

## **GEO FIELD TRIPS BY LAND AND LAKE HIGHLIGHT GEODIVERSITY OF MICHIGAN'S KEWEENAW ROSE, William I.**, and VYE, Erika,

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## ABSTRACT

The combined geologic history and human story of Michigan's Keweenaw Peninsula and Isle Royale make the region an excellent candidate for a Global Geopark designation. As Earth scientists, we are convinced of its exceptional qualifications and for 5 years have been building additional support for our proposal from a broad spectrum of local public, most of whom lack a higher degree of Earth science literacy. A central part of our work has focused on imparting the exceptional geoheritage of the Keweenaw Peninsula and Isle Royale to teachers, students, politicians, businesspeople, tourists and the general public. Although many feel this intense geoheritage, life-long residents often have difficulties articulating it or have misconceptions about how our place was formed. We have addressed this through a wide variety of educational outreach efforts focused mainly on identifying, locating, interpreting, and

Numerous lakeshore geosites offer wave-washed exposures that are both scenic and educational. Many are remote and accessible only by boat. Combined land and boat tours provide unique geoeducational platforms that make for efficient trips with minimal transit time losses if they are well crafted. We have developed one-day trips that focus on both the cultural story and main themes of Keweenaw Earth history: flood basalts/hot spots, redbed fluvial sandstones, thrust faults, continental glaciation and great lakes Earth science. These trips have been popular and attract a broad cross section of local residents and tourists. A previously unexplored economic resource, they demonstrate successes in geotourism that could stimulate new business ventures that encourage visitors to stay longer and participate in more outdoor activities. It also further develops a sense of place and Earth science literacy among local residents who become more versed in the geologic and cultural 

e have so far designed and tested four Geotour
emes for the Keweenaw and one for Isle Royale.

. Lavas.					
. Redbed,					
8. Thrust Fa	ault.				
. Lake Pro	cesses.			_	
. Isle Royale Volcanology.					



5000-

MINING WASTE AT GAY MICHIGAN: SECTION THROUGH THE ERODED STAMPSAND SHOWING OLD SLUICES.

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Interbedded

**OUR STURDY AND SAFE** 

AGASSIZ, DOCKED IN

THE MORNING LAKE ICE

AT ROCK HARBOR. ISL

FIELD VEHICLE, THE R/V

**Frip 4: Copper Mining Waste of Lake Superior Today:** The Keweenaw's recent mining past is a distinctly visible part of the andscape. Learn about the dynamic lake processes that have cattered mining waste in Lake Superior and inland lakes. lighlights include visits both on land and from the lakeside to the Gay and Torch Lake stamp sands

ROYALE.		Copper Harbor, learn abo lavas, walk the Lake Sho Greenstone lava flow – the
2 2		COPPER HARBOR CONGLOMERA ALLUVIAL FAN RIFT FILLING ROC AGATE HARBOR, KEWEENAW.
<u></u>	= Houghton conglomerate (No. 14)	pu Raspberry Island Rock Harbor
	Iroquois flow Calumet and Hecla	
	(No. 13) Osceola flow	pei psp Tobin Harbor
	= Kingston conglomerate (No. 12)	pel

PORTAGE LAKE

LAVA SERIES

Google earth

Trip 1: Lavas and the Keweenaw Rift: This trip focuses on the Keweenaw's black rocks and it's volcanic past - the site of Earth's largest lava outpourings. Visit the great lava reefs and ated shipwrecks along the shoreline from Eagle Harbor to it the relationship between copper and re Traps on Manitou Island and visit the alargest lava flow on Earth!

