

Wolf's Eye



Isle Royale & Keweenaw Parks Association

2015 No. 2

Archaeological Research on Isle Royale

by Seth DePasqual

This summer Isle Royale visitors may have noticed the sounds of trowels and shovels picking away at the island surface near Daisy Farm. Or they might have encountered field crews marching through the woods near the Minong Mine recording mounds of poor rock or shallow depressions on the landscape. Such activities were associated with two archaeological research projects in late May and most of June.

The first was an archaeological excavation of a mid-19th century smelting operation, which was situated adjacent to the Ransom townsite. This location is known today as the Daisy Farm Campground. The excavation work helps us understand the nature and extent of various features found in the smelter vicinity. Information gleaned from this research will inform our knowledge of smelting processes as they developed in remote settings on what was then the American frontier.

The second project relates to a national landmark nomination now being prepared for the Minong Mine Historic District. The district has been listed on the National Register of Historic Places since 1977, a prerequisite for National Landmark consideration. Should the evaluation determine that the mine site is worthy of landmark status, this would be the first for Isle Royale and would highlight the significance of the mine's indigenous and historic copper mining



Minong Mine hoist house 1909.

activities now evidenced throughout the landscape.

Ransom Smelter Excavation

As part of Michigan Technological University's (MTU) 2015 Industrial Archaeology Field School, excavations were performed on a smelter feature associated with the Isle Royale

& Ohio Mine location, which was situated in the vicinity of today's Daisy Farm Campground. The purpose of MTU's archaeological excavations at the smelter was to advance our scientific understanding of the smelter feature, which has potential to yield significant data on early smelting technologies in the Lake Superior region. Information gleaned from this investigation will inform interpretive programming at the Park.

Scientific concerns will be addressed by studying the design and operational sequence of what might be the earliest copper smelter in the region's Copper Country. The excavation party explored the nature and extent of the smelting operation that the Isle Royale & Ohio Mining Company constructed and developed.

The company operated on the island between 1847 and 1849 and was managed by Christopher Columbus Douglass, nephew of the esteemed geologist Douglass Houghton. Information on the company is scant; what little we know about its smelting operations comes from a diary that Ruth Douglass, wife of C.C. Douglass, penned.

We understand that a cupola furnace was operated at the site, the remains of which are still visible in the woods near Daisy Farm. However, the true purposes of a number of other features found here remain unknown. The field school excavated portions of

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some of these features to gain information on related functions. Avenues of research included the examination of the possible presence of a reverberatory furnace, charcoaling operations, and the operational sequences of this smelting process as reflected in the landscape and remaining features.

Several questions guided this study: Why did the smelting operation fail? Was there a reverberatory furnace present here? Was the Isle Royale and Ohio mining firm able to produce any copper of marketable quality? To what extent did technology, smelter design, ore quality, and management issues contribute to the smelter's failure?

The excavations and subsequent reporting on the site's history and archaeology will provide meaningful information on early American industrial venture capitalism in a frontier environment. The research will provide information that may ultimately inform the Park's interpretive programming efforts. Additionally, the smelter site is located in close proximity to one of the island's busiest campgrounds, which afforded excellent opportunities for public interaction with the field school students.

Minong Mine National Historic Landmark Evaluation

Following excavation work at the Ran-

som Smelter, the MTU field school relocated to McCargoe Cove to perform ten days of field work at the Minong Mine as part of the landmark evaluation. The Minong Mine Historic District is spread across 317 acres of undeveloped wilderness and is regarded as the largest and best-preserved precontact copper mining site in the Lake Superior watershed. The entire span of precontact and historic mining activities (as early as 4500 RC years BP to 1885) is represented by numerous features now present on the landscape.

Hundreds of precontact mining pits are visible on the hillsides below the Minong ridgeline, many of which are quite visible to keen observers. These very features clued historic surveyors to the presence of copper on Isle Royale, bringing forward a new era of mining, albeit on an industrial scale. Although lasting only a decade, the historic mining era certainly obliterated sections of precontact copper workings. This is best exemplified by precontact hammerstones found among historic waste (poor) rock piles. Despite these activities, many acres of precontact mining pits remain undisturbed below a canopy of centuries-old eastern white pine.

In spite of the listing on the National Register of Historic Places, the Park lacks an accurate map of the

district's varied features, including a stamp mill, townsite, wharf, mine workings (both indigenous and historic), mine car tramway, etc. Numerous surveys have been performed in the past, and good data on many features does exist; however, large swaths of the site have yet to be fully inventoried. The MTU survey party surveyed the entire district with the intention of defining its true boundary and delineating both aboriginal and historic mining features within this boundary. The survey identified at least 600 precontact mining pits, along with previously unrecorded historic mining features.

Ultimately, a master's thesis projected for completion by summer 2016 will discuss details of the smelter excavation. The Minong Mine landmark evaluation should be completed sometime this winter, when it will be submitted to the NPS National Historic Landmarks Program office for final comment. Stay tuned for more information on these projects as we strive to learn more about the island's grittier industrial past.

Seth DePasqual is Isle Royale National Park's cultural resources manager.



MTU student excavates a possible reverberatory furnace foundation. Archaeology students mark sites of 10 precontact mining pits.

Isle Royale Moose-Wolf-Vegetation Planning Underway

The predator-prey relationship between the moose and wolf populations on Isle Royale has been studied for decades, garnering international attention, and is of great interest to Native American bands of the area, park visitors, researchers, and many other organizations and community groups.

The story of wolves on Isle Royale is compelling and ever changing. Their population has fluctuated over the past 65+ years since they were first documented on the island, but has been in steep decline for the past five years. This past winter was no exception. Researchers from Michigan Technological University found three wolves on the island and documented one mortality, that of the last collared wolf. An ice bridge formed for the second year in a row, allowing a pair of wolves to travel about 14 miles from their home range on the Grand Por-

tage Indian Reservation to Isle Royale. The pair explored the island but did not stay, returning to the mainland five days later. Five of the nine wolves present in 2014 are unaccounted for. They may have survived, perished, or left the island via the ice bridge.

The moose population on the island has also fluctuated over time. Over the past few years the population has increased greatly for numerous reasons, including the fact that wolf predation rates have been low.

The changes in these populations raise concern about the potential for impacts to park resources, including vegetation. As a result, the National Park Service (NPS) has published a Notice of Intent (NOI) in the Federal Register announcing the initiation of a Moose-Wolf-Vegetation Management Plan and Environmental Impact Statement. The plan/EIS is meant to provide direction for the future man-

agement of the Isle Royale moose and wolf populations in light of the changes occurring on the island.

A newsletter with more background and information about the planning process, including six preliminary draft alternative concepts, can be viewed and downloaded at <http://parkplanning.nps.gov/ISRO-moosewolf>. Four public scoping open houses have been held in Houghton, Rock Harbor, Grand Portage, and Windigo, and a public comment period is open through August 29. Submit comments electronically on the planning website or mail or hand deliver written comments to:

Isle Royale National Park
Attn: Moose-Wolf-Vegetation Management Plan
800 E Lakeshore Dr
Houghton, MI 49931-1869

Isle Royale Natural Resources Research and Monitoring Update

The long-running study of wolves and moose is the best-known research project on Isle Royale, but many other natural resources research and monitoring projects take place without much public notice. Here is a behind-the-scenes look at a few of them.

Peregrine Falcons. Until 2012, only two nests of peregrine falcons were documented on Isle Royale: in 1890 on the Gull Islands and in 1955 on the Palisades. Nesting has now occurred on Passage Island each summer from 2012-2015. Peregrines form monogamous pairs and often use the same nest location for several years, so it is likely the same pair. This summer, Isle Royale National Park and Michigan Department of Natural Resources staff banded three healthy chicks from the cliff-side nest.

Bats. Isle Royale is home to 19 mammal species, seven of which are bats. Among them are the tri-colored bat (formerly called eastern pipistrelle), a species of special concern in Michi-

gan, and the northern long-eared bat recently added to the federal endangered species list. Little is known about bats on Isle Royale, all of them nocturnal insect eaters. The three tree-roosting species are believed to winter in warmer regions, while the four cavity-roosting species may hibernate in Michigan's Upper Peninsula where bat deaths from White-Nose Syndrome have been documented. Studies in 2011, 2012, and 2014 provide baseline data on populations and preferred habitats from acoustic recordings. Migration monitoring is also in progress at Mount Ojibway, Rock of Ages, and Passage Island in cooperation with Stantec Consulting.

Common Loons. The common loon is a state-listed threatened species in Michigan, and Isle Royale National Park represents a stronghold for the statewide population. Monitoring of this species, which can be sensitive to human-caused impacts to shoreline habitat and nesting success, is important for both park management

and the state as a whole. In 2014, the number of chicks that fledged was half the 1999-2014 average of 31, with 174 adults counted, also below the average of 233. The general declining trend of loons, although not statistically significant, is of concern. Factors include marginal habitat to support the population, seiches and storms flooding nests, and eagles and other predators taking chicks or eggs.

Nabokov's Blue Butterflies. The Nabokov's Blue Butterfly, a Michigan endangered species, merits special attention on Isle Royale. Suitable habitat exists, but no butterflies were seen in 2014. Monitoring will continue this year. Dwarf bilberry, a species of the heather family, is the only reported host plant of the Nabokov's Blue. Other subspecies in eastern North America rely on habitat-opening disturbances like fire. Management could include prescribed burning to maintain suitable habitat, though rocky outcrops should also provide very good habitat.



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IRKPA Annual Meeting

IRKPA's annual meeting will take place in Rock Harbor as part of Isle Royale National Park's 75th anniversary and alternative energy system celebration on Saturday, August 22. The *Ranger III* will make a special Friday-Sunday round trip. The park program will take place at 10:00 am. IRKPA's annual meeting will follow at 11:30. A Tobin Harbor paddle to the Dassler Cabin on Scoville Point is an option that afternoon. A group campsite is reserved for IRKPA members.

Capt. Bill Hanrahan will repeat his program aboard and about the *Ranger III*'s history at 7:00 pm Thursday, August 20, in Houghton.

IRKPA Awarded Keweenaw Heritage Grant

The Keweenaw National Historical Park Advisory Commission awarded IRKPA a \$5,125 Keweenaw Heritage Grant to support an ambitious project that will produce a geoheritage guide to the shared geology of Isle Royale and the Keweenaw Peninsula. Heritage Grants require a 1:1 cash or in-kind match, which will be more than met by costs of new custom Advice from a Copper

Pflaum Returns to KNHP

Mike Pflaum returned as Keweenaw National Historical Park's superintendent on May 17. He had been splitting his time between KEWE and Pictured Rocks National Lakeshore since January 2014.

"I think that the many months of time spent back and forth between the two parks allowed me to see that my heart was really in the Keweenaw," Mike said. "Pictured Rocks NL is a great park with wonderful resources and visitor opportunities and an excellent staff, but the opportunity to be part of the continued progress of and great future potential of KNHP drew me back."

Miner and Lake Superior sales items like those we already have for Isle Royale.

The geoheritage guide will leverage Bill Rose's ongoing interpretation work and related efforts of a group led by Northwestern University that focuses on interpreting the Midcontinent Rift System in parks surrounding Lake Superior (www.earth.northwestern.edu/people/seth/Texts/mcrinterpslide.html).

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800 E Lakeshore Dr
Houghton, MI 49931-1869
906-482-7860 or -3627 (800-678-6925)
irkpa@irkpa.org, www.irkpa.org



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IRKPA, a nonprofit membership organization, supports Isle Royale National Park and Keweenaw National Historical Park by publishing and selling educational materials for park visitors. Gifts, bequests, memorials, and memberships are U.S. tax deductible.

Membership Categories

Individual \$25	Household \$35
Supporting \$50	Sustaining \$100
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*may be paid in four annual installments

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