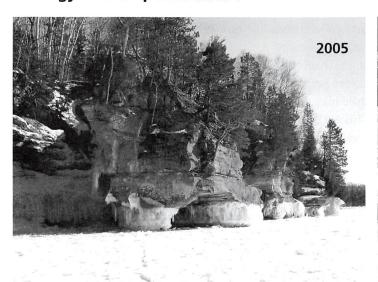


The Power and Artistry of Lake Superior

The sea caves of the Apostle Islands are amazing testaments to nature's power and artistry. Centuries of waveaction, freezing, and thawing sculpted shorelines throughout Apostle Islands National Lakeshore. Some of the Great Lakes' most spectacular scenery occurs where these forces interact with the sandstone of the Devils Island Formation to create extensive sea

caves. Nature carved delicate arches, vaulted chambers, and honeycombed passageways into cliffs on the north shore of Devils Island, Swallow Point on Sand Island, and along the mainland near the Lakeshore's western boundary. People have long come to Apostle Islands National Lakeshore to visit the sea caves and witness Lake Superior's ever-changing handiwork.

Geology of the Apostle Islands Sea Caves





Ancient Forces: The story of the Apostle Islands Sea Caves is an ancient one. About a billion years ago, highenergy, braided streams carried sand and gravel from highlands in what is now southern Minnesota.

Bayfield Group: Sediments continued to accumulate for hundreds of millions of years and became the sandstone bedrock of the Bayfield Group. This Group made up of three formations, underlies all the islands and Bayfield Peninsula. Two of these Formations are exposed within the park.

Chequamegon Formation: The top most layer of the Bayfield Group is the Chequamegon Formation. This sandstone is massive and resistant to erosion and tends to form cliffs.

Devils Island Formation: Named after the island, this formation is the 300 foot thick middle layer of the Group. It accumulated in an area of wide-spread sand flats covered by shallow ponds and connecting channels only a few inches deep. Sand deposited in this environment was thinly-bedded, fine-grained, and contains ripple marks. The thin layers

of the Devils Island Sandstone are more easily eroded by the power of the lake and as a result contain the majority of the sea caves.

Ever Changing Shorelines: The sea caves and sandstone cliffs are dynamic and ever changing. The concert of wave and water, induces subtle grain by grain alteration, until these seemingly inconsequential actions cause catastrophic collapse. In early 2008, a pedestal underpinning the arch seen here (above-left) collapsed, exposing a new fresh rock face (above-right).







Getting to the Sea Caves

Meyers Beach: The sea caves are best seen from the water. Kayakers flock to the mainland sea caves to explore their inner reaches from Meyers Beach. Kayak outfitters guide trips daily, weather permitting, from late May into early Fall here and other locations in the park. Water taxis and other commercial tours provide opportunities to admire the sea caves throughout the park. You can find a list of approved kayak and boat tour operators on the Commercial Services page of our website.

Lakeshore Trail: Portions of the sea caves are visible from the Lakeshore Trail. The trailhead starts from the parking lot (fee) at Meyers Beach Road. A fairly rugged two-mile hike (one way) along the trail brings hikers to the top of the cliffs above the sea caves. The best sea cave vistas occur between the "Crevasse" and the "Bowl", making for a five mile round-trip hike from

the parking area. Hikers are advised to keep pets on leash (6' or less), stay on trails and stay a body-length from the cliff edge. Undercut ledges can give way without warning and pine needle covered surfaces are slippery. Kayakers may be below the cliffs and paddle into the Crevasse. Potable water may be available in the parking area, but no services are available along this section of the trail. Bug repellent, sunscreen, food, water, appropriate footwear and attire will make the trip safer and more enjoyable. A more complete description of the trail is available on our website.

Winter Use: The Lakeshore trail is usable in winter but may be snow-packed, icy or covered in deep snow. Cross-country skiing is NOT recommended. Steps on the boardwalk make snowshoeing impractical and dangerous. Use caution near cliff edges.

Distances to Island Caves

Little Sand Bay to Sand Island: The Swallow Point sea caves on the east side of Sand Island are accessible from Little Sand Bay via kayak or boat and require a 4 mile (one way) open water crossing.

Devils Island from Little Sand Bay: From Little Sand Bay the distance to the Devils Island sea caves is a mostly open

water crossing of about 14 miles (one way), skirting York and Bear Islands. This trip is NOT recommended for novice or intermediate kayakers.

Devils Island From Bayfield:

Launching from Bayfield requires a mostly open water paddle of 22 miles (one way).

Safety

Craft Recomendations: A sea kayak is the recommended kayak. Small open boats, canoes, and open cockpit or sit upon kayaks are NOT recommended. Paddlers should not visit the sea caves alone. Stay together with your group.

Monitor Weather Closely: Check the Sea Caves Watch or Wave Watch websites for real-time wind, wave information and pictures. Be constantly alert to changing conditions and consider how they might effect your trip. Avoid the sea caves when conditions are rough.

Equipment: Wear personal flotation devices, wet-suits, and spray skirts.