Happy 40th, Pictured Rocks

OCTOBER 15, 2006 marks the 40th Anniversary of Pictured Rocks National Lakeshore, but the effort to create a park on the south shore of Lake Superior dates back to the 1920’s. It was then a group of Munising outdoor enthusiasts proposed a state park and wildlife refuge to the Michigan Conservation Commission. Though the state park idea became a reality it was never funded nor developed and Alger County operated Miners Castle area for many years. Additional state lands were set aside for camping and picnicking at Twelvemile Beach, and Hurricane River.

Authorization of the Lakeshore by the U.S. Congress in 1966 was the culmination of the multi-year Great Lakes Shoreline Recreation Area Survey begun by the National Park Service in 1958. In that survey, lands potentially suitable for inclusion in the National Park System were evaluated on 5,400 miles of Great Lakes coast. Park planners of that era recognized that publicly accessible lands around the lakes were quickly disappearing. Of the five areas recommended by planners to become national park areas, four were eventually designated.

Though early preservation efforts in the area failed, Pictured Rocks National Lakeshore developed amid a consensus that preservation would lead to economic growth. Local tourism boosters supported the creation of a national park while logging interests and landowners in the proposed area opposed the park idea. The initial Senate bill to create a park of some 67,000 acres was introduced by Senator Philip A. Hart in 1961. But opposition by regional logging interests caused planners to return to the drawing board.

After four years of discussion and negotiations between congressional representatives, stakeholders including Cleveland Cliffs Iron Co., the City of Munising, the Michigan Department of Conserva, and others finally led to a revised Senate bill and a companion bill shepherded by Representative Ray Cleverenger of Sault Ste. Marie. A final park proposal included approximately 35,000 acres in federal ownership, the concept of a Scenic Shoreline Drive, and the creation of the Inland Buffer Zone comprised of approximately 35,000 acres of land that would remain in private and state ownership, but would be protected through zoning prescriptions. Pictured Rocks is the only NPS area with a legislated inland buffer zone.

As President Lyndon B. Johnson signed the bill on October 15, 1966, he made a brief statement: “We are here today to give part of America back to the people.”

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Visitior Information

Superior Wildlands

Happy 75th, Hiawatha

LAST YEAR THE U.S. Forest Service celebrated its 100th anniversary. This year, we have another milestone: Monday, January 16, 2006, marked the Hiawatha National Forest’s 75th birthday -- or, one of its birthdays, anyway! Here’s how:

Under the 1924 Clarke-McNary Act, the National Forest Reservation Commission established a purchase unit in Alger, Schoolcraft, and Delta Counties, Michigan in 1928. Much of this area was denuded, burned, and abandoned timberland. By January 16, 1931, enough land had been purchased within this unit to warrant the establishment of a new National Forest and on this date President Hoover proclaimed the Hiawatha National Forest. This land mass constitutes the present-day West Unit of the Hiawatha.

Hiawatha’s current East Unit has an even longer history. On June 17, 1908, barren sandy areas in central Chippewa County were temporarily withdrawn from homesteading and on February 10, 1909, President Theodore Roosevelt proclaimed the establishment of the Marquette National Forest. This Forest was initially under the supervision of the Regional Office in Denver, Colorado (Region 2). In 1913 the Regional Office recommended that the Marquette National Forest and the Huron National Forest should be handled as one administrative unit.

So, on July 1, 1918, the Marquette National Forest land was transferred to the Huron, and together they became the Michigan National Forest. Similar to the West Unit’s origins, the passage of the Clarke-McNary Act in 1924 allowed additional National Forest lands to be acquired by purchase and in 1925 a 307,500 acre Marquette Purchase Unit was established in Chippewa County to guide this acquisition. An expansion was approved by the National Forest Reservation Commission in 1935 and involved an area of 49,500 acres in Chippewa and Mackinac Counties. On February 12, 1931, President Hoover re-established the Marquette National Forest. So, parts of the East Unit celebrated 75 years of National Forest-ness on February 10, and additional East Unit lands celebrated 75 years on February 12.

But wait, there’s more! In an executive order dated February 9, “The Hiawatha as We Know It” turned 44.

Whew! We’re not sure how old that makes the Hiawatha, but whatever the case, Happy Birthday, everyone!

Visitor Activities

Climb a lighthouse tower, join a ranger for a fun learning experience this summer, listen to some great folk music - all here on your public lands.

Seney Wildeife Refuge

Take a quiet evening bike ride on the wildlife drive. Watch for osprey, eagles, and bittern as they move about the refuge. Hear the rhythmic song of frogs and toads.

Hiawatha Forest

Dip your paddle in a river or scan the wetland for migrating songbirds. Canter your horse along a northern lake. Pedal a bike up a long hill to a breathtaking vista.

Pictured Rocks Lakeshore

Spend the night watching for the northern lights over Lake Superior, photograph orchids in a quiet forest, photograph orchids in a quiet forest, photograph orchids in a quiet forest.

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### Visitor Activities

**2006 Program Schedule**

**Date** | **Program** | **Presenter** | **Location** | **For More Info**
--- | --- | --- | --- | ---
**MAY**
May 19-21 | Birding By the Bay Festival | Keynote: Damon McCormick | Falling Rock Cafe | Algier Chamber of Commerce 906-387-2138
May 18 | Native Flower Slideshow | Deb LeBlanc USFS Ecologist | Munising - 6 pm | USFS 906-387-2512 (Pre-registration required)
May 20 & 27 | Celebrating Wildflowers Walk | Deb LeBlanc USFS Ecologist | Munising - 1 pm | USFS 906-387-2512 (Pre-registration required)

**JUNE**

**Weekley**
Jun 17 & 24 | Wildlifed Wednesdays | Evening Auto Tours | Seney Refuge - 7 pm | Seney NWR 906-586-9851, ext. 15
Jun 10 | Celebrating Wildflowers Walk | Deb LeBlanc USFS Ecologist | Munising - 1 pm | USFS 906-387-2512 (Pre-registration required)
Jun 21 | Naturalization Ceremony | Open to all children 1-16 | Seney Refuge | Seney NWR 906-586-9851, ext. 15

**JULY**

**Weekly**
Jul 1 | Wildlifed Wednesdays | Evening Auto Tours | Seney Refuge - 7 pm | Seney NWR 906-586-9851, ext. 15
Jul 1 | Lakeshore Employee Reunion | Park Ranger | Seney NWR 906-586-9851, ext. 15
Jul 1 | National Park Service | Traveling Exhibit | Seney NWR 906-586-9851, ext. 15
Jul 1 | Summer Hiking Tour | Sing of the Lakes | Bay Furnace Campground - 7 PM | USFS 906-387-3700
Jul 1 | Steinway to Sea | Phyllis Northrup | Outdoor Workshop | USFS 906-387-2512 (Pre-registration required)
Jul 13 | Illustrated Nature Journals | Wil Redding | Outdoor Workshop | USFS 906-387-2512 (Pre-registration required)
Jul 13 | Summer Hiking Tour | The Rambling Naturalist | Bay Furnace Campground - 7 pm | USFS 906-387-3700
Jul 14 | Evening Presentation | “” | Rapid River - 7 pm | USFS 906-474-6442
Jul 15 | Evening Presentation | “” | Rapid River - 7 pm | USFS 906-474-6442
Jul 17 & 18 | Session 1: Grand Island | Janel Crooks USFS & Dr. Jim Skibo | Grand Island NRA - 8 am - 4 pm | USFS 906-387-2512 (Pre-registration required)
Jul 20 | Grand Island Archaeology | Dr. Jim Skibo | Alber Heritage Center - 7 pm | USFS 906-387-3700
Jul 28 | Grand Island, Grand Story | Janel Crooks | Bayshore Park - 7 pm | USFS 906-387-3700
Jul 29 | Hiawatha Artist in Residence | James and Yoko Sekino-Bove | Munising District Office - 10-1 pm | USFS 906-387-2512 (Pre-registration required)

**SEPTEMBER**

Sep 1 | National Public Lands Day | Deb LeBlanc, USFS Ecologist | Munising | USFS 906-387-2512 (Pre-registration required)
Sep 30 | Scout Activity Day | Native Seed Collection Project | USFS 906-387-2512 (Pre-registration required)
Sep 30 | Au Sable Day | Boy & Girl Scout Activity Stations | USFS 906-387-2512 (Pre-registration required)

**OCTOBER**

Oct 9 - 15 | National Wildlife Refuge Week | Seney Refuge | Munising | USFS 906-387-2512 (Pre-registration required)
Oct 14 | Lakeshore Anniversary Event | Seney Castle | Munising | USFS 906-387-2512 (Pre-registration required)

### Interpretation & Education Partners

**THE MONEY YOU** spend on souvenirs in gift stores at the Park, Forest or Refuge; generously donate; or contribute for membership all goes to non-profit natural history associations to be spent on interpretation, education and research. Each natural history association is guided by a volunteer Board of Directors, which votes on how revenue and donations should be spent based on budget and projects suggested by agency staff and volunteers.

- **Special events, e.g. Birding By the Bay**
- **Informational leaflets**
- **Exhibits and interpretive signs**
- **Observation scopes and decks**

- **Food stipends for interns**
- **Teacher workshop materials and support.**
- **This newspaper!**

**Hiawatha Interpretive Association**
PO Box 913
Munising, MI 49862

**Seney Natural History Association**
1606 Refuge Entrance Rd.
Seney, MI 49883

www.seneyfriends.org

**Eastern National**
470 Maryland Drive, Suite 1
Ft. Washington, PA 19034
www.eparks.com/eparks

**Calling All Artists!**

ARE YOU AN artist working in two dimensions looking for a residency experience in the beautiful central Upper Peninsula? Would the cliffs of Grand Island or Pictured Rocks inspire you? Both Hiawatha National Forest and Pictured Rocks National Lakeshore offer artist in residence programs. Let our landscapes and history inspire you!

Hiawatha National Forest - Grand Island NRA
Artist in Residence Program
400 East Munising Ave.
Munising, MI 49862

Pictured Rocks National Lakeshore Artist in Residence Program
P.O. Box 40
Munising, MI 49862
LITTLE ROUND LAKE is located twelve miles southwest of Munising, within the Western District of the Hiawatha National Forest. It is a small, clearwater lake, with several private homes and a public access site at its north end. Along its western perimeter, expansive stretches of bog shoreline provide nesting habitat for a pair of breeding common loons.

In early June 2005, this loon pair hatched two chicks. Although one disappeared within several weeks, the second – fed a steady diet of Little Round fish – developed rapidly, and by late summer had come to resemble a drab, slightly smaller version of its parents [see picture]. In early September, members of Common Coast Research & Conservation sampled this juvenile for mercury (Hg) exposure during nighttime capture. After clipping several feathers and drawing a small amount of blood, we released the unharmed loon back to the waters of Little Round. While we had reason to believe that this chick’s exposure level would be elevated, we were not prepared for the degree: its feather mercury was the highest ever recorded in a juvenile loon from the Great Lakes region.

Making sense of this finding is a somewhat complicated process. Mercury – a naturally-occurring elemental metal – is released into the atmosphere as a consequence of industrial activities such as coal burning, and ultimately deposited onto the surrounding landscape. When it collects in aquatic systems it can be chemically altered into a particularly toxic form called methylmercury, which can then dramatically magnify in concentration as it works its way up the food chain. By the time it reaches the level of fish (and especially larger game species like pike, bass and walleye), it can accumulate to levels that pose significant health threats to both people and piscivorous (fish-eating) wildlife. The extent to which these processes of methylation and accumulation occur, however, is highly dictated by the physical and chemical properties of the waterbody in question. In other words, the mercury levels in a particular lake’s fish population are governed not only by the sheer amount of the metal that is deposited into the water, but also by the specific characteristics of the lake itself. Although the properties that influence Hg availability are numerous (and not yet fully understood), the single most important factor is usually the relative acidity of the lake: a low pH (high acid) environment is the most common predictor of elevated Hg exposure in fish.

In the case of Little Round, our interest in sampling was informed by this issue of acidity – the lake’s pH of 5.1 means that it is eighty times more acidic than neutrally-buffered water. Little Round’s condition is not, unfortunately, a local anomaly: the eastern Upper Peninsula contains the largest percentage of low-pH lakes in the upper Midwest. In recent years our research group has begun sampling juvenile loons from acidic lakes like Little Round, and has found a substantial number in the eastern UP with significantly high Hg in their systems. These efforts are part of a broader Common Coast project aimed toward 1) utilizing loons to accurately and efficiently characterize Hg availability in many of northern Michigan’s inland lakes, 2) raising public awareness of those specific lakes which harbor potentially unsafe levels of Hg in their fish, 3) assessing the degree to which the state’s threatened loon population may be impacted by Hg exposure, and 4) charting possible changes in these levels over time. Because recent developments (both locally and statewide) call for reductions in industrial Hg emissions, it is our hope to ultimately demonstrate that such changes will involve significant decreases in the region’s Hg profile. For more information contact Damon McCormick at commoncoast@msn.com or (906) 202 0662, or (beginning in June) visit www.commoncoast.org.
Duck Stamps – Not Just For Hunters!

What are Duck Stamps?
FEDERAL MIGRATORY BIRD Hunting and Conservation Stamps, commonly known as “Duck Stamps”, are pictorial stamps produced by the U.S. Postal Service for the U.S. Fish & Wildlife Service. They are not valid for postage. All waterfowl hunters 16 years of age or older must purchase a stamp. Besides serving as a hunting license, a current year’s Federal Duck Stamp also serves as an entrance pass for National Wildlife Refuges where admission is normally charged. Duck Stamps, and the products that bear Duck Stamp images, are also popular collector items.

More Than Just A License
Federal Duck Stamps are a vital tool for wetland conservation. Ninety-eight cents out of every dollar generated by the sales of Federal Duck Stamps goes directly to purchase or lease wetland habitat for protection in the National Wildlife Refuge System. Understandably, the Federal Duck Stamp Program has been called one of the most successful conservation programs ever initiated and is a highly effective way to conserve America’s natural resources. Thanks to hunters, stamp collectors, and conservationists, Duck Stamp sales have raised nearly $700 million to conserve more than 5.2 million acres of crucial habitat throughout the United States and its territories.

Duck Stamp Art
Artists can choose one of five waterfowl species and can use a medium of their choice. Entries are judged by a panel of noted art, waterfowl, and philatelic authorities. The top 20 entries from each competition are kept on display at various museums, festivals, and expositions.

There is also a Junior Duck Stamp program. It aims to teach the importance of conserving our wetlands and migratory birds through arts. The program allows students (K-12) to participate in an annual art competition. Not only does the student practice sketching, drawing, painting, and composition, but studies the particular animal and its habitat. Revenue generated by the sales of Junior Duck Stamps funds environmental education programs in all 50 states, the District of Columbia, and 2 territories (American Samoa and the Virgin Islands).

Things To Do At Seney

SENEY NATIONAL WILDLIFE Refuge is a great place to watch wildlife for visitors of all ages and abilities. Established in 1935 as a refuge and breeding ground for migratory birds and other wildlife, today, the 95,238 acre Refuge supports a variety of wildlife including endangered and reintroduced species by providing a rich mosaic habitat. Nearly two-thirds of the Refuge are wetlands.

Visitor Center
Open May 15 - Oct. 15, 9 a.m. - 5 p.m., seven days a week, including holidays. Exhibits, a children’s touch table, orientation slide show, and a bookstore. Binoculars and field guides can be checked out free of charge, courtesy of the Seney Natural History Association.

Marshland Wildlife Drive
This seven mile one-way auto tour route follows alongside wetlands and meadows and through forests. Three free wheelchair accessible observation decks with viewing scopes make this a great wildlife watching opportunity.

Pine Ridge Nature Trail
Starting from the Visitor Center, this 1.4 mile loop trail takes visitors through a variety of landscapes. Songbirds and beavers are common sightings along this trail.

Bicycling
Many miles of backcountry roads are available for biking through the Refuge. For those who seek wildlife and solitude, these are the trails for you. Trails are only open during daylight hours so you need to plan your trip carefully. Refuge staff drive through the backcountry while conducting surveys, so please be aware of the possibility of vehicles on the roads. To help you plan your visit, mileage is marked on the Refuge map. Certain roads may be closed to all entry during peak migration periods.

The Pine Ridge Nature Trail and the cross-country ski trails are closed to bicycles.

Canoeing
Enjoy a day of paddling along the Manistique River, which flows through the southern part of the Refuge. Outfitters are located in Germfask. Use is limited to daylight hours with no overnight camping allowed. No boats or other flotation devices are allowed on Refuge pools. Due to numerous snags, shallow water, limited access by road, and no camping allowed, the Driggs River is not recommended for canoeing.

Fishing
Anglers can fish along the 3.5 mile Fishing Loop or at the accessible fishing pier. Species found on the Refuge include northern pike, yellow perch, brown bullhead, brook trout, and sunfish. To protect the Trumpeter Swan and Common Loon, lead sinkers cannot be used on the Refuge. Check the fishing brochure for current rules.

Hunting
Ruffed grouse, woodcock, snow-shoe hare, deer, and bear may be hunted during some state seasons, in designated areas. Check the hunting leaflet for current rules.

Winter Activities
The Northern Hardwoods Cross-Country Ski Area offers over nine miles of groomed diagonal-tracked trails. Turn west off M-77 onto Robinson Road 1/3 mile south of the blinking light in Germfask. The trailhead is at the end of the road. Snowshoeing is allowed anywhere except on the ski trails. Snowmobiles are not permitted on the Refuge.

More Duck Stamp information can be found at http://duckstamps.fws.gov
Managing for Wildlife

WATER LEVELS ON over 7,000 acres of Refuge habitat are managed using a system of water control structures and dikes. High water levels protect fish populations during the winter, protect nesting birds from predation, and regulate vegetation growth. Low water levels create mudflats for cranes and other birds, enhance feeding opportunities for migratory waterfowl and shorebirds, and make fish more accessible to osprey and bald eagles. Prescribed burns, river and wetland restoration, mowing, and forest management are used by the Refuge to maintain healthy and diverse wildlife habitats.

History Bits

THE WILDLIFE RICH area that we know as Seney National Wildlife Refuge today was once unwanted land, used up and discarded. Impact began over a century ago, when the great pine forests echoed to the ring of the lumberjack’s axe. Initially only a small portion of what is now the Refuge was cut because it was dominated by the less valued northern hardwoods and swamp conifers. As the supply of red and white pine neared exhaustion, mills turned to the remaining forests. During this stage most of the Refuge area forest was harvested.

Following lumbering, fires were often purposely set to clear debris. These fires burned deep into the rich organic soil, killing the seeds that would have produced a new forest, setting forest growth back. After the fires burned out, a land development company dug many miles of drainage ditches. This drained acreage advertised agricultural productivity, but the new owners soon learned that these promises were unfounded. One by one farms were abandoned, and the lands reverted to the state.

In 1934 the State of Michigan asked the Federal Government to develop the Seney area for wildlife. This proposal was accepted and Seney National Wildlife Refuge was established. Soon after, the Civilian Conservation Corps began the transformation and physical development of the Refuge land.

Through the Year

Spring

ABOUT THE TIME the ice melts off the pools, the Refuge’s summer residents begin returning to their nesting grounds. Canada geese are usually the first to arrive in late March to early April. Their familiar honking is a welcome sign that spring is near. Following shortly behind are sandhill cranes and red-winged blackbirds. Common loons arrive after most of the ice has melted.

Late Spring - Early Summer

Spring and fall are the best viewing times for most wildlife species. Biting insects (black flies, deer flies, and mosquitoes) can be a problem during warmer months. Wood ticks may also be found. Refuge habitat supports a variety of wildlife including black bear, white-tailed deer, coyote, river otter, beaver, Ruffed, Spruce, and Sharptailed Grouse, Yellow Rails, woodcock, Bald Eagles, fox, muskrat, mink, turtles, frogs and insects. The Refuge’s many species of songbirds are some of the last to arrive. By the end of May, birdwatchers will be delighted with the variety of birds. The best time to listen for birds is late May to early June.

Autumn

Peak waterfowl migration occurs from the end of September to mid-October. Loons are some of the earliest to leave in September. By the end of October most migratory birds have left the Refuge for their wintering grounds. Common species include Canada geese, hooded mergansers, mallards, black ducks, ring necked ducks, wood ducks, and sandhill cranes.

Special Rules

Do please not feed wildlife.
Daylight use only.
Dogs are allowed on a leash.
No camping or overnight parking is allowed.
Off-road vehicles are prohibited.
Open fires are not allowed.
No boats or flotation on Refuge pools

Strangmoor Bog National Natural Landmark

SENEY REFUGE INCLUDES 95,238 acres, 25,150 of which comprise the Seney Wilderness Area and the Strangmoor Bog National Natural Landmark (NNL). The NNL is a program that recognizes and encourages the conservation of outstanding examples of our country’s natural history. It is the only national areas program of national scope that identifies and recognizes the best examples of biological and geological features in both public and private ownership.

National Natural Landmarks are designated by the Secretary of the Interior, with the owner’s concurrence. To date, fewer than 600 sites have been designated. The National Park Service administers the NNL Program and if requested, assists NNL owners and managers with the conservation of these important sites.

The mosaic of upland and wetland habitat types at the Strangmoor Bog provides for a diversity of both migratory and non-migratory wildlife species. Approximately 20 species of herptofauna, 48 species of mammals, 26 species of fish, and over 200 species of birds have been documented within the Refuge.

Other National Natural Landmarks are found within the Hiawatha National Forest (Dukes Experiment Forest Research Natural Area) and at the Porcupine Mountains Wilderness State Park.

Are You a Photographer?

WE INVITE YOU to visit the Hiawatha National Forest and the Seney National Wildlife Refuge and enter your photos in our Annual Photo Contests. For information and rules, contact:

Hiawatha Forest Photo Contest
400 East Munising Avenue
Munising, MI 49862

Seney NWR Photo Contest
1674 Refuge Entrance Road
Seney, MI 49883

History Bits

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Take a DAY Hike

YOUR VISIT TO Pictured Rocks National Lakeshore may be only an hour or two or you may spend a week or more. If you only have a day or two to spend at the Lakeshore, consider visiting these popular attractions in developed areas of the park. Please note that bicycles are not permitted on Lakeshore trails. Pets are allowed along all park roads and are permitted in some other areas. Pets must always be on a 6-foot leash.

Munising Falls
Nestled in a cool, shady valley, the 50 foot falls are at the end of a short 800 foot walk on an improved trail. The trail is a good place to look for wildflowers in spring and early summer. Water from the creek was once used in the production of iron at the Schoolcraft blast furnace, a story told on wayside exhibits and in the Munising Falls Interpretive Center. Pets allowed on trail to Munising Falls, but not on Becker Farm entrance road and fields or on North Country Trail.

Sand Point
The Sand Point beach is a popular spot for walking in the evening to watch the sun go down over Munising Bay. The Sand Point Marsh Trail, a half-mile disabled accessible interpretive trail, features a large print brochure for visually impaired visitors. Sand Point is a good place to look for warblers in spring and fall. Park Headquarters is also located on Sand Point in a former U.S. Coast Guard building. Pets are permitted on Sand Point to the base of the Pictured Rocks cliffs. Pets are prohibited on Sand Point Marsh Trail.

Miners Castle
Beginning at the picnic area, a paved foot trail leads you past interpretive exhibits to breathtaking overlooks of Lake Superior and Grand Island. Erosion over long periods of time has created the interesting rock formations that give this place its name. Pets permitted in picnic and overlook area. Prohibited on North Country Trail.

Miners Falls
A 1.2 mile round trip gravel path through a deep woods environment leads to the falls overlook. Miners River plunging some 60 feet over a cliff is home to brook and steelhead trout. A free, self-guiding interpretive trail guide is available at the trailhead. Pets are permitted in picnic area on a 6 foot leash. Pets prohibited on the trail to Miners Falls.

Miners Beach
A picnicker and beach walker’s delight, Miners Beach extends for one mile on Lake Superior where waves roll in to polish beach cobbles. Miners River is popular for steelhead fishing in spring and fall. A 1.0 mile trail connects Miners Castle developed area and the picnic area at Miners Beach. Pets allowed in picnic area and on Miners Beach.

White Pine Trail
Located at the Little Beaver Lake Campground this 1.0 mile self-guiding interpretive trail explores the plant and animal communities of a cool, shady valley. Free trail guides are located at the trailhead. No pets allowed in this area.

White Birch Trail
Located at the Twelvemile Beach Campground, this two mile self-guiding interpretive trail explores a variety of ancient Lake Nipissing beach and upland plant communities. Free trail guides are located at the trailhead. No pets allowed in this area.

Log Slide Overlook
The 1000 foot trail to the viewing platform from the picnic area is worth the walk. Newspaper accounts tell of logs sent down the dry log chute generating enough friction to cause the chute to catch fire. Today the chute is gone, but the lumberjack stories still linger as you gaze out over the Grand Sable Banks and Dunes. This is a good place to glimpse the Au Sable Light Station to the west and Grand Marais to the east. Pets allowed only on the overlook platform.

Au Sable Light Station
This picturesque station is being renovated by the National Park Service. Strolling about the grounds on a stormy day, one can feel the sense of duty and history for which this station is preserved. Access to the station is by a 1.5 mile hiking trail beginning at the east end of the lower Hurricane River Campground. No pets allowed in this area. Check at visitor centers and park bulletin boards for summer interpretive tours scheduled at the light station.

Sable Falls
A picnic lunch at Sable Falls can begin a great afternoon of exploring. A 0.5 mile hike from the parking lot leads you to the falls and Sable Creek and on to Lake Superior. No pets allowed in this area.
National Lakeshore Shrinks

ON THURSDAY MORNING, April 13, the northeast turret of Miners Castle collapsed. One turret remains on Miners Castle, the best-known feature of Pictured Rocks National Lakeshore.

The collapse was reported via cell phone by fisherman in the area, according to chief ranger Larry Hach. Most of the rock fell north and into Lake Superior, and there were no injuries. The lower overlook platform near Miners Castle appears to be unaffected.

While the rockfall at Miners Castle on April 13 was startling, such events are not rare along the Pictured Rocks escarpment. At least five major falls have occurred over the past dozen years: 1) two different portions of Grand Portal Point, 2) the eastern side of Indian Head just east of Grand Portal Point, 3) Miners Falls just below the (now modified) viewing platform, and 4) beneath the lip of Munning Falls (along the former trail that went behind the cascade).

All the rockfalls involved the same rock unit, the Miners Castle Member of the Munising Formation. Rock units are named for places where they were first technically described. The Miners Castle Member consists of crumbly cross-bedded sandstone that is poorly cemented by secondary quartz, according to U.S. Geological Survey Research Ecologist Walter Loope. Rockfalls along the cliffs typically occur in the spring and fall due to freezing and thawing action of Mother Nature.

Adopt A Trail or Campsite

PICTURED ROCKS NATIONAL Lakeshore announces a new “Adopt-a-Trail, Adopt-a-Campsite” program, as part of the park’s Volunteer in Parks (VIP) program. “As with many other public institutions, we need the assistance of volunteers to complement and supplement the work of our paid professional staff,” Park Superintendent Jim Nordthup explained. “With over 100 miles of trail and 13 designated backcountry campsites, this is just as true in the backcountry as it is in the developed areas of the park.”

A half-day orientation and training session for Adopt-a-Trail, Adopt-a-Campsite Volunteers is required and additional orientation meetings will be held through the year.

Under this program, interested individuals or groups who love to hike and camp in the park can adopt a section of trail or a backcountry campsite. Volunteers will be asked to visit their section of trail or campsite once a month from May through October for light maintenance duties including picking up litter, brushing, cleaning out water bars, and breaking up illegal fire rings.

Volunteers will be asked to fill out a brief one-page summary and report on any larger issues that need to be followed up or completed by park staff. The park will provide a VIP uniform shirt and ball cap, basic tools and gloves, and written guidelines on the work to be performed.

The park’s trail network has been sub-divided in 37 sections that are available for “adoption.” Adoptable sections range from trails that are easily accessible and less than a 10th of a mile to one section of the North Country Trail that is 5.3 miles long. “There is something for every ability and level of interest,” said Chris Case, the park’s Facility Manager. This is a great way to get outdoors, get some exercise, and be part of conserving America’s first national lakeshore.

If you are interested in participating in this program, please call Pam Baker, the park’s Volunteer in Park Coordinator, at 387-3700.

FROM PAGE ONE - Since its inception in 1916, the National Park System has grown to 390 areas, a system that has served as a model for over 1,200 national parks and comparable preserves around the world. These parks were established to preserve and protect the natural, cultural, recreational and scientific attributes of these beautiful areas.

Like a grandmother’s quilt, Pictured Rocks National Lakeshore is a mosaic of natural and cultural wonders. From the Grand Sable Dunes and soaring cliffs, to numerous trout stream waterfalls, the history of the Anishinabe and U.S. Coast Guard life saving stations, the Lakeshore beckons us to linger.

National Parks are special places that offer wonderful opportunities for education, recreation and spiritual renewal. During this special year, the park staff renews our invitation to all of our neighbors and visitors to come discover or rediscover the wonders of Pictured Rocks National Lakeshore.” Indeed, National parks continue to be “the best idea America ever had.”
### Hiawatha National Forest

#### SUMMER DAY USE TRAILS

<table>
<thead>
<tr>
<th>Trail</th>
<th>Miles</th>
<th>Biking</th>
<th>Hiking</th>
<th>Equestrian</th>
<th>Canoe</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>AuTrain River</td>
<td>10</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td>Nice half or whole day floats available</td>
</tr>
<tr>
<td>AuTrain Songbird</td>
<td>2</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>Interpretive trail - rent songbird kit from campground host</td>
</tr>
<tr>
<td>Bay de Noc - Grand Island</td>
<td>40</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>Follows approximate route of Native American portage trail</td>
</tr>
<tr>
<td>Bruno’s Run</td>
<td>9</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td>Outstanding scenery, among best Michigan mountain bike trails</td>
</tr>
<tr>
<td>Indian River</td>
<td>36</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>Some sections challenging</td>
</tr>
<tr>
<td>North Country Trail</td>
<td>20</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td>Part of National Scenic Trail stretching from N. Dakota to N.Y.</td>
</tr>
<tr>
<td>Oakwood Trail</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>Specifically for horseback riding</td>
</tr>
<tr>
<td>Pine Marten Run</td>
<td>26</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td>Trailside camping opportunities</td>
</tr>
<tr>
<td>Valley Spur</td>
<td>26</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td>Loop rides for mountain bikers of all abilities</td>
</tr>
</tbody>
</table>
Dispersed Camping
IN THE FOREST’S developed campgrounds listed below, the Hiawatha offers numerous low-development campsites for those seeking more solitude and few amenities. These campsites are usually accessible over primitive roads, but walk-in sites are also available. The spacing of dispersed sites is irregular, with some distance between campsites. Water and pit toilets are provided in a few instances. A permit charge may be required, though most sites are free.

On the Munising Ranger District, Cookson Lake and Council Lake offer drive-in dispersed camping opportunities. Ewing Point is a walk-in dispersed site. All three areas require permits. Prices are $10 for 1-3 nights and $20 for 4-7 nights. Contact the Munising Interagency Visitor Center for Hiawatha National Forest more information at 906-387-3700.

Developed Campgrounds

<table>
<thead>
<tr>
<th>Campground</th>
<th>Units</th>
<th>Fee</th>
<th>Open/Closed 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Au Train Lake</td>
<td>37</td>
<td>$10</td>
<td>5/15-9/30</td>
</tr>
<tr>
<td>Bay Furnace</td>
<td>50</td>
<td>$10</td>
<td>5/15-9/30</td>
</tr>
<tr>
<td>Island Lake</td>
<td>45</td>
<td>$10</td>
<td>5/15-9/07</td>
</tr>
<tr>
<td>Pete’s Lake</td>
<td>41</td>
<td>$10-15</td>
<td>5/15-9/30</td>
</tr>
<tr>
<td>Widewaters</td>
<td>34</td>
<td>$10</td>
<td>5/15-9/30</td>
</tr>
<tr>
<td>Camp 7</td>
<td>41</td>
<td>$8/59</td>
<td>5/15-10/07</td>
</tr>
<tr>
<td>Colwell Lake</td>
<td>35</td>
<td>$7-35</td>
<td>5/15-10/07</td>
</tr>
<tr>
<td>Corner Lake</td>
<td>9</td>
<td>$9</td>
<td>5/15-9/07</td>
</tr>
<tr>
<td>Little Bass Lake</td>
<td>12</td>
<td>$7</td>
<td>5/15-10/07</td>
</tr>
<tr>
<td>Indian River</td>
<td>11</td>
<td>$7</td>
<td>5/15-10/07</td>
</tr>
</tbody>
</table>

McKeever Cabin
LOOKING FOR A quiet, rustic place to get away for a few nights? Nestled in the trees on a knob above McKeever Lake, the Hiawatha’s McKeever Cabin may be just what you’ve got in mind. The rustic cabin can accommodate up to six people. Cooking can be done on your own camp stove, or on the top of the barrel stove which is equipped with a primitive cooking rack. Plan to bring your own equipment including campstove, dishes, utensils, containers for carrying water, toilet paper, lanterns, sleeping bags and pillows. The cabin has one table with stools, two bunk beds with mattresses, one countertop, a corner seat and two wooden chairs. There are no modern bathroom facilities or electricity. A pit toilet is located just off the trail to the cabin, and there is a summer/winter hand pump on the lake trail. The Forest Service supplies firewood. Reservations for McKeever Cabin are available. For more information, please contact the Munising Interagency Visitor Center at 906-387-3700.

Nature Note...There are three native species of maple trees in the Upper Peninsula - Hard or Sugar Maple, Red or Soft Maple, and Striped Maple or Moosewood.

Forest Day Use Trails

Au Train River - This friendly river offers convenient 2-5 hour canoe or kayak trips. Navigate leisurely through the river’s twists and bends with four convenient landings for put-in / take-out, including Lake Superior. One nice trip allows you to paddle nearly five miles but walk back less than one mile to the car you left parked at the other bridge!

Valley Spur - Twenty-six miles of hiking and mountain bike trails located six miles southwest of Munising on M-94.

Bruno’s Run - This diverse 10-mile loop in Hiawatha National Forest is ideal for hiking and mountain biking in spring, summer and fall and snowshoeing in winter. Challenging but not “extreme,” the trail winds past inland lakes, over hills, along overlooks and through valleys. Access is from Pete’s Lake Campground or from the Moccasin Lake parking area on H-13, 10 miles south of M-28. Pets are permitted on a 6-foot leash.

Indian River - Put your canoe into the Indian River at the Widewaters Campground boat ramp, off H-13 about 12 miles south of Munising. The current is not strong, so you may paddle upstream for an hour to Bar Lake, and then float and paddle back downstream. The river also flows south into Lake Michigan. Inquire about river conditions and take-out points. Pets are permitted on a 6-foot leash.

Pine Marten Run - This 26-mile system of interconnected hiking, horseback riding, and mountain biking trails is located in the National Forest approximately 20 miles southeast of Munising. It is accessible from County Road 440 and 437 and Forest Road 2258, with parking areas suitable for horse trailers at each trailhead.
Hiawatha National Forest

Le Grande Isle

LOCATED IN LAKE SUPERIOR about one-half mile offshore from Munising, Grand Island’s historical residents and visitors have included Native Americans, voyageurs, hunters, trappers, fur traders, loggers, geologists and vacationers.

A National Recreation Area since 1988, the 22-square mile island’s scenic natural beauty and interesting history make it an attractive place for a full day’s mountain bike trip or a backcountry overnight stay.

Visitor motor vehicles are not permitted, but a daily narrated bus tour of the lower part of the island is available during the summer season. Inquire about times at the ferry dock or at the Visitor Information Center in Munising.

Camping on the sandy tombolo that connects the two parts of the island is limited to designated campsites. Please respect private property signs and do not approach buildings.

Although no camping permit is required, a $2 per person entry fee is included in the price of each ferry ticket. Boaters arriving on the island are requested to deposit their fees in the tube provided near the designated campsites. General backcountry regulations and safety concerns apply on Grand Island, but campers should stop at the Visitor Information Center in Munising to receive the latest updates and to purchase maps.

Group Site Reservations

Grand Island offers an array of camping opportunities, including two large group (7-25 people) campsites. Reservations for up to four consecutive nights per trip are available for Murray Bay or Juniper Flats Group Sites. Reservations for two group campsites can be made for up to four consecutive nights per trip. Reservations will be accepted three or more days in advance of the first night of occupancy. Reservations may be accepted upon receipt by the Forest Service of a reservation application with a $30 check. Reservations will be confirmed as soon as possible. The $30 reservation fee is not refundable once the reservation has been accepted.

Applicants should note that the $2 per person entrance fee is payable at the start of the trip and is in addition to the reservation fee. Entrance fees can be paid at Grand Island Landing at the passenger ferry office, at the Island’s self-serve pay stations on Murray Bay and Trout Bay, or at the Forest Service / Park Service Visitor Information Center in Munising. The reservation system will apply only to the two group campsites. Individual campsites at Murray Bay, Trout Bay, and 11 other locations around the island are not covered under the reservation system and remain first-come, first-served. A reservation lottery is held each winter to distribute use among the general public and outfitter guides. For more information on the lottery, the reservation system or the group sites, contact the Munising Interagency Visitor Center at 906-387-3700.

Hey Kids!

KIRTLAND’S WARBLER - JACKPINE FOREST / SPRUCE GROUSE - OLD GROWTH
CONIFEROUS FOREST / PIPING PLOVER - UNDEVELOPED BEACHES
PEREGRINE FALCON – CLIFFS / SHARP-TAILED GROUSE and
BOREAL CHICKADEE - BOREAL FORESTS
Kids Quiz - Connect the Question and Answer With A Line

1) Why are streams brown in the UP?   a) Red-backed salamander
2) What kind of pine uses fire to open the cones and release seeds?   b) Spiny waterflea
3) The most common salamander in this area is?   c) Coaster brook trout
4) Which of these is an exotic invader?   d) The Civilian Conservation Corps
5) Where are stoneflies hatched?   e) From tannic acid in wetland tree roots and leaves
6) What kind of trout cruises the shore?   f) The North Light on Grand Island
7) What is the highest lighthouse on Lake Superior?   g) In creeks, streams and ponds
8) What group planted many many U.P. pine trees 75 years ago?   h) Jack pine


Create A Story
ONCE UPON A TIME...

_____________hiked into the forest, looking for mushrooms or wild _____________. Walking along a ____________ they came to a ____________. There, in the river they saw ____________ and _____________. “Look at the size of that _____________” cried dad! An eagle soared overhead and ____________ clouds gathered on the horizon. Though a _______ approached, ____________ kept looking for berries. Finally! A group of berries were discovered on _____________. We had better get back to the _______ before it rains. As we scurried ____________ we saw a large ____________ right in the trail! And she had ____________! So we made a lot of noise and waived our arms and the ____________ moved off into the woods. Just before the rain came, ____________ discovered a ____________ in a pond. Wow, look at the colors of the ____________ _____________. Let’s take a _________ of it then leave it alone. What a great place this is to explore! I can’t wait to tell ____________ when I get home!

Take a few minutes and write a poem about the places you have discovered while here in the Lakeshore, Forest or Refuge.

What Do Forest, Park and Refuge Rangers Do?
Circle Your Answers

Direct traffic in emergencies.
Research the lives of plants and animals.
Control wildfires.
Create information web pages.
Locate lost visitors.
Preserve historic buildings.
Help people learn about and understand their national heritage.
Manage exotic species.
Write newspaper articles.
Take photographs of forest, park and refuge activities.
Investigate wildlife poaching cases.

ALL OF THE ABOVE!

Color Me
Dealing With Invasive Species

IN MANY CASES, invasive plants originate from another part of the world. In their original habitat, they are regulated by natural controls such as foraging wildlife, climate, and competing plant species. However, often times when they are relocated from their native habitat, these natural controls are no longer present and the plants are able to propagate uncontrollably.

Here at Pictured Rocks National Lakeshore, invasive species are of particular concern due to our unique dune and beach ecosystems. Among other dune species, we are home to the federally threatened Pitcher’s thistle (inset). This rare plant is being encroached upon by an invasive species called spotted knapweed (Centaurea biebersteinii). Like the Pitcher’s thistle, spotted knapweed is well-adapted for dry sandy soils and sunny open areas such as dunes and beaches. Another place that you will find spotted knapweed is along our roads and trails. These open areas create a corridor for invasion into natural areas, especially when they are visited by many people who may inadvertently spread the seeds on their shoes or vehicles.

Spotted knapweed is especially troublesome for another reason – it is allelopathic (pronounced “ah-lee-low-path-ic”), which means it emits chemicals into the soil that inhibit the growth of neighboring plants. If left untreated, spotted knapweed will eventually overtake the dunes and eliminate some of the last remaining habitat for the Pitcher’s thistle.

The National Park Service has been working hard to stop the spread of spotted knapweed at Pictured Rocks. Last year, the exotic plant management team—a crew of workers dedicated to the eradication of invasive plants—spent a week locating and treating spotted knapweed at the park. This year, treatment and monitoring will continue to ensure the success of control efforts.

As a way to help our visitors take part in protecting native plants, we have posted information throughout the area about invasive species. Watch for informational posters near the trailheads and restrooms, as well as signs along the trail alerting you to the presence of an invasive species. Signs along the trail resemble hazardous materials signs, indicating that an ecological “hazard” is nearby.

The following are a few key strategies for landowners and visitors to help protect the park from the spread of invasives:

- **Stop the spread** – be very careful not to transport the seeds or plant parts of invasive species... **Get the facts** – learn to recognize invasive species and familiarize yourself with their effects on native plants and wildlife... **Take action** – remove invasive species from your property and take part in local control efforts; consider using native plants in your gardens and throughout your property...

For more information, contact Bruce Leutscher at 906-387-2680.