

Sleeping Bear Dunes

NATIONAL LAKESHORE • MICHIGAN

SLEEPING BEAR DUNES NATIONAL LAKESHORE

The Philip Hart Nature Trail is a 12-kilometer (7.6-mile) loop motorcar road that goes through forests and over the dunes. Scenic overlooks offer magnificent views of Glen Lake, the Sleeping Bear, the Lake Michigan shoreline, and the Manitou Islands. A quiet, more intimate look at the countryside is yours if you drift down the Platte River in a canoe. As you slip along on the smooth current past several miles of undeveloped riverbank, the natural wilderness, now mostly gone, is seen again for the span of 2 to 3 hours.

Some 48 kilometers (30 miles) of marked cross-country ski trails invite you to use this winter wonderland. There is usually sufficient snow cover by mid-December, and it generally lasts into March. These trails are also enjoyable in the other seasons of the year.

Within your reach, too, are the essentials for many moments of quiet reflection. Crush some hemlock needles and smell their north woods fragrance. Let the crystalline sand sift through your fingers. Dangle your feet in cool flowing streams. Peer down through clear, sunlit water at the pattern of the sandy bottom below. Breathe deeply of the clean air.

A LARGE ESTATE FOR THE AMERICAN PEOPLE

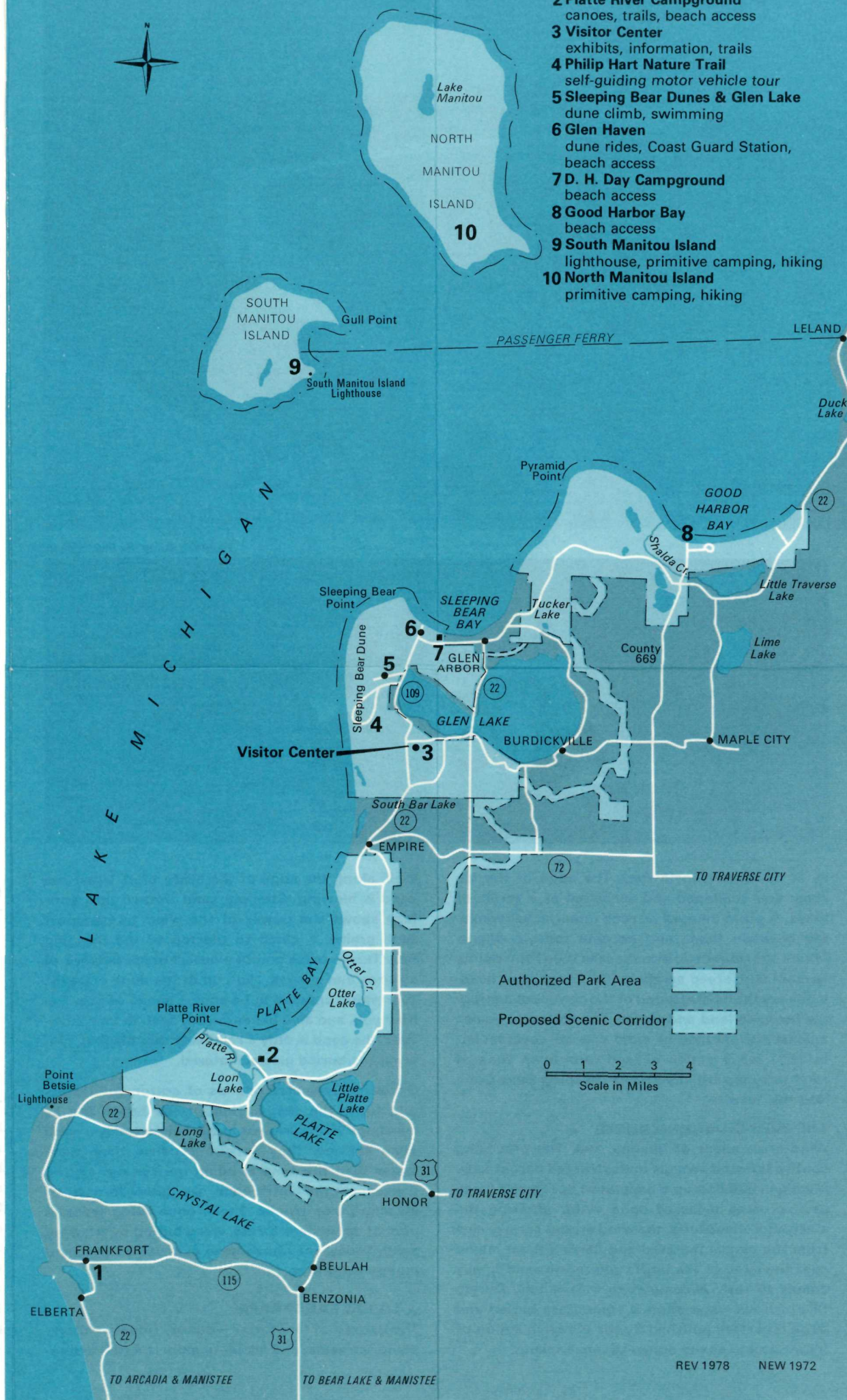
When all authorized lands have been acquired, Sleeping Bear Dunes National Lakeshore will contain some 25,490 hectares (63,000 acres). Of this, the Manitou Islands comprise about one-third. The park will include 48 kilometers (30 miles) of Lake Michigan shoreline. Land is still in private ownership. PLEASE RESPECT THE RIGHTS OF THE PRIVATE PROPERTY OWNERS.

A north-south 48-kilometer (30-mile) scenic corridor, providing spectacular views from the tops of the high glacial ridges, will tie the three mainland sections of the Lakeshore together. Portions of this corridor may be used for a low-speed scenic roadway; other segments are suitable for hiking, bicycling, and cross-country skiing. The land within the corridor is being acquired at this time.

In addition to the existing facilities, new overlooks, trails, picnic areas, visitor centers, and beach facilities will be developed. Provision will be made for hiking, horseback riding, bicycling, swimming, canoeing, and sailing. The National Park Service recognizes the important recreational value of existing private resorts and cottages. This value, largely dependent on the natural charm of the region, will be enhanced by the existence of the park.

A SAFETY NOTE

Steep lakeshore bluffs are hazardous to climb and descend because of landslides and slumpage. On Lake Michigan, weather conditions can change drastically in a short time. If you are boating, be aware of the weather forecast and carry appropriate safety equipment.



- 1 Frankfort**
headquarters, information
- 2 Platte River Campground**
canoes, trails, beach access
- 3 Visitor Center**
exhibits, information, trails
- 4 Philip Hart Nature Trail**
self-guiding motor vehicle tour
- 5 Sleeping Bear Dunes & Glen Lake**
dune climb, swimming
- 6 Glen Haven**
dune rides, Coast Guard Station, beach access
- 7 D. H. Day Campground**
beach access
- 8 Good Harbor Bay**
beach access
- 9 South Manitou Island**
lighthouse, primitive camping, hiking
- 10 North Manitou Island**
primitive camping, hiking

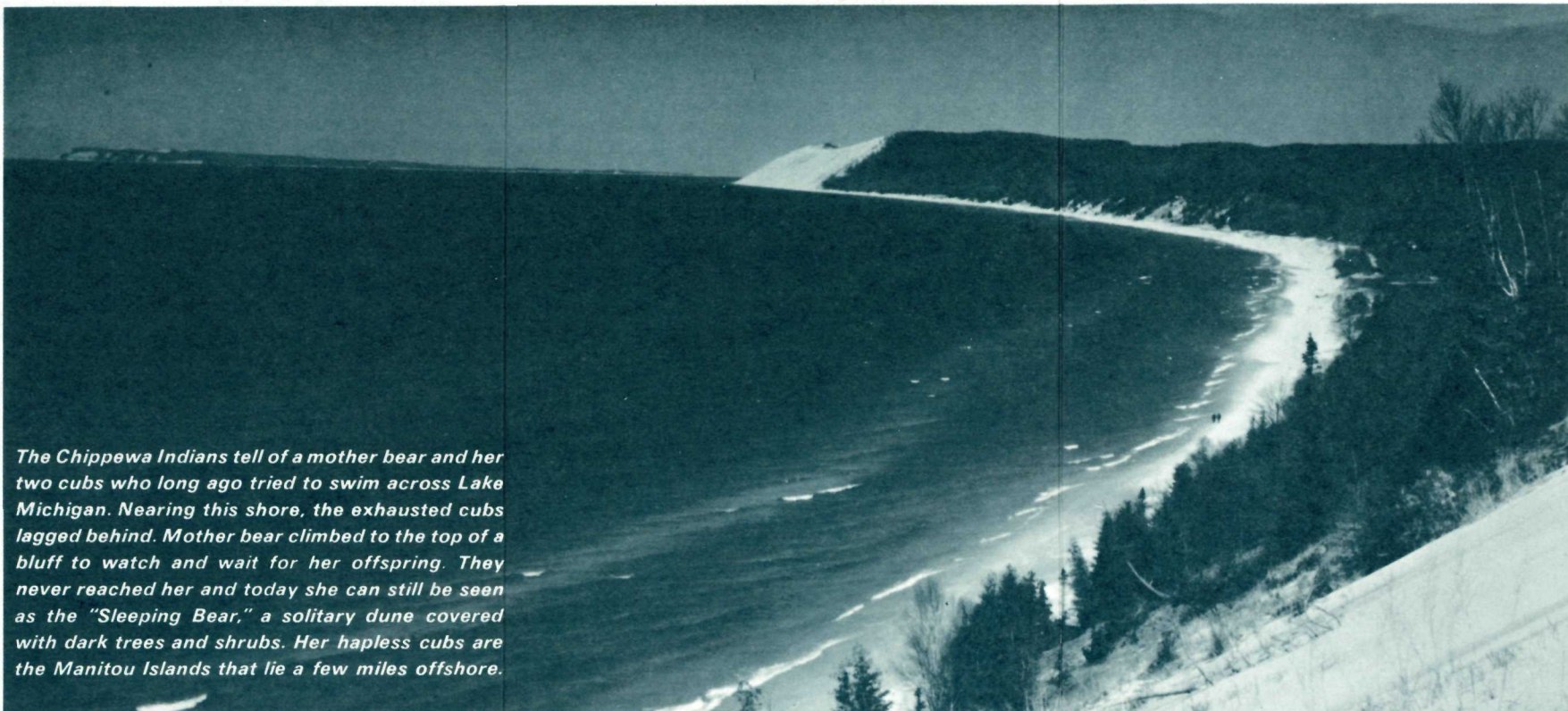
Much of the park is still privately owned. PLEASE RESPECT THE RIGHTS OF THE PROPERTY OWNERS. DON'T TRESPASS ON PRIVATE LANDS.

ADMINISTRATION

Sleeping Bear Dunes National Lakeshore, authorized on October 21, 1970 is administered by the National Park Service, U.S. Department of the Interior. A superintendent whose address is 400 Main Street, Frankfort, MI 49635, is in immediate charge.

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interests of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in Island Territories under U.S. administration.

National Park Service
U.S. DEPARTMENT OF THE INTERIOR



The Chippewa Indians tell of a mother bear and her two cubs who long ago tried to swim across Lake Michigan. Nearing this shore, the exhausted cubs lagged behind. Mother bear climbed to the top of a bluff to watch and wait for her offspring. They never reached her and today she can still be seen as the "Sleeping Bear," a solitary dune covered with dark trees and shrubs. Her hapless cubs are the Manitou Islands that lie a few miles offshore.

FOOTPRINTS OF THE GLACIERS

What the scientific explanation for the origin of these dunes lacks in legendary charm, it more than makes up in awesome drama. Four times continental glaciers assaulted this area, conquered and burdened it with millions of tons of ice, in vast sheets perhaps a mile thick. They made and unmade three huge lakes—first Lake Algonquin, then Lake Nipissing, and finally Lake Algoma. These are the ancestors of our Great Lakes. Upon this Michigan lakeshore, the glaciers left their footprints, now seen in the varying levels of those ancient lakes, clearly identified by the wave erosion on rock ledges along the lake. All this happened between 20,000 and 11,000 years ago—only yesterday in the earth's history.

The earth's atmosphere continued to warm up, and the glacier to melt. As the ice disappeared northward during the great thaw, which is still in progress, a tremendous quantity of rock, sand, and silt was deposited by the glacier or sluiced by its melt water to create the ridges and hills, the lowlands and lakes of the present park landscape. Pick a pebble off the beach and you may hold a fragment plucked from the Canadian highlands, far to the north, and carried tediously south by the advancing glacier. It is a reminder that they may come back again. Other glacial marks and depositional features make this park an excellent outdoor museum.

Old shorelines of the stages of the ancestral lakes can be recognized miles inland and higher than the present beaches. Notice on the map how the present shore consists of rounded headlands, such as Platte River, Sleeping Bear, and Pyramid Points. Separating these points are long sweeping embayments, such as Platte, Sleeping Bear, and Good Harbor Bays. This sinuous shoreline traces the rough outline of the glacier as it paused temporar-



Padding along the Platte River.

ily in its retreat northward. The edge of the ice sheet was scalloped and consisted of a series of lobes. A great amount of rock material accumulated between lobes and became today's ridges. Where the ridges run into the lake they form points faceted with steep sandy bluffs. These high headlands are the battleground of the continuous struggle between land and water. The action of waves against the masses of sand can be spectacular. In 1971 wave action caused tons upon tons of sand to slump off the end of Sleeping Bear Dune into the lake.

THE EVER-CHANGING DUNES

Wind is an agent of change, too. The prevailing southwest wind sweeps unobstructed across Lake Michigan building up tremendous speed and force as it crosses miles of open water. Striking the steep shoreline bluffs, the wind erodes sand grains from the glacial material and carries them inland over the edge of the bluffs where the sand finally comes to rest, accumulating into dunes. During this process, vegetation is sometimes buried and large rocks are polished by the abrasive action of blowing sand as the dunes advance inland.

Walk along the edge of the steep bluff when the wind is blowing. Stinging sand thrown into your face shows the power of the wind to transport sand grains. A climb to the top of the Sleeping Bear Dunes takes you to a desert of sand dunes of all sizes and shapes. High up in the dune country, everything appears to be sand—ahead of you, behind you, and also beneath your feet. In fact, however, the sand is only a relatively thin blanket covering the buried glacial material.

Occasionally sparse clumps of cottonwood trees punctuate the scene. These trees began life as seedlings that germinated far below today's sand dune surface. They survive because they grow faster than the sand is piling up. Far out on the dunes, near the bluff's edge, are "ghost forests" of bleached tree trunks. These once living trees, a part of an ancient forest, were buried by blowing sand. Today, they have been exposed as the sand moves elsewhere.

A LIVING LANDSCAPE

The variety of landforms—dunes, ridges, valleys, plains, streams, and lakes—supports a rich divers-

ity of interrelated plant habitats. The sand dune deserts contrast strikingly with the hardwood forests. In autumn a glowing tapestry unfolds the yellows of beech and basswood, the bronze of oaks, and the flaming scarlet of maples. Elsewhere are stands of green and aromatic pines, dense cedar swamps, and even a few secluded quaking bogs of sphagnum moss. Against this green background are stands of chalk white birches.

A VARIETY OF WILDLIFE

The Lakeshore's diverse habitats, in a natural and healthy condition, can support life of many different kinds. More than 220 species of birds can be seen here.

Where there are trees, there are apt to be porcupines, and with a little luck you may come across one eating the green inner bark of a young tree. You may also startle a deer in an aspen thicket, surprise a fox stalking a snowshoe hare, or catch the scent of skunk on the breeze. Bobcats seldom show themselves, but after a snowfall you can often track them. Maybe you'll glimpse a snowy owl as it surveys the scene below.

A FISHERMAN'S PARADISE

Fishing is good. Beginners are soon rewarded with panfish like rock bass, bluegill, or perch. Bass, pike, and rainbow trout test the skill of those in search of gamefish. It is during the autumn coho salmon run, however, that fishing fervor reaches a peak. The coho is an aggressive saltwater species introduced into Lake Michigan in the 1960s. Lake trout, steelhead, and brown trout also provide a challenge. A Michigan fishing license is required.

CAMPING

The Platte River and D.H. Day campgrounds are operated by the National Park Service. Camping is limited to 14 days and campgrounds are usually filled to capacity during the summer. Backcountry camping, by permit, is allowed only in designated areas on the mainland and on the Manitou Islands. Backcountry campers should bring camp stoves with them.

INTERPRETIVE PROGRAMS

These programs, scheduled from mid-June through Labor Day, offer you the opportunity to enjoy and better understand the park. There are conducted walks, self-guiding trails, evening campfire programs, and publications dealing with the natural and cultural history of the area. Schedules of all activities are available at campground ranger stations, the visitor center, and Lakeshore headquarters in Frankfort.

THE PRESENT-DAY PARK

Before you start exploring the park, stop at the visitor center where you'll find information and exhibits about the many land and water features of the region. Then begin your visit, perhaps by climbing Sleeping Bear Dunes. From the top, you can see a magnificent panorama of Glen Lake and the surrounding countryside or you can hike the 3.2 kilometers (2 miles) across rolling sand to the high overlooks rising 137 meters (450 feet) above Lake Michigan. You can also reach the dunes and overlooks by riding in a commercially operated dune-mobile.