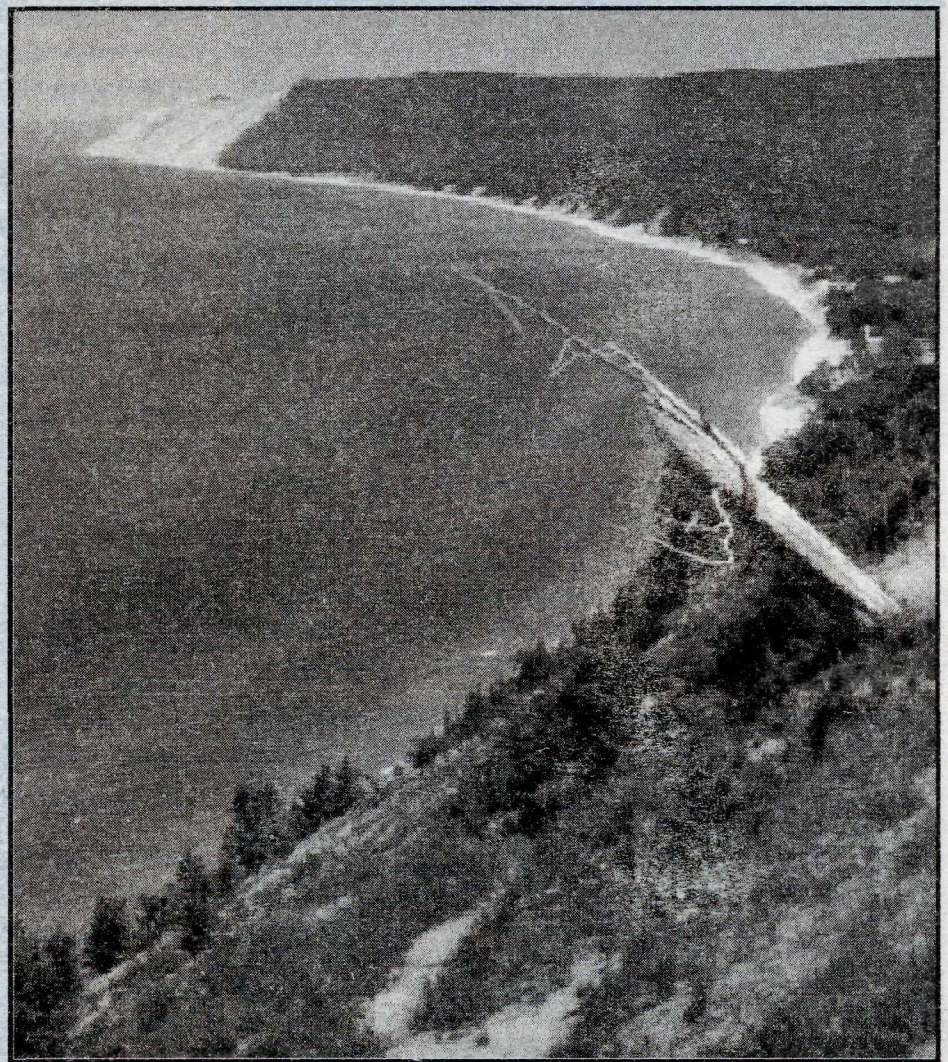


# View from the Dunes

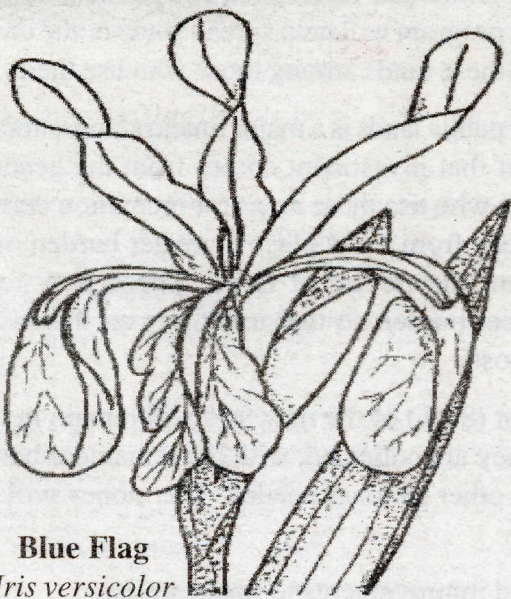
The Official  
Publication of  
Sleeping Bear Dunes  
National Lakeshore

Summer - 2000

FREE



*View of Sleeping Bear Dunes  
from the dunes at Empire Bluff.*



Blue Flag  
*Iris versicolor*

## What's Inside?

**NEW!**  
**National Parks Pass!**

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## Greetings from the Superintendent

Welcome to Sleeping Bear Dunes National Lakeshore! One of five National Park areas in the state of Michigan, Sleeping Bear Dunes has served the recreational needs of visitors for thirty years. The lakeshore is one of the most frequently visited National Park areas in the Midwest.

The year 2000 is special for Sleeping Bear Dunes, being the 30th anniversary of its establishment as a National Park unit. This milestone will be celebrated with the issue of a commemorative postal cachet on July 27, marking the passage of the initial legislation. The park will also host a birthday party on October 21 in honor of the official signing by the President making it the second National Lakeshore in the country.

Congress saw fit to preserve Sleeping Bear Dunes for the benefit of future generations because of its significant natural and cultural resources. The grandeur of the dunes aside, there are numerous other features that make this area a unique recreational and

educational experience for the whole family. Sculpted by receding glaciers some 10,000 years ago, the area's hills, forests, lakes and streams provide an excellent classroom for observing the natural world and learning how we can do our part to care for it: Yes, we *can* learn to be good stewards of the land we all share and enjoy!

As you travel through the park, you will also notice the many ways in which people have affected the development of the area. These cultural resources include the farmsteads that dot the countryside, the maritime facilities that serviced Lake Michigan and the remnants of towns where lives and livelihoods were enjoyed.

We encourage you to address any needs to one of our uniformed staff or volunteers and, by all means, enjoy your stay at Sleeping Bear Dunes National Lakeshore.

Sincerely,

Ivan D. Miller, Superintendent

*Postmaster: Please rush this information to:*

**First Class Mail**

For the enjoyment of all of our visitors, new and returning alike!



## Fun Things to See & Do While Visiting Sleeping Bear Dunes!



### ☒ Tour the Pierce Stocking Scenic Drive

Also off of M-109 between The Dune Climb and highway M-22, the 12 km (7.4 mi) Scenic Drive will provide one of your most memorable experiences in the park. Beautiful picnic areas, hiking trails and world-class vistas await you around every curve!



### ☒ Climb the sand dunes!

Head for The Dune Climb! Located on M-109 just south of Glen Haven, this 60 m (200-foot) hill of pure, soft sand begs to be climbed, rolled down and repeated numerous times! It is the perfect, safe place for kids to expend some pent-up travel energy... and for adults to be kids again, too! Be sure to visit The DuneCenter while you're at it.



### ☒ Help with a Life-Saving Rescue

Raggedy Ann and Andy are sailing Lake Michigan when they are caught in a sudden storm and need your help! Quick - head for the old Coast Guard Station (the Maritime Museum) and help the ranger rescue them! This exciting re-enactment of the daring rescues performed by the U.S. Life-Saving Service happens every afternoon during season...

### ☒ Be a Junior Ranger!

Stop at the Visitor Center in Empire to obtain your Junior Ranger Workbook (\$1<sup>50</sup>). Complete the fun challenges throughout your visit and bring it back to the Visitor Center for your Junior Ranger Patch!



## NEW National Parks Pass!

The new National Parks Pass is an excellent way to support America's National Parks while receiving good value for your travel dollars. Valid for one year from date of purchase ..... **\$50.00**

### The 'Golden' Passport Programs

The Federal government offers "passports" that are valid for a wide variety of facilities. These 'Golden' passports admit the cardholder and their party (within one *non-commercial* vehicle) to most National Parks, monuments, historic sites, recreation areas and national wildlife refuges that charge an entrance fee.

**Golden Age Passport**  
for citizens 62 and over,  
Lifetime pass: . **\$10.00**

**Golden Access Pass.**  
for disabled citizens: **Free**

**Golden Eagle Passport**  
any age, valid for one year  
from the date of purchase:  
..... **\$65.00**

## VIP's Make a Difference!

Americans have enjoyed a love affair with their National Parks since Yellowstone, our first National Park, was created in 1872. Now you can help the National Park Service care for your parks by joining the 70,000 people nationwide who volunteer their time and talents to help us safeguard this heritage each year.

At Sleeping Bear Dunes in 1999, 702 VIP's (Volunteers-In-Parks) donated 19,583 hours of work: an estimated value of \$280,037! VIP's have assisted park personnel in all facets of park management: maintenance to natural resources; from administration to visitor services to fee collection. VIP's are an integral part of providing services to visitors at the park's campgrounds.

To apply for VIP work, fill out the application form found in the "Volunteers" brochure available at park facilities and submit it. The coordinator will review the application and pass it along to the park supervisor who best matches your skills and interests.

**Many thanks to all of the VIP's!**

## 2000 Fees at a Glance

**Park Pass** ..... **\$7.00**  
per vehicle, valid from 1 to 7 days

**Annual Pass** ..... **\$15.00**  
valid January 1 to December 31

### Commercial Tours

Passenger Vehicle (1-6) ..... \$25.00  
Van (7-15) ..... \$40.00  
Mini-Bus (16-25) ..... \$40.00  
Motorcoach (26+) ..... \$100.00

### School Groups

Fees for bona fide educational groups (public & private schools) are waived with prior application to the park.

**Please hang your Annual Pass from the rear view mirror while in the park. All other passes should be displayed on the driver's side of the dashboard in plain view. The only time that you need a pass to be on your person is when you are visiting one of the Manitou Islands. Thank you!**

## Why Entrance Fees?

Welcome! The National Lakeshore is being cared for today and preserved for future generations by the American people. This dual objective use and preservation comes at a price: protecting our natural and cultural heritage while ensuring that everyone has a safe, enjoyable and educational experience costs money.

Even as the number of visitors to National Parks continues to climb due to the popularity of the national treasures, government funding available for facilities and services has not kept pace with demand. In 1996, to address these needs, Congress directed the U.S. Department of the Interior to implement the Recreation Fee Demonstration Program. The program will help spread some of the costs for managing these lands among those who use them.

Managing our public lands is a major financial investment. While most of that investment comes from the general tax base, those who use these areas for recreation derive a greater benefit from - and place a greater burden on - resources than the public at large. These new fees redistribute that burden so that users pay an increased share of the costs.

Eighty percent (80%) of the new fees will remain in the park where they are collected, with the remainder being distributed to other parks as needed. The money will be used for:

- ◆ Repairs and improvements to roads, trails, buildings and campgrounds.
- ◆ Improved signs and exhibits.
- ◆ Educational programs, guided walks and hikes, and other visitor activities.
- ◆ Natural habitat protection.
- ◆ Stabilization and restoration of historic structures.
- ◆ Visitor Safety and protection.

The future of these public lands rests with all American citizens. The action we take today will reflect the price we are willing to pay to pass these lands on to future generations, protected and in better health. We need and welcome your support.

Thank you!

**USERFee**

*improves this park*





## LAKESHORE GENERAL MANAGEMENT PLAN UNDERWAY

It has been over 20 years since the development of the first general management plan (GMP) for Sleeping Bear Dunes National Lakeshore. To ensure that the Lakeshore can continue to protect its special resources and provide meaningful visitor experiences in the future, the National Park Service has embarked on the development of a new GMP.

This new plan will provide a 20-year framework for making management decisions about protecting Lakeshore resources while providing for use and enjoyment by visitors.

During the course of this two-year process, we will be asking a number of fundamental questions: What should we be doing to ensure that visitors continue to have a quality experience while visiting the Lakeshore? What levels and types of use are appropriate for the Lakeshore? How should we manage the Lakeshore's natural resources as well as its cultural resources?

The plan will follow a logical, systematic process with four key steps:

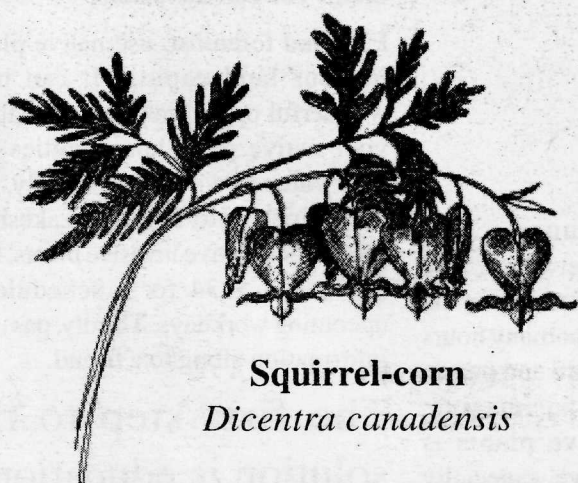
- Collect data and identify issues (Winter 1999 - Spring 2000)
- Develop and evaluate alternatives (Summer 2000 - Winter 2000)
- Prepare and publish a draft plan/EIS (Spring - Summer 2001)
- Revise and publish the final plan (Winter 2002)

We invite you to help us find answers to the above questions and determine the future of Sleeping Bear Dunes National Lakeshore.

Your views are important to us. At various points in this two-year planning process we will be asking for participation and input from the general public (both locally and nationally), the State of Michigan, other federal agencies, and special interest groups. The public may participate in this process by reviewing and commenting on newsletters and the draft and final plans, as well as participating in public meetings.

Newsletters were distributed in Fall 1999 and Spring 2000; others are planned for Summer 2000, and Winter 2001. A public meeting in December 1999 was the first of a number of public meetings.

Updated GMP information, including newsletters and the draft plan, will be placed on the Lakeshore's website, [www.nps.gov/slbe](http://www.nps.gov/slbe), during the planning process. Comments may be made at any time in the planning process by writing us at Superintendent, Sleeping Bear Dunes National Lakeshore, 9922 Front Street, Empire, Michigan 49630; calling us at 231-326-5134; or emailing us at [slbe\\_gmp@nps.gov](mailto:slbe_gmp@nps.gov).



**Squirrel-corn**  
*Dicentra canadensis*

# Current Lakeshore Projects and Issues

## Historic Properties Management Plan

The Historic Properties Management Plan has begun its third year in the process of identifying potential uses and partnerships for many of the vacant historic structures and cultural landscapes within the park boundary.

Successful partnerships for historic buildings have been developed with Shielding Tree Nature Center at the Lawr Farm in Port Oneida, and with St. Paul's Lutheran Church with the Kropp Farm's Granary.

Additional partnerships are being negotiated with the American Youth Hostel and with the Glen Arbor Artists Association.

Groups and individuals with additional ideas for creative partnerships should contact the park with their proposal.

The public meeting phase has been completed and the task to incorporate comments into a final plan is before the park staff as of this writing.

The planning process has brought to light the importance of these historic buildings on their cultural landscapes. The park has placed a greater emphasis on the protection of these fascinating structures.

Assistant Superintendent, Duane Pearson, has developed a fund that will match up to \$25,000 in



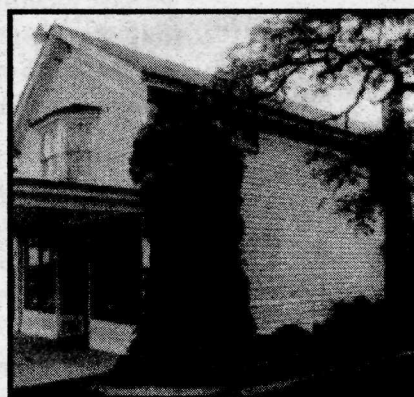
*The Charles Olsen house in Port Oneida.*

materials or money that will go towards the exterior stabilization of one of these vacant historic structures. This program will help existing partnerships and potential partners to realize a maximum return on the money they are raising to stabilize these structures.

Because of the publicity and the greater emphasis on historic structure stabilization, the park also successfully competed for \$99,000 worth of Historic Structure Stabilization money from the Midwest Regional Office for this coming year. The majority of projects were for roof repair. These projects included \$15,000 for the Katie Shepherd Hotel and Wing Cottage on North Manitou Island, \$30,000 for the two Carstens Burfiend houses in Port Oneida, \$13,000 the Brunson and Thoreson Barns in Port Oneida, and \$16,000 for the Warner and Bumgardner Houses in Glen Haven. Additional projects that were funded include \$19,000 to finish exterior work at the Charles Olsen farmstead in Port Oneida, and \$6000 to stabilize the Shalda Log Cabin on M-22 and 669.

The plan also helped organize the public group, Preserve Historic Sleeping Bear. Preserve Historic Sleeping Bear's mission is to educate the public on the importance of these historic structures and their cultural landscapes, be an advocate for their protection, and function in a fund raising capacity, acting on behalf of the park in soliciting private funds. Information on how to join Preserve Historic Sleeping Bear is located in the Visitor Center, or by writing to them at P.O. Box 453, Empire, MI 49630.

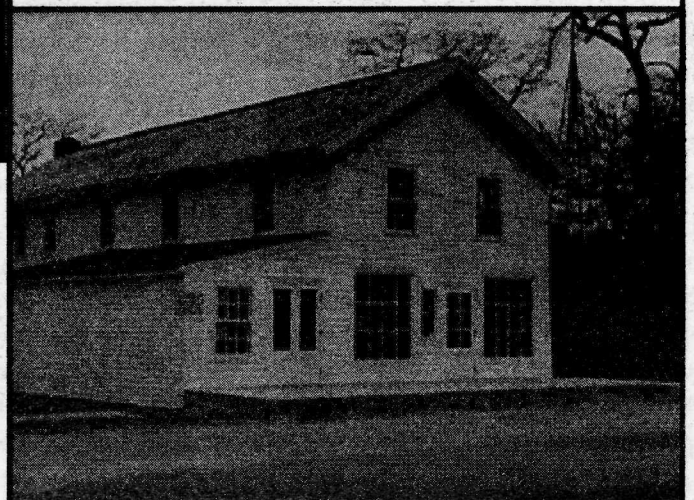
See page 7 for more on Preserve Historic Sleeping Bear.



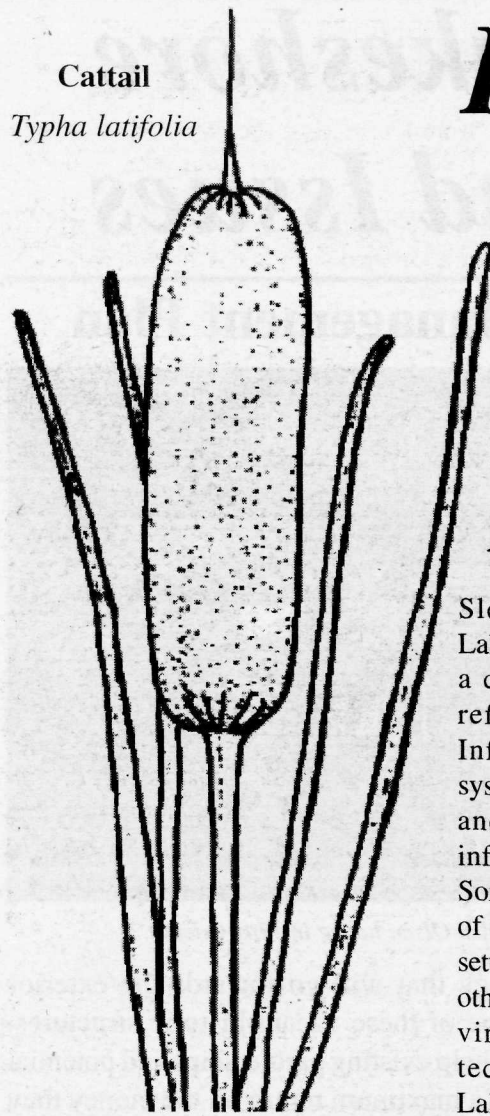
*The photo above shows the store prior to rehabilitation. Current plans are for the facility to house an interpretive theater, 'General Store' and District Ranger offices. This work has been accomplished thanks to visitor support of the lakeshore's Fee Demonstration Program.*

### New Life for D.H. Day Store

The D.H. Day Store in Glen Haven is looking much better these days thanks to the hard work of the lakeshore's maintenance staff. They have skillfully reworked the building's exterior to its 1930's state.







Cattail  
*Typha latifolia*

### Native Species

### Non-native Species



Purple  
Loosestrife  
*Lythrum salicaria*

## NON-NATIVE PLANTS: THE GROWING THREAT

We are battling a major natural resource problem, not only in the National Lakeshore, but also in the entire United States: Eradication of non-native plants.

Invasive plants are predominately non-native (also referred to as alien or exotic), which are defined as those species that have been transported to an area often from another continent, mainly since European settlement.

The reason why many exotic plants pose a threat to native plant

# Resource Management at Sleeping Bear Dunes National Lakeshore

## A NEW TECHNOLOGY AT SLEEPING BEAR

Sleeping Bear Dunes National Lakeshore has recently started using a computer mapping system, often referred to as a Geographic Information System (GIS). This system has the ability to produce maps and data, using the most recent information available on the park. Some of the data used in the system is of a historic nature, such as the pre-settlement vegetation of the area, while other information is of the most recent vintage, collected by satellite technology. GIS enables the Lakeshore staff to make decisions based on the best and most recent information available.

### WHAT IS GIS?

GIS is an automated mapping tool for storing, updating, displaying, and analyzing geographically referenced information. It is essentially a computer-based system of themes or layers (i.e., rivers theme, roads theme, buildings theme, soils theme, vegetation cover theme, etc.) containing specific data, which can be manipulated and analyzed.

### WHY USE A GIS?

The strength of a GIS is its ability to integrate and analyze information from different sources and present it in a usable form. GIS can be an essential tool for managers and scientists to more efficiently answer questions and address problems. Managers have lacked a comprehensive system with

communities is due to the fact that they often lack the natural population controls, such as insects and diseases that keep them in check in their natural ecosystems. Many of the insects and diseases that feed on or infect our native plants have not yet adapted to make use of non-native plants. Thus exotic plants have a significant competitive advantage over natives.

Exotic plants do so well at out-competing native plants for resources such as sunlight, nutrients, and water that they begin to take over areas that were originally inhabited by native plants. The decline of native plant populations triggers a decline in animals dependent on native plants for food and shelter.

Not all non-native plants are a threat. They are only a threat if they become invasive. Invasive plants can be thought of in terms of mobility. If the plants spread rampantly, out-compete most native plants and are prolific seed producers then they're considered



which they could efficiently integrate resource information, model and assess impacts, and develop pro-active planning and management. The technology available through a GIS makes this kind of analysis possible.

### HOW ARE GIS THEMES (DATA) COLLECTED?

Data are collected in several ways. One way is referred to as digitizing. Digitizing is the process of geographically registering a map which is placed on a digitizing board and tracing the features of that map

invasive, and relatively speaking, quite mobile for a plant.

Our intent for writing this article is to raise public awareness concerning invasive plants. Here at the Lakeshore, we have identified nine target species that we believe to be the most threatening to our natural ecosystems. The list includes:

- Baby's Breath
- Black Locust
- Common Reed
- Garlic Mustard
- Leafy Spurge
- Myrtle
- Purple Loosestrife
- Scotch Pine
- Tree of Heaven

Last year alone, volunteers and employees eradicated between 25-30 acres of baby's breath growing on the dunes. We have also spent many hours eradicating garlic mustard and purple loosestrife. As one can imagine, eradication of invasive plants is extremely labor intensive, especially

(roads, boundaries, etc.) using a device which is similar to a computer mouse. Another method of data collection is to use a Global Positioning System (GPS). A GPS allows a person to go into the field and collect waypoints (geographic positions) by receiving satellite signals. The points can then be downloaded into a computer and brought into the GIS. We have collected several of our themes (buildings, trails, threatened and endangered species locations) using a GPS.

### HOW IS GIS USED AT SLEEPING BEAR?

Although GIS is a relatively new technology at the Lakeshore, it has proven to be very beneficial, especially during the current process to develop a new General Management Plan (GMP) for the Lakeshore (refer to page 3 for more details about the GMP). GIS has also provided cultural maps containing information such as prime and unique soils, cultural landscape boundaries, historic structures, and natural features for the Lakeshore's Historic Properties Management Plan/ Environmental Impact Statement.

At this point, the sky is the limit for GIS applications. The bottom line is that GIS facilitates more timely, efficient and accurate decision making by all divisions of the park staff. Who could ask for anything more?

when physical control (i.e., hand-pulling, cutting, digging) is predominately used. For many plants and conditions, hand-cutting is the most effective and safest method of control, although we have employed herbicides and insect introductions in the past to control specific plants.

Unfortunately, the spread of invasive plants is not an isolated problem only found in the Lakeshore. While it is universal in scope, there are several things you can do to help.

First and foremost, use native plants in your landscaping. It can be a wonderful opportunity to learn about your native plant communities and their value to wildlife. Secondly, you can volunteer to help the Lakeshore control non-native invasive plants. Call (231) 326-5134 for a schedule of upcoming workdays. Thirdly, pass this information along to a friend.

The first step to the solution is education!



## Water Quality at Sleeping Bear Dunes N.L.



Park staff member collecting a water sample from Bass Lake

Water is a precious commodity in the Sleeping Bear Dunes National Lakeshore. Today you hear more about water quality issues and how scientists are monitoring the water quality of lakes, rivers, and public water systems. Only 3% of the world's water is freshwater, and of that 3%, less than 1% is accessible. That is why it is very important that we keep our water clean and healthy, not just within the National Lakeshore, but around the world.

Sleeping Bear Dunes is an aquatic park; water is the most dominant feature of all the park's resources. Chances are that no matter where visitors go within the park, water will be a main factor in their recreational activities. This could include canoeing, boating, fishing, observing wildlife, swimming, or just enjoying majestic views of Lake Michigan and the Glen Lakes. Therefore, to understand the health of our watersheds, we look at our water.

To ensure that all the aquatic ecosystems in the park remain healthy, technicians periodically monitor water quality throughout the park, looking for any changes in a lake or stream's ecosystem. The technicians observe the overall conditions such as the water chemistry and biological communities of our inland lakes, streams, and watersheds. Knowledge gained from water monitoring can be used to help make decisions about the impacts we have on our park's environment.

One of the main focuses of the park water quality program has been to determine the presence of *E. coli* (an indicator of fecal coliform bacteria). *E. coli* is the most common bacterium present in the human gastrointestinal tract and serves as an indicator of fecal contamination. We are all "infected" with *E. coli* and it is usually in no way harmful. The problem is that when *E. coli* is present, other harmful bacteria are usually around as well.

Beginning in June, 1997, Sleeping Bear Dunes N.L. engaged in a pilot study on *E. coli* within the park. There were seventeen sites chosen within the park for monitoring to determine if and where there could be potentially harmful levels of *E. coli* in public recreation areas.

When evaluating the sites for *E. coli*, Little Glen Lake was found to occasionally have elevated levels. The source of the high *E. coli* counts at Little Glen Lake Picnic Area could be human, pets, waterfowl, or any other warm blooded vertebrates. To estimate the degree of fecal contamination, Little Glen Lake is monitored once a week, and during random weather conditions. It has been determined that the *E. coli* levels in Little Glen Lake are elevated during very windy or rainy days. It is

recommended that you avoid water contact at Little Glen Lake on very windy or rainy days. We are currently assessing various methods to decrease the levels of *E. coli* found in the waters at the Little Glen Lake Picnic Area. Feeding of the ducks, geese, or swans at Little Glen Lake (or any lake for that matter) should not be done, as this will increase levels of *E. coli*.

The main threats to park waters are pollution from beyond park boundaries. Examples include airborne pollutants and watershed impacts such as development upstream from the park boundaries.

Other threats include Aquatic Nuisance Species such as zebra mussels that can be accidentally introduced into the inland lakes. To prevent the spread of zebra mussels and other aquatic nuisance species within the inland lakes, please follow these steps each time you use a boat:

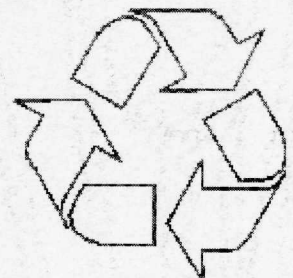
- Remove any visible aquatic plants or animals from your boat and trailer.
- Drain water from the boat, live wells, and bilge compartments.
- Spray the boat hull with water that is either 140 degrees F. or mix 3/4 cup of salt to one gallon of water and spray the equipment to destroy organisms.
- Remember that any equipment used in the water has the potential for transporting zebra mussels from one body of water to another.

If you canoe, fish or swim in one of the lakes and streams within Sleeping Bear Dunes National Lakeshore, you may see park staff at work, checking the quality of park waters. They will be in a little boat with odd-looking equipment, collecting water samples. Please feel free to ask them questions about the water quality monitoring program and the equipment they use. They are proud of their responsibilities in protecting the integrity of our lakes and streams.

## RECYCLING AT SLEEPING BEAR

You can help the Park Service conserve many resources and minimize waste disposal costs by recycling. Recycling stations at both mainland campgrounds accept glass, cans and #1 & #2 plastics. Additionally, glass containers and cans may be recycled at the park Visitor Center in Empire and at the Dune Climb area.

In order to make the recycling program practical, we ask that you deposit only items which have been properly sorted, and which are clean.



Thank you for your conscientious participation!

## The Mission of the National Park Service



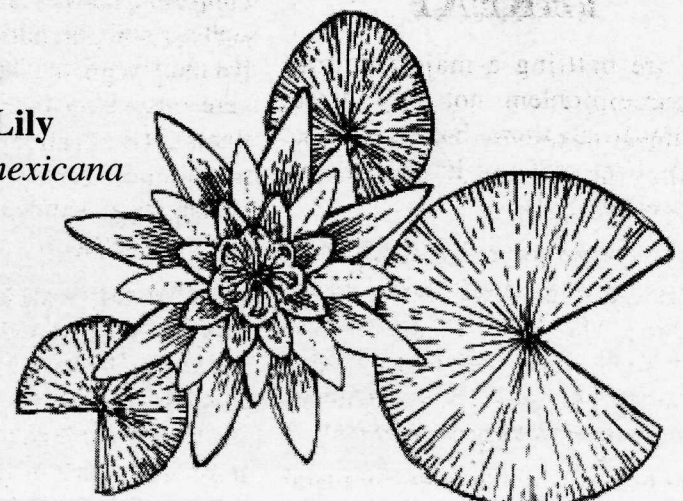
The National Park Service preserves unimpaired the natural and cultural resources and values of the National Park System for the enjoyment, education, and inspiration of this and future generations. The Park Service cooperates with partners to extend the benefits of natural and cultural resource conservation and outdoor recreation throughout this country and the world.

## Bats about bats...

One really interesting project this summer will be the presence of scientists in the park who will have their eyes turned toward the evening sky, looking for our special nocturnal friends, the bats. Did you know that one bat can eat its weight in flying insects in just one night? Watch for bats around dusk - they may be seen foraging for insects around outdoor lights and over water. See if you can spot these useful friends as they gather an evening meal.

Want to learn more about bats? When you get home, visit the Internet and type in the "bat" on your favorite search engine. There is a wealth of information available out there in cyberspace! There are excellent websites for children as well as adults.

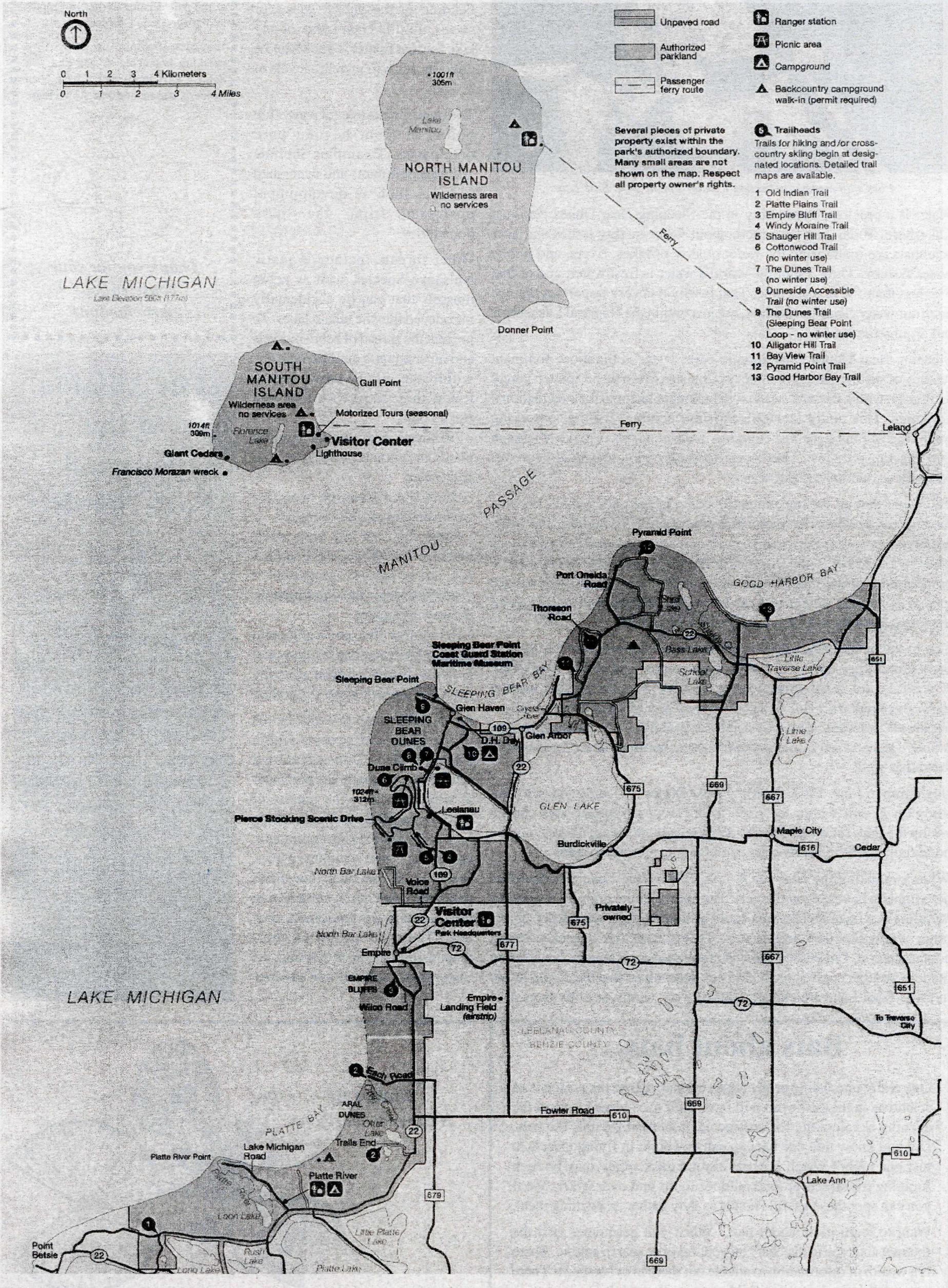
## Water Lily *Nymphaea mexicana*





# Sleeping Bear Dunes National Lakeshore

This park map indicates the location of all 13 hiking trails, the Pierce Stocking Scenic Drive, the Dune Climb and other popular areas of the park. Major roads are shown for reference. The National Lakeshore consists of 71,000 acres, 34 miles of Lake Michigan shoreline and the Manitou Islands.





# Preserve Historic Sleeping Bear

*Preserve Historic Sleeping Bear* supports the National Park Service in safeguarding the historic structures and the cultural landscapes in the Sleeping Bear Dunes National Lakeshore.

*Preserve Historic Sleeping Bear* will achieve this goal in several ways:

- ◆ Acting as an advocate for preserving historic structures
- ◆ Building grass roots support
- ◆ Implementing educational programs
- ◆ Developing partnerships and fund raising in support of preservation projects
- ◆ Helping to facilitate historic preservation partnerships



Photo: Thomas Kachadurian

*Preserve Historic Sleeping Bear members had their work cut out for them with the Charles Olsen House in Port Oneida. Their diligent efforts have paid off with outstanding results. See Page 3 for a view of the amazing transformation.*

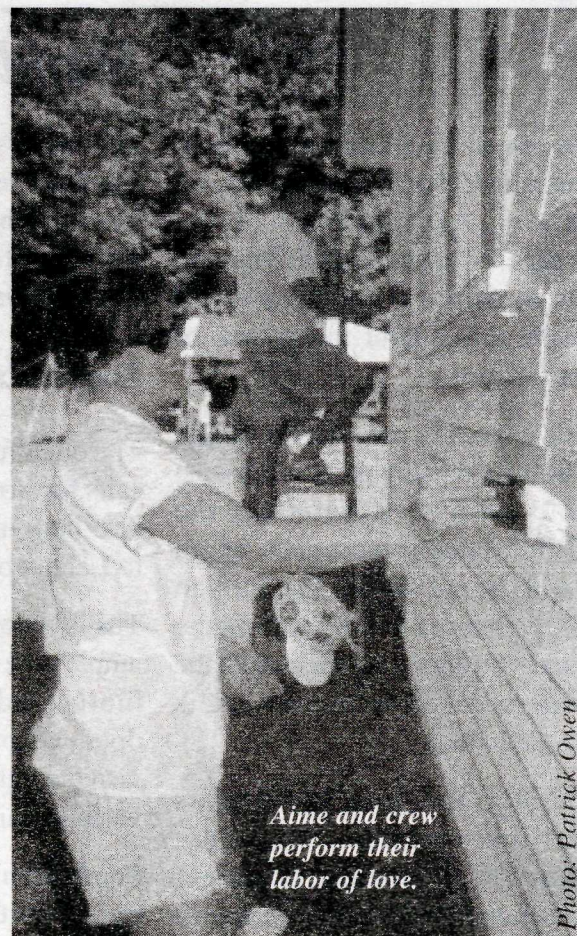


Photo: Patrick Owen

*Aime and crew perform their labor of love.*



Photo: Patrick Owen

*Dave puts his heart and brush into his work: the Olsen House is brought back to life!*

## Yes! I'd like to join Preserve Historic Sleeping Bear.

I am enclosing my tax-deductible gift of \$25 \$50 \$100 \$500 \$1,000 \$5,000 other \_\_\_\_\_

NAME \_\_\_\_\_ ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_ DAY PHONE \_\_\_\_\_ EVENING PHONE \_\_\_\_\_ E-MAIL \_\_\_\_\_

A check is enclosed payable to Preserve Historic Sleeping Bear

Please charge my contribution to my credit card

VISA

MasterCard

NAME AS IT APPEARS ON THE CARD \_\_\_\_\_

CARD NUMBER \_\_\_\_\_

EXP DATE \_\_\_\_\_

SIGNATURE \_\_\_\_\_

**Preserve Historic Sleeping Bear**

P.O. Box 453

Empire, MI 49630

231-334-6103

email: [phsb@leelanau.com](mailto:phsb@leelanau.com)

## barns

W G P R E S E B Q R V T E E T  
 H O O E B A A U R N S S L O M  
 K C O L B R E D N I C O B T V  
 W B D D N E E I A X T P A N B  
 F P Z T N D L T J D B G G A A  
 Z Y O P K R N S F W Z N Y E G  
 H U O E U C H U L A H I B L O  
 R S H P T I U F O A R K A H T  
 T S B S N A O R Y R C Y R A H  
 B I P G I O L M T A P D N Y I  
 T C L B R L O P J Y C D D R C  
 X E X P M W G M X Y A Z O A S  
 G N I S I A R N R A B H O C I  
 A H S K N A B D E Z C I R K L  
 O B E N O T S E C A R B C O L

This word search is filled with terms that have to do with barns. You will get to learn some really neat new words and have fun while you're doing it! The next time you see one of these words you will be reminded that it is a word associated with barns. Barns are some of the most fascinating structure on the American landscape. As you travel throughout the country, take note of the different styles and types of construction used - you will see that there are specific types of barns that were built in each section of the United States.

Circle the letters of the words below in the puzzle to the left. The letters might be horizontal, vertical or diagonal and forward or backward. Have fun!

- |             |             |
|-------------|-------------|
| ADZ         | JACK        |
| BARNRAISING | LOG         |
| BIT         | PURLIN      |
| ENGLISH     | ROUND       |
| HAYMOW      | STONE       |
| HIPROOF     | BARNDOOR    |
| LEANTO      | BAY         |
| PLATE       | CINDERBLOCK |
| RAFTER      | GOTHIC      |
| SILL        | HAYTRUCK    |
| BANKS       | KINGPOST    |
| BARNTOUR    | MBPS        |
| BRACE       | QUEENPOST   |
| GABLE       | SHINGLE     |
| HAYRACK     | WOOD        |

*This puzzle has been provided through cooperation with the Michigan Barn Preservation Network*



## Heading for the Manitou Islands!

The lure of the Manitou Islands is irresistible for many lakeshore visitors. As guardians of the Passage, North and South Manitou have beckoned to a wide variety of people throughout the course of their history.

Today, people are drawn to the islands for equally diverse reasons: some wish to experience the solitude and remoteness of an island; some enjoy the human history that is a major factor in the islands' stories; yet others seek the wilderness experience that is afforded them.

Whether the lure for you is maritime-related, farming, botanical, geological or purely recreational, the islands are sure to thrill you!

Transportation to the islands can be provided either by private craft or commercial, walk-on passenger ferry operated by Manitou Island Transit in Leland. The ferry operators have been involved in servicing the islands for many generations: the company is still operated as a family business today.

**The ferries leave from the Fishtown docks in Leland at 10:00 a.m. - one ferry bound for each island.**

One sets its course for North Manitou where passengers

disembark and cargo is off-loaded. The ferry reloads and returns to the mainland by 12:45 p.m. *There are no trips to North Manitou on Tuesday and Thursday.*

### South Manitou Island

The other ferry, the *Mishe-Mokwa*, sails for South Manitou daily for a five-hour layover before returning to Leland by 6:00 p.m.

The layover gives day-use visitors ample time to take advantage of the motorized village tour (also operated by the ferry company), visit the lighthouse, and explore the various trails on the island.

South Manitou Island offers many opportunities for both day and overnight excursions. Visitors can enjoy a tour of the 100-foot tall lighthouse. This beacon guided ships safely through the southern terminus of the Manitou Passage, one of the most dangerous on Lake Michigan.

A 6.6 km (4 mi.) hike to the sand dunes on the west side of the island culminates in spectacular views of Lake Michigan and the mainland. Along the way you can experience the majesty of the old-growth cedars as well as speculate on the mishaps of the *Francisco Morazan*, a visible shipwreck dating from November, 1960.

Many shipwrecks, including the *Morazan* and the recently uncovered *Three Brothers*, attract divers and snorkelling enthusiasts. The protected shipwrecks are part of the Manitou Passage State Underwater Preserve.

Many private boaters take advantage of the picturesque harbor to anchor their boats and explore the island's interior or just relax on the beautiful beaches.

**A notice to boaters:** Set your anchor with wind shifts in mind. Squalls and passing weather fronts can create damaging wind conditions! While both islands may be accessed by private craft, docking is limited to 30 minutes (for loading and unloading purposes) and there are no fuel facilities.

### North Manitou Island

As you disembark on the North Manitou dock you enter the historic Coast Guard village, recently designated a National Historic Landmark (see below).

Upon leaving the village (and its accompanying "Cottage Row"), nearly 15,000 acres of pristine wilderness await to test you and your low-impact camping skills.

With 41.5 km (25 mi.) of maintained trails and countless

'unmaintained' trails to explore, the wilderness adventure you've always hoped for awaits.

Exploratory possibilities range from abandoned farmsteads to perched dunes to beautiful inland lakes (Lake Manitou and Tamarack Lake) to steep terrain unparalleled in northwest lower Michigan.

Lake Manitou's trophy smallmouth bass population offer sportsmen a unique fishing opportunity. The special fall Deer Hunt is an experience that will never be equalled. (Contact park headquarters early for your hunter's application!)

Both islands are managed as wilderness areas, therefore the level of protection is elevated. Fires are allowed ONLY in the metal fire rings provided in the backcountry campgrounds. North Manitou campers must camp at least .1 km (300 feet) from any water source.

As with any park facility, all visitors to either island, whether arriving by commercial ferry or private vessel, are required to have a park entrance pass.

**Ferry reservations**  
may be made by calling  
**231-256-9061**

**Group camping reservations**  
may be made by calling  
**1-800-365-2267**

## The Manitou Islands

Sleeping Bear Dunes National Lakeshore



The map shows North Manitou Island and South Manitou Island. North Manitou Island features Donner Point, a lighthouse, and a visitor center. South Manitou Island features a lighthouse, a visitor center, and the Francisco Morazan Wreck. The map also indicates the location of the Giant Cedar and Motorized Tours (seasonally).



**Jack-in-the-Pulpit**  
*Arisaema atrorubens*



## North Manitou Island Celebrates its National Historic Landmark



The National Historic Landmark plaque is unveiled.

North Manitou Island hosted the celebration and unveiling of the National Historic Landmark plaque for the U. S. Life-Saving Service Station Complex in the village on September 11, 1999. The unveiling was held concurrently with the Leelanau Historical Museum's annual day trip to the island.

One hundred and twenty museum guests and thirty campers spent the day in the village as tours of the Station, village, island, and Cottage Row were offered to the day visitors. The tours covered natural history, cultural history, architecture, and island life. Former rangers, current park employees, a college professor, and even the ferryboat captain, Mike Grosvenor, led a hike on the island.

The guest speaker was Frederick Stonehouse who is a recognized author of Great Lakes maritime history including the U. S. Life-Saving Service. Mr. Stonehouse related stories about the North Manitou Island station, the heroic rescues, the difficulty of working at a remote station, and the significance of these complex structures still present after 150 years of history.

The Coast Guard based in Traverse

City also did a helicopter fly over and a demonstration of their open water rescue techniques. The crowd was poised at the end of the dock while the modern lifesavers practice their skills in the current form of rescue on the lakes.

The bronze plaque was set in a beach stone pedestal constructed by the Charles Anderson family from Frankfort, Michigan. The plaque was unveiled by two generations of island inhabitants that included the two island law enforcement rangers and two former island residents, Paul Maleski and Sherwood Basch.

It was discovered during the event that in the early 1900s, Sherwood Basch's father was a surfman assigned to this station. One of the recorded station rescues involved a fishing boat that had run aground on the West side of the island. The captain of that vessel was the senior Charles Anderson, the father of the men that built the pedestal.

Visitors who are interested in seeing the station, and do not backpack, can contact the Leelanau Historical Museum (231) 256-7475 to sign up for this year's day trip on September 9.



North Manitou Island Life-Saving Station

1901 - 2001

Sleeping Bear Dunes National Lakeshore



Yellow Goat's-beard  
*Tragopogon major*



### Camping at Sleeping Bear Dunes N.L.

The National Lakeshore offers camping opportunities for campers of every persuasion: wilderness backpacking, easy-access backpacking, primitive drive-in campgrounds and completely modern, full-amenities campgrounds. Whether hiking, tenting, RV'ing or requiring facilities for large groups, we can provide the perfect match to your needs. Within our fully modern campground, we even provide walk-in sites for those who prefer more seclusion but still want the availability of hot showers. No matter what your choice is, camping at Sleeping Bear will provide a memorable experience that will leave you wanting to come back for more!

#### Platte River Campground

- Open year-round
- Reservable sites (limited)
- Modern facilities
- Sanitation Station
- Potable Water
- Showers
- RV, tent, group and walk-ins
- Evening Ranger Programs
- Trails to Lake Michigan
- Nearby hiking trails

- Electric sites: 96; 27 reservable; \$19.00
- Non-electric: 53; 10 reservable; \$14.00
- Walk-in sites: 25; 6 reservable; \$10.00
- Groups (7-25): 5, all reservable; \$40.00

.....  
 • For **RESERVATIONS**:  
 • call 1-800-365-CAMP  
 • (1-800-365-2267)  
 • or via the Internet at  
 • [reservations.nps.gov](http://reservations.nps.gov)  
 • .....

Be a good camper - be sure to find out the rules and regulations of your camp area. Having fun while camping means being prepared to handle any situation. Knowing the rules ahead of time will surely help you and your family enjoy a much more positive camping experience!

#### D.H. Day Campground

- Primitive campground
- Pump water/vault toilets
- Easy access to Lake Michigan
- Peaceful, wooded setting
- Evening Campfire Programs
- Total sites available: 88; \$10.00
- Group (7-25): 4, all reservable; \$30.00

#### Backcountry Camping

- White Pine Campground**  
Near Lake Michigan  
6 sites; \$5.00
- Valley View Campground**  
Extremely secluded  
5 sites; \$5.00

#### South Manitou Island

- Bay Campground**  
Nestled on the Harbor  
22 sites; \$5.00
- 3 Group sites (7-20); \$20.00  
All reservable

#### Weather Station Campground

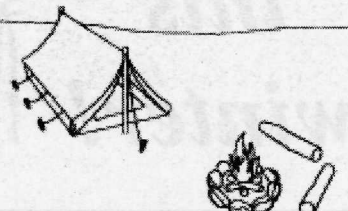
- South end of the island  
17 sites; \$5.00
- 3 Group sites (7-20); \$20.00  
All reservable

#### Popple Campground

- North end of island  
6 sites; \$5.00

#### North Manitou Island

- Wilderness backpacking
- Unlimited sites; \$5.00
- Groups (7-20); \$20.00





# Hiking in the Scenic North

by Mary Sharry

A journey of a thousand miles begins with the first step. So goes the proverb. So, too, does a journey into and beyond oneself begin with that first insight-seeking step; and that, for me, is why I hike. It is on these treks that I seem to find solace or resolution. Ideas spring forth. I commune with no one but Nature.



When I think in terms of hiking, I envision gear: backpack, expensive boots, wool socks, map and compass. By those standards I am but a poor walker clad in ancient running shoes and clothing that has long lost its shape as well as labels. What I am rich in, though, is energy for the trails within the Sleeping Bear Dunes National Lakeshore.

One of my favorite trails is right outside the village of Empire, a three-quarter mile walk from my house to the trailhead. The mile and a half out and back hike along the Empire Bluff trail takes me through diverse vegetation which includes springtime leeks, trout lilies, dutchman's breeches, and trilliums. Different species of ferns provide baroque elegance beneath the beech and maple forest.

The view of Lake Michigan might offer a look at freighters making their way through the Manitou Passage. An occasional gift is the sight of an eagle in flight or the call of a loon on the water far below. On my return to the trailhead I carry with me the refreshment of spirit given by the view of Lake Michigan from the steep bluff.

For a more aerobic walk, or even a run, the road to North Bar Lake from the blinker light on M-22 and M-72 is a flat six miles out and back. Situated off LaCore Road, Bar Lake Road carries a feeling of space and freedom offered in the open fields along the way to pristine North Bar Lake making the a worthwhile venture, best done on a cool, dry day under a sky filled with billowing clouds.

The Pierce Stocking Scenic Drive affords good walking - its Shauger Hill trail through forest and pine plantations, the Cottonwood trail out on the dunes. The Drive itself is wonderful to walk (or ski!) during the off-season, but I wouldn't recommend it during the busy summer season. The seven mile stretch of rolling hills through woods and dunes provides a terrific aerobic workout.

Speaking of skiing, Alligator Hill is my wintertime favorite: a great Suphill workout followed by an enjoyable, easy descent. Come springtime, early morning light filters softly through cool mist and shimmers with the flutter of newly folded leaves. Last year's pine needles and acorn caps lie scattered about the forest floor. On a hot summer day raspberry fragrance beckons beyond the trailhead. The sight of Autumn's glorious maples calls soon after.

Windy Moraine is a simple one and a half mile loop which I've found soulfully restorative in the evening - particularly towards sunset when low angled light filters through the forest and across an open field. When sounds of traffic cease, woodland silence seems deep and endless. Birdsong can make me momentarily forget outside noises; so rich are the liquid, flute-like songs of the veery and the wood thrush.

Purple shadows lengthen as light of day fades to twilight. Although sunset cannot be seen from the trail, the stillness and atmosphere are felt, and the forest becomes embraced in the mystery of night. On the night of a recent full moon I hiked this small path. A white birch stood out as if electrified in the dark forest. A bench placed long ago before a giant sugar maple made me wonder how many bottoms have sat there. Who else comes to contemplate the wonder of it all?

There are many excellent views of Lake Michigan from trails within the National Lakeshore - Pyramid Point near Port Oneida comes to mind as does the Bay View trail off Thoreson Road

outside of Glen Arbor. Both are hilly and well worth the hike.

My usual brisk walk becomes an amble or stroll on the Duneside Accessible trail, a recent favorite, entered from the north end of the Dune Climb off M-109. The trail is less than two miles, round trip, flat and designed to accommodate wheelchairs and the visually impaired. The woods at the base of the dunes are often damp, and a woodland pond is easily viewed from a platform which invites lingering looks at the vegetation and occasional turtles sunning.

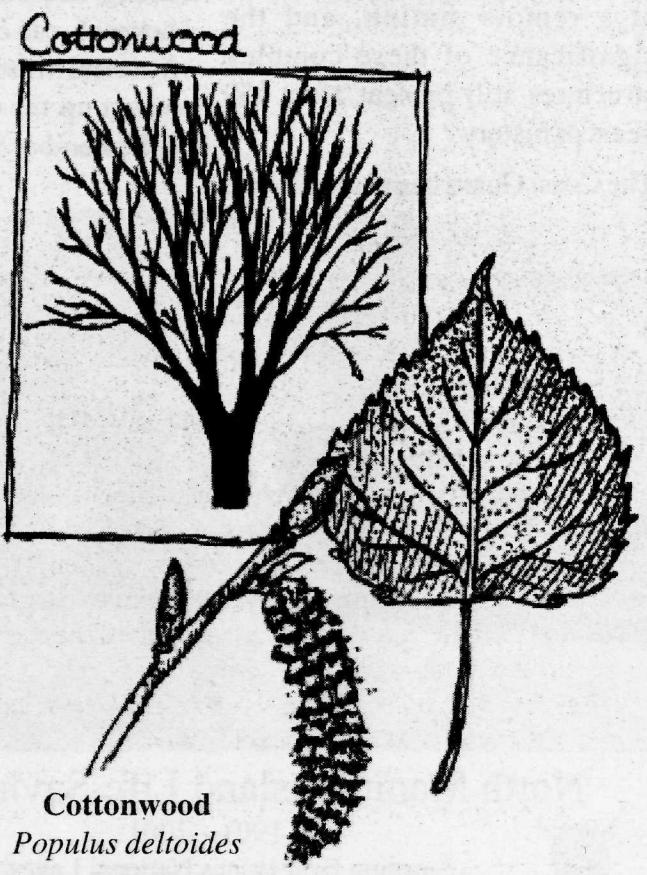
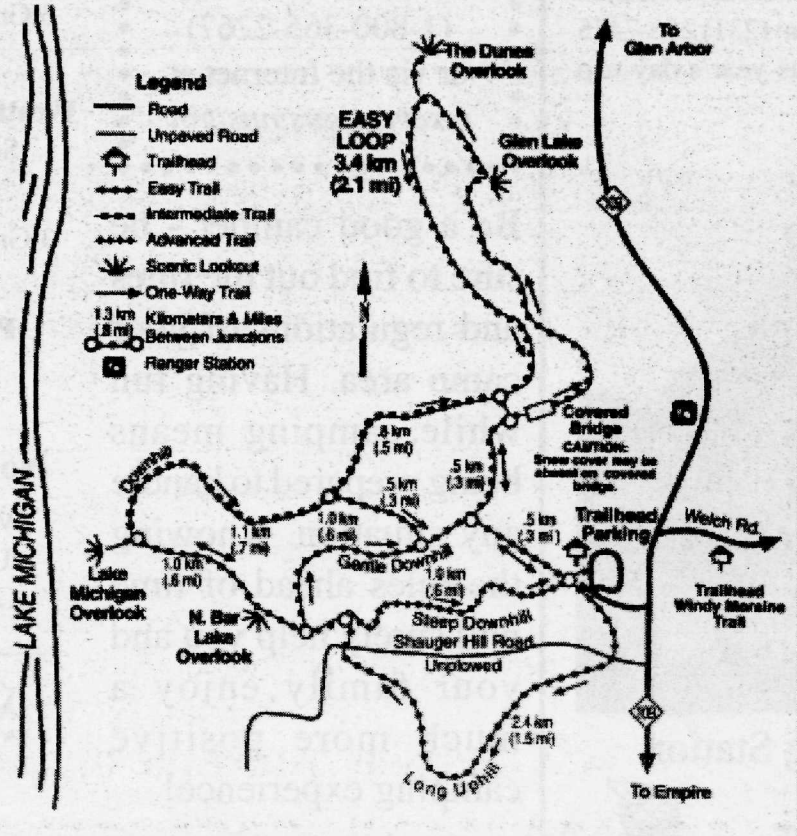
For a good distance hike, although I've never walked all three loops in one day, the Platte Plains trail covers fourteen-plus miles. It lies south of Empire and includes a loop around Otter Lake which offers a varied mix of vegetation (the blueberries make a great trail treat!).

I am glad the National Park calls these trails hiking trails. The word gives a profound tone to my simple walks. Someday I may gear up and hike the Michigan Shore-to-Shore trail, which starts/ends outside of Empire -- but that will be a different journey.

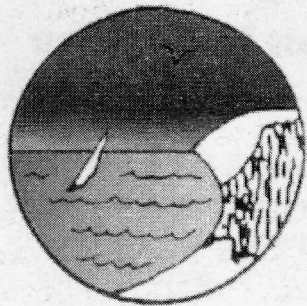
## The Trails of Sleeping Bear Dunes N.L.

Old Indian, two loops .....	4.0 km (2.5 mi.) each
Platte Plains, three loops .....	23.6 km (14.7 mi.) total
Empire Bluff, hilly woods .....	2.4 km (1.5 mi.) round trip
Windy Moraine, hilly .....	2.4 km (1.5 mi.) loop
Shauger Hill, hilly woods .....	3.9 km (2.4 mi.) loop
Cottonwood, rolling dunes .....	2.4 km (1.5 mi.) loop
Dunes, trek to Lake Michigan .....	5.6 km (3.5 mi.) round trip
Duneside Accessible, flat .....	2.9 km (1.8 mi.) round trip
Sleeping Bear Point, rolling dunes .....	4.5 km (2.8 mi.) loop
Alligator Hill, horses permitted, 3 loops ..	4-5 km (2.3-3 mi.) each
Bay View, several loops .....	11 km (7 mi.) total
Pyramid Point, panoramic view .....	4.3 km (2.7 mi.) loop
Good Harbor Bay, flat, wet in places .....	4.5 km (2.8 mi.) loop

**Ski the  
Pierce  
Stocking  
Scenic  
Drive  
this  
winter!**







# Friends of the Sleeping Bear Dunes

*Dedicated to Assisting in the Preservation, Restoration, and Interpretation of the Natural, Cultural, Historical, and Recreational Resources of Sleeping Bear Dunes National Lakeshore*

## Notes on the History and Purpose of Friends of the Sleeping Bear Dunes, Inc.

*From the Constitution and Bylaws...*

### Article 1, Purpose 1

The Friends of the Sleeping Bear Dunes shall be an independent, freestanding organization created exclusively for charitable and educational purposes, including the making of financial distributions to assist with historical, educational, scientific, interpretive and recreational activities of Sleeping Bear Dunes National Lakeshore. This organization will seek to cooperate with Sleeping Bear Dunes National Lakeshore in the following areas:

A. To assist Sleeping Bear Dunes National Lakeshore in restoring, preserving, developing and interpreting its cultural, historical and natural resources for the benefit of the public and posterity. It will not be this organization's function to set or to influence National Park Service policies.

B. To recommend and assist in the development and/or presentation of special events and other efforts to preserve and interpret Sleeping Bear Dunes National Lakeshore and its natural and cultural resources.

### 1994 File Letter...

A core group of people with interest in forming a group called Friends of the Sleeping Bear Dunes met on April 7, 1994. Those in attendance were Dr. G. Franklin Zaring, John Abbett, Paul Benington, and William Merry. The following resolution was passed: "It is hereby resolved that it is the sense of this meeting that the Friends of the Sleeping Bear Dunes, Inc. shall now be formed exclusively for charitable and educational purposes, including the making of fund distributions to assist with historical, educational, scientific, interpretive and recreational activities of the Sleeping Bear Dunes National Lakeshore."

### The First Public Meeting...

On May 4, 1994, at a public meeting attended by 20 people, Friends of the Sleeping Bear Dunes, Inc. was established.

### Projects Completed: 1994-1999

In the first year of the Friends existence, the following projects were completed or started:

Summer, 1994 - Replacement of deck and boardwalk on Lake Michigan Overlook #9 on Pierce Stocking Scenic Drive.

Spring, 1995 - Replanting maple trees along M-109 and Day Farm Road near D.H. Day Farm.

Fall, 1995 - Begin a 3-year project to restore D.H. Day Campground.

Fall, 1995 - Clearing brush at view sites on the Pierce Stocking Scenic Drive.

Since that first year, Friends volunteers have aided the park in the following projects:

Rehabilitation of Lake Michigan Overlook #10 on the Scenic Drive.

Pruning of historic fruit trees in designated historic orchards in the park.

Trail patrol through Adopt-A-Trail program.

Acquisition of grants for renovation of the D.H. Day Log Cabin, the Cannery boat display at Glen Haven, restoration of Glen Haven D.H. Day Store, and Cottonwood Trail on the top of the dunes off the Pierce Stocking Scenic Drive.

Painting of the Olsen house on M-22 in cooperation with Preserve Historic Sleeping Bear.

Volunteers from the Friends also take part in leading natural history walks, bird census, leading bus tour

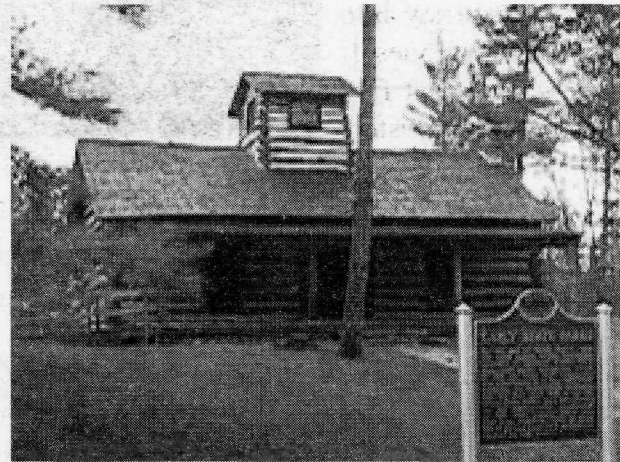
## Uniqueness of the Friends

Sleeping Bear Dunes National Lakeshore is fortunate that more than 700 people annually do volunteer work for the park. Among these are many members of Friends of the Sleeping Bear Dunes. All volunteer activity is appreciated by park personnel because it helps in the achievement of the goals for which the park was established.

People often ask, "What do the Friends do to help the park that differs from general volunteer work?" One of the main differences is that the Friends can obtain and administer grants and memorial funds which individuals, companies, or other organizations wish to provide for the benefit of the park. Sometimes individuals are unable to do this. The tax-exempt status of the Friends makes it possible for individuals to make gifts of cash or property (physical items as well as real estate) and allow the donors of such items to claim legitimate tax deductions. The 501(c)(3) status of the Friends is clearly a benefit to the park which ultimately receives these gifts.

*continued from column 1...*

groups on Pierce Stocking Scenic Drive, staffing the Visitor Center desk, the Maritime Museum and the Cannery boat display in Glen Haven. They also have helped park internal operations by filing documents and helping keep the library materials shelved properly. Other volunteers have assisted in map-making projects, helping maintain the park's archival photo collection, and in many other ways.



*One of the major projects on which members of the Friends have worked was the restoration of the campground and facilities at the D.H. Day Campground near Glen Haven. The Log Cabin has become a facility used for many purposes.*

## Adopt-A-Trail to Continue

The year 1999 was the first full year for the Adopt-A-Trail program sponsored by Friends of the Sleeping Bear Dunes. The purpose in sponsoring this project is to help park personnel patrol the many miles of trails on the mainland. Sixteen trails or segments of trails are patrolled by 12 individuals and their spouses and four separate organizations. The organizations presently involved are Sleeping Bear Realty of Empire, Consumers Energy Retirees Association, Grand Traverse Audubon Club, and Friends of the Sleeping Bear Dunes.

Volunteers on the trails have many jobs. They pick up litter, remove branches and small limbs that fall on the trail, clip back brush that grows in to the trail, and generally check on the condition of the trail and trail signs. A reporting system is in place if a volunteer finds a problem on the trail that requires work by park employees. The volunteer is to give as much specific information as possible when reporting a problem. For example, if a tree is down across a trail this will require a chain saw but the volunteer also needs to report how large the diameter of the tree is because the size of tree dictates the size of saw used and the size of the work crew needed. Volunteers do not use power tools on the trail but they can use hand tools.

The park administration of Sleeping Bear Dunes National Lakeshore has requested that the Adopt-A-Trail program continue because it has proven very helpful. With a few minor adjustments in our reporting system, Friends of the Sleeping Bear Dunes is ready to continue with Adopt-A-Trail for the year 2000.

## FRIENDS Membership Application

Individual Memberships:      ( )\$20      Additional Contribution \$ \_\_\_\_\_  
 Family Memberships:            ( )\$40      Additional Contribution \$ \_\_\_\_\_  
 Business/Corporate Members: ( )\$100    Additional Contribution \$ \_\_\_\_\_

Name(s) \_\_\_\_\_

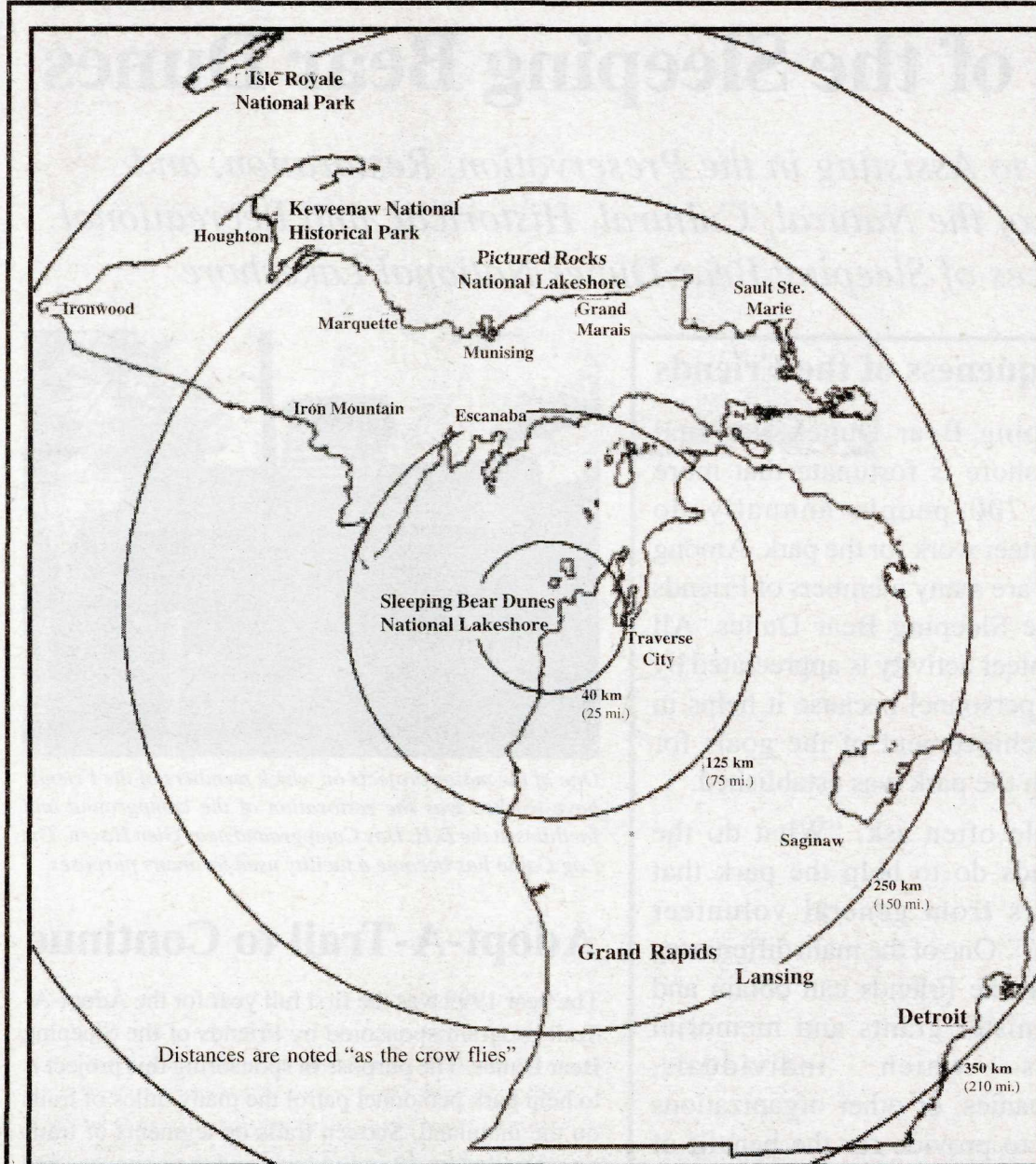
Summer Address: \_\_\_\_\_ Phone: \_\_\_\_\_

Winter Address: \_\_\_\_\_ Phone: \_\_\_\_\_

Please make checks payable to: **Friends of the Sleeping Bear Dunes, Inc.**  
 P.O. Box 6344, Traverse City, MI 49696

**ALL CONTRIBUTIONS ARE TAX-DEDUCTIBLE**





**Proximity of Sleeping Bear Dunes National Lakeshore to other points in Michigan**

**Local Business Information Available on the Web**

If you are seeking information and assistance in planning your trip, you may now access our local Chambers of Commerce and Visitors' Bureaus on the World Wide Web. Internet access is quick and easy either by using the hyperlinks within the Lakeshore's homepage, [www.nps.gov/slbe](http://www.nps.gov/slbe), or by typing in their addresses directly. Through these community organization websites, you will be able to access information on things to see and do, lodging, dining, entertainment and recreation.

**Glen Lake/Leelanau County Area:**  
[www.leelanau.com/glenlake](http://www.leelanau.com/glenlake)

**Benzie County Chamber of Commerce:**  
[www.benzie.org](http://www.benzie.org)

**Traverse City Convention and Visitors' Bureau:**  
[www.tcvisitor.com](http://www.tcvisitor.com)

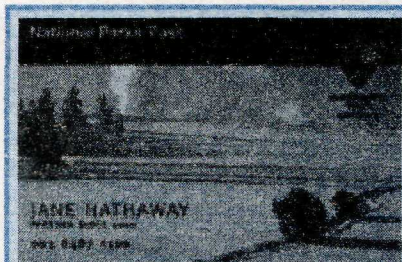
You may also contact these organizations by telephone. Their direct numbers are:

**Leelanau County Chamber of Commerce:**  
231-256-9895

**Benzie County Chamber of Commerce:**  
231-882-5801

**T.C. Convention and Visitors' Bureau:**  
231-947-1120

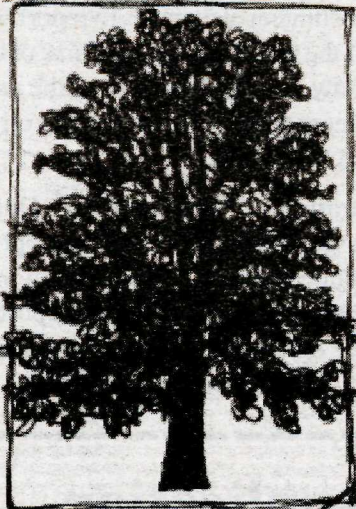
There are a wide variety of accommodations available in the surrounding area including cabins, cottages, motels, B & B's, condos, and private homes. Planning is half the fun!



Get Your  
**National Parks Pass**  
at the Philip A. Hart Visitor Center



*American Beech*



**American Beech**  
*Fagus grandifolia*

The botanical line drawings located throughout this issue of "View from the Dunes" have been produced by Cindie Brunner of Glenwood Springs, CO. The common names are given as well as the botanical names for those eager to learn more about the actual taxonomy of our vegetative world.

Please note that all species shown are naturally occurring native plants in the Sleeping Bear Dunes area. We encourage all visitors to the lakeshore to become more familiar with native species so that they, too, can help control non-native plants at home.

**Sleeping Bear Dunes National Lakeshore  
Hours of Operation for 2000**

The park is open 24 hours, year-round, but certain facilities have specific hours and dates of operation which should be noted:

Philip A. Hart Visitor Center (M-72, Empire): daily, 9:00 a.m. to 6:00 p.m. during summer; 9:00 a.m. to 4:00 p.m. during the winter; closed on holidays during the winter.

Scenic Drive: April - November; open from 9:00 a.m. to 10:00 p.m., or 1/2 hour after sunset, whichever occurs earlier.

Maritime Museum: seasonally (May thru September), 10:00 a.m. - 5:00 p.m. daily.

The DuneCenter (bookstore) is open May 15 - October 30, 10:00 a.m. to 6:00 p.m.

**The Dune Climb is open 24 hours.**