Ice Age Trail

National Scenic Trail Wisconsin



Wisconsin's Glacial Landscape

most of northern North America lay under the grip In other areas streamlined, elongate hills called Sheboygan County, are ridges of rounded sand to the most recent glaciations, erosion has had landscapes stands the dry upland of southwestern younger. of colossal ice sheets. The effects of the advancing drumlins were formed. Wisconsin's State capitol and gravel deposited by streams that flowed time to modify the landscape and, as a result, and retreating glaciers can be seen in the sits atop one of these hills. Impressive clusters of through tunnels at the base of the glacier. Like headlands of Cape Cod, the Finger Lakes of New them are found in the Campbellsport Drumlins Unit drumlins, they are usually aligned parallel to the York, and the hills of Michigan, but nowhere is the of the Ice Age National Scientific Reserve and in ice flow. glacier's mark upon the land more impressive than other areas, particularly southeastern Wisconsin in Wisconsin. Indeed, the State has lent its name The striations and the long axis of the drumlins The flowing meltwater spread fine layers of sand in to the most recent series of glacial advances and indicate the direction the ice flowed. retreats, the Wisconsin Glaciation lasting from about 100,000 to 10,000 years ago.

also known as the Pleistocene Epoch, the climate as the glacier melted back, ice usually continued one of these lakes, is a marked contrast to the fluctuated between warmer and cooler to flow toward its edge, bringing more debris with unglaciated hills of the Driftless Area that bound its temperatures. During the colder fluctuations, the it. Occasionally the flow stopped, the ice western side. In the Fox River Valley, Lake glaciers formed and spread outward from Arctic stagnated, and blocks of ice detached from the Winnebago and Horicon Marsh are small areas, engulfing most of northern North America. glacier were buried in sand and gravel. Many of remnants of another proglacial lake - Lake Each of the major glaciations has been followed by Wisconsin's lakes lie in the depressions formed by Oshkosh. a warmer interglacial period, probably similar to the melting of the buried ice. These are called that of today, during which the glaciers melted kettles.

about 30,000 years ago and reached its greatest sitting atop the older hills at the edge of the Wisconsin Dells, and the Dells of the Eau Claire, extent, covering approximately two-thirds of the unglaciated Driftless Area. Across the northern are still occupied by streams. Others, like the State, about 20,000 years ago before melting counties the moraines form a broad band of hills smaller gorge at the Cross Plains Ice Age Reserve back. The retreat of the ice front was interrupted a and hollows - a poorly drained rocky landscape Unit, are now dry except for spring and storm number of times by readvances; the last one dotted with lakes, marshes, and bogs. The run-off. touched northwestern Wisconsin about 10,000 Chippewa Moraine Ice Age Reserve Unit is a years ago. The extent of this and earlier glaciations particularly picturesque portion of these moraines, Although many of these features are outstanding in Wisconsin is shown on the maps on this containing numerous depressions filled with lakes, by themselves, seen as a whole they form a glacial brochure.

The advancing ice was channeled into the with thousands of these depressions, but most of moraines, eskers, and features left by fluctuating lowlands now occupied by Lakes Superior and them are dry. The rugged, scenic Kettle Moraine in lobes of the last Wisconsin glacier appear very Michigan, Green Bay, and the Fox River, and it the eastern part of the State is actually a series of similar to features being formed by glaciers active was impeded by the uplands of the Bayfield, moraines formed between the Lake Michigan and today. The region of recent glaciations is dotted Keweenaw, and Door Peninsulas. The ice was thus Green Bay Lobes. The Green Bay Lobe also left a with over 14,000 glacial lakes; numerous bogs, split into six major lobes as it flowed across the moraine in Sauk County which blocked both ends marshes, and fens; and many streams whose State. The Green Bay Lobe, which had few of a gorge in the Baraboo Hills creating Devil's courses are determined by the voung glacial obstructions in its path, penetrated as far south as Lake. Some moraines stand no more than 30 feet deposits. In a sense, this region of the State is still present-day Janesville in Rock County.

The ice within the lobes was almost always sliding or creeping toward the edges of the glacier, even Streams flowing over, under, and beyond the with sediment and organic debris, this young as it melted. As the ice moved, it froze around glacier also left deposits that vary our landscape. landscape will become like the older glacial them up, and carried them along. Boulders that cobbles called kames, that stud parts of the Kettle and the terminal moraines of the most recent were carried great distances are called erratics. Moraine, are deposits of streams that flowed glaciations. The material frozen into the base of the flowing ice downward through cracks in the ice. The sinuous gouged and scraped the land, leaving in some eskers, such as the one near the Mondeau

sand, silt, cobbles, and boulders frozen in it were pooled, forming large lakes where silt and clay us these areas were glaciated long ago, but Area landscape has been forming for many Many times during the past 2 million years, a time released and formed ridges called moraines. Even collected. The flat bed of glacial Lake Wisconsin,

The moraines vary greatly across the state. Those spectacular gorges in several areas of the State. The glacier most recently flowed into Wisconsin in the southwest are usually dry, narrow ridges Some, such as the Dalles of the St. Croix, the bogs, and marshes. The moraine in Waushara landscape of remarkable beauty. The thousands of above the surrounding terrain, but others in the recovering from the melting of the last glacier. As

broad plains, such as those in Langlade, Rock, and Portage Counties, that today are fertile cash When the ice melted at the edges of the lobes, the crop farming areas. In several areas the meltwater

> The torrents of meltwater released from the wasting glacier or draining from glacial lakes cut

County in the center of the State is similarly pitted drumlins, kames, and kettles and the numerous Kettle Moraine rise to heights of 250 to 300 feet. the streams slowly wash away kames, eskers, and noraines, and as marshes, bogs, and lakes fill grains of sand, pebbles, and boulders, picked The conical hills of water-rounded sand and landscape which lies between the Driftless Area

sediment that has accumulated over thousands of years. The result is a gently rolling landscape or prominent mounds, such as Blue Mound in and beckon us to come, explore, and enjoy! nearly flat plains broken by occasional remnant eastern lowa County, stand as erosion remnants hills or ridges. The remnants of glacial debris tell well above the surrounding plain. This Driftless

relatively little is known about their glacial history. thousands of years, whereas our most recent





Roche A Cri

A Trail To Explore The Glacial Landscape

St. Croix Dalles

Imagine a public greenway meandering across zation of the park gained momentum, legislature designated it a State Scenic Trail in Stewardship Program, a fund from which Wisconsin's glacial landscape. Imagine a trail volunteers were already at work building the 1987. The National Park Service administers the 1,200 miles long leading both to places of first segments of the future Ice Age Trail in the trail in cooperation with the Wisconsin glacial beauty close to home and to some of the Kettle Moraine State Forest. In 1964, Congress Department of Natural Resources and the Ice remotest parts of Wisconsin. That is what the authorized a joint Federal-State effort to study Age Trail Alliance (formerly the Ice Age Park that the National Park Service may grant to late Ray Zillmer of Milwaukee had in mind in and recommend a way to preserve and and Trail Foundation). There are also many the 1950s when he proposed that an Ice Age interpret Wisconsin's significant glacial other partners that participate in the trail by National Park be established along the entire heritage. The result of these efforts was the developing and managing specific segments, length of the moraines marking the farthest creation of the nine-unit Ice Age National including the U.S. Forest Service; county and advance of the last glacier in Wisconsin. An avid Scientific Reserve to be administered by the municipal park and forestry departments; hiker, he proposed a continuous footpath, State of Wisconsin in cooperation with, and conservation, civic, and youth organizations; similar to the Appalachian Trail, as the central with assistance from, the National Park Service. and private volunteers and landowners. feature of the park so that visitors could explore and enjoy the glacial landscape at their In 1975, efforts to establish the trail accelerated Increasing development pressure along the trail own pace.

In 1958, the Ice Age Park and Trail Foundation trail. Congress recognized the national trail was needed. Land purchases with was established by a group of Wisconsin citizens significance of the trail and the efforts to privately-donated funds began in 1986. The to promote the creation of the national park. establish it in October 1980 by designating it a Wisconsin legislature responded by passing

Emmons Creek Fisherv Area

Rock County

across the State. In a few years, volunteers were route made it obvious by the mid-1980s that a successful in establishing major segments of the permanently protected right-of-way for the

Table Bluff Segment



Blue Hills



Gibralter Rock

monies are available to assist in acquiring lands for the Ice Age Trail. In 2000, Congress began annually appropriating land acquisition funds partners that acquire lands for the trail.

The National Park Service, through its administrative authorities for the trail, leads the effort to plan the permanent route of the trail and provides technical and limited financial assistance to cooperating partners. Today, almost 700 miles of the trail have been certified by the National Park Service as part of the Ice Age NST. Certification indicates the segment is developed and managed in accordance with approved trail plans and standards, and entitles the segment to be marked with the official trail emblem. An additional 200 miles of completed trail segments





Enjoying the Trail

Because many different public agencies and private interests are participating in the development and management of the Ice Age NST, users must be mindful that the type and width of lands protected for the trail varies. Support facilities, such as campsites, are not always readily avail-able. Rules and regulations governing use of the trail are not always the same on every segment.

Users of the Ice Age NST are urged to show their appreciation for the voluntary public and private efforts to develop and manage the trail by using it and related facilities properly and complying with any applicable rules and regulations. Users provide distance and directional infomation should be especially careful to respect the rights Uncertified segments are marked similarly, but Camping. For Day-Hikers: There are many of private property owners, particularly those lack the official Ice Age NST symbol. who have generously allowed the trail to cross when crossing private lands.

supplemented by yellow blazes and signs that addition, certain segments are open to urged to plan their trip in advance to assure open them in any way to hunting. In general, the 715-748-4875; www.fs.usda.gov



vww.iceagetrail.org and www.nps.gov/iatr.

and requires no permit. However, there may be iceagetrail. Above all, avoid trespassing and segments during hunting seasons. Trail users are fees and/or permits in connection with accessing violating private property rights. he trail, such as in Wisconsin State Parks (a vehicle sticker is required). The use of some facilities, such Interpretive Facilities. Major interpretive centers as campsites, may require the payment of a fee explaining the glacial history and geology of and/or obtaining of a permit. Users should check Wisconsin are located along the trail in the on trail segments, contact the following: with managing authorities in advance to Northern Unit of Kettle Moraine State Forest, Ice Age Trail Alliance, 2110 Main St., Cross Plains, determine fee and permit requirements.

campgrounds located on or near the Ice Age Trail. Fishing. A Wisconsin fishing license is required for Wisconsin Department of Natural Resources, For Backpackers: These same campgrounds can be fishing in lakes and streams along the trail. their land. Please stay on the trail, especially Permitted Uses. All segments of the Ice Age NST used by those on long-distance hikes. In addition, are open to travel by foot for hiking and many trail segments in the northern part of the Hunting. Many public and private lands through For information on camping reservations within opportunities. Donations of money, land, and



segments are open to other uses besides hiking, tions by consulting Trail guides published by the Ice seasons. However, some segments of the trail may consult the following websites: Age Trail Alliance. The following websites also be closed to use during some hunting seasons by provide helpful information: www.iceagetrail.org/overnight-options,and segments. Trail users should check in advance with Fees and Permits. Hiking on the Ice Age NST is free www.dnr.state.wi.us/org/land/parks/specific/ the managing authority regarding use of specific

> Interstate State Park, and Chippewa Moraine State WI 53528; 800-227-0046; info@iceagetrail.org; Recreation Area.

backpacking. Other non-motorized uses, such as state are open to trailside primitive camping or which the Ice Age NST passes are legally open to the Wisconsin State Park system, call: bicycling, horseback riding, cross-country skiing, feature campsites developed for backpackers. hunting. It is not intended that passage of the trail 888-936-7643. Trail Marking. Certified segments of the Ice Age snowshoeing, and jogging, are permitted on Similar opportunities are limited in the southern through these lands should in any way lead to NST are signed with the marker shown on the some segments by the policy of the managing part of the state, but trail partners are working to their closure to hunting. Similarly, passage of the Medford-Park Falls Ranger District, 850 North 8th map side of this brochure. These are authority responsible for the segment. In develop Dispersed Camping Areas. All users are trail through lands closed to hunting does not Street, Highway 13, Medford, WI 54451;

National Park Service U.S. Department of the Interior

Wisconsin known as the Driftless Area. Much

A mere 20,000 years ago, during the Ice Age, areas scratches, called striations, in the bedrock. Flowage in Taylor County and the Parnell Esker in In the areas of Wisconsin that were glaciated prior In striking contrast to both of these glacial glacial landscape is but 20,000 years old or

glacial landforms are subdued or unrecognizable. of this region is a rolling upland plain, with no Wisconsin's legacy from the glaciers and Lakes and bogs are much less common in this glacial sediment, which has been deeply cut by meltwater streams of the Ice Age is a landscape of older landscape. Most have either been drained by streams into a maze of narrow, twisting ridges and great diversity and beauty. The State's many lakes gradually lengthening streams, or filled with valleys. There are few natural lakes, bogs or and ponds, forested hills and ridges, and gently marshes in this part of the State. Several rolling farmlands remind us of the glacier's visi



Marquette Trail Segment

Marsh Marigolds Wood Lake Segment

National Scenic Trails





snowmobiling in winter. For information on which themselves proper overnight accommoda- trail will remain open to hiking during hunting the managing authorities responsible for those encouraged to wear blaze orange while using

segments open to hunting. Additional Information. For specific information

www.iceagetrail.org

Box 7921, Madison, WI 53707:



ce Age National Scenic Trail, 8075 Old Sauk Pass Road, Cross Plains, WI 53528-9018 (608) 798-8700; www.nps.gov/iatr You Can Help. While

Northern Blue Hills

most parts of the Ice Age NST that cross public lands have been completed. major portions of the trail that

must cross private lands remain to be developed. You can help establish additional segments of the trail and maintain existing ones by joining and/or volunteering for the nonprofit Ice Age Trail Alliance. Visit www.iceagetrail.org or call the https://dnr.wisconsin.gov/topics/parks/iceagetrail. Alliance for a full listing of volunteer easements for the trail are also needed. You can help complete the trail by giving a tax-deductible gift of this type to the Alliance.

Ice Age Trail



Description of the Trail Route

Trail generally follows the end moraines of eskers, and kames, amidst the interlobate of the recent glaciations in Dane County, branch follows the moraines through northern forest of spruce, fir, maple, and leather industry in the late 19th and early the most recent glaciations, although it moraine topography. The hiker will enjoy skirts Madison's western edge, and leads Columbia and Marquette Counties and birch in Langlade County, the trail enters a 20th centuries. diverges from them in several areas to marshes, prairie and oak savanna to several glacial meltwater channels cut joins together with the western branch in region full of lakes and bogs formed by include other features of the glacial remnants, and oak, hickory, and maple into the bedrock hills of the Driftless Area, Chaffee Creek Fishery Area. landscape and a glimpse of the Driftless forests, as the trail threads its way among such as the one in the Cross Plains Unit of Area.

From its eastern end at Potawatomi State the State. Park on Green Bay, the trail route follows the present and former shorelines of Lake In northeastern Rock County, the trail found along the trail—over 800 feet. Michigan, passing through Point Beach follows the end moraine through state State Forest and the cities of Two Rivers wildlife areas to the city of Milton, and At Devil's Lake State Park, the trail divides. retreated, passes through drumlin fields County. The segment in Chequamegon- Barron and Polk Counties, along the Saint and Manitowoc. The trail continues over then meanders through Janesville, The western branch passes through and among kettle lakes in Portage and Nicolet National Forest in Taylor County Croix National Scenic River, to its western the rolling upland of the Kettle Moraine utilizing its system of parks and Baraboo and winds north touching the Waupaca Counties, and continues north offers one of the most primitive hiking end in the Interstate State Park Ice Age on public and private lands for more greenways. In Green County, a segment of Dells of the Wisconsin River, which were across outwash plains and end moraines in experiences along the trail. While walking Reserve Unit. than 100 miles through Sheboygan, the trail follows the Sugar River State Trail, formed by glacial meltwater. The trail Marathon County. Washington, Waukesha, Jefferson, and affording an opportunity to explore the then crosses the flat bed of glacial Lake Walworth Counties. As the trail traverses landscapes left by previous periods of Wisconsin in Juneau and Adams Counties, In Langlade County and other counties to great white pine and hemlock forest that Kettle Moraine State Forest, it winds along continental glaciation.

densely populated southeastern portion of The resistant quartzite of the Baraboo and along the Mecan River and several feet—is reached on the shoulder of Reserve. Bearing north, the trail goes over

National Scenic Trail Wisconsin

National Park Service U.S. Department of the Interior

along moraines deposited as the glacier in Wisconsin—1,951.5 feet—in Price route winds through the dairy country of

the melting of the glacier. In the In Chippewa County, the trail again winds the crests of eskers in the national forest, one gets a hint of what was once the passing sandstone buttes rising among the west, long segments of the trail provided the lumber to build the cities of

The route of the Ice Age National Scenic outstanding examples of kettle ponds, The trail route returns to the end moraine black oak and jack pine. The eastern traverse county forest lands. Amid the the Midwest, and the tanbark for the

lake-sprinkled Harrison Hills of Lincoln among numerous lakes and bogs in the the many towns and villages of the the Ice Age National Scientific Reserve. The trail winds among numerous kettles County, the high point of the trail-1,920 Chippewa Moraine Unit of the Ice Age Hills halted the glacier's advance in Sauk other trout streams as it follows the Lookout Mountain. Timm's Hill National the high quartzite shoulder of the Blue County and provides the greatest relief hummocky topography of the moraine in Trail, a side trail in eastern Taylor County, Hills in Rusk County amid small streams in Waushara County. The route swings east leads north 10 miles to the highest point an ash, birch, and maple forest. The trail