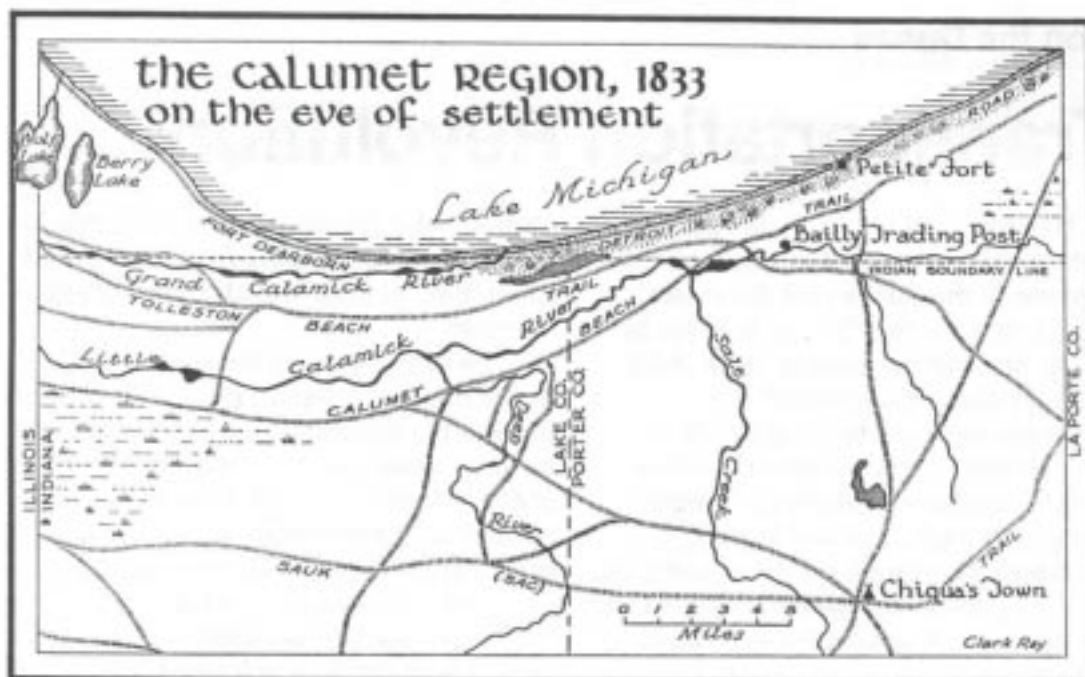
They were all temporary settlers, located for the purpose of administering to the necessities and not much to the comfort of emigrants that began to flock into Illinois by this only known route along the Lake Shore. I have myself slept with more than 50 others in and around one of these little log cabin taverns, and paid \$3— a bushel for oats to feed my horses, and as for my own food I had it along with me, or should have had none

By 1833, settlers were moving into the area, and many Potawatomi were



The log cabin in this photograph appeared on a postcard. It was described as a store built by Joseph Bailly in 1822.

Indiana Historical Bureau, Indiana State Library



Moore, Calumet Region, 57.

living on reservations. Baily's fur trading business came to an end. He then created Bailytown, naming the streets after his wife and children. Few people settled there because the marshy land and dunes were unfit to farm. When Baily died in 1835, so did his little town.

Another town that failed was City West. It was laid out in 1837 by several businessmen at the mouth of Fort Creek in what is now the Dunes State Park. A twenty-two room hotel, sawmill, store, and blacksmith shop served the twenty-some families that moved there.

The founders of City West asked the federal government for money to build a harbor. Michigan City was given the federal harbor money instead, and it has remained and prospered. By 1838, only the buildings remained as evidence of the existence of City West.

Population within the desolate dunes remained sparse until after the 1850s.

Sources: Moore, *Calumet Region*; Glen A. Blackburn, compiler, *John Tipton Papers* (Indianapolis: Indiana Historical Bureau, 1942), 1:271; Herbert A. Kellar, ed., *Solon Robinson: Pioneer and Agriculturist* (Indianapolis: Indiana Historical Bureau, 1936), 2:52.

“... immediately behind those hills the country falls off into pond and marshes that never can admit of settlement nor never will be of much service to our state. . . .”

John Tipton, 1821.

You Be the Historian

- What towns in your area were established and then failed? Why did they fail?
- When were towns and counties established in your area? When were towns and counties in the Calumet Region established? Why are there such differences in settlement dates?
- Investigate the Native Americans and early European settlers who left their imprints on the Calumet Region.

The Transportation Revolution

The arrival of the railroads and the growth and development of Chicago transformed the dunes and the entire Calumet Region. The first train route to Chicago crossed the area in 1852. Additional railroads were constructed throughout the remainder of the nineteenth century. They provided farmers access to markets for more and larger crops and brought modern farming equipment and store goods from the East to the area. By 1870, Lake County led the state in the production of butter, hogs, and oats.

Inhabitants soon realized the value of the local natural resources. Strawberries, wintergreen berries, huckleberries, and cranberries—growing wild in the dunes—were harvested, packed in barrels, and shipped to Chicago. Ice, timber, and fish were also shipped out of the

Calumet Region. Sportsmen from Chicago traveled to the Calumet Region, especially the dunes, to hunt the abundant game and fish.

Sand from the Indiana dunes filled in the Chicago lakeshore site of the 1893 World's Columbian Exposition. Dunes sand was used to raise and level hundreds of miles of railroad track. By 1898, more than three hundred railroad cars of sand were shipped from the town of Dune Park every twenty-four hours.

The once isolated and marshy wetlands of the area attracted land speculators and entrepreneurs. In 1850, the U.S. Congress passed an act which gave states all the swamp land within their borders. Hundreds of acres of wetlands in the Calumet Region were then purchased from the state at cheap prices and, later, resold for profit.

Cheap land, good transportation, and central location provided a perfect environment for the growth of industry in the Calumet Region. In 1869, George Hammond and Marcus Towle built a meatpacking plant at what became



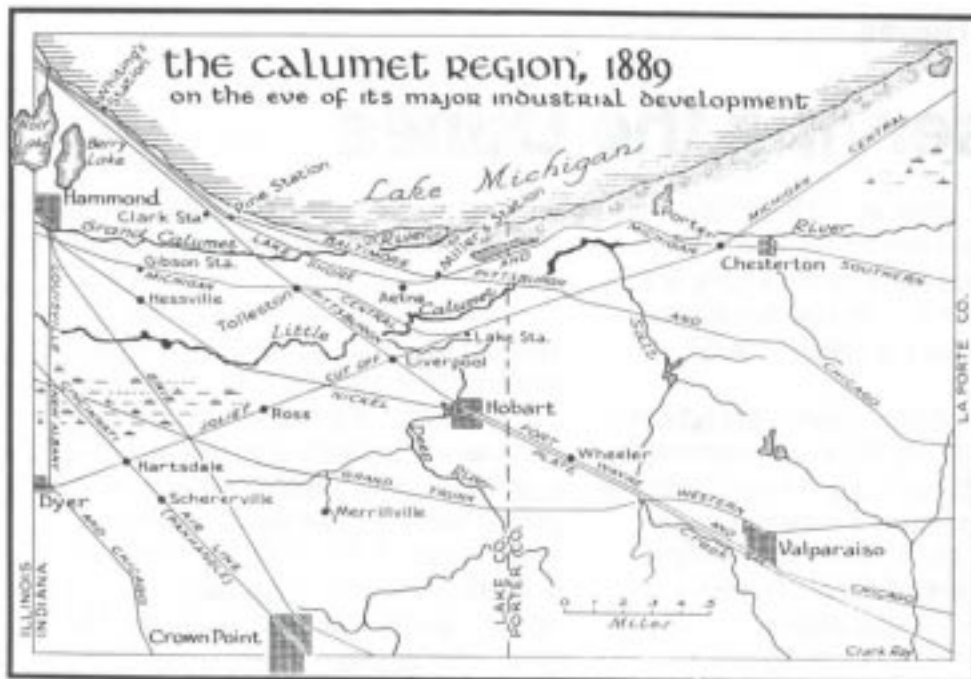
Calumet Regional Archives.

The dunes near Gary were leveled by horse-drawn plows for construction of the steel mills, 1907.



Indiana Division, Indiana State Library.

Excavation of the dunes, circa 1916.



Moore, Calumet Region, 179.

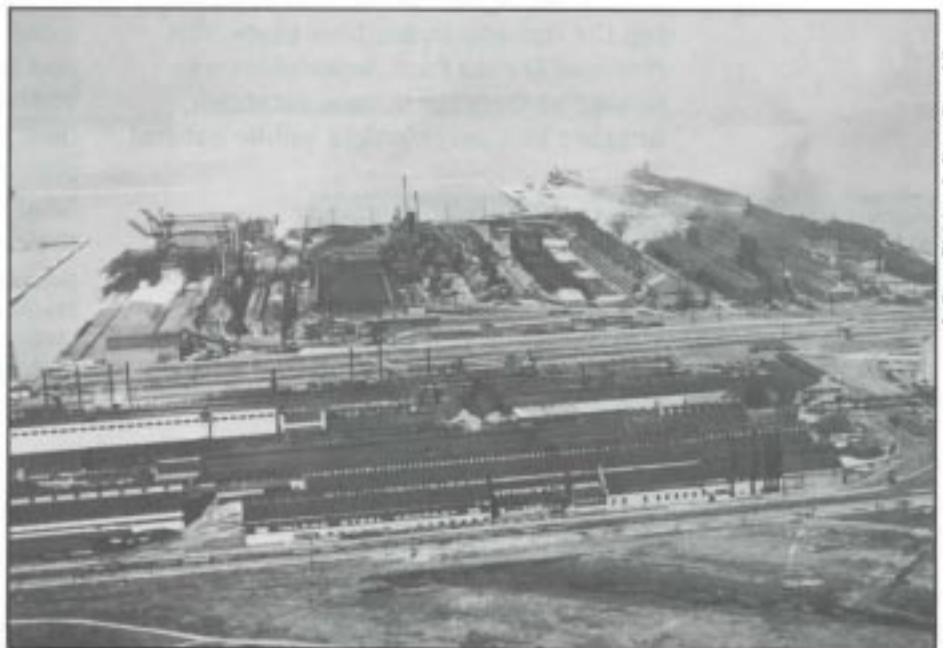
Hammond, the first to use refrigerated rail cars to ship butchered beef to the East Coast. In 1889, Standard Oil Co. began construction of a giant refinery at Whiting. In 1901, Inland Steel began building mills in East Chicago. Indiana Steel Co. was organized in 1906 as a subsidiary of the mammoth U.S. Steel Corp. The town of Gary was planned, laid out, and built in conjunction with the construction of the Indiana Steel mills.

The population of the Calumet Region grew as rapidly as its industries. The number of inhabitants of Lake County alone quadrupled from 1900 to 1920. Many of the new residents immigrated from war-torn countries in southern and eastern Europe. In 1910, immigrants made up majorities of the populations of East Chicago and Whiting. Nearly half of the residents of Gary and one-quarter of those in Hammond were also foreign-born.

Sources: Moore, *Calumet Region*; Phillips, *Indiana in Transition*.

"Thousands of people now visit it [dune country] . . . and it is difficult to obtain seats on the electric trains from Chicago to points between Gary and Michigan City on Sundays and holidays."

Earl H. Reed, author/artist. Mather, Report, 27.



Indiana Division, Indiana State Library.

An aerial view of the Inland Steel plant, 1930s.

Preserving the Dunes

By 1910, most of the Lake County dunes had been leveled for industrial needs. The interest of various Chicago groups had also focused on the dunes as a recreation area that needed to be preserved.

Henry Chandler Cowles brought his ecology students to the dunes starting in 1897. In 1909, Saturday Afternoon Walks was the first organized group to explore the dunes. In 1911, the Prairie Club of Chicago was formed with a focus on preserving the Indiana dunes.

"Botanically the Indiana dunes are a marvelous cosmopolitan preserve, a veritable floral melting pot.

"... one may find plants of the desert and plants of rich woodlands, plants of the pine woods, and plants of swamps, plants of oak woods and plants of the prairies."

Professor Henry C. Cowles. Mather, Report, 44.

In 1916, significant events concerning the Indiana dunes took place. The National Dunes Park Association was formed in Gary "to secure, establish, improve and perpetuate a public natural

park, or parks, along the southerly shore of Lake Michigan, in the State of Indiana."

Indiana Senator Thomas Taggart sponsored a U.S. Senate resolution that resulted in a hearing October 30, 1916 by the National Park Service, U.S. Department of the Interior. The recommendation was for establishment of a dunes national park. One point emphasized was the ready accessibility of the the dunes area to 5,000,000 people. Lands were in private hands, however, and would have to be purchased.

Primarily because of World War I, the dunes national park idea was not fulfilled. Attention turned in 1919 to the idea of a state park. It was not until 1923, however, that the Indiana Dunes State Park was authorized—along with a tax levy to help establish it. Approximately 2,000 acres were included on the Porter County lake shore.

The acquisition of land and development were carried out using the tax levy and private donations—including \$250,000 from the U.S. Steel Corporation. One gift enabled use of underground electric cables to the service area. The total cost of the park land was approximately \$1,000,000.

Sources: Cottman, *Indiana Dunes State Park*; Mather, *Report*; Copy of the Articles of Association of the National Dunes Park Association, Indiana Division, Indiana State Library.



View of the nearly completed Pavilion at the Indiana Dunes State Park, circa 1930.

Bess M. Sheehan

Bess M. Sheehan has been cited as one of the most important people in the establishment of the Dunes State Park. She was an active clubwoman in Gary. In 1916, she met Richard Lieber, who introduced her to the conservation movement.

She became active as secretary of the new National Dunes Park Association in 1916. When that movement failed, she worked for a dunes state park.

Early in 1923, Sheehan gave a two-hour stereopticon lecture to legislators and their wives in the Indiana House of Representatives chamber.

According to Cottman's history, she won over many people with her passion and her information. As Cottman stated: "Her name will always be associated with the Dunes Park."

Following passage of the state park legislation in 1923, she wrote to a friend: "The people here all gave up the struggle . . . Had I known how discouraged the others were I guess I would have given up too."

Sources: Sheehan to Catharine Mitchell, [March 1923], Indiana Division, Indiana State Library; Cottman, *Indiana Dunes State Park*; Franklin and Schaeffer, *Duel for the Dunes*, 85-87.

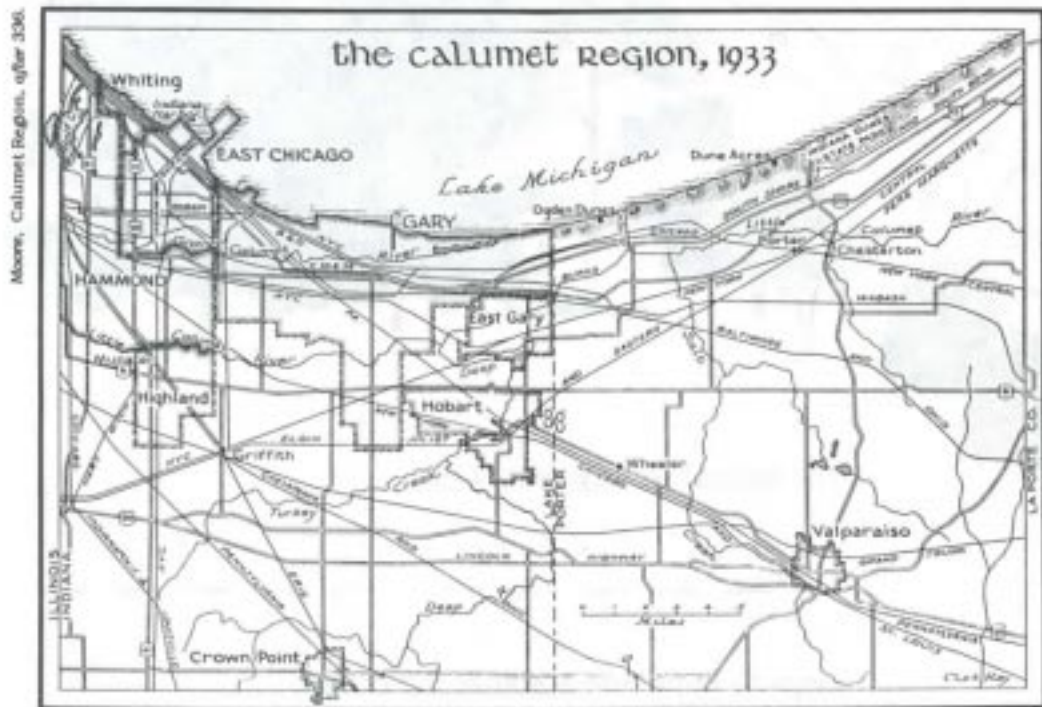


Indiana Division, Indiana State Library

Aerial view of the Pavilion at the Indiana Dunes State Park, circa 1930.

" . . . I pledge the support of the two and one-half million clubwomen of the country . . . "

Mrs. John D. Sherman, General Federation of Women's Clubs. Mather, Report, 60.

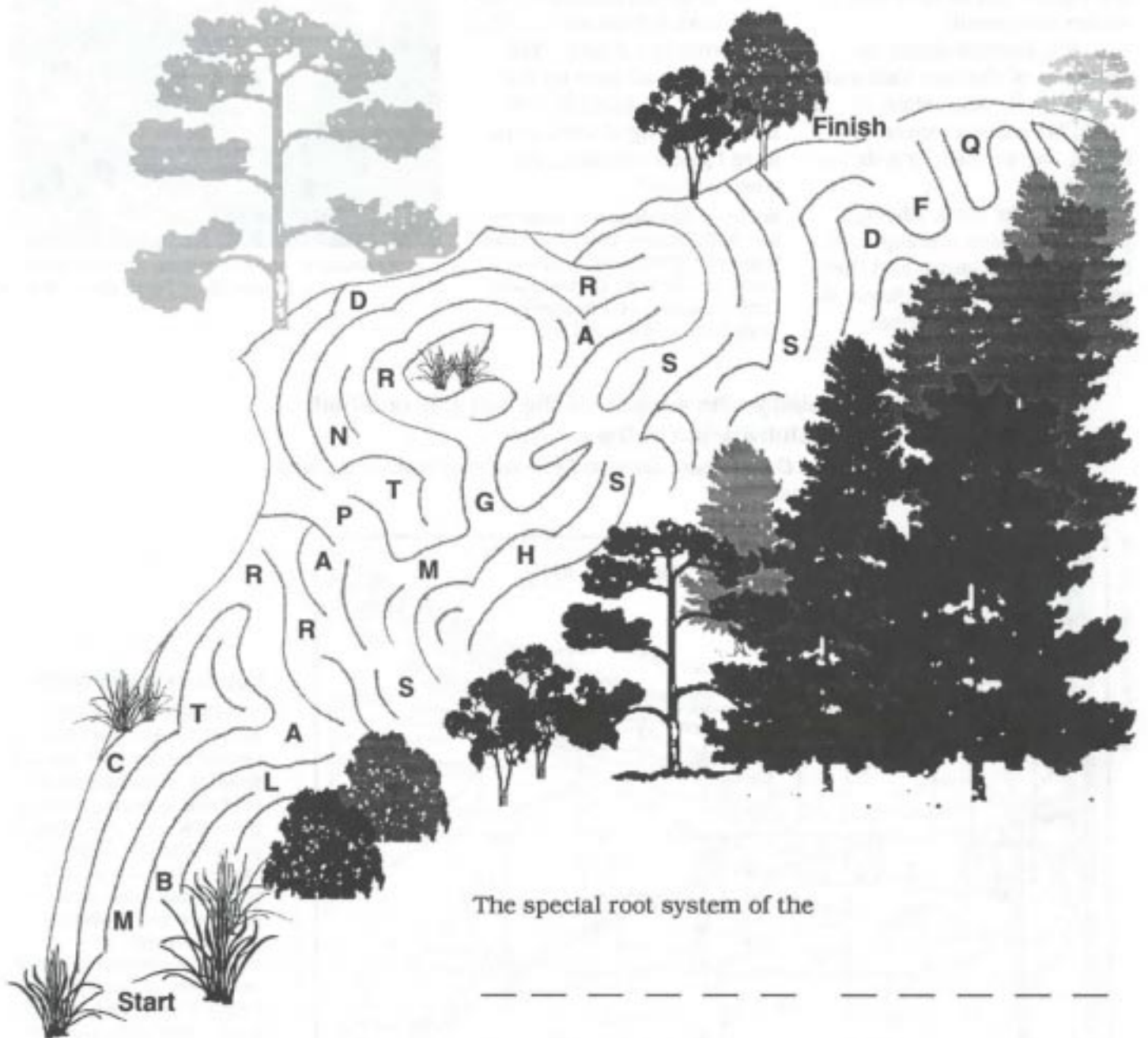


You Be the Historian

- The Dunes State Park was established in part through citizen action and private funding, working with government agencies. Investigate how conservation and preservation actions are carried out today. Check with local and statewide preservation/conservation organizations.
- What is a stereopticon and how does it work? What might Mrs. Sheehan have used if she were lecturing today?

On the Dunes

Trace the path through this dune. As you go, find the letters along the correct path. Copy the letters in order on the lines below. The message will identify a plant that grows on the dunes.



The special root system of the

helps to build and stabilize the dunes.

An Apple for Everyone

Selected Resources

Student Reading

• Bannan, Jan Gumprecht. *Sand Dunes*. Minneapolis: Carolrhoda Books, Inc., 1989.

Explains the formation of sand and the forces which shape it into dunes. Good illustrations and photographs.

• Bender, Lionel. *Glacier*. London: Franklin Watts, 1988.

Excellent photographs and illustrations explain the force of glaciers in shaping the earth's surface.

• Bramwell, Martyn. *Glaciers and Ice Caps*. London: Franklin Watts, 1986.

Basic source of information on glacier formation and the aftermath of glaciation. Good illustrations.

• May, Julian. *Moving Hills of Sand*. New York: Hawthorn Books, Inc., 1969.

An excellent source about the Lake Michigan dunes.

• Teale, Edwin Way. *Dune Boy: The Early Years of a Naturalist*.

Bloomington: Indiana University Press, 1986. Originally published in 1943.

This Indiana classic recounts Teale's memories of growing up on his grandparents' farm, which bordered the dunes.

• Willis, Willma. *Sand and Man*. Chicago: Childrens Press, 1973.

Explains the variety of uses for sand.

General Sources

• Boomhower, Ray. "The Hoosier Slide: Monument of Never Ending Sand." *Traces of Indiana and Midwestern History*, Vol. 5, No. 2 (Spring 1993), 12-17.

An adult's sentimental remembrance of exploring the dunes as a child.

• Brock, Kenneth J. *Birds of the Indiana Dunes*. Bloomington: Indiana University Press, 1986.

Statistical look at the bird populations of the dunes region.

• Cottman, George S. *Indiana Dunes State Park: A History and Description*. [Indianapolis]: Indiana Department of Conservation, 1930.

An interesting summary of the early

history and development.

• Daniel, Glenda. *Dune Country: A Guide for Hikers and Naturalists*. Chicago: The Swallow Press Inc., 1977.

Wonderful guide to the flora and fauna of the dunes.

• Daniel, Glenda, ed. *The Indiana Dunes Story: How nature and people made a park*. N.p.: Shirley Heinze Environmental Fund, 1984.

Informative summary of the history of the Dunes State Park.

• Engel, J. Ronald. *Sacred Sands: The Struggle for Community in the Indiana Dunes*. Middletown, CT: Wesleyan University Press, 1983.

A spiritual and philosophical approach.

• Franklin, Kay, and Norma Schaeffer. *Duel for the Dunes: Land Use Conflict on the Shores of Lake Michigan*. Urbana: University of Illinois Press, 1983.

A political history of the Dunes State Park development.

• Hill, John R. *The Indiana Dunes—Legacy of Sand*. Bloomington: Indiana Department of Natural Resources, 1974.

A Geological Survey report, which provides an excellent overview.

• Lieber, Emma. *Richard Lieber*. N.p.: Emma Lieber, 1947.

An intimate, informative look at the life of Lieber by his widow.

• Mather, Stephen T. *Report on the Proposed Sand Dunes National Park Indiana*. Washington, D.C.: Government Printing Office, 1917.

Contains a useful compilation of testimony at the 1916 National Park Service hearing.

• Moore, Powell A. *The Calumet Region: Indiana's Last Frontier*. Indianapolis: Indiana Historical Bureau, 1959; reprinted 1977.

An excellent, extremely informative history of the region.

• Phillips, Clifton J. *Indiana in Transition: The Emergence of an Industrial Commonwealth, 1880-1920*. Indianapolis: Indiana Historical Bureau and Indiana Historical Society, 1968.

A standard source for the period covered.

• *Sand and Steel: The Dilemma of Cohabitation in the Calumet Region*. [Gary]: Indiana University Northwest, 1987.

An interesting exhibit catalog from the Calumet Regional Archives.

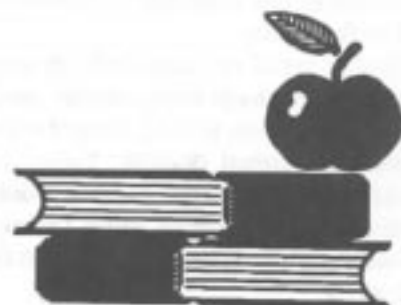
Of Special Interest

• The following issues of *Outdoor Indiana*, published by the Indiana Department of Natural Resources, contain interesting articles about the dunes: June 1991, December 1988, April 1988, September 1987, February 1986, November 1984, July/August 1984, October 1983.

• Entine, Lynn. *Our Great Lakes Connection: A Curriculum Guide for Grades Kindergarten Through Eight*. Madison, WI: UW-Extension Environmental Resources Center, 1985.

This free curriculum guide is available from Environmental Resources Center, 1450 Linden Drive, UW—Madison, Madison, WI 53706.

Special thanks to Stephen G. McShane, archivist/curator of the Calumet Regional Archives, Indiana University Northwest, Gary, for his help with this issue.



A Note Regarding Resources: Items are listed on this page that enhance work with the topic discussed. Some older items, especially, may include dated practices and ideas that are no longer generally accepted. Resources reflecting current practices are noted whenever possible.

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Layout and Design

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The Indiana Historian fulfills the mission of the Indiana Historical Bureau by providing resources and models for the study of local history to encourage Indiana's citizens of all ages to become engaged with the history of their communities and the state of Indiana.

The Indiana Historian (formerly *The Indiana Junior Historian*) is issued six times annually from August through June.

It is a membership benefit of the Indiana Junior Historical Society. It is distributed free to school media centers, libraries, and other cultural and historical groups in Indiana. Annual subscriptions are available for \$7.50. Back issues are available at individual and bulk pricing.

This material is available to visually impaired patrons in audio format, courtesy of the Indiana History Project of the Indiana Historical Society. Tapes are available through the Talking Books Program of the Indiana State Library; contact the Talking Books Program, 317-232-3702.

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Mission Statement

The Indiana Historical Bureau provides programs and opportunities for Indiana's citizens of all ages to learn and teach about the history of their state and its place in the broader communities of the nation and the world.

Programs and Services

- State format historical markers
- Governors' Portraits Collection
- Books on Indiana, midwestern, and local history
- Classroom materials for Indiana history
- *The Indiana Historian*
- Indiana History Day
- Indiana Close Up
- REACH: Resources Educating in the Arts, Culture, and History
- *The Indiana History Bulletin*

Staff

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Opportunity for Support

Associates of the Bureau receive subscriptions to *The Indiana Historian* and the *Indiana History Bulletin*; discounts on publications of the Bureau, Indiana University Press, and the American Association for State and Local History; and occasional special opportunities. Cost is an initial \$25 donation to the Bureau and an annual fee of \$10 billed in January.