



#### Explore the Lake Erie Islands

Editorial

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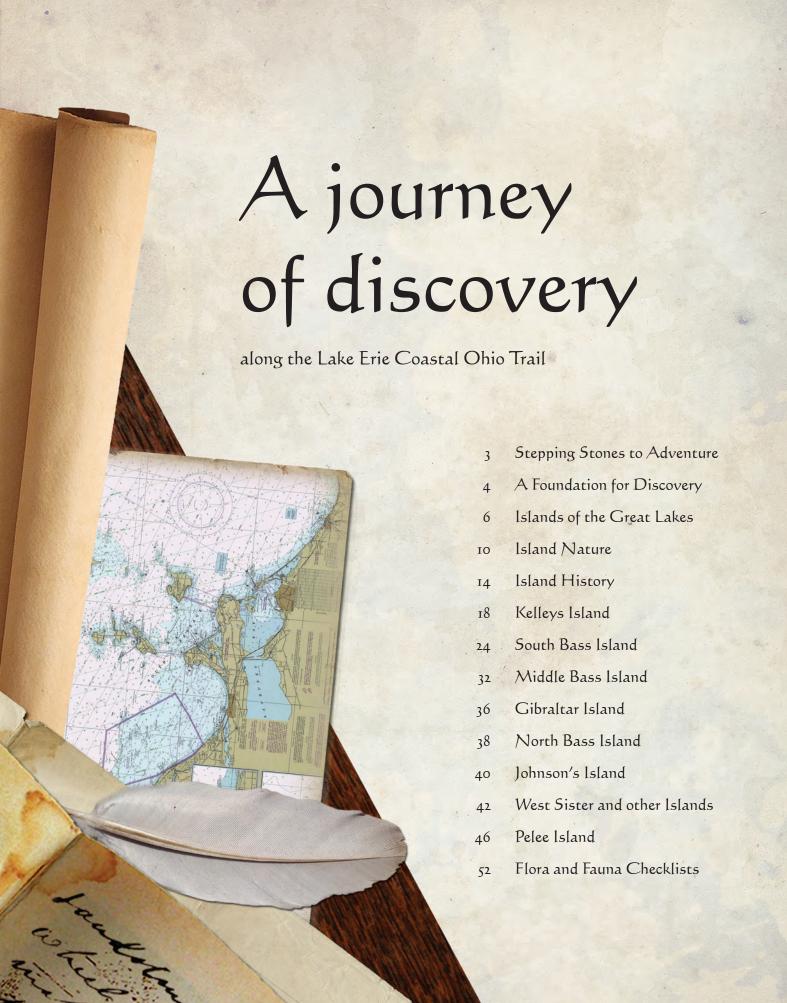
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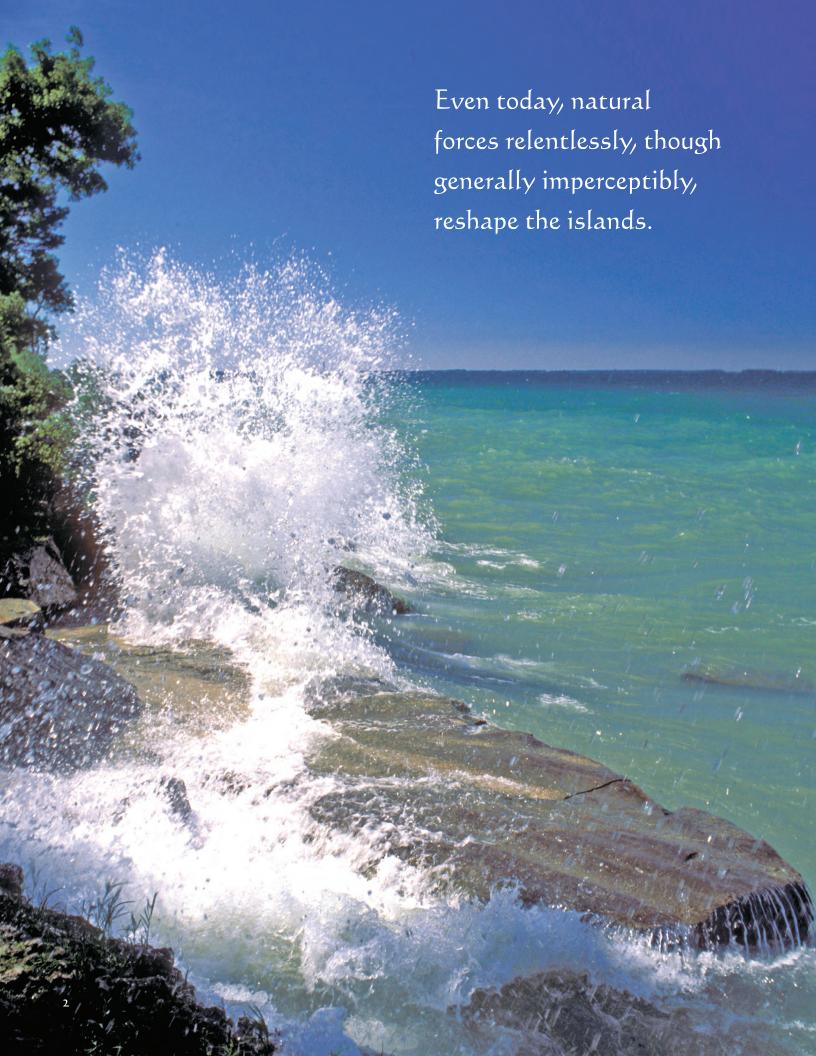












# Stepping Stones to Adventure



appears as stepping stones to Canada. The Western Lake Erie Islands are popular boating and vacation destinations, luring more than a million visitors each year. Drawn by the waters of Lake Erie and the appeal of an island retreat, most visitors estled a few miles off the Ohio coast, a string of islands

overlook the quieter, albeit amazing, side of the islands—their overwhelming beauty, natural wonders, and fascinating heritage.



North Bass Island

Explore spectacular natural areas filled with exceptional birds, plants, insects, and wildlife. Isolated from the mainland and accessible only by boat or air, the islands have a rich heritage built upon their vast and unique natural resources—water, soil, stone, fish, and trees. Discover how the islands have been sites of maritime commerce, military strategies, wine making, fishing, tourism, agriculture, and quarrying.

Although the islands are all anchored within 350 square miles, each island developed uniquely and offers a different experience. Each has its own distinct personality. This guidebook reveals the islands' hidden charms, from natural areas to historic sites. Enjoy this self-guided journey of discovery.

The Lake Erie Islands

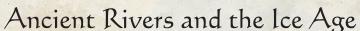
# A Foundation for Discovery

The story of the Lake Erie Islands is written in stone—the same sedimentary rock that forms their solid bedrock foundation and armors their shorelines. This story, however, is not complete. Even today, natural forces relentlessly, though generally imperceptibly, reshape the islands. Battering waves, freezing and thawing water, and scouring ice are the most obvious forces transforming the islands. But it was another kind of ice—ice of unimaginable thickness—that had the most profound effect on the face of Ohio and its islands.





Kelleys Island Glacial Grooves



It's hard to picture, but geologically speaking, Lake Erie is a recent part of our landscape. It's the newest and smallest of a series of lakes to fill the basins in the 12,000 years since the last great glacier—the Wisconsin glacier—ground down out of the Canadian north. Before the glaciers arrived, an ancient river, the Erigan, flowed west to east where Lake Erie is now. The erosive power of this ancient river created large basins. As each glacier retreated, stones and debris caught rides along its frozen surface. This imbedded debris, as well as the ice itself, carved the basins even deeper. Water filled the basins, creating a series of lakes—the most recent of which is Lake Erie.

More than one glacier marched down from the frozen north. Each one polished the face of North America and pushed soil and stone ahead of its slow advance. But it was the last one, also called the Wisconsinan, that ultimately left its mark. South of

the islands, the Wisconsin glacier was the great leveler. What it didn't bulldoze flatter, it leveled with deposits of rich glacial till, creating fertile farmlands.

The Lake Erie Islands survived the onslaught and survived thousands of years under a mile-high sheet of ice. But in the process they were largely stripped of soil and permanently scarred. Proof is found in scrapes and grooves on many of the islands where the glacier gouged their rocky surfaces. On the north side of Kelleys Island the glacial evidence is particularly dramatic.

A visit to the Glacial Grooves, a National Natural Landmark, brings home the power of the glaciers. The grooves are the finest example of glacial scouring in North America. Even though quarrying destroyed a significant portion of the grooves—as well as grooves in other locations—an impressive 430-foot-long section remains that is 15 feet deep and 35 feet wide.



## Prehistoric Sealife Preserved in Stone

These islands that now stand above the lake are also children of water.

The dolomite and limestone bedrock forming their foundation emerged from ancient warm, shallow seas that scientists believe covered our region some 400 million years ago. In the beginning it was nothing more than lime mud on the bottom of a tropical sea rich in corals and other marine invertebrates. Enormous pressures and fascinating processes turned the loose silt and the remains of marine organisms into sedimentary rock, including limestone and dolomite.

Despite their marine origin, the durable dolomites now exposed in the Bass islands contain very few

fossils. Dolomite is similar to limestone, but has magnesium and is much stronger.

In stark contrast, the softer Devonian limestones dominating the eastern line of rock formations—the chain formed by the Marblehead Peninsula on the mainland and the islands of Johnson's, Kelleys, and Pelee—sport a rich variety of fossils. More than 70 species of marine organisms have been found in the abandoned limestone quarries now part of Kelleys Island State Park. Crinoids, blastoids, cephalopods, clams, trilobites, brachiopods, corals, and snails are among the groups of flora and fauna well represented in the fossil record.



## The Basins of Lake Erie

Draw a line through that easterly chain from Cedar Point across to Point Pelee on the Canadian mainland, and you've marked the boundary between Lake Erie's shallow, nutrient-rich western basin and the much deeper central and eastern basins.

Less obvious, but geologically linked to the islands and extraordinarily important in the western basin's ecology, are the underwater reefs (or shoals), comprised of rock and gravel shelves rising above the average lake bottom and lurking just a few feet below the lake's surface.

Twelve reefs are part of the complex that includes West Sister Island. Fourteen reefs form the underwater links in the 10-island group that extends from Catawba Island through the Bass islands, and seven more are part of the eastern chain anchored by Kelleys Island.





South Bass Island State Park

### Lake Erie's Western Basin

The western basin, with a mean depth of only 24 feet, is very shallow compared to the rest of the lake. Its dolomite and limestone are more durable than the softer shales that form the base of Lake Erie to the east. As each glacier dug through the stones on its retreat north, it met resistance from the dolomite and limestone in the western basin. Because the glacier could not dig as deep, the western basin is shallower than the eastern part of the lake.

The western basin is underlain by a huge geologic bedrock structure, the Cincinnati Arch and its northern branch known as the Findlay Arch. Most likely, the collision of tectonic plates resulted in this arch being uplifted.

The arch crests a few miles west of West Sister Island, before plunging gently to the north. As a result, the oldest rocks in the island region are exposed on West Sister, with successively younger formations to the east and west.

Those formations have given us the gift of an archipelago, a concentration of many islands.

# Islands of the Great Lakes







The Western Lake Erie Islands archipelago is the largest collection of islands in Lake Erie and part of the Great Lakes' system of about 35,000 islands ranging in size from a pile of boulders to Lake Huron's Manitoulin Island, the world's largest island in a freshwater lake. Most of the islands—17,500 of them—are concentrated in Lake Huron's Georgian Bay, while the Thousand Islands between New York and Ontario are said to number about 1,500. Some say the Great Lakes have more inland islands than anywhere else on the planet.

While the islands differ in size, type of bedrock, climate, soil, and impact at the hands of humans, they share some unique characteristics. As islands, they are especially vulnerable to human disturbances. They all share an important natural relationship with surrounding lake waters and the reefs and shoals that nurture the fishery. Most serve as important stopovers for migrating birds. Because of their amount of shoreline, islands harbor unique habitats important for a variety of fish, wildlife, and plants.

The isolation inherent with islands also makes them home to an inordinate number of endangered and threatened species. Although the Great Lakes Islands encompass just one percent of the land in the 288,000 square miles drained by the Great Lakes, they account for a startling 10 percent of endangered, threatened, or rare species that live in the basin.

On many islands, the presence of predatory mammals is minimal, making them attractive nesting sites for a wide variety of birds, especially colonial nesters.

Because outside influences are more controlled than mainland sites, the islands support important environmental research, including an ongoing predator-prey study on Lake Superior's Isle Royale National Park near Grand Portage, Minn. The second largest island in the Great Lakes, Isle Royale is home to both moose and wolves and, in that living laboratory, researchers have been able to carefully observe species interactions and population trends in a closed environment.

Great Lakes Islands were, and continue to be, sacred places for Native Americans. They're important historic sites, telling tales of frontier battles, European explorers, and pioneers. They're also home to a large number of sturdy old lighthouses, many still warning mariners away from potentially deadly shoals.

Island residents live a special life, separated from mainlanders, spawning a special view of the world. Visitors find islands places of fascination—places to escape city lights, crowds, and the demands of every day life.

Taken together, the Great Lakes Islands are among our last wild places, bastions of biodiversity, home to unique species and subspecies, and telling pieces of our geological puzzle.





## What's in a Name?

Starve Island. Bass Islands. Rattlesnake. Ballast. Green.

The names of the Lake Erie Islands are, for the most part, straightforward and descriptive. Some of the names are based on historic deeds, but tracing the succession of ownership—even the political entity to which each island belonged and when—is more difficult.

The Treaty of Ghent, which ended the War of 1812, parceled Middle, Pelee, Hen, Chickens, East Sister, Middle Sister, and North Harbor islands to Canada. America officially counted as its own all three Bass islands, West Sister, Kelleys, Sugar, Green, Ballast, Rattlesnake, and Gibraltar.

If you look at the names of nearby mainland places—Ottawa, Sandusky, Erie, and Maumee, for example—many are closely linked to the culture and language of Native Americans. Not so with the Lake Erie Islands.

The **Bass islands** are great spots for bass fishing. The three Bass islands are stacked north to south, separated by channels. They're called South, Middle, and North Bass islands. North Bass also carries the moniker Isle St. George.

Originally called Cunningham's Island, a 2,800-acre island was purchased in 1833

by Datus and Irad Kelley. It became known as **Kelleys Island**. Island residents explain that the Kelley family doesn't own the island anymore; that's why there's no possessive apostrophe in the name.

Rattlesnake Island is named for its shape with two small islands at the northwest tip that mimic rattles.

Gibraltar Island resembles the rock of the same name that guards the mouth of the Mediterranean Sea. Like its namesake, Ohio's Gibraltar Island guards a busy boat channel and shelters the anchorage at Putin-Bay, the well-known village on South Bass Island.

Green Island is shown on earlier maps as Moss Island and also as Strontium Island, the latter name indicative of the large deposits of high quality strontium removed before 1900. The isolated nature of many of the smaller islands creates the perfect "hands off" environment for endangered plant species. On Green Island, northern bog violet, harebells, and rock elm flourish.

It's reported that **Ballast Island** provided stone ballast for the ships in Commodore Perry's fleet, as well as gravel for quarry workers in the mid-1800s.

Sparsely vegetated **Starve Island**, according to local tales, describes the fate of a seaman

marooned there decades ago. Short of taking fish from the lake, food is sparse on this one-acre outpost, though water is plentiful. Like many of the smaller Lake Erie islands, Starve Island comes and goes with water levels. Its rippled dolomite limestone surface is a reminder of its glacial beginnings, and its unique landscape supports harebells, a state-endangered species.

Catawba Island, a peninsula since the Portage River changed course centuries ago, is named for the sweet-tasting grapes that thrive both there and on the islands.

Sugar Island takes its moniker from its abundant sugar maples. Johnson's Island took its name from its 1852 purchaser, L.B. Johnson. He changed the name of the island from Bull's Island, named after its previous owner, Epiphras Bull.

Pelee Island's name comes from
Point Pelee. Early French explorers and
traders dubbed this sandspit lying east
of Leamington, Ontario, as "Point Pelee,"
meaning bald point. Historical records and
geological studies describe a sandy point
that extended even further into the lake than
it does today. No vegetation grew within the
last few miles of this peninsula.





# Island Nature Rare. Mesmerizing. Inviting.

here's a love-hate relationship between the islands and the lake. The same waters that hold the mainland at a distance, isolating and protecting these precious habitats, can turn on the islands with angry onslaughts of wave after wave attacking the rocky bulwarks with ferocious intensity.

It is precisely this interaction between lake and islands that makes them so special. Setting them apart from the mainland minimizes disturbances and fosters unique species. The huge volume of lake water surrounding the islands moderates their climate, making both winter and summer gentler than they might be otherwise, while delaying the onset of spring and extending the frost date in the fall.

Migrating birds, faced with crossing a huge lifethreatening expanse of water, welcome the islands as a series of stepping stones that make the crossing to Point Pelee and more northern nesting territories easier. Some songbirds choose to end their trip north right on the islands, taking advantage of the natural riches to raise their young. Gulls, for obvious reasons, love the islands. So do double-crested cormorants, whose relatively recent comeback has resulted in large colonies and defoliation of some shoreline forests.

Island nature starts with the underwater riches of the surrounding lake. Water teems with forage fish and even more basic food pyramid species, such as plankton and mayflies. Mayflies, sometimes called Canadian soldiers, emerge from the lake bottom by the millions each summer. The greatest numbers occur between late June and early July.

As every local angler knows, the islands anchor a phenomenal fishing ground sporting some of the world's finest walleye, yellow perch, and smallmouth bass populations. The matrix of island shallows, reefs, and gravel bars provides ideal spawning grounds for those popular sportfish, as well as forage fish like gizzard shad, emerald shiner, and other minnows.

Add abundant aquatic vegetation that's flourished with the dramatically increased clarity of the lake waters and it's no surprise that waterfowl literally flock to the area, often rafting in huge numbers.

The islands support wetlands similar to, but much smaller than, the rich wetlands along the western basin shore. Collectively, wetlands on the mainland and



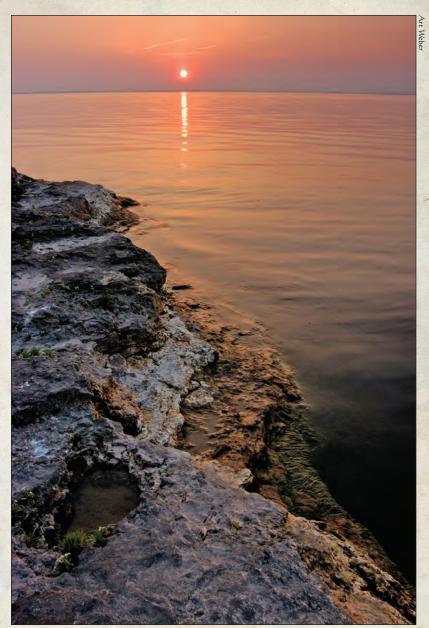
within the islands earned designation as a Regional Site of the Western Hemisphere Shorebird Reserve Network. The designation is a measure of the region's status as critical habitat for shorebirds. That's in addition to the region's well-known raptor migration, nesting bald eagles, staging areas for black ducks, massive movements of migrating birds, and the Great Lakes' largest nesting colonies of colonial waders.

Some of the wetlands are considered coastal barrier wetlands, a term for embayments held behind sand beaches and ridges that serve as temporary dikes. While many of these embayments have been altered and diked, these wetlands, where allowed to function naturally, can vary widely in vegetation from year to year. At Kelleys Island's North Pond, for example, water can be relatively deep and expansive, encouraging emergent and aquatic vegetation. As water levels rise behind the natural sand barrier beach, the waterlogged dike gives way, like pulling a plug, and the pond quickly drains. It can take some time before wave action rebuilds the barrier, allowing the pond to refill. In the meantime the wetland dries and woody vegetation invades in this never-ending cycle.

These barrier wetlands are particularly well suited for wildlife watching. Look for them on Middle Bass at Kuehnle Wildlife Area (formerly Haunck's Pond) and two state wildlife areas on North Bass Island, Fox's Marsh and Honey Point. Most of the interior of Pelee Island was once rich wetlands, but these were largely drained for agriculture. Noteworthy among the few remaining Pelee wetlands are Fox Pond in Fish Point Nature Reserve and the wetlands at Lighthouse Point Nature Reserve.

The wavezone, where land meets the lake, is just one of many island places and spaces where one ecotype abuts another. Species diversity is greatest in these "edges." These places have characteristics of both ecotypes, as well as species uniquely suited to their overlap.

One very special natural community is an alvar, and the best example on the islands is preserved in the North Shore Alvar State Nature Preserve on Kelleys Island. Alvar is an exposed limestone shelf in the wavezone where only a few very hardy plants can survive the scouring by ice in winter, the scorching sun baking the limestone pavement in the summer, and the pounding of wind and waves all seasons. Here you'll find such stalwarts as northern bog violet



North Shore Alvar State Nature Preserve, Kelleys Island



Brook or Kalm's Lobelia





American Goldfinch

(a state-endangered species), balsam squaw-weed, Kalm's lobelia, and Pringle's aster.

Alvars are unique, globally significant habitats mostly found along shorelines where limestone bedrock lies flat and open with very shallow or no soil. The habitat is host to a very distinct set of vascular plants, mosses, lichens, birds, land snails, leafhoppers, and other invertebrates. In the western Lake Erie Islands, alvar communities can be found on limestone bedrock beaches, as well as inland within some of the forests. In the United States, alvar occurs

only within the Lake Erie Islands and in the northern parts of New York and Michigan.

Most edges are not as dramatic as the shoreline cliffs and beaches that make up the wavezone, but every ecotype and every edge is an important contributor to the islands'

special natural status. Meadows, forests, scrublands, wetlands, embayments, reefs, gravel bars, and even old quarries are all factors in the islands' diversity.

Other than alterations to the lake itself, perhaps the biggest landscape transformation that has occurred on the islands is found in their forests. Not surprisingly, as the last glacier retreated and the climate warmed to that of boreal forest, the islands took on that look with spruces, firs, cedars, and pines. Red cedars still invade the hard scrabble of abandoned forests, but following the glaciers when the climate warmed, hardwoods began to grow. Because of their easy access and their location near shipping lanes, island forests were prized for both lumber and fuel for lake steamers. Settlers cleared forests for vineyards, homes, and even quarries.

While the islands are rocky fortresses like their sister formations on the Marblehead Peninsula and Catawba Island, they are the exceptions in the western basin, where the typical mainland shoreline is nearly level to the lake. For most of the mainland basin, the shoreline, where it isn't armored by man-made dikes, is nomadic. It wanders inland or extends further into the lake, depending upon wave action and lake levels. The land is so level that the difference between the lake bottom and the shoreline is almost negligible. It is this gentle gradient that makes much of the western basin a

mecca for wetlands, some of the best examples in the country.

The unique relationship of island isolation and rich wetlands has nurtured the largest heron rookery on the Great Lakes. These colonial nesters flock to West Sister Island, Ohio's only federally designated

wilderness area. Great blue herons, great egrets, black-crowned night herons, and others crowd the treetops with their haphazardly constructed stick nests. But the nests get the job done; the surrounding lake keeps most predators at bay; and nearby mainland wetlands, with help from the smaller but rich wetlands on the other islands, provide food.

West Sister is both foreboding and forbidden. Access is strictly controlled and limited to research teams under the auspices of the U.S. Fish and Wildlife Service. The Lake Erie Islands offer wonderful places to view nature up close, and ferryboat transportation is available from Sandusky, Catawba, Port Clinton, and Marblehead. From Ontario, transportation is available from Kingsville and Leamington.



## Kayaking the Lake Erie Islands

Do not attempt to cross Lake Erie to the islands. It is a 3-mile crossing from Catawba to South Bass Island. Because of its shallow depth, Lake Erie has the tendency to churn up large waves very quickly, and boat traffic can be heavy. Kayaks, and other trailered boats, can be taken aboard Miller Boat Line to Middle Bass and South Bass islands, and Kelleys Island Ferry Boat Lines to Kelleys Island. Launch ramps are available on each island. Kayaks can also be rented on South Bass and Kelleys islands. The NOAA Great Lakes Coastal Forecasting System offers wave and current forecasting at www.glerl.noaa.gov/res/glcfs.

#### Exploring Shipwrecks

More than 1,700 shipwrecks lie at the bottom of Lake Erie. Of these, fewer than 300 have been found.



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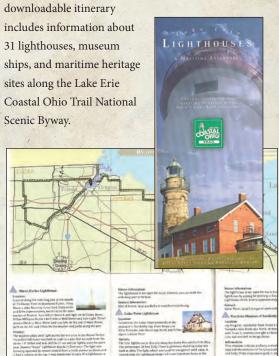
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#### Discovering Lake Erie Lighthouses

Visit www.coastalohio.com for a Lake Erie Lighthouses and Maritime Adventures publication. This







ven early human history of the islands is written in the rocks. Inscription Rock on Kelleys Island is said to be one of the finest examples of aboriginal art in the Great Lakes region. Time and the elements have taken their toll on the 600-square-foot surface of rock. Further confounding understanding of the

images of animals, humans, and symbols is that no one knows for sure what these symbols mean. Some think it was a message board for passing Native Americans, probably Iroquoian. Others say it tells the dramatic story of the Erie Indians, including symbols describing their destruction at the hand of the Iroquois.



Commodore Perry Cornerstone, Gibraltar Island

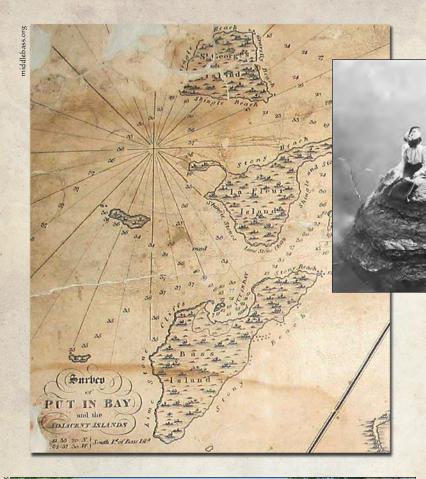
Visitors can decide for themselves by viewing the large limestone rock on the shore just east of the Village of Kelleys Island. A roof, constructed by the Ohio Historical Society, protects the rocky canvas from further deterioration. A plaster replica of the petroglyphs as they were accurately recorded in the 1850s is also on site.

The remains of at least two Native American villages have been found near the rock. An early map of the island depicts a second "sculptured rock" near today's North Pond, five areas of mounds, and two earthwork areas.

Kelleys Island, at 2,800 acres, is the largest of the American islands, and Pelee is four times larger than Kelleys. Canadian sources discuss artifacts found on Kelleys and Pelee islands that date back more than 10,000 years, virtually as soon as the glaciers disappeared. The other islands are thought to have been mostly stopovers for travelers and hunters rather than sites of seasonal villages.

Tools, middens, and burial sites with ceremonial objects have been found on Pelee and Middle islands.

Cultural threads linked the islands and the mainland surrounding the western end of Lake Erie into the





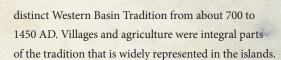
Middle Bass Island



Setting out for a picnic, 1891



Enjoying an island picnic, 1892



Inscription Rock, 1910-1918

The Great Lakes were revered by their native people. Drawn by their abundant natural resources, Native Americans believed the land was owned by all who used it; however, territorial sparring between tribes is one reason for their ultimate regional demise, most of which occurred before European explorers entered the scene.

By 1450, Lake Erie's western basin, including the islands, was largely abandoned and, except for occasional hunting and fishing parties, the islands remained relatively unoccupied until early in the 18th century when the Ojibway moved south from Lake Huron.

European exploration of the New World was well underway before explorers discovered Lake Erie, hidden deep within the New World's interior. French explorers and missionaries reached the islands first. In 1669, Frenchman Louis Jolliet became the first to record Lake Erie's existence. Famed explorer Robert De LaSalle followed with a dramatic crossing of the lake in 1679, making a stop at Middle Bass Island and becoming the first recorded European visitor to the islands. There, Father Louis Hennepin conducted the first Catholic mass in the Midwest.

For a time, multiple claims by Native Americans, the British, French, and Americans left island ownership in question. At stake were rich trading routes and wilderness resources. Working above it all were missionaries, bringing their religion into the frontier.

A succession of conflicts, including the American Revolution and the Battle of Fallen Timbers along the Maumee River, eventually determined ownership. Still, the outside world took little notice of the Lake Erie Islands until more tentacles of war, the War of 1812, reached into the wilderness.

On Sept. 10, 1813, Commodore Oliver Hazard Perry raised anchor from his fleet's base in the



US Brig Niagara

protected Putin-Bay harbor, hoisted his "Don't Give Up the Ship" battle flag, sailed into the shadow of Rattlesnake Island, and engaged the British squadron. The Battle of Lake Erie raged westward, Perry's ships taking heavy damage from the

longer-ranged guns of the British fleet. Skillful strategy brought him in close, where he was able to bring his cannons to bear and defeat the British in what's been termed one of the most significant victories of the war.

In the aftermath, anchored off West Sister Island for repairs, Perry put a West Sister Island dateline on his famous message to General William Henry Harrison: "We have met the enemy and they are ours: two ships, two brigs, one schooner, and one sloop."

Perry's victory and Harrison's later victory at the Battle of Thames ensured Ohio and Michigan would remain part of the United States. Perry and the peace that has persisted since with Canada are memorialized at Perry's Victory and International Peace Memorial,



Crew aboard the US Brig Niagara





which towers over Put-in-Bay on South Bass Island.

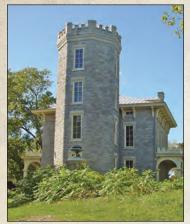
It would be the mid-1800s before any large permanent settlements established themselves on the islands. The islands, however, would be permanently changed well before their arrival. With American ownership firmly established by war and treaty, 500,000 acres of the Connecticut Western Reserve were deeded to those who had been burned out of their New England homes during the Revolutionary War. This mainland area near the islands is still known as The Firelands. This tract, which included most of the islands, was sold

to the Connecticut Land Company, with stockholder Pierpoint Edwards controlling South Bass, Middle Bass, Gibraltar, Sugar, Ballast, Green, and Starve islands. His heirs and those settlers procured by his agents lumbered the islands and opened them for agriculture.

Island residents enjoyed the natural riches of both land and sea. A lake teeming with fish brought fishermen. That same lake moderates the islands' climate, slowing the onset of spring until the danger of freeze is past and holding frosts at bay until



South Bass Island



Cooke Castle on Gibraltar Island



Green Island Lighthouse, 1894



Gibraltar Island, 1890

late in the fall. Cool springs and warm falls make for precisely the right environment for grape growing. And so they did. By the mid-1800s, lots of grapes were grown in vineyards established on many of the islands—lots of grapes for wine and, especially during Prohibition, grapes for the dinner table.

The resort industry began to flourish as city dwellers escaped city heat in favor of cooling lakeside breezes. The steamers, which once brought wine-making supplies and transported the finished products, also brought travelers. An article in Harper's *New Monthly Magazine* in 1873 entitled "The Wine Islands of Lake Erie" touted the islands' winemaking and location as a vacation destination, spurring even more visitors. Soon, the islands' wine industry lured steamboats from Cleveland, Detroit, Toledo, and Sandusky. Even some of the smaller islands welcomed visitors. Sugar Island, off the northwest tip of Middle Bass, advertised ball grounds, bathing, boating, and a beach.

As travel during this era was cumbersome and long, visitors often spent weeks or months at a destination. Large resort-style hotels sprang up on the islands to accommodate these guests. These were grand hotels, with the most modern of amenities. The Victory Hotel on South Bass Island offered the first co-ed swimming pool in the United States. Cedar Point began as a bathhouse in 1897 and soon added several hotels, and Johnson's Island Pleasure Resort Company offered a pavilion, cottages, and a skating rink.

The limestone foundation of the islands, and the Marblehead Peninsula that mirrors them, proved valuable for quarries. The largest and most successful is still flourishing on the Marblehead Peninsula.

The hustle and bustle of thriving businesses and island communities brought the necessity for increased shipping to service them.

Shipping on a big lake, especially the finicky western basin, carries inherent risks. Despite a cadre of well-positioned lighthouses, including the oldest continuously operating lighthouse on the Great Lakes at Marblehead, rocky island coasts, reefs, and a shallow basin that can be quickly whipped into a stormy frenzy can make formidable obstacles for lake-going vessels.

There are some 1,700 shipwrecks reported for Lake Erie, and well over 60 of them are around Bass and Kelleys islands.





elleys Island doesn't have a movie theater or a four-lane highway. Like most of the islands, except Johnson's Island (which has a causeway) and Catawba Island (which is actually a peninsula), there's no

direct connection to the mainland. This island's appeal is in its isolation and natural beauty. Islanders are proud of their heritage; in fact, the entire island is listed as a National Historic District. Many of the island's structures feature the limestone that helped build the island's economy.

Kelleys' topsoil is thin, the limestone bedrock perilously close to the surface. The island's roots in pit mining are still readily apparent. Its even earlier roots in grapes and wine-making are manifested in fine Victorian-style homes concentrated in what serves as the modest village on this 2,800-acre island, Ohio's largest island on Lake Erie.

Grape-growing and wine-making came to the island as early as 1842. The island's limestone-based soil and the long growing season created by the moderating effects of Lake Erie produced an environment conducive to growing grapes. At one time, vines covered nearly half the island. The island's initial efforts focused on growing grapes to be shipped to the mainland. Soon, islanders realized the economic benefits of producing their own wines and grape juice as well.

Residents and visitors alike never tire of the great lake views and stunning sunrises and sunsets. Skyscraping Cedar Point roller coasters are easily seen on the southeast horizon, the impressive Perry's Victory and International Peace Memorial on South Bass Island to the northwest.

Some of the best features on the island are owned by various state agencies, the Ohio Historical Society, and The Cleveland Museum of Natural History. The list is impressive: Scheele Preserve, Inscription Rock, East Quarry, the North Shore Alvar, the North Shore Loop Trail, North Pond State Nature Preserve, and, of course, the Glacial Grooves. The natural areas support a wide variety of breeding and migratory birds, with recent annual sightings averaging some 170 different species.

It doesn't take a trained naturalist to appreciate the natural beauty of Kelleys Island, especially where the island's rocky coast meets the forces of Lake Erie, where the migrating monarch butterflies cling to the milkweed, and where the songs of colorful migrating songbirds fill the woods.



Kelleys Island Victorian home





North Shore Alvar State Nature Preserve



#### 1 Inscription Rock

Located off Water Street, just east of the Village of Kelleys Island

www.ohiohistory.org

Inscription Rock portrays nearly 100 images of pipe-smoking figures, a chief, large animals, snowshoes, and weapons. This 32-foot-by-21-foot limestone boulder is protected from the elements by a shelter, but years of weathering have taken its toll. The images are now as faded as the stories they tell. They're carved upon a huge limestone erratic deposited by the glaciers during their retreat. The remains of at least two Native American villages were found near the rock, and it's believed those early island inhabitants were responsible for the marks, the largest collection of pictographs in the state. Though no one knows for sure, it's thought the rock was a prehistoric message board. The inscriptions were recorded in detail in the 1850s and are displayed at the site. This site was first protected by The Cleveland Museum of Natural History in 1922 before being donated to the Ohio Historical Society in 1931.



During summer and fall, watch the rocky shoreline for glimpses of the endangered Lake Erie water snake.

You can easily walk to Inscription Rock, located midway between the ferryboat landing and the Village of Kelleys Island.

## 2 Kelleys Island Historical Society Museum

**Division Street** 

www.kelleysislandhistorical.org

Learn more about the island's unique heritage by visiting the Kelleys Island Historical Society Museum. It is located in the former German Reformed Church, also known as the Old Stone Church.



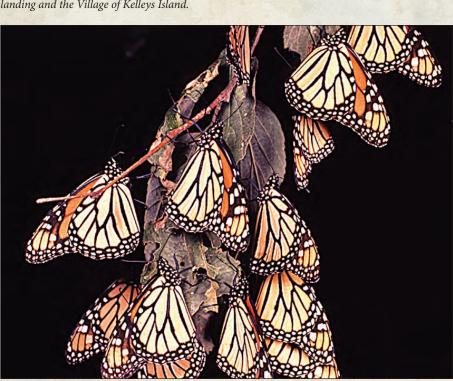
Monarch butterflies land on the multiple butterfly bushes surrounding the old church.

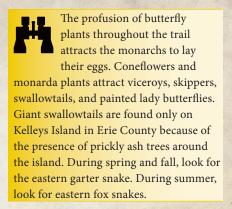
#### 3 Butterfly Trail

**Division Street** 

www.kelleysislandhistorical.org

Supplemented with native plants attractive to butterflies and dragonflies, the Butterfly Trail extends behind Kelleys Island Historical Society Museum. Recent census counts on the island have recorded 25 butterfly and 16 dragonfly species. One of the most spectacular sights you might encounter is the annual monarch butterfly migration in September or October. Although their arrival is impossible to gauge precisely, these butterflies often rest on the islands while journeying to wintering grounds in the mountains of Central Mexico, southern Florida, or the Caribbean islands.





#### 4 Glacial Grooves State Memorial

Division Street www.ohiohistory.org

One can't help but marvel at the Glacial Grooves, the finest example of glacial scouring in North America and a National Natural Landmark. Quarrying destroyed a significant portion of the grooves, but a 430-foot section remains that is 15 feet deep and 35 feet wide. Search the limestone base for fossil records of sea creatures that swam some 400 to 440 million years ago. This location is an excellent place to observe Devonian fossils in the bedrock. Look through the fence to Old North Quarry for the vertical grooves on the quarry wall. These are drill marks from quarrying a century ago. This site was first protected by The Cleveland Museum of Natural History in 1923 before being donated to the Ohio Historical Society.



Look for showy orange lichen in the grooves, often mistaken for iron ore. Warblers, hawks, orioles, swallows, and many

other migrating species gather in the grove of trees that surrounds the Glacial Grooves. During spring, look for the western chorus frog, American toad, and eastern garter snake. During summer and fall, look for the hognosed snake, eastern garter snake, blue racer, and fox snake. Also during the fall, migrating monarchs land in the grove in large numbers.

Golf cart, bicycle, and automobile parking is available in front of the grooves. Stairs lead to a walkway encompassing the grooves and an overlook of an abandoned quarry.

#### 5 North Shore Loop Trail

North end of Division Street

www.kelleysislandnature.com

The one-mile North Shore Loop Trail connects the Kelleys Island State Park fishing access parking area to the amazing finds at the North Shore Alvar State Nature Preserve. This trail, however, is worthy in its own right. It offers a cross-section of topography: woodland scenery, rocky shoreline, and remnants of the 1888 Kelleys Island Lime and Transport Company loader. From the shore, hikers view uninhabited Middle Island, Canada's southernmost holding, and Pelee Island, just eight miles to the northeast.

Spring brings American toads, hybrid salamanders, and marbled salamanders. During summer, look for hognosed snakes, eastern fox snakes, and Lake Erie water snakes sunning on the rocks along the shore. Jack-in-the-pulpit, ramps, mayapples, Dutchman's breeches, and herb Robert are early spring flowers abundant on the trail.

Golf cart, bicycle, and automobile parking is available at the end of Division Street. This is a dirt trail.

#### 6 North Shore Alvar State Nature Preserve

Accessible by following the North Shore Loop Trail off the Kelleys Island State Park parking area at the north end of Division Street

www.ohiodnr.com

The North Shore Alvar State Nature Preserve is a featured stop along the North Shore Loop Trail. To the casual observer, alvar is one of Lake Erie's most scenic pieces of shoreline. From the naturalist's viewpoint,



alvar is one of the most fascinating and beautiful natural areas in the world. Globally rare, alvar communities exist primarily in the glaciated portions of the Northern Hemisphere, such as the islands and shores of the Great Lakes and the Baltic Sea. This special natural community is formed as soil is scraped from limestone by ice, wind, and water. Few plants can withstand the extreme temperatures and rough conditions, but those that do are usually of an unusual and rare variety. Devonian fossils are prevalent all along this shoreline preserve.



During spring, watch for wood violet, columbine, ferns, and the American toad. Ring-billed gulls and herring gulls soar over the

water. Perch, walleye, smallmouth bass, and sheephead can be seen in the lake water near the shore. The Lake Erie water snake can be seen here summer and fall, and look for the fox snake in summer.

This preserve is only accessible by foot, and the rocky shoreline is often slippery, so caution should be used. Golf cart, bicycle, and automobile parking is available in the Kelleys Island State Park fishing access parking lot at the end of Division Street.

#### 7 Kelleys Island State Park

North end of Division Street 419.746.2546

www.ohiostateparks.org

Though hard to imagine, the area now occupied by Kelleys Island State Park was once the bustling section of the island. Quarrying operations concentrated here at the turn of the 19th century. The quarry was huge and provided building materials for diverse projects, including the Chrysler Building in Detroit and the first locks at Sault Ste. Marie, Mich. The quarry facilities also included 16 huge kilns that produced tons of lime a century ago. Kelleys sported a population of around 3,000 in those days, much more than today's year-round population of approximately 370. The central business district stood where today's fishing access parking is located at the state park. Today, this state park offers camping, a sand swimming beach with changing areas and restrooms, a launch ramp, a stone pier for fishing access, kayak rentals, and nearly six miles of hiking trails. Pick up a trail guide from the state park office.



North Pond boardwalk



Spring visitors may find painted turtles and the eastern garter snake. During summer, look for blue racers, fox snakes, hognosed

snakes, map turtles, and painted turtles.

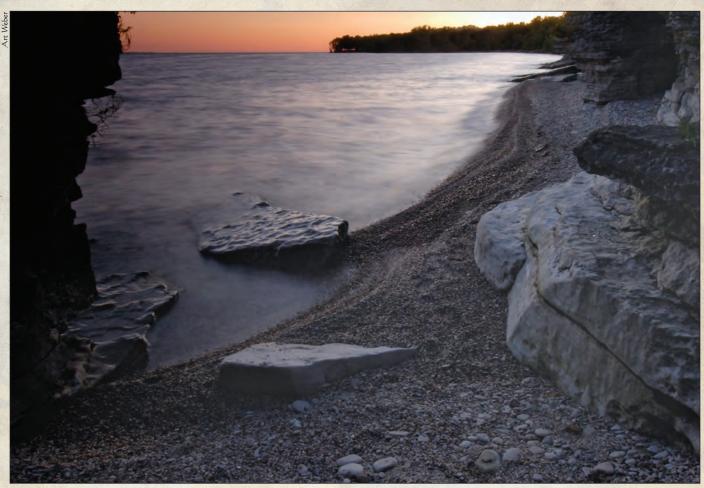
Parking areas are available for those wishing to enjoy the park's beach, hiking trails, and fishing access. Electric and nonelectric campsites, Rent-a-Camps, and Rent-a-Yurts can be reserved by calling the Ohio State Parks' reservation office at 1.866.644.6727 or visiting them online.

## 8 North Pond State Nature Preserve

Trails lead off Ward Road or from Kelleys Island State Park beach

www.ohiodnr.com

North Pond is a lake embayment pond, the most natural of only three such areas left out of a dozen that were once on the islands. It's a wetland adjacent to the lake, connected by a barrier dune that holds the water at bay. Occasionally, the combination of lake and pond levels leads to a sudden rift in the barrier, draining the pond. Sooner or later, storm-driven waves churn the lake bottom and push the sand back, rebuilding the barrier beach. And then the process starts again. There are times North Pond has five feet of water in it. Locals describe scenes when it's grassland filled with marsh marigolds, a mass of yellow blossoms. Swamp rose mallow, button bush, and rough-leafed dogwood ring the pond. An eagle's nest is in the preserve. Protecting the nest may limit



Kelleys Island

access in the spring. There might be a couple dozen muskrat lodges. Depending upon water levels, birds can include anything from common yellowthroats to grassland sparrows, wood ducks, Canada geese, soras, and rails. As you meander the boardwalk leading to the pond, you'll encounter an ancient rock ledge covered in moss. This ledge is a remnant of an ancient shoreline that appeared when the island was divided into two sections some 3,000 years ago. The valley formed from this early dissection is known as Sweet Valley.

Look for unisexual hybrid salamanders and red-backed salamanders in the spring, and the eastern fox snake in summer. Lake Erie water snakes may be sunning themselves on the boardwalk.

Walk the boardwalk trail, visit an interpretive kiosk, and climb an observation tower overlooking the pond. Golf cart, bicycle, and automobile parking is available near the trailhead off Ward Road. Pets, bicycles, and motorized vehicles are prohibited.

## 9 East Quarry Trail Trail access off Ward Road www.kelleysislandnature.com

To the east of North Pond State Nature Preserve, you'll find the entrance to the East Quarry, also known as Horseshoe Lake. East Quarry is, as the name implies, a former quarry reborn as part of Kelleys Island State Park. It is the adopted home for thriving populations of Lakeside daisies, one of the world's rarest wildflowers, as well as a fascinating site to view glacial markings, island rock strata, and fossils. Horseshoe Lake is a glimpse into the island's past. This section of the island was not quarried until 1933. A narrow gauge railway of Shay-style locomotives transported quarried limestone to shipping docks. The island had the largest concentration of Shay locomotives for narrow gauge railroads in the world; 17 locomotives operated on the island at one time. At Horseshoe Lake, the little finger of land was the railroad bed, and the old track

is still visible underwater. Ask for trail maps at the Kelleys Island State Park office.

Red-backed salamanders and

unisexual hybrid salamanders can be spotted here in the spring, while midland painted turtles and blue racers can be spotted during the summer months. Look for marbled salamanders in the fall. Water snakes are numerous in the finger of rock extending into the lake. Coyotes and red fox have dens in the stone chasms, although they are wary of humans. Many species of birds nest throughout the wooded area. Common trees in the wooded areas include eastern red cedar, hackberry, maple, and cottonwood. Remnants of small quarries, small

Golf cart, bicycle, and automobile parking is available off Ward Road. This is a dirt trail.

foundations and wetlands are scattered

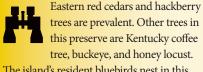
throughout the woods. White tail deer

are prevalent.

#### 10 Scheele Preserve

Monagan Road, just north of Hamilton Road **www.kelleysislandnature.com** 

Owned by The Cleveland Museum of Natural History, the 27.7-acre Scheele Preserve is a treasure house of subtleties. A small grove of state-threatened rock elms grows at the preserve, one of only five such locations in Ohio. The preserve includes some important lakefront property, as well as sedge meadows and grasslands. Scheele is a good example of the contrast between inland habitats and lakeshore, and some of the rarities to be found in each. The Cleveland Museum of Natural History owns nearly 120 island acres where museum scientists focus on biological study and preservation.



The island's resident bluebirds nest in this preserve, as well as screech owls, greathorned owls, and woodcocks. Saw-whet owls are found in the fall. During summer months, look for blue racers, fox snakes, and eastern garter snakes (which can also be found in the fall).

Limited golf cart, bicycle, and automobile parking is available.

#### Getting To (and Around) Kelleys Island

#### **Ferryboats**

Ferryboat transportation is available year-round, weather permitting, from Marblehead by Kelleys Island Ferry Boat Lines (www. kelleysislandferry.com or 419.798.9763).
Ferryboat transportation is also available from Sandusky with the JET EXPRESS, which also offers transportation between Put-in-Bay on South Bass Island and Kelleys Island (www.jet-express.com or 800.245.1JET).
Island-hopping cruises are available through the GOODTIME I from Sandusky (www. goodtimeboat.com or 800.446.3140).

#### Airline Service

Airline transportation is available through Griffing Flying Service (www. griffingflyingservice.com or 419.626.5161) or the Erie-Ottawa Regional Airport (www. portclintonairport.com or 419.734.6297). Private aircraft can land at Kelleys Island Land Field Airport (89D; 419.746.1123).

#### **Private Boats**

Transient dockage is available at several island marinas. View marina listings on the Kelleys Island Chamber of Commerce website at www.kelleysislandchamber.com. For information about Lake Erie boating and U.S. customs requirements, visit the Ohio Division of Watercraft's website at www.dnr.state.oh.us. Kelleys Island State Park offers free boat-launching ramps and trailer parking. There is no overnight docking at the state park.

#### Transportation on the Island

You can explore Kelleys Island's 2,800 acres and 18-mile perimeter by bicycle, golf cart, or car. If you're planning to visit a number of the sites listed, the distance between sites requires more than walking. All sizes of vehicles and bicycles can be brought on the Kelleys Island Ferry Boat Lines ferry, and no reservation is necessary. Bicycles can also be transported on the JET EXPRESS. Bicycles and golf carts can be rented on the island at various locations near the village.

#### Kayak, Personal Watercraft, and Boat Rentals

Kayak rentals and personal watercraft rentals are available on the island. Boats can be transported on the ferryboat.

#### Staying Overnight on Kelleys Island

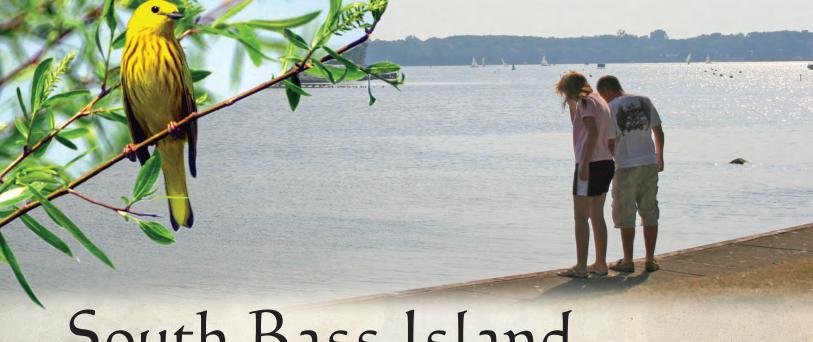
Cottages, cabins, and bed and breakfast inns are available. Reservations should be made early, and minimum stays are required at most places during the peak season of June through August. For help with overnight island lodging or lodging options near the JET EXPRESS and GOODTIME I docks in Sandusky, contact the Lake Erie Shores and Islands East at www.shoresandislands.com or 800.255.3743. You may also choose to overnight on the mainland near the ferryboat dock in Marblehead. For assistance, call the Lake Eries Shores and Islands West at 1.800.441.1271 or visit www.shoresandislands.com.

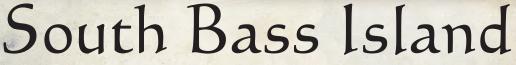
#### **Other Island Activities**

In addition to providing unique places for exploring history and nature, Kelleys Island offers a village district with eateries, pubs, and gift shops. Other activities include miniature golf, fishing charters, and sailing charters. Visit the Kelleys Island Chamber of Commerce website at www.kelleysislandchamber.com for a list of events and festivals.



East Quarry







outh Bass, obviously the southernmost of the three Bass islands, is the most developed of the Lake Erie islands. Enjoy the village exuberance, storefronts and taverns that beckon visitors, the bay's ever-

present summertime flotilla of visiting sail and motor boats, and cottages of all shapes and sizes bordering island avenues. But don't let all that fool you into thinking that South Bass isn't a special place naturally.

Like the other islands, the natural history of South Bass starts with the rocks and works its way up.

South Bass, or Put-in-Bay, as many people use the village interchangeably as the island's name, is dominated by dolomite, various Silurian-age rock layers that are older than the Devonian limestones of Pelee and Kelleys islands. With the upheaval of the Cincinnati Arch, the layers fractured and joints between them weakened. Water entered and dissolved minerals, forming caves. Geologists say that most of these domed caves are small, and many have collapsed due to the solutioning of gypsum beds. The largest cave on South Bass Island is Perry's Cave, the only one of 25 such caves open to the public.

Crystal Cave, also open to the public, isn't a cave at all. It's actually a giant geode discovered in 1897 when owners drilled a 40-foot well. The geode was created in a process geologists call "epigenetic mineralization." It's a complex term that describes a simply beautiful natural treasure. A cave-like opening 30 feet in diameter is encrusted with tons of strontium-bearing blue celestite crystals. It's reported that the cave's clearance was originally only three feet, but crystals were removed for passageways and sold to manufacture fireworks.

The earliest use of the island was as a hunting ground and a stopover for Native Americans crossing lake waters. At the time of the American Revolution, French traders came to the islands to collect coveted furs and hides, although the British briefly retained

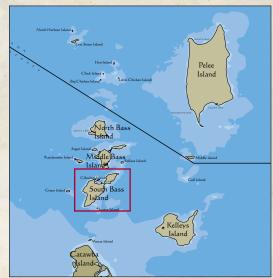
The Bass islands were designated a part of the Connecticut Western Reserve after the Revolution. Pierpoint Edwards purchased South Bass, Middle Bass, and Gibraltar islands from the Connecticut Land Company in 1807, and his agents began farming after clearing French-Canadian squatters and trees. With the War of 1812 came new interest in the islands by the British and Native Americans, Edwards' properties were burned and his settlers removed from the island until the Battle of Lake Erie, fought offshore the islands, resolved American ownership of the islands in 1813.

Edwards' agents turned their focus back to the island. They quickly found the most profitable island products were oak, cedar, and walnut trees, as well as the safe harbor at Put-in-Bay. Wood was sold as steamship fuel, and rocks as ship ballast. As the island lured



Chestnut-sided Warbler







more settlers following the War of 1812, commerce quickly increased as well. Timber, limestone, and cordwood were transported to the mainland to be sold.

The South Bass of today began to take shape, though, with its purchase by José de Rivera St. Jurgo, named in some sources as the "founder" of South Bass Island. Donated by him, the beautifully wooded parcel ringed by Put-in-Bay's main business and entertainment district is named in de Rivera's honor. It was de Rivera who surveyed the island and first divided it for sale. With the forest largely cleared, he also raised sheep on the island. Noting the success of other Lake Erie islands with winemaking ventures, he embraced viticulture by encouraging German immigrants to settle on the island and establish vineyards.

By the Civil War, vineyards flourished. With a growing reputation as The Wine Islands, the islands saw increased tourism as well. By 1859, more than 15,000 people were visiting South Bass Island.

The peak of the vineyards coincided with the presence of large steamboats ferrying eager and affluent passengers to the island's grand hotels. None were grander than the elegant Victory Hotel that boasted 600 rooms, dining for 2,000, and the nation's first co-ed swimming pool. A 1919 fire completely destroyed the structure, although ruins can still be seen on the island's west shore in South Bass Island State Park.

Like those on the other islands, South Bass vineyards later felt the impact of depleted soil nutrients caused by overplanting, as well as mainland competition and Prohibition. Only one winery, Heineman's Winery, is still in operation on the island.

Today, South Bass Island is an experience one will never forget. It retains much of its historical charm. Greek Revival, Gothic Revival, Queen Anne, Italianate, Romanesque Revival, and Eastlake architecture grace its tree-lined streets. Gunpowder billows as re-enactors demonstrate military moves at Perry's Victory and International Peace Memorial, and islanders celebrate their heritage with events throughout the year.



Oak Point

#### What's so Great about the Great Lakes?

Some predict that the next world war will be fought over fresh water. Seems like a silly thing to fight over, doesn't it? When all we have to do is walk into the kitchen and turn on a faucet, right? That's not the case everywhere. Nearly 1/6 of the world's population doesn't have enough water. We're consuming too much and our population is growing too rapidly to meet demand. It is predicted that nearly half of all people in the world will not have enough water for basic needs by 2025.

Lake Erie is the smallest, shallowest, and warmest of all the Great Lakes. Together, these five lakes contain about 20% of the world's freshwater and 90% of the freshwater

in the United States. If you were to "uncork" the Great Lakes, the water from these lakes would cover the 48 contiguous states with 9 ½ feet of water. But the answer to the world's water shortage isn't so simple, because the Great Lakes water supply is finite.



There is no more water on earth than there was when dinosaurs

once roamed your neighborhood. Within the Great Lakes, only 1% of the water is replenished each year from rain or snow. The remaining water is what is left from the melting glaciers of the last Ice Age.

Lake Erie and the Great Lakes are precious commodities. So precious, in fact, that the states bordering the Great Lakes have entered into an agreement to keep people from taking too much of the water. It's called the Great Lakes Compact and is one example of how states cooperate to protect a shared resource. And because of our friendly and cooperative relationship with Canada, the International Joint Commission (known as the IJC) has three commissioners from each country working together to protect the future of the Great Lakes.

#### 1 Lake Erie Islands Historical **Society Museum**

441 Catawba Ave. 419.285.2804 www.leihs.org

From tales of fishing to those of winemaking, stories of ships and shipwrecks to military battles fought just off its shore, Put-in-Bay's history is reflected at the Lake Erie Islands Historical Society Museum. Artifacts include those related to winter ice fishing, wineries, ice sailing, resorts, ferryboat history, lighthouses, ships, and more. The Inter-Lake Yachting Association (ILYA), the primary boating organization on Lake Erie, houses its collection of artifacts and trophies on the second floor of the main building.

In spring look for large-flowered trilliums and hepatica in the museum garden. Perennial beds attract many species of butterflies in the summer and fall.

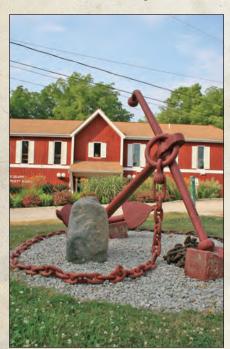
The museum is open spring through fall.

#### 2 Oak Point State Park

Northwest tip of South Bass Island

www.ohiostateparks.org

As you follow the shoreline west of the Village of Put-in-Bay, you'll encounter the Ohio State Park's Oak Point picnic area.



Lake Erie Islands Historical Society Museum

An underwater boulder field reaches out toward Gibraltar Island, almost extending to Alligator Bar, the shallow cobblestone shoal connected just under the surface with Gibraltar Island. Look across to Gibraltar Island, and you'll see the F.T. Stone Laboratory, the biological field station of The Ohio State University and the oldest freshwater lab in the United States.

Look for migrating waterfowl, turkey vultures, and warblers during spring. Summer brings Canada geese, mallards, gulls,

and belted kingfisher. Oaks provide shade for picnicking, and the burrowing mayfly emergence can sometimes be viewed. Watch for the endangered Lake Erie water snake during summer and fall months. Migrating songbirds can be spotted spring or fall, and night walleye fishing from the shore is popular during the fall. During winter months, the open water can hold a variety of diving ducks, including scaups, buffleheads, mergansers, and common goldeneves.

This day-use park includes picnic areas, fishing access, and overnight docking facilities.

#### 3 Aquatic Visitors Center

One Peach Point Road 419.285.1800 stonelab.osu.edu

The Aquatic Visitors Center houses live fish displays and hands-on exhibits highlighting Lake Erie fish species, fisheries management, and Lake Erie research. Displays also tell about the state's fish hatchery, which once operated from this building. Operated by Ohio Sea Grant and owned by the ODNR Division of Wildlife, this site also offers fishing access and loaned fishing gear.



The brushy areas nearby are good spots for viewing migratory songbirds in the spring. Summer attracts great blue herons and kingfishers. Look for

migratory waterfowl in the spring and waterfowl on the open waters during milder winter months.

Call or check website for hours and programming.



Blue Jay

#### 4 Peach Point and Reidling **Beach Runways**

Located along the west shore, these runways are used as access ramps for ice-fishing shanties. During the summer, observe Rattlesnake Island and the boats traveling to and from the islands.



View migratory waterfowl in the spring, which is also a good time to see Dutchman's breeches, trillium, and appendaged waterleaf in the nearby woods. Look for the endangered Lake Erie water snake during summer and fall months. Summer is also time to find harebells and balsam squaw-weed lurking in the rocky areas.

Fall brings Short's aster and goldenrod, as well as migrating waterfowl. During the winter, watch ice fishermen depart from this access ramp, or join in the fun.

Available to the public, 6 a.m. to 10 p.m. Swimming is prohibited.



Aquatic Visitors Center

#### 5 Parker's Park

From this township park, glimpse the west shore cliffs. These cliffs are composed of massive beds of Put-in-Bay dolomite underlain by thinner layers of Tymochtee Shaly Dolomite. The base of the cliff came from the Silurian Age, deposited about 400 million years ago.

Spring attracts migrating waterfowl, horned grebes, common loons, diving ducks, and warblers. Search for glimpses of Dutchman's breeches nearby. Summer flora includes harebell, big bluestem, and balsam squaw-weed in the cliffs below. Look for the endangered Lake Erie water snake and eastern garter snake during summer and fall months. During summer, watch for mayflies emerging from the lake at sunset. Fall attracts migrating waterfowl, horned grebes, common loons, and diving ducks, as well

Available to the public, 6 a.m. to 10 p.m. Swimming is prohibited.

as asters and goldenrod.



Osprey



American Toad

#### 6 South Bass Island State Park

End of Catawba Avenue 419.797.4530

www.ohiostateparks.org

Located on the northwest corner of South Bass Island, this state park overlooks Lake Erie from atop cliffs. Once the site of the Victory Hotel, this state park still offers glimpses at the island's romantic past. Ruins of the hotel's original swimming pool are visible. Look for glacial grooves in the woods.

During spring, look for eastern

garter snakes and ringneck snakes. Search for glimpses of Dutchman's breeches, cutleaved toothwort, and wild leeks. Summer brings jewelweed on the shore. Maples, hackberry, basswood, and eastern red cedar can be found in the wooded park. Look for the endangered Lake Erie water snake during summer and fall months. Blue racers and fox snakes also can be found during summer months. Fall includes sightings of migrating waterfowl, horned grebes, common loons, and red-breasted mergansers, as well as migrating butterflies and dragonflies. This is a popular shoreline fishing spot for nighttime walleye anglers. During winter, look for great black-backed gulls among

Electric and nonelectric campsites, as well as Cabents, can be reserved by calling the Ohio State Parks' reservation office at 1.866.644.6727 or visiting them online. The park provides picnic shelters, a stone beach, launch ramps, and fishing access.

the gulls, and snow buntings on shore.



Crown Hill Cemetery

#### 7 Crown Hill Cemetery

Island notables are buried here, including José de Rivera St. Jurgo and Valentine Doller, an early merchant. Also buried here is John Brown, Jr., son of the noted Harper's Ferry raider and abolitionist. Brown began growing grapes on South Bass Island following his father's execution in 1859.

## 8 Ladd Carr Wildlife Woods Put-in-Bay Road

The woodlot, owned by the Lake Erie Islands Chapter of the Black Swamp Conservancy, is a good example of unique forest habitat found on the Lake Erie Islands with sugar maple, common hackberry, and basswood. Blue ash is found here also, as the dolomite is close to the surface. The area is carpeted with Dutchman's breeches early, followed by wild hyacinths and Jack-in-the-Pulpit, and finally by a large display of appendaged waterleaf in late spring. Spring and fall bring migratory songbirds to this wooded spot.

Search for migrating songbirds, including warblers, ovenbirds, and thrushes in the spring.
Summer attracts orioles and red-winged blackbirds. Look for the eastern garter snake in the spring and summer months. Fall attracts many migrating songbirds.

#### 9 South Bass Island Lighthouse

End of Langram Road 419.285.1800

stonelab.osu.edu/tripsandtours

As boat traffic increased at the end of the 19th century, the South Passage (a navigational route between Marblehead, Kelleys Island, and South Bass Island) needed assistance in guiding vessels safely, especially in late autumn when a winter storm could churn the shallow waters of Lake Erie with little warning. The U.S. Lighthouse Board finished construction of the South Bass Island Lighthouse in 1897. In 1962, a steel tower replaced its navigational operation. Today, the site broadcasts meteorological information for the National Weather Service and is owned and operated by The Ohio State University. The woods

surrounding the lighthouse are filled with hackberry and blue ash trees.

During the spring, enjoy views of migrating songbirds, including warblers, as well as migrating hawks from this high vantage point. Look for columbine in the spring and harebells and yarrow in the summer months. Also during the summer, look for rough-winged, tree, and barn swallows. Watch mayflies emerge from the lake during summer, and monarch butterflies and migrating songbirds in the fall. Winter is a good time to view diving ducks, including mergansers, scaups, buffleheads, goldeneyes, and the occasional scoter.

You can view the lighthouse from Langram Road. Tours of the lighthouse are offered by The Ohio State University Ohio Sea Grant College Program. Call or check website for hours and tour dates.

#### 10 Stonehenge Historic Home

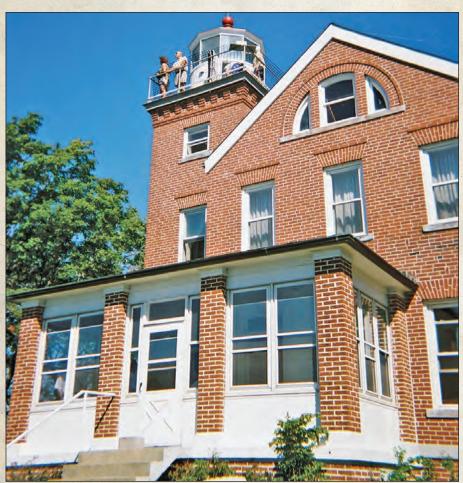
808 Langram Rd. 419.285.6134

www.stonehenge-put-in-bay.com

The Stonehenge Historic Home is a lasting example of the small 15- to 20-acre family grape-growing farms that prospered on the islands in the mid- to late 1800s. The stone farmhouse and wine press cottage are both listed on the National Register of Historic Places for their architecture and association with the grape-growing industry. Located on seven acres, the site offers self-guided audio tours of the historic home, wine press, and grounds.

Red-backed salamanders can be found in spring, and ringneck snakes may be seen in the summer. Spring presents an impressive wildflower display in the woods, which are usually filled with migrating songbirds. Look for migrating songbirds also in the fall.

Open summer months, 11 a.m. to 5 p.m. Admission is charged. Gift shop is available.



South Bass Island Lighthouse

#### Heineman's Winery and **Crystal Cave**

978 Catawba Ave 419.285.2811

www.heinemanswinery.com

Gustav Heineman, an immigrant from Germany, established Heineman's Winery in 1888. His descendants continue the tradition. While digging a well in 1897, workers discovered a sparkling cavern filled with bluish-white celestite crystals made from strontium sulfate. During Prohibition, Heineman's Winery survived, in part, by offering tours of this geode. The largest crystals measure 24 inches long and weigh more than 300 pounds.

Winery and cave tours are available early May through late September. Admission is charged.

#### 12 Perry's Cave

979 Catawba Ave. 419.285.2405

www.perryscave.com

Perry's Cave is a natural dolomite cave, 208 feet long by 165 feet wide. Its 9-foothigh ceiling, as well as the walls and floor of the cave, are covered in calcium carbonate, deposited by the constant dripping of water. It stays a cool 50 degrees within the cave year-round. The underground lake rises and falls with the level of Lake Erie, demonstrating a probable underground link to the lake. Guided tours depart regularly.

Look for the American toad and eastern garter snake during spring and summer months. Spring is also a time to spot Dutchman's breeches, bloodroot, appendaged waterleaf, and wild leeks in the adjacent woods. During summer, enjoy wildflower plantings in the Butterfly House next door, as well as the butterflies that are attracted to them. Asters and goldenrod appear in the fall, as well as the occasional eastern garter snake. Look for great horned and eastern screech owls nesting nearby in the winter. They are heard frequently.

Open daily during summer season. Admission is charged. Ask about after-hours Lantern Tours, available by reservation only. Perry's Cave is part of an entertainment complex that includes an Antique Car Museum, gemstone mining, Butterfly Museum at Perry's Cave, and War of 1812 Holes miniature golf. Gift shops are available.

#### 13 De Rivera Woods

Catawba Road

Managed by the de Rivera Trust, the 18-acre de Rivera Woods offers hiking trails through sugar maples and oak trees. A grove of red cedar is found at the south end of the path. Please stay on the hiking path, and respect private property.

Spring and summer brings redbacked salamanders, ringneck snakes, and eastern garter snakes. Migrating songbirds move through these woods in the spring, and turkey vultures roost in this area. Look for large-flowered trillium, cutleaved toothwort, rue-anemone, and mayapple in the spring, and lopseed, enchanter's nightshade, and jewelweed in the summer. Crows are often found in the cedars during the summer, while migrating songbirds return in the fall with the asters. In the winter months, look for great horned owls in the woods which are filled with oaks, maples, basswood, hackberry, and eastern red cedar.

#### 14 Perry's Victory and **International Peace Memorial**

93 Delaware Ave. 419.285.2184

www.nps.gov/pevi

The United States gained military control over Lake Erie following the Battle of Lake Erie on Sept. 10, 1813. Led by Commodore Oliver Hazard Perry, American naval forces defeated and captured a fleet of British warships, enabling the U.S. to block British supplies to Detroit, and allowing General William Henry Harrison to successfully defeat British and Indian forces at the Thames River the next month. Constructed between 1912 and 1915, Perry's Victory and International Peace Memorial stands as a tribute to international peace and this important battle. From mid-June through the end of August, park rangers offer interpretive talks about the Battle of Lake Erie, the War of 1812, construction of the monument, and other topics of interest. On weekends, costumed interpreters provide history demonstrations, talks about the war, and firing demonstrations of reproduction flintlocks, muskets, and rifles. On scheduled weekends, a reproduction 32-pound cannonade is fired.



Perry's Victory and International Peace Memorial



Migrating waterfowl in the spring and fall mean views of diving ducks from both sides of the monument. Look for turkey vultures, and listen for songs of spring migration at night from the base of the monument. In the summer months, view Canada geese, mallards, gulls, and Cooper's hawks. Search for Richardson's pondweed at the bay in back of the monument, as well as other submerged aquatic plants. Fish from the breakwalls, and search for emerging mayflies. Look for the endangered Lake Erie water snake during summer and fall months. During winter months, look for tundra swans behind the

A visitors center features a War of 1812 film, exhibits, and a bookstore. The visitors center and monument are open late March through mid-October.

monument and occasional snow buntings

and horned larks in the lawn area.

#### 15 East Point

This shore features a cobble and gravel beach. View Ballast and Middle Bass islands from this vantage point.



Search for migrating waterfowl, songbirds, and shorebirds in the spring and fall, as well as gulls.

Look for the endangered Lake Erie water snake during summer and fall months. Summer attracts Canada geese, mallards, and gulls. Look for submerged aquatic plants, such as wild celery and Richardson's pondweed, as well as emerging mayflies. During winter months, look for tundra swans, gulls, and an occasional bald eagle.

#### Jane Coates Wildflower Trail

Put-in-Bay Road

www.lakeerieislandsbsc.com



This wooded loop of over a half mile can be a delightful place in spring when Dutchman's Breeches, followed by wild

hyacinths, appendaged waterleaf, and blue phlox cover the area. It is also a good place for migratory songbirds.

Maps are available at the trail head which is located at a small parking lot just down the road from Maple Leaf Cemetery.

## 17 Lake Erie Islands Nature and Wildlife Center

255 Meechan Rd., near corner of Put-in-Bay Rd. www.lakeerieislandswildlife.com

The center includes an indoor collection of North American wildlife and exhibits on island natural history. Special programs are held. A wooded nature trail is located in Wulkowicz Woods behind the center. Butterfly, hummingbird, and phenology gardens are on the grounds.

Check website for dates, hours, and programming.

## 18 Scheeff East Point Nature Preserve

This 9-acre preserve with lakefront on three sides is a great place for spotting waterfowl, shorebirds, and migratory songbirds. Future plans include a walking path around the perimeter. The land is preserved by the Western Reserve Land Conservancy and will eventually be owned and managed by the Put-in-Bay Township Park District.

#### South Bass Island Lighthouse Tours and Gibraltar Island Science and History Tours

South Bass Lighthouse Tours and Gibraltar Island Science and History Tours are offered by Ohio Sea Grant and Stone Laboratory. For more information about these special tours, call 419.285.1800 or visit www.stonelab.osu.edu/tripsandtours.



Canada Goose

## Getting To (and Around) South Bass Island

#### **Ferryboats**

Ferryboat transportation is available early spring to late fall, weather permitting, from Port Clinton and Sandusky aboard the JET EXPRESS (www.jet-express.com or 800.245.1JET) and from Catawba aboard Miller Boat Line ferryboats (www.millerferry.com or 800.500.2421). Transportation to and from Middle Bass Island to South Bass Island is available through the SONNY S Boat Line (www. sonny-s.com) departing from The Boardwalk restaurant. The JET EXPRESS also offers transportation between Kelleys Island and South Bass Island. Island-hopping cruises are available through the GOODTIME I from Sandusky (www.goodtimeboat.com or 800.446.3140).

#### Airline Service

Airline transportation is available by Griffing Flying Service (www. griffingflyingservice.com or 419.285.8042) or the Erie-Ottawa Regional Airport (www. portclintonairport.com or 419.734.6297). Private aircraft can land at Put-in-Bay Airport (3W2.)

#### **Private Boats**

Transient dockage is available at a large municipal marina and several island marinas. Mooring buoys are also available. View marina listings on the Put-in-Bay Chamber of Commerce website (www. put-in-bay.com). For information about Lake Erie boating and customs, visit the Ohio Division of Watercraft's website at www.dnr. state.oh.us/watercraft.

#### Transportation on the Island

Although automobile transportation is available with Miller Boat Line, cars are not necessary. Most visitors choose to see the island by golf cart, bicycle, or tour tram. Bicycles can be brought over on the ferryboat or rented on the island. Golf carts can also be rented on the island at various locations near the ferryboat docks or in the Village of Put-in-Bay. An island tram, operated by Island Transportation, offers narrated tours. Taxi service and buses from Miller Boat Line dock and downtown are also available.

#### Kayak Rentals

Kayak rentals are available at South Bass Island.

#### Staying Overnight on South Bass Island

Hotels, campgrounds, cottages, and bed and breakfast inns are available. Reservations should be made early, and minimum stays are required at most places during the peak season of June through August. For help with overnight lodging, contact Lake Erie Shores and Islands West at 1.800.441.1271 or www.shoresandislands. com. You may also call them for lodging options on the mainland near the ferryboat docks in Port Clinton and Catawba. For lodging options near the JET EXPRESS dock in Sandusky, contact Lake Erie Shores and Islands East at 1.800.255.3743. Island accommodation information can also be found through the Put-in-Bay Chamber of Commerce at www.put-in-bay.com.

#### **Other Island Activities**

In addition to providing unique places for exploring history and nature, Put-in-Bay and South Bass Island offer lots of shops and eateries, a working carousel, an antique car museum, an indoor live butterfly attraction, miniature golf, a chocolate museum, parasailing, fishing, ice fishing, a children's play area, and plenty of other activities to fill a day or two.



Downy Woodpecker



REPORT OF than just a channel



separates South Bass Island from its two more northern siblings. Each step north leads to a simpler lifestyle and a movement back in time. To put it in more familiar terms, if South

Bass Island is like a big city, Middle Bass Island more closely resembles a smaller sleepy suburban area, and North Bass Island is like a still smaller holdout where isolated and rural America still lingers.

With Ohio's acquisition of acreage on Middle Bass and North Bass islands, precious natural area is now preserved.

Middle Bass, at 813 acres, is fourth largest of the Lake Erie Islands. Robert de LaSalle, the famous French explorer, made the first recorded visit to the islands in 1679, landing in the sailing ship GRIFFIN. Impressed by the beautiful natural flora, de LaSalle and his still-friendly colleagues (he was later murdered



Lesser yellowlegs sandpiper

by his own frustrated crew as they searched the Gulf Coast for the Mississippi River) named Middle Bass Island "Isle des Fleur," the island of flowers.

Pierpoint Edwards acquired Middle Bass Island in 1807 from the Connecticut Land Company, as he did most of the American islands. Like on South Bass, he promptly lumbered the island. Also like South Bass, the island was sold to José de Rivera in 1854. De Rivera, in turn, sold it to three Germans, experts in the establishment of vineyards.

In 1866, one of those new owners, Andrew Wehrle, established the Golden Eagle Wine Cellars. This cellar soon became one of the largest wineries in the country. Peter Lonz established his own winery on the island in 1884. Middle Bass wines and those produced on neighboring islands were prized as comparable to fine French wines, earning the islands the nickname "wine islands."

The Golden Eagle Winery expanded to include a dance pavilion over the wine cellar, and a subsequent owner built a 60-room hotel, the Hillcrest, in 1905. Sadly, the hotel and dance pavilion suffered the same fate as many of the wooden structures built around this time, including South Bass Island's Victory Hotel. They were destroyed by fire.

Not long after, in 1926, Peter Lonz and his son, George, merged with the Golden Eagle Winery and managed to survive Prohibition and the Great Depression by selling bottles of grape juice. Lonz took the unusual, and no doubt popular, step of including instructions with his juice on how to turn it into wine.

Prohibition nearly suffocated the wineries on all the islands. They breathed a collective sigh of relief when it was repealed in 1933, though many of them never rebounded to their former glory. Not to be deterred,





Middle Bass glacial grooves



George Lonz rebuilt his winery. Following a fire in 1942, he began construction on the Gothic-style stone castle that still stands as a landmark, and now, with its adjacent marina, anchors Middle Bass Island State Park.

While wine stole all the early attention, it was another group, the Lake Erie Boating and Fishing Association, that fostered the proliferation of private cottages on Middle Bass Island. Originally established in the 1870s on the Ottawa River near Maumee Bay, the Lake Erie Boating and Fishing Association limited membership to 200. These club members spent so much time fishing off Middle Bass, they decided the island would be a better home for their headquarters. In 1880, they leased land and built a clubhouse, private cottages, a dance hall, boathouses, and a small chapel. They renamed themselves the Middle Bass Club.

Even with all the cottages and vineyards, nature on Middle Bass has survived. Explore wetlands, woodlands, the rocky south shore, a natural beach, and glacial grooves.

The State of Ohio kicked off the 21st century in grand style with the purchase

of the 124-acre Lonz Winery and marina complex. Although Middle Bass Island State Park, the castle, and the marina are landmarks, the real treasures are the natural areas, as well as nearly a mile of undeveloped natural Lake Erie shoreline.

Growing on a base of the same dolomitic limestone that forms the foundation for the other Bass islands, native red cedar is one of the dominant trees of the island. The limestone is gouged by glaciers on the surface, though the tougher dolomite didn't yield to the glaciers as dramatically as the softer limestone on Kelleys.

Water-loving reptiles thrive on Middle Bass, with the area along the shoreline important for the Lake Erie water snake and what's said to be the state's highest concentration of fox snakes, a harmless and beautiful species. Middle Bass is situated right in the middle of a busy route for migrating songbirds, making it an excellent stop for both birds and birders.



Herring Gull



Aster



American Bullfrog

#### Middle Bass Island State Park

441 Catawba Ave. 419.797.4530

www.ohiostateparks.org

Middle Bass Island State Park offers a large marina. Nearby, look for eastern cottonwood, willow, buttonbush, arrow-wood, silky dogwood, and American water lotus. Along the shoreline protected in the state park, between winery and marsh, is a rocky shelf that sports rare rock cress and harebells. Look for massive boulders carved with glacial striations emerging from the water's edge. The historic Lonz Winery structure still stands, its castle-like presence dominated by a tower once used as an observatory. Behind the winery structure, be sure to visit the glacial grooves near a small pond. Here's where you witness the difference in the islands' geological fabric. While Kelleys Island's grooves are dramatic and deep, those on Middle Bass Island barely scratch the surface in perfect striations because the dolomite surface proved more resistant to the glacier's carving. To the east of the Lonz Winery structure, view the Late Queen Anne house, once home to George Lonz.

During spring, look for migrating songbirds, shorebirds, and waterfowl. This is a good spot to view hawk migrations and turkey vultures. Look for brown snakes and eastern garter snakes. Summer and fall attracts great blue herons, great egrets, gulls, mayflies, damselflies, dragonflies, butterflies, the endangered Lake Erie water snake, fox snakes, bullfrogs, and midland painted turtles. Look for harebells on the cliffs, winged loosestrife on the rocky shore, and swamp rose mallow and water lotus in wet areas. Search for views of asters and goldenrod in the fall, as well as migrating songbirds and waterfowl. During winter months, if there is little ice, look for waterfowl and gulls.

The state park is open dawn to dusk. Visit the website for updates on amenities.

### 2 Kuehnle Wildlife Area

Especially good for birds is the ODNR Division of Wildlife's Kuehnle Wildlife Area, formerly known as Haunck's Pond. This 20-acre complex of marshes and swamps is located at the base of the northeast peninsula of the island. It provides important habitat for both resting and nesting songbirds, raptors, waterfowl, and wading birds. It also protects a number of threatened and endangered plants, rare salamanders, Blanding's turtles, and the endangered Lake Erie water snake.

Keep an eye out for unisexual hybrid salamanders and Blanding's turtles in spring, as well as migrating waterfowl and songbirds, osprey, and hawks. Search for snapping turtles, midland painted turtles, Lake Erie water snakes and fox snakes in summer, as well as water lilies, lotus, spatterdock, and silverweed. Look for summertime amberwing dragonflies, whirligig beetles, and other damselflies and dragonflies. Fall brings views of the midland painted turtle, migrating waterfowl and songbirds, monarchs, and great blue lobelia on the roadsides. During winter, search for waterfowl in open water.

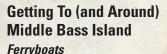


Black Crowned Night Heron

### 3 Petersen Woods

This 1.5-acre wet woods, owned by the Lake Erie Islands Chapter of the Black Swamp Conservancy, is a great place for watching neotropical migrants in the spring and fall. The woods are composed of green ash, silver maple, box elder, and swamp white and bur oaks. The cobble shoreline is used by Lake Erie water snakes. Bald eagles and herons often use the tall dead trees to rest. The property adjoins the open wetland and marsh of the Kuehnle State Wildlife Area.





Ferryboat transportation is available early spring to late fall, weather permitting, from Catawba aboard Miller Boat Line ferryboats (www.millerferry.com or 800.500.2421). Reservations are required if you're bringing a vehicle. Transportation to and from Middle Bass Island and South Bass Island (Put-in-Bay) is available through the SONNY S Boat Line (www.sonny-s.com) departing from The Boardwalk restaurant.

#### Airline Service

Airline transportation is available by Griffing Flying Service (419.626.5161) or the Erie-Ottawa Regional Airport (www. portclintonairport.com or 419.734.6297). Private aircraft can land at Middle Bass-East Point Airport (3W9).

#### **Private Boats**

Dockage is available at Middle Bass Island State Park. For information about Lake Erie boating and U.S. customs requirements, visit the ODNR Division of Watercraft's website at www.dnr.state.oh.us.



SONNY S transport ferry

#### Transportation on the Island

If you're just visiting Middle Bass Island State Park, bicycles are probably not necessary. However, if you choose to explore the rest of the island, bicycles can be brought over on the ferryboat. Bicycles can be rented on the island, and taxi service is available (419.285.RIDE).

#### Kayaks

Kayaks can be transported by Miller Boat Line.

### Staying Overnight on Middle Bass Island

Lodging on Middle Bass Island is restricted to cottages, cabins, and campgrounds. For lodging options, visit Middle Bass Island on the web at www.middlebass.org or the Lake Erie Shores and Islands West at www.shoresandislands.com. For mainland lodging near the Miller Boat Line dock in Catawba, contact the same bureau as above at 800.441.1271.

#### **Other Island Activities**

Several restaurants are located on Middle Bass Island. Visit Middle Bass Island on the Web, a nonprofit organization, at www.middlebass.org, for a list of current events, news, and activities. This website also features a vast collection of historic photographs, memorabilia, and information about the Lake Erie islands.



And it's a place to introduce young students to aquatic research and the Lake Erie ecosystem. School children from throughout the Midwest meet at the laboratory to gather samples and conduct research on the laboratory's two research vessels.

Long before Stone Laboratory existed, Commodore Perry is said to have used the high stone cliff on the island's northeast end, now called Perry's Lookout, to watch the movement of the British fleet before the Battle of Lake Erie.

Ownership of the island initially mirrored ownership of South Bass, until de Rivera sold the island to Sandusky-born Jay Cooke, a major Civil scenic cliffs and cobble beaches, Gibraltar is a



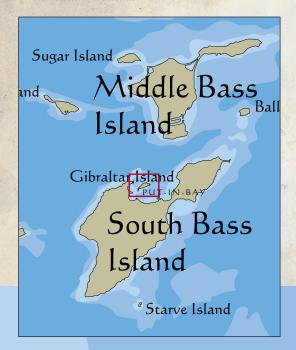
picturesque landmark of the bay. It is also home to Ohio's most famous example of a sea arch, the Needle's Eye, a 32-inch-wide and 15-foot-high opening in the base of the cliff at Perry's Lookout, right at the entrance to Put-in-Bay.

Search for shorebirds on Alligator Bar during the spring, as well as migrating songbirds, and waterfowl. Look for the endangered Lake Erie water snake during summer and fall months. Spring is a good time to look for eastern garter snakes and northern

brown snakes. Summertime brings nesting gulls and swallows, as well as harebells on the cliffs and beardstongue and nodding wild onion in the rocky soil of the island. Dragonflies, butterflies, mayflies, and eastern fox snakes can be found in summer months. Look for short's asters in the fall, as well as migrating songbirds and waterfowl.

#### **Gibraltar Island Tours and Open House**

Gibraltar Island Tours are offered every summer. Participants tour Stone Lab, Cooke Castle and take part in hands-on classroom science activities. These tours are sponsored by Ohio Sea Grant and Stone Laboratory. In addition, an Open House is held each September. For more information, call 419.285.1800 or visit stonelab.osu.edu.





Stone Laboratory



View of Gibraltar Island from Put-in-Bay

# Lake Erie Water Snake

It's not just islanders that bask in the summer sun and ride the surf. The Lake Erie water snake thrives in them, too.

Geography and geology have contrived to give the islands the gift of this federally threatened species with the smallest range of any snake on earth. As the name suggests, this special subspecies of the northern water snake can only be observed on and around the Lake Erie Islands. It's so rare, it's listed as a threatened species by the U.S. Fish and Wildlife Service and endangered by both



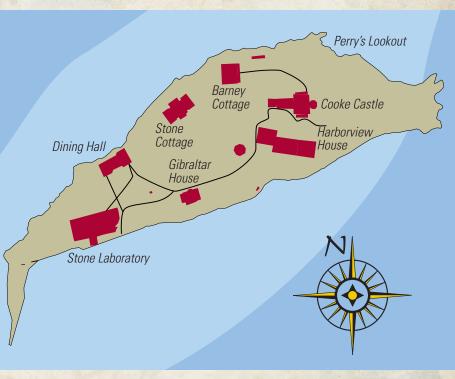
the Canadian Wildlife Service and the ODNR Division of Wildlife.

It all started some 3,000 years ago when, in the wake of the glaciers, the western basin first filled with water, and Kelleys Island became disconnected from the mainland, stranding large populations of the northern water snake on the islands. Over the ensuing centuries, this island snake developed distinctly different characteristics from its common cousin on the mainland. Natural selection has yielded the dull gray coloration of the island subspecies to match the shade of the bedrock, in contrast with the banded pattern of the mainland water snakes.

Island life pushed this island native, which typically reaches two feet to three and one-half feet in length, toward a diet of mostly fish. That's in



contrast to its mainland cousin, which feasts primarily on amphibians. Look for these non-venomous snakes basking along rocky shores or cruising effortlessly in the water in search of their favorite prey – gobies, an undesirable alien invader that's been detrimental to smallmouth bass and other bottom-dwelling native fish.





There are no public facilities on the island. Ohio State Parks is working on plans to provide basic amenities on the island; however, it will be several years before the island will be readied for visitors.

Spring attracts migrating songbirds, waterfowl, shorebirds, hawks, and turkey vultures to the woods, as well as bluebells and Canada anemone in wet areas. Eastern garter snakes can be found in the spring, while Lake Erie water snakes, map turtles, fox snakes, and eastern garter snakes can be found in the summer. Look for the Lake Erie water snake, fox snake, and eastern garter snake in the fall as well. Look for herons in the wetlands and along the shoreline in the summer, as well as water lilies and lotus in wet areas. Fall includes views of green darners, monarchs, asters, goldenrod, migrating songbirds, waterfowl, and shorebirds. Look for waterfowl in the winter if the lake is open.



Indigo Bunting







# Johnson's Island



ohnson's Island was the site of a Confederate POW prison operated by Union forces. From 1862 to 1866, some 9,000 Confederate soldiers, officers, and sympathetic civilians stayed at this 16-

acre prison. The cemetery that remains bears marble headstones shipped from Georgia to honor the final resting places for 206 prisoners. After the Civil War, the island boasted a large amusement park and resort. Other than the cemetery, the island is largely privately owned. Please respect private property. A museum highlighting the cemetery and the prison is located in the nearby Village of Marblehead. Access to the island is over a causeway, and a minimal toll is required.



# Johnson's Island Confederate Officers Cemetery

www.johnsonsisland.org/visiting.htm

At the onset of the Civil War, Federal officials scouted Lake Erie as a site for a Confederate POW camp. They began looking at the Lake Erie Islands for a location that was desolate, easy to supply,

and not too close to
Canada. In 1861, the
Federal government
leased Johnson's Island
and drafted plans for a
prison. The first prisoners
arriving at Johnson's
Island Confederate
Officers Prison pulled into
Sandusky on April 11,
1862, and took a steamer,
THE ISLAND QUEEN,
across Sandusky Bay to
the prison site. Over the



course of its 4-year operation, the prison held some 9,000 Confederate officers, privates, civilians, and even a few slaves who followed their masters north.



Look for the northern brown snake in the spring, and the eastern garter snake and endangered Lake Erie water snake during summer and fall months.

From Route 2, take the Route 269 exit in Marblehead. Head east (right) on Route 269 to East Bayshore Road and turn left. Follow approximately six miles to Gaydos Road, and turn right on the causeway.



## Lakeside Daisy State Nature Preserve

<sup>2</sup> "Lakeside daisy" sounds like a plant that gaily decorates manicured gardens of island villas. The name has a nice ring to it. Sounds like a plant finely bred for generations under the watchful eye of trained horticulturists who have maximized its beauty and shape.

The daisy is beautiful, but you won't find it under any horticulturalist's care. It grows wild in the hardscrabble exposed limestone environments that are more reminiscent of barren moonscapes. It flourishes on the rocky basement of old quarries, not flower beds.

The Lakeside Daisy is not only Ohio's rarest naturally occurring wildflower, it's one of the rarest in the world. In addition to Ohio (where it grows naturally on the Marblehead Peninsula and on an introduced site

on Kelleys Island), it's known to occur naturally in only two other places: Canada's Manitoulin Island and the Bruce Peninsula.

Though it's as pretty as a daisy, the Lakeside daisy isn't a true daisy at all. It's a cousin more closely related to the rubberweeds, the western genus of plants, Hymenoxys. But a Lakeside daisy by any other name (like stemless

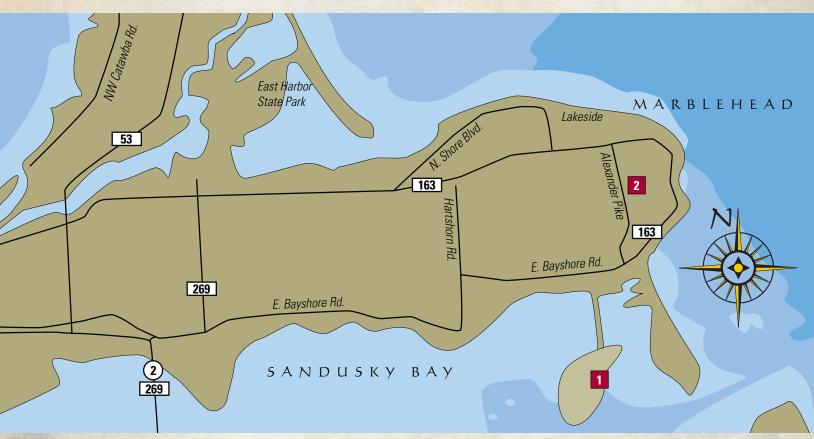


rubberweed, as some botanists have suggested) just wouldn't sound as sweet. This tough perennial is an unlikely survivor in the rock rubble landscape of quarries, where its prolific yellow blooms are impossible to miss.

Look for it in the East Quarry in Kelleys Island State Park and in the 19-acre Lakeside Daisy State Nature Preserve on the Marblehead Peninsula.









# West Sister and other Islands



n a clear day—the kind of day when you can see forever, or at least across Maumee Bay to Michigan—you can stand at the Lake Erie shore in Magee Marsh Wildlife Area or any of a handful of

nearby places, strain your eyes and see, floating like an apparition above the heat waves that invariably rise on such a day, the real and surreal land known as West Sister Island. You'll know it by the candle on the westernmost island shore, marking the south passage through the islands. The West Sister Lighthouse (a 55foot white stucco structure) was built in 1847, making it one of the oldest still operating on the Great Lakes. The light, now automated and solar-powered, was once accompanied by a keeper's dwelling. Now it just warns boaters and other would-be visitors away. That's because West Sister Island is both foreboding and forbidden.

Forbidden because it is Ohio's only federally designated wilderness area, strictly off limits to all but researchers and managing staff from the mainland Ottawa National Wildlife Refuge. Foreboding because those who go face the hardships of a wild place: jungles of poison ivy, stands of giant stinging nettle, snakes afoot, and vile-smelling regurgitated fish falling from the nests high in the trees—a clear sign that the colonies of wading birds are agitated. Retreat and face the onslaught of biting insects that rise like countless good hosts to greet visitors. This 82-acre chunk of limestone has been damaged merchandise since the glaciers worked it over more than 10,000 years ago. The military added to the onslaught in World War

II by using the unoccupied island as a strafing target for naval aircraft and for testing artillery fired from mainland Camp Perry. West Sister is covered with a layer of soil just deep enough to support a forest of hackberry trees and a generally thick understory.

Unfit for humans, this island is heron heaven. West Sister Island hosts the largest heron rookery on the Great Lakes. Great blue herons, great egrets, blackcrowned night herons, snowy egrets, cattle egrets, and little blue herons call it home, but they don't stay on the island. West Sister has just what it takes for their rookeries, but food sources are elsewhere. These waders can be seen flying regular sorties to wetlands, ferrying food for their young mostly from places like Magee Marsh and Ottawa National Wildlife Refuge, but also from island wetlands. There are also nearly 2,000 pairs of double-crested cormorants in five colonies in the western basin. Large colonies are present on West Sister Island and on 17-acre Green Island, where droppings have killed many trees.



Bald Eagle





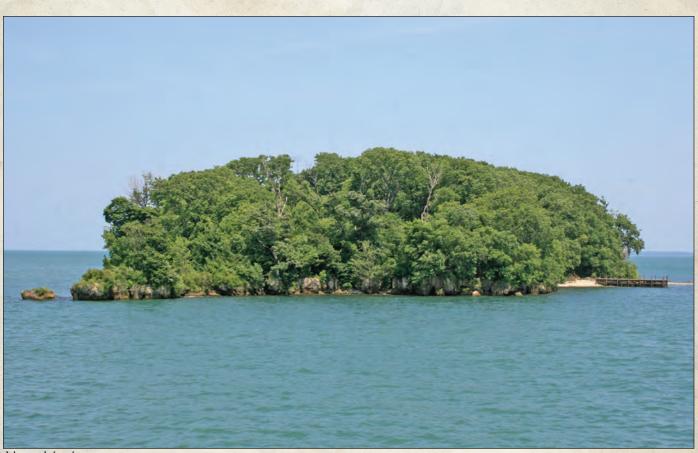
American Goldfinch

### 1 Green Island

Green Island, once a prime source of crystallized celestite mined for strontium, has mostly reforested since being cut over in the 1800s. The island has been in public ownership since 1853, when the federal government purchased it to build a lighthouse. Today it's under the tutelage of the ODNR Division of Wildlife and, like West Sister, off limits without a permit. Virtually all evidence of the original Green Island lighthouse is gone. This wooden structure was built in 1855 and destroyed by fire on New Years Eve 1863. Two years later, a stone lighthouse was built with an attached dwelling. Today the light is automated, and Green Island is uninhabited.

## 2 Rattlesnake Island

Rumor has it that Rattlesnake Island is said to have come by its name honestly, though timber rattlesnakes haven't been reported on the islands since 1962 (and none have ever been reported on this island).



Mouse Island

Instead, the island is now a stronghold for federally threatened Lake Erie water snakes and fox snakes. Anglers know that the rocky bottom near Rattlesnake Island is worth checking for smallmouth bass. But 60-acre Rattlesnake Island itself, like Green Island, is off limits. It's a private island open only to the 65 members—it's always 65—of the Rattlesnake Island Club. The Discovery Channel states this club is among the world's most exclusive playgrounds of the wealthy. Sale of the property on the island is controlled by the club, which operates excellent private facilities, including a bar, restaurant, large pool, health club, tennis courts, and more. Like many of the inhabited islands, an airstrip is its main link to the rest of the world.

## 3 Mouse Island

Mouse Island isn't named for the small mammal so much as its small size. Its biggest claim to fame is that it once belonged to President Rutherford B. Hayes, who made his home in nearby Fremont

and used the island as a family retreat. Now covered with dense forest, the privately owned island reveals only an old stone hearth and chimney.

### 4 Ballast Island

Twelve-acre Ballast Island, in addition to yielding boulders for Commodore Perry to use as ballast for his fleet, was mined for gravel while owned by José de Rivera. Later, a large ice house was built to store large blocks cut from the frozen lake. A dock was also built for small steamers to land. Ambitious plans to build a resort were only partially fulfilled, and today the island is privately owned and used only in summer.

## 5 Sugar Island

Sugar Island followed the ownership of South Bass—first Pierpoint Edwards and then de Rivera. Named for the large number of sugar maples in the island forest, it is private.



Purple Milkweed





Great Blue Heron



# Pelee Island



elee Island is the northernmost and largest of the Lake Erie islands. To understand its significance, this island needs to be thought of as the southernmost territory in Canada. Pelee

and nearby Middle Island are loaded with plants and animals—insects, snails, mammals, birds, reptiles, and amphibians—that are rare or even absent elsewhere in Canada. They are home to an ecotype, Carolinian Canada, a rare habitat that is at its finest on the islands.

Because it's the southernmost point, the island boasts the highest heat units in the country and the longest frost-free season—perfect for viticulture. Approximately one-fifth of Canada's vascular plants are found on Pelee and Middle islands.

Think about that for a minute—the Pelee archipelago which consists of 10,000 acres on Pelee Island, 65 acres on East Sister Island, 29 acres of Middle Sister, 49 acres on Middle Island, three acres on North Harbor, and six acres on Hen and Chicks islands contain one-third of Canada's flowering plant diversity. On a little more than 10,000 acres is the greatest concentrated plant diversity for the world's second largest nation—a nation of 2.5 billion acres.

The abundance of natural riches brought the first humans to the islands, probably coinciding with the arrival of arctic plants shortly after the glacial retreat. Though there is no written record, those early nomads and inhabitants left their mark in camp remains, burial sites, ceremonial objects, tools, and projectile points.

The Western Basin Tradition, a culture that was present on both Kelleys and Pelee islands and the

nearby mainland, represents a time period from 700 to 1450 AD. The middle years of that phase, the Younge Phase, are well represented on the islands, especially Pelee where grinding stones, smoking pipes, tools, and decorated ceramic vessels were found, mostly on the east shore.

Archaeologists surmise that as time passed, use and habitation of the islands became more regular. Groups began to remain on the islands through growing and fishing seasons. With hunting naturally limited on islands, they moved to hunt camps on the mainland to ride out the winter.

One prehistoric site that demonstrated long-term use was located on a creek and a 4,000 acre marsh that became the source for muskrat, forming a large part of the diet for early islanders. A forest that stood between the camp and lake provided nuts for their diet, too, as well as forest game.

Like the other islands, the Pelee record goes mostly blank for several hundred years until the Ojibway moved south from the northern shores of Superior and Huron.

Though Native Americans controlled the other Canadian islands until well into the 1800s, Pelee Island was leased to Thomas McKee in 1788.

Fewer than 300 people now call the island their year-round home, and 80 percent of the island is now cleared for agriculture and other activities. But with 900 acres preserved in public domain, and another 1,000 in natural and semi-natural habitat, much of the island's amazing diversity is still represented. There are more than 800 species of vascular plants, 18 species of mammals, over 300 species of birds, 31 species of reptiles and amphibians, more than 50 species of butterfly, and approximately 40 species



of dragonflies and damselflies recorded for Pelee Island, plus dozens of mollusks, fish, and other invertebrates. Even more impressive, more than 200 of these species are considered rare in Ontario and Canada. The Lake Erie water snake, restricted to the Lake Erie islands, is an endangered species, and the island represents a major stronghold for the threatened eastern fox snake. The eastern spiny softshell turtle, bullfrog, Blanding's turtle, and map turtle are also Canadian highlights.

One introduced species—the ringnecked pheasant—is coveted by hunters who flock to the island in late October and early

November for the annual pheasant hunt.

Popular activities at other times of the year for both visitors and the 1,000 or so cottagers who come each summer include birding, canoeing, kayaking, and hiking. There are about 42 miles of roads on the island, 21 paved, making it easy to explore the island.

Canadian laws must be obeyed, including those for trespassing and handling of some wildlife species. Many of Pelee Island's reptiles are at risk and are protected by legislation. While visiting Pelee Island, please watch for amphibians and reptiles that may be crossing the road.



Trumpet creeper



Mill Point

### **Pelee Island Heritage Centre**

1073 West Shore Road 519.724.2291

www.peleeislandmuseum.ca

Pelee Island's isolation created unique natural environments and a fascinating history, both of which are portrayed at the Pelee Island Heritage Centre. Learn about early prehistoric and Woodland inhabitants. Hear the story of how early settlers harvested the island's red cedars for building docks and the railroad industry. Witness the long tradition of winemaking on the island, a tradition that continues to be celebrated today. Other artifacts feature shipwrecks near the island (noted for the treacherous Pelee Passage) and the natural importance of the island's wild spaces.



Nearby, look for the endangered Lake Erie water snake spring, summer and fall.

Open May to November.

### **Pelee Island Pavilion**

20 E. West Rd. 519.733.6551

www.peleeisland.com

Tour the grounds of the Pelee Island Pavilion and learn about the history of the Kingsville-based winery, as well as the reasons why it's such a great place for grapes to grow. At 550 acres, this vineyard is the largest private estate in Canada. There is also a nature trail system through the Red Cedar savanna.

Look for spring songbird migrants and the eastern fox snake, melanistic garter snake, and northern brown snake in the spring. Summer brings climbing prairie rose, chinquapin oak, burning bush, tall bellflower, fox snake, melanistic garter snake, northern brown snake, and many butterfly species, including tawny emperor, hackberry, and giant swallowtail. Look for the above snakes, as well as oval ladies'-tresses in the fall.

Open May through October.

Southwest portion of Pelee Island 519.825.4659

www.ontarioparks.com

Fish Point on the island's southern shore functions similarly to Point Pelee National Park in Leamington for migrating birds. It's a welcome and important landfall for migrating songbirds both in spring and fall; it's a must-stop for birders. A lagoon in the park is frequented by black-crowned night herons, and shorebirds are numerous on the spit. Like Point Pelee, the lake currents are extremely hazardous and swimming is prohibited; however, the beaches offer spectacular views of the Bass islands and sunsets. A narrow strip of black oak forest occupies the western forest ridge. A lowland swamp forest is also present, adjacent to the lagoon. Inland is a mature upland hackberry and black maple forest, which protects several rare plants, as well as fox snakes and the giant swallowtail butterfly.

Spring attracts many migrating

songbirds, as well as gulls, herons, and shorebirds. Spring flora includes Dutchman's breeches, white and red trillium, squirrel corn, red mulberry, appendaged waterleaf, wild hyacinth, honey locust, hoptree, hairy puccoon, wild leek, Solomon's seal, spring avens, and wild geranium. Spring also attracts midland painted turtles, Blanding's turtles, eastern fox snakes, and the Lake Erie water snake. Look for Carolina wrens, Baltimore orioles, indigo buntings, white-eyed vireos, yellow-breasted chats, and red-bellied woodpeckers in the summer, as well as swamp rose mallow, tall bellflower, trumpet creeper, small skullcap, pokeweed, and climbing prairie rose. Summer also attracts the Lake Erie water snake, eastern garter snake (melanistic), eastern gray treefrog, giant swallowtail, scalloped sooty-wing, hackberry butterfly, and tawny emperor. Fall features migrant songbirds, raptors, gulls and waterfowl,

swallowtail, and monarch butterfly.

This is a nature reserve managed by
Ontario Parks. No swimming is allowed.

in addition to short's aster, hairy-veined

blue lettuce, dwarf hackberry, Lake Erie

water snake, eastern garter snake, giant



Cottonwood savanna

## 4 Stone Road Alvar Conservation Area

Stone Road in extreme southeast portion of the island

www.erca.org

Stone Road Alvar features globally rare habitats and numerous nationally rare and endangered species. Alvars are recently recognized habitats that are typified by exposed limestone or very shallow soil over limestone. Only the hardiest plants can survive the extremes of this habitat, which can also be experienced on Kelleys Island. Within the preserve is a mix of habitats unlike anything else in Canada—oakhickory woods, blue ash and chinquapin oak savanna, red cedar savanna, prairie, thickets, and the alvar. Most of the scattered oaks are chinquapins, which, though stunted, are often more than 100 years old. It's prime habitat for the blue racer, and numerous species of butterflies, birds, and wildflowers.



Look for migrant songbirds in the spring, especially warblers and sparrows. Spring flora includes Miami mist, northern

bedstraw, alumroot, hairy beardtongue, spring beauty, and long-hairy chickweed. Spring reptiles and amphibians include the blue racer, eastern fox snake, eastern garter snake (melanistic), Lake Erie water snake, and brown snake. Summer brings yellow-breasted chats, white-eyed vireos, field sparrows, yellow warblers, blue-gray gnatcatchers, gray catbirds, brown thrashers, eastern bluebirds, and cedar waxwings. Summer flora includes climbing prairie rose, nodding wild onion, purple milkweed, whorled milkweed, downy wood mint, big bluestem, grayheaded coneflower, woodland sunflower, hoptree, yellow horse gentian, and wild bergamot. Look for the giant swallowtail, hackberry butterfly, tawny emporer, and dragonfly species in the summer. Migrant songbirds and raptors, Short's aster, nodding wild onion, Great Plain's ladies' tresses, tall thoroughwort, Lake Erie water snakes, brown snakes, eastern fox snakes, and eastern garter snakes are found in fall.

### 5 Lighthouse Point Provincial **Nature Reserve**

519.825.4659

www.ontarioparks.com

On Pelee's northeastern spit is 237-acre Lighthouse Point, a must-stop for visitors. It is owned and managed by Ontario Parks. Included in the park is Lake Henry Marsh, a wetland supporting a large diversity of species, and the restored Pelee Lighthouse. Built in 1833 to guide ships through the treacherous currents between the island and Point Pelee, it is the second oldest Canadian lighthouse on Lake Erie. At the southern base of this reserve is an extensive blue ash and chinquapin oak savanna and old field scrub, which also harbors numerous significant species of flora and fauna. This is an excellent spot for sighting great egrets and great blue herons.



Spring attracts many migrant songbirds and waterbirds. Spring flora includes hoptree and dogwoods. Look for the Lake Erie water snake, blue racer, eastern

fox snake, eastern garter snake, and brown snake in the spring. Summer attracts yellow-breasted chats, field sparrows, Baltimore orioles, yellow warblers, warbling vireos, Carolina wrens, whiteeyed vireos, eastern bluebirds, herons, and waterbirds. Look for nodding wild onion, spatterdock lily, trailing wild bean, and pickerelweed. Summer also brings Lake Erie water snakes, eastern fox snakes, and numerous butterflies, dragonflies, and damselflies. Fall brings migrant songbirds, shorebirds, and waterbirds. Look for Short's aster, tall thoroughwort, Lake Erie water snakes, eastern fox snakes, and eastern garter snakes.

Hiking trails are available.



Grey headed coneflower



Fish Point



Hairy beardtongue

# Getting To (and Around) Pelee Island

Pelee Island is a Canadian island, therefore, customs and Homeland Security issues apply. Please visit www.travel.state.gov for international travel requirements.

#### **Ferryboats**

From the United States, ferryboat transportation is available early spring to late fall, weather pending, from Sandusky aboard boats operated by Pelee Island Transportation. Transportation is somewhat irregular, so please verify schedule by calling 800.611.2220. Transportation typically does not allow for one-day trips to the islands, so overnight lodging is necessary. From Ontario, Pelee Island Transportation departs from Kingsville and Leamington.

#### Airline Service

Airline transportation is available by Griffing Flying Service (www. griffingflyingservice.com or 419.626.5161) or the Erie-Ottawa Regional Airport (www.portclintonairport.com or 419.734.6297). Private aircraft can land at Pelee Island Airport (CYPT).

#### **Private Boats**

Transient dockage is available at several private marinas on the island. For information about Lake Erie boating and U.S. customs requirements, visit the ODNR Division of Watercraft's website at www.dnr. state.oh.us.

#### Transportation on the Island

Bicycles can be rented on the island.

#### Kayak Rentals

Canoe and kayak rentals are available.

# Staying Overnight on Pelee Island

Lodging on Pelee Island is restricted to cottages, cabins, small inns, and campgrounds. For lodging options, visit www.pelee.org. For mainland lodging near the Sandusky dock, contact Lake Erie Shores and Islands East at www.shoresandislands.com or 800.255.3743.

#### **Other Island Activities**

For a list of attractions, visit www.pelee.org.



Eastern garter snake

The following is not meant to represent a complete list of island species, but rather a sampling of trees, shrubs, wildflowers, and grasses which might be found. We've also attempted to define the natural community where you might encounter these species; however, there is quite a bit of overlapping and variety between the islands.

Sources: Resources of the Lake Erie Islands, Region, Cooper and Herdendorf, Center for Lake Erie Research, 1977; "Flora of the Lake Erie Islands," Stuckey and Duncan, Ohio Biological Survey, 1977; USDA, ARS, National Genetic Resources Program, Germplasm Resources Information Network (GRIN) [Online Database], National Germplasm Resources Laboratory, Beltsville, Maryland. URL: http://www.ars-grin.gov/cgi-bin/npgs/html/tax\_search.pl (retrieved July 2009); Interagency Taxonomic Information System (ITIS) [Online Database], White House Subcommittee on Biodiversity and Ecosystem Dynamics, Smithsonian Institution, Washington, DC. URL: http://www.itis.gov (retrieved July 2009)

	* Non-native	Island Cliffs	Alvar Communities on Limestone Outcroppings	Wetlands and Ponds	Nearshore Submerged Areas	Wooded Areas	Prairies, Fields, Disturbed Areas	Shorelines, Sand or Rock
Box-elder	Acer negundo					X		
Silver Maple	Acer saccharinum					•		
Sugar Maple	Acer saccharum		Carrier S	2/4		X	18.70.7	
Yarrow	Achillea millefolium		X					
Ohio Buckeye	Aesculus glabra					X		
Garlic Mustard *	Alliaria petiolata					X	X	
Nodding Wild Onion	Allium cernuum	X	X				X	0.00
Wild Leek/Ramps	Allium tricoccum					X		
Big Bluestem	Andropogon gerardii	X	X	TAX Y				
Canada Anemone	Anemone canadensis				X		Bearing !	
Thimbleweed	Anemone virginiana			-		X		
Columbine	Aquilegia canadensis	X	X	Spile.				
Smooth Rock Cress	Arabis laevigata	X				X		
Southern Hairy Rockcress *	Arabis hirsuta	X	X			100		
Jack in the Pulpit	Arisaema triphyllum			1000		X		
Short's Aster	Aster shortii		X			X		
Mosses	Bryophytes		X		X			Maria Control
American Sea Rocket	Cakile edentula				1,000			X
Wild Hyacinth	Camassia scilloides			1		X		
Harebell	Campanula rotundifolia	X						
Pink Spring/Purple Cress *	Cardamine douglasii	300			X			
Bristle-leaved Sedge/Longhair Sedge	Carex comosa		X	100				
Frank's Sedge	Carex frankii			1000		X		
Meadow Sedge	Carex granularis		X		, X			
Shagbark Hickory	Carya ovata		T. Wille			X		- N
Hackberry	Celtis occidentalis	X	X			X	10 N. S.	500
Coontail/Common Hornwort	Ceratophyllum demersum			X	X			W 10
Enchanter's Nightshade	Circaea lutetiana	9.3				X		131 12
Spring Beauty	Claytonia virginica		200		- 4	X		To Alexandra
Silky Dogwood	Cornus amomum	A	X	715		- 1000		7
Rough-leaved Dogwood	Cornus drummondii	1-1-2	X			X	X	
Cut-Leaved Toothwort *	Cardamine concatenata			- 1		X		
Orchard Grass *	Dactylis glomerata	/= : Del	17 May 3				X	

	* Non-native	Island Cliffs	Alvar Communities on Limestone Outcroppings	Wetlands and Ponds	Nearshore Submerged Areas	Wooded Areas	Prairies, Fields, Disturbed Areas	Shorelines, Sand or Rock
Dutchman's Breeches	Dicentra cucullaria		300			X		
Indian Strawberry *	Duchesnea indica				3	X	X	14.00
Bottlebrush Grass	Elymus hystrix		1246			X	1000	100
Philadelphia-Daisy	Erigeron philadphicus		X				X	4 400
White Trout-Lily	Erythronium albidum	100	1 100 5 30		19	X		
Yellow Trout-Lily	Erythronium americanum			10-31		X		
Bushy Goldenrod/Common Goldentop			X		3	100		X
Wild Strawberry	Fragaria virginiana		X				7 6	
White Ash	Fraxinus americana					X	(= 4)	
Green Ash	Fraxinus pennsylvanica	4		7.5	23	X		1000
Blue Ash	Fraxinus quadrangulata	. 13				X		
Bedstraw	Galium spp.		X			X		2 - 10
Herb Robert *	Geranium robertianum	1	X			X		
White Avens	Geum canadense		X			X		
Honey-Locust	Gleditsia triacanthos	100	2		100	X		
Kentucky Coffeetree	Gymnocladus dioicus		Ch.			X		
Narrowleaf Bluet	Hedyotis nigricans	X		3) 27/3				
Orange Day-Lily *	Hemerocallis fulva	- 1998			100		X	
Sharp-Lobe Hepatica	Hepatica nobilis					X		
Dame's Rocket *	Hesperis matronalis	- 300				X	X	
Alumroot	Heuchera americana	X	X			X		
Swamp Rose Mallow	Hibiscus moscheutos	- 21		X		A		
Summer Bluet	Houstonia longifolia	X		21		100		
Virginia Waterleaf	Hydrophyllum virginianum	21	×61 - 5 6			X		
Appendaged Waterleaf	Hydrophyllum appendiculatum	200			Market Co.	X		
St. John's Wort *	Hypericum perforatum					A	X	
Black Walnut	Juglans nigra					X	A	38.00
Common Rush	Juncus effusus			X		A		
Eastern Red-Cedar	Juniperas virginiana	X		Λ		X		
Duckweed Duckweed	Lemna minor	Λ		X		A		2760
Purple loosestrife *	Lythrum salicaria	1		X				
Star-flower Solomon's-Seal	Maianthemum stellatum	//		Λ		X		
Solomon's-Plume	Maianthemum racemosum	10 0			The second second	X	- / 2	
Liverwort	Marchantia polymorpha		X			Λ		
Black Medic *	Medicago lupulina	- 11	Λ	- 12			X	
Virginia Bluebell	Mertensia virginica		100	1		X	Λ	
Wild Bergamot	Monarda fistulosa		X			Λ	- 1	
Red Mulberry	Morus rubra		X			X		
Eurasian Water Milfoil *			Λ	v	X	Λ		-3-74013
Eurasian water willfoll	Myriophyllum spicatum			X	Λ	300		

	* Non-native	Island Cliffs	Alvar Communities on Limestone Outcroppings	Wetlands and Ponds	Nearshore Submerged Areas	Wooded Areas	Prairies, Fields, Disturbed Areas	Shorelines, Sand or Rock
Water Lotus	Nelumbo lutea			X				
Catnip *	Nepeta cataria			9			X	
Spatterdock/Yellow Pond-Lily	Nuphar lutea			X		200		
White Water-Lily	Nymphaea odorata			X		200		
Evening Primrose	Oenothera biennis			N 20				X
Sweet Cicely	Osmorhiza berteroi	JE 15-1				X		
Smooth Sweet Cicely	Osmorhiza longistylis			674		X	THE PERSON NAMED IN	No Park
American Hop-Hornbeam/Ironwood						X		
Yellow Wood-Sorrel	Oxalis stricta	1		-/10-18		X	X	
Balsam Groundsel	Packera paupercula	X	X	4000		Λ	Λ	
Woodbine/Virginia-Creeper	Parthenocissus quinquefolia	Λ	X			12 5 5 5		
Cliffbrake		X	Λ			m -		
	Pellaea spp.  Penstemon hirsutus	Λ				X		
Hairy Beardtongue Blue Phlox/Wild Sweet-William	Phlox divaricata		*			X		
Common Reed				V		Λ		
Ninebark	Phragmites australis	X	N/	X				
	Physocarpus opulifolius Poa annua	Λ	X					
Bluegrass *			Λ			v		
Mayapple	Podophyllum peltatum					X		W.
Clammyweed	Polanisia dodecandra			100,00		37	N. T.	X
Smooth Solomon's-Seal	Polygonatum biflorum	17				X		
Hairy Solomon's-Seal	Polygonatum pubescens					X		
Water Smartweed	Persicaria amphibia			X				
Pickerel-Weed	Pontederia cordata			X		No.		
Eastern Cottonwood	Populus deltoides		X					
Curly-Leaf Pondweed *	Potamogeton crispus			X	X			
Richardson's Pondweed	Potamogeton richardsonii			7	X			
Silverweed	Potentilla anserina			X	X			•
Self-heal	Prunella vulgaris		X					
Black Cherry	Prunus serotina	*	TALLS I			X		
Wafer-Ash/Hoptree	Ptelea trifoliata			4/1 1/2		X		
White Oak	Quercus alba	100	T. Whe			X	48	1000
Swamp White Oak	Quercus bicolor			X		X	100	5000
Bur Oak	Quercus macrocarpa			1		X	X	
Chinquapin Oak	Quercus muehlenbergii		10 1 7 3			X		
Red Oak	Quercus rubra		F-10 F-10	100		X	15000	
Gray-headed Coneflower	Ratibida pinnata		X					Frank
Fragrant Sumac	Rhus aromatica	X	11.22		10 10			
Staghorn Sumac	Rhus typhina	X					X	
Black Currant	Ribes americanum							

	* Non-native	Island Cliffs	Alvar Communities on Limestone Outcroppings	Wetlands and Ponds	Nearshore Submerged Areas	Wooded Areas	Prairies, Fields, Disturbed Areas	Shorelines, Sand or Rock
Wild Gooseberry	Ribes cynosbati						<b>CANON</b>	
Prairie Rose	Rosa arkansana				3 (1)		X	100
Smooth Rose	Rosa blanda		X				A 17 17 18 18	387
Common Blackberry	Rubus allegheniensis	779	X				X	
Black Raspberry	Rubus occidentalis			1		X		
Common Arrowhead	Sagittaria spp.	<b>X</b>		X	X			
Peach-leaf Willow	Salix amygdaloides		X		8	10.1		X
Sandbar Willow	Salix exigua		200	X	19		4-8-8	X
Black Willow	Salix nigra					X	( = 43	
Bloodroot	Sanguinaria canadensis	4		70		X		
Hardstem Bulrush	Schoenoplectus acutus			X				
Soft-Stem Bulrush	Schoenoplectus tabernaemontani			X				2 3 10 5
Black Bulrush	Scirpus atrovirens			X				
Canadian Goldenrod	Solidago canadensis		X			M. A. 15	X	
Johnsongrass *	Sorghum halepense		2				X	
Bur-Reed	Sparganium eurycarpum		C.	X		- /		
Bladdernut	Staphylea trifolia			3 27 3		X		
Sago Pondweed	Stuckenia pectinata			X	X	135.8	7 - 37	
Lilac *	Syringa spp.	X						
Dandelion *	Taraxacum officinale	100					X	T
Lakeside Daisy	Tetraneuris herbacea	X				27474		
Early Meadow-Rue	Thalictrum dioicum			249		X		
Rue Anemone	Thalictrum thalictroides					X		
Basswood	Tilia americana		N 62 - 1 4			X		
Poison-Ivy	Toxicodendron radicans		X /	OF ST	W	X	X	
Large-flowered Trillium	Trillium grandiflorum					X		
Narrow-Leaf Cattail *	Typha angustifolia			X			- 22	38 10
Broadleaf Cattail	Typha latifolia			X		7.0		
American Elm	Ulmus Americana		EST LEVE			X	Variable.	-
Slippery Elm	Ulmus rubra					1,000		3800
Rock Elm	Ulmus thomasii			23	100	X	T	7.10.10
Tape-Grass/Eel-Grass	Vallisneria americana				X		7 E. B.	
Common Mullein *	Verbascum thapsus	20 0					X	X
Common Periwinkle *	Vinca minor					X	X	100
Northern Bog/Common Blue Violet	Viola sororia	X	X	100		X	X	
Downy-Yellow Violet	Viola pubescens	19 100	1 A = 15	1 6		X	1.0	
Riverbank Grape	Vitis riparia	7.745	X	1 5/6		X	1	X
Elegant Sunburst Lichen	Xanthoria elegans	7 7	X					
Prickly-Ash	Zanthoxylum americanum			-		X		THE PERSON NAMED IN

# Amphibians and Reptiles of the Lake Erie Islands

Island Abbreviations: South Bass Island (SBI), Middle Bass Island (MBI), North Bass Island (NBI), Kelleys Island (KI), Pelee Island (PI)

Source: Crother, B. I. (ed.). 2008. Scientific and Standard English Names of Amphibians and Reptiles of North America North of Mexico, pp. 1-84.

Please note that all Scientific and Common Names are in accordance with the Society for the Study of Amphibians and Reptiles, Herpetological Circular No. 37, 2008. Some field guides may not reflect this nomenclature.

Islands				
SBI, MBI, NBI, KI, PI				
SBI, MBI, NBI, KI, PI				
SBI, MBI, NBI, KI, PI				
KI.				
SBI, KI, PI				
SBI, MBI, NBI, KI, PI				
KI				
SBI, MBI				
Islands				
SBI, MBI, NBI, KI, PI				
SBI, MBI, NBI, KI, PI				
SBI, MBI, NBI, KI, PI				
KI, MBI, PI, NBI				
SBI, NBI, KI, PI				
Islands				
KI				
MBI, KI, PI				
PI				
KI				
MBI, NBI, KI, PI				
SBI, KI				
SBI, MBI, NBI, KI, PI				
NBI, PI				
Islands				
Islands				
SBI, MBI, NBI, KI, PI				
SBI, MBI, NBI, KI, PI				
SBI, MBI, NBI, KI, PI MBI, NBI, KI, PI				

#### **Others**

Eastern Spiny Softshell (*Apalone s. spinifera*) Northern Cricket Frog (*Acris crepitans*) Gray Treefrog (*Hyla versicolor*)

# Butterflies of the Lake Erie Islands

Sources: Dr. Dave Horn, R.L. Bowles, and Kelleys Island Audubon

#### **Swallowtails**

Zebra Swallowtail Pipevine Swallowtail Black Swallowtail Giant Swallowtail Eastern Tiger Swallowtail Spicebush Swallowtail

#### Whites & Sulphurs

Cabbage White Clouded Sulphur Orange Sulphur

#### **Gossamer Wings**

Harvester
Bronze Copper
Acadian Hairstreak
American Copper
Banded Hairstreak
Hickory Hairstreak
Striped Hairstreak
Juniper (Olive) Hairstreak
White-M Hairstreak
Gray Hairstreak
Eastern Tailed-Blue
Spring Azure
Summer Azure

#### Snouts

American Snout

#### **Brush-Footed**

Variegated Fritillary Great Spangled Fritillary Pearl Crescent Northern (Orange) Crescent Question Mark Eastern Comma Gray Comma Mourning Cloak Milbert's Tortoiseshell Meadow Fritillary American Lady Painted Lady Red Admiral Common Buckeye Red-spotted Purple Viceroy Hackberry Emperor Tawny Emperor

### Satyrs and Wood Nymphs

Northern Pearly-eye Eyed Brown Little Wood Satyr Common Ringlet Common Wood-Nymph

#### Milkweed

Monarch

### Skippers

Silver-spotted Skipper Hayhurst's Scallopwing Northern Cloudywing Juvenal's Duskywing Horace's Duskywing Common Checkered Skipper Common Sootywing Least Skipper European Skipper Fiery Skipper Peck's Skipper Tawny-edged Skipper Crossline Skipper Northern Broken-dash Little Glassywing Sachem Zabulon Skipper Dion Skipper Duke's Skipper Dun Skipper

# Dragonflies of the Lake Erie Islands

Sources: Dr. Carmen Trisler, R.L. Bowles, and Kelleys Island Audubon

# Broad-winged Damsels

Ebony Jewelwing American Rubyspot

#### **Spreadwings**

Spotted Spreadwing Common Spreadwing Emerald Spreadwing Amber-winged Spreadwing Sweetflag Spreadwing Elegant Spreadwing Slender Spreadwing Lyre-tipped Spreadwing Swamp Spreadwing

#### **Pond Damsels**

Blue-fronted Dancer Variable Dancer Powdered Dancer Blue-tipped Dancer Aurora Damsel Taiga Bluet River Bluet **Azure Bluet** Double-striped Bluet **Boreal Bluet** Tule Bluet Familiar Bluet Springtime Bluet Marsh Bluet Stream Bluet Skimming Bluet Hagen's Bluet Orange Bluet Slender Bluet Vesper Bluet Eastern Red Damsel Citrine Forktail Fragile Forktail Eastern Forktail Sedge Sprite

### Darners

Canadian Darner Mottled Darner Lance-tipped Darner Spatterdock Darner Shadow Darner Green-striped Darner Common Green Darner Comet Darner Springtime Darner Swamp Darner Cyrano Darner

#### Clubtails

Lilypad Clubtail Unicorn Clubtail Midland Clubtail Pronghorn Clubtail Dusky Clubtail Cobra Clubtail Common Sanddragon Elusive Clubtail Russet-tipped Clubtail

### **Spiketails**

Twin-spotted Spiketail

#### Cruisers

Royal River Cruiser

#### **Emeralds**

American Emerald Racket-tailed Emerald Beaverpond Baskettail Common Baskettail Prince Baskettail Stygian Shadowdragon Umber Shadowdragon Ringed Emerald Williamson's Emerald

#### Skimmers

Calico Pennant
Halloween Pennant
Banded Pennant
Eastern Pondhawk
Frosted Whiteface
Dot-tailed Whiteface
Red-waisted Whiteface
Slaty Skimmer

Chalk-fronted Skimmer Widow Skimmer Common Whitetail Twelve-spotted Skimmer Four-spotted Skimmer Painted Skimmer Great Blue Skimmer Blue Dasher Wandering Glider Spot-winged Glider Eastern Amberwing Blue-faced Meadowhawk Variegated Meadowhawk White-faced Meadowhawk Ruby Meadowhawk Band-winged Meadowhawk Yellow-legged Meadowhawk Carolina Saddlebags Black Saddlebags Red-mantled Saddlebags

# Birds of the Lake Erie Islands

Official Lake Erie Islands Birding Checklists can be purchased from the Lake Erie Islands Historical Society Museum, the Lake Erie Islands Nature and Wildlife Center, and other locations.

The following list was compiled using data collected and researched by numerous individuals, including H. Thomas Bartlett, Bill Whan, John Pogacnik, Stan Wulkowicz, and Lisa Brohl, and members of the Kelleys Island Audubon Club and the Pelee Island Bird Observatory. Data was collected from all United States and Canadian islands over the last 75 years.

> Rare + Has bred on the islands within the last 75 years

#### Geese, Swans, and Ducks

Greater White-fronted Goose >
Snow Goose
Brant >
Canada Goose +
Mute Swan
Trumpeter Swan >
Tundra Swan

Wood Duck + Gadwall American Wigeon

American Black Duck Mallard +

Blue-winged Teal + Northern Shoveler Northern Pintail Green-winged Teal

Canvasback Redhead

Ring-necked Duck Greater Scaup

Lesser Scaup King Eider >

Harlequin Duck >

Surf Scoter

White-winged Scoter

Black Scoter

Long-tailed Duck Bufflehead

Common Goldeneye Hooded Merganser

Common Merganser Red-breasted Merganser

Ruddy Duck

#### Gallinaceous Birds

Ring-necked Pheasant >+ Wild Turkey >+ Northern Bobwhite >+

#### Loons

Red-throated Loon Common Loon

#### Grebes

Pied-billed Grebe + Horned Grebe + Red-necked Grebe > Eared Grebe >

#### Cormorant

Double-crested Cormorant +

#### **Herons and Bitterns**

American Bittern
Least Bittern >
Great Blue Heron +
Great Egret +
Snowy Egret >+
Little Blue Heron >+
Black-crowned Night-Heron +
Yellow-crowned Night-Heron >+
Tricolored Heron >+
Cattle Egret >+
Green Heron +

### Hawks, Falcons, and Vultures

Turkey Vulture + Osprey

Bald Eagle +
Northern Harrier
Sharp-shinned Hawk
Cooper's Hawk +
Northern Goshawk
Red-shouldered Hawk
Broad-winged Hawk
Red-tailed Hawk +
Rough-legged Hawk
Golden Eagle >
American Kestrel +

# Rails, Coots, and

Peregrine Falcon

Cranes

Merlin

Virginia Rail Sora Common Moorhen > American Coot + Sandhill Crane

#### **Plovers**

Black-bellied Plover
American Golden-Plover
Semipalmated Plover
Piping Plover >
Killdeer +
Black-necked Stilt >
American Avocet >

### Sandpipers, Phalaropes, and Allies

Spotted Sandpiper +

Solitary Sandpiper Great Yellowlegs Willet > Lesser Yellowlegs Upland Sandpiper > Whimbrel > Hudsonian Godwit > Ruddy Turnstone Red Knot Sanderling Semipalmated Sandpiper Western Sandpiper Least Sandpiper White-rumped Sandpiper > Baird's Sandpipeer > Pectoral Sandpiper Purple Sandpiper > Dunlin Stilt Sandpiper Shot-billed Dowitcher Long-billed Dowitcher Wilson's Snipe American Woodock + Wilson's Phalarope >

Red Phalarope >

#### Gulls

Black-legged Kittiwake >
Bonaparte's Gull
Little Gull >
Laughing Gull >
Franklin's Gull >
Ring-billed Gull +
California Gull >
Herring Gull +
Thayer's Gull
Iceland Gull
Lesser Black-backed Gull
Glaucous Gull
Great Black-backed Gull

#### Terns

Caspian Tern Black Tern Common Tern + Forster's Tern

# Doves, Cuckoos, and Pigeons

Rock Pigeon + Mourning Dove + Yellow-billed Cuckoo Black-billed Cuckoo

#### Owls

Barn Owl >+
Eastern Screech-Owl +
Great Horned Owl +
Snowy Owl
Barred Owl >
Long-eared Owl
Short-eared Owl >
Northern Saw-whet Owl

## Nightjars, Swifts, and Hummingbirds

Common Nighthawk +
Chuck-will's-widow >
Whip-poor-will
Chimney Swift +
Ruby-throated Hummingbird +

# Birds of the Lake Erie Islands

> Rare + Has bred on the islands within the last 75 years

## Woodpeckers, Kingfishers, and Flycatchers

Belted Kingfisher + Red-headed Woodpecker + Red-bellied Woodpecker + Yellow-bellied Sapsucker Downy Woodpecker + Hairy Woodpecker + Northern Flicker + Olive-sided Flycatcher Eastern Wood-Pewee + Yellow-bellied Flycatcher Acadian Flycatcher + Alder Flycatcher Willow Flycatcher + Least Flycatcher Eastern Phoebe + Great Crested Flycatcher + Eastern Kingbird +

#### **Shrikes**

Loggerhead Shrike > Northern Shrike

#### Vireos

White-eyed Vireo +
Yellow-throated Vireo +
Blue-headed Vireo
Warbling Vireo +
Philadelphia Vireo
Red-eyed Vireo +
Blue Jay +
American Crow +

#### Larks and Swallows

Horned Lark +
Tree Swallow +
Northern Rough-winged
Swallow +
Bank Swallow +
Cliff Swallow +
Barn Swallow +

# Chickadees, Creepers, and Wrens

Black-capped Chickadee +
Tufted Titmouse >
Red-breasted Nuthatch +
White-breasted Nuthatch +
Brown Creeper
Carolina Wren +
House Wren +
Winter Wren
Sedge Wren >
Marsh Wren >+

# Kinglets and Gnatcatchers

Golden-crowned Kinglet Ruby-crowned Kinglet Blue-gray Gnatcatcher +

#### Thrushes

Eastern Bluebird + Veery + Gray-cheeked Thrush Swainson's Thrush Hermit Thrush Wood Thrush + American Robin +

### **Mimids and Starlings**

Gray Catbird +
Northern Mockingbird
Brown Thrasher +
European Starling +
American Pipit
Cedar Waxwing +

#### Warblers

Blue-winged Warbler Golden-winged Warbler Tennessee Warbler Orange-crowned Warbler Nashville Warbler Northern Parula Yellow Warbler + Chestnut-sided Warbler + Magnolia Warbler Cape May Warbler Black-throated Blue Warbler Yellow-rumped Warbler Black-throated Gray Warbler > Black-throated Green Warbler Blackburnian Warbler Yellow-throated Warbler > Pine Warbler Kirtland's Warbler > Prairie Warbler > Palm Warbler Northern Waterthrush Louisiana Waterthrush > Kentucky Warbler > Connecticut Warbler > Bay-breasted Warbler Blackpoll Warbler Cerulean Warbler Black-and-white Warbler + American Redstart + Prothonotary Warbler > Worm-eating Warbler > Ovenbird + Mourning Warbler + Common Yellowthroat + Hooded Warbler Wilson's Warbler Canada Warbler Yellow-breasted Chat +

#### **Tanagers**

Summer Tanager Scarlet Tanager +

#### Sparrows and Allies

Eastern Towhee + American Tree Sparrow Chipping Sparrow + Clay-colored Sparrow Field Sparrow + Vesper Sparrow Savannah Sparrow + Grasshopper Sparrow >+ Nelson's Sharp-tailed Sparrow > Fox Sparrow Song Sparrow + Lincoln's Sparrow Swamp Sparrow + White-throated Sparrow Harris Sparrow > White-crowned Sparrow Dark-eyed Junco Lapland Longspur **Snow Bunting** Northern Cardinal + Blue Grosbeak > Rose-breasted Grosbeak + Indigo Bunting + Dickcissel >

#### **Blackbirds and Orioles**

Bobolink +
Red-winged Blackbird +
Eastern Meadowlark +
Western Meadowlark >
Yellow-headed Blackbird >
Rusty Blackbird
Brewer's Blackbird >
Common Grackle +
Brown-headed Cowbird +
Orchard Oriole +
Baltimore Oriole +

#### **Finches**

Purple Finch +
House Finch +
Red Crossbill >
White-winged Crossbill >
Common Redpoll >
Pine Siskin
American Goldfinch +
Evening Grosbeak >

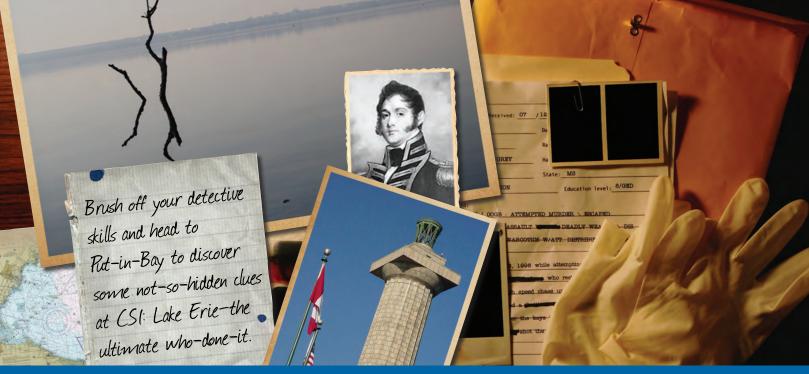
### **Old World Sparrow**

House Sparrow +

# Tread Lightly

Help us protect what we all treasure. Consider these guidelines for visiting our islands without harming their futures. Thank you, and enjoy your exploration.

- For your protection, as well as for the protection of the environment, always follow designated trails and paths.
- Please respect private property that may be adjacent to public lands.
- While driving a car or golf cart along island roads, be careful to avoid reptiles and amphibians which frequently cross the roads.
- To blend with the natural world, move slowly and quietly.
- Leave flowers, shells, nuts, and animals for others to enjoy. Sometimes even touching a fragile plant is enough for its demise.
- Birds and animals sense disturbances to their nesting sites and may abandon their young if a threat is perceived. Please stay a considerable distance from nests and dens.
- Use binoculars or zoom lenses to get up close and personal. Never knowingly disturb wildlife by getting too close, pointing, moving abruptly, or speaking loudly.
- Avoid chasing or repeatedly flushing birds.
- Obey federal and state regulations. You will be prosecuted for venturing beyond signs posted "Endangered Species Nesting Area – Trespassing Unlawful."
- Migratory birds need peaceful areas to rest and refuel before continuing their journeys. Keep disturbances to a minimum. An international treaty, as well as state and federal laws, protects all migratory birds.
- Be careful not to point optics toward people or houses. Keep voices low and vehicle noise to a minimum before 9 a.m.
- Look, but never touch. Lake Erie water snakes may be fascinating and non-venomous, but they are quick to bite curious hands.
- Express gratitude to individuals and businesses that go out of their way to accommodate your interest or needs in the natural world.
- Wear binoculars and carry your field identification guides everywhere! It's the best way to share the economic importance of our resources.
- Use bird calls, tape recordings of calls, or other devices sparingly. They can disturb breeding and drive birds from territories.
- Divide large groups of people into smaller groups. Smaller groups are less disturbing to wildlife.



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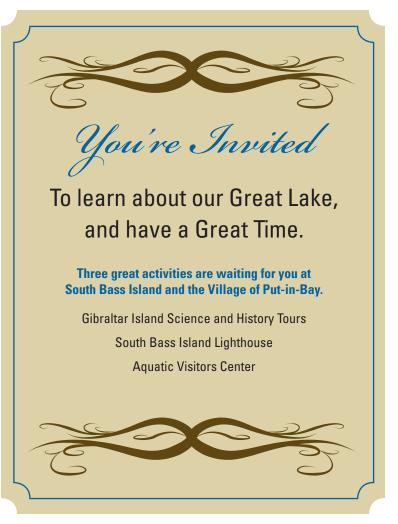
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