



Save Lake Superior Association – Summer 2014

Dedicated to the restoration and preservation of this Great Lake

www.savelakesuperior.org

Save the Date! SLSA Annual Meeting Sept 20th *see back page for details*

“Precautionary Measures Needed in Order to Protect Lake Superior”

“The more things change, the more they stay the same” used to be an axiom that could be applied to Lake Superior and its watershed. Now the rapid increase in the rates of change of water levels, flood damage, invasive species infestations and ice cover should make even the most strident skeptic wonder if something is different about these recent changes. The lake has risen over a foot since last year. Shoreline erosion has become severe in some areas and will increase in others with clay banks and loose gravel. The “International Lake Superior Board of Control” is actually opening all of the gates controlling outflow from Lake Superior to the St. Mary's River which would normally be unheard of during a shipping season following a year of abnormally low lake levels.

This is “stimulus-response” environmental control with little reference to basic causes and precautionary scientific control strategies. People don't get excited until something dramatic happens. Turn off the water and close the grocery store! Then listen to the clamor, but of course, Congress would be in recess. It is no longer politically possible to implement “precautionary measures”. We have relegated ourselves to being helpless creatures, victims of our own intransigence. It doesn't have to be this way. Get involved in the political process. Join and support an environmental group such as SLSA! We need more voices to prevent further pollution of the lake and its watershed. Resource exploitation has turned the United States from a self-sufficient nation into a resource colony with little control of its own destiny. However, we did have an excellent turnout and response to our information tabling effort on Lake Superior Day in Canal Park. Messaging and other forms of communication are effective if done well and repetitively. Write those letters!

LeRoger Lind

Passing of the Torch

The Save Lake Superior Association lost a life-long activist on May 3, 2014. Fern Arpi of Duluth died just weeks short of her 94th birthday. Fern's environmental activism dates back to the 1960's. She became a founding member of the Friends of the Boundary Waters Wilderness, and lobbied before Congress in support of the 1978 BWCAW legislation. The legislation was almost immediately followed by copper-nickel exploration off Spruce Road near Ely. Fern attended hearings and continued letter writing until a market downturn stopped the threat, and a temporary state moratorium was placed on copper-nickel mining. Following her husband's death, Fern took on new activities, including assisting Wilderness Inquiry with their canoe trips for the disabled, and traveling to countries such as Tibet and China with a group that did service projects in those areas.

At age 79, Fern was jailed as part of peaceful resistance against the U.S. Navy ELF (Extremely Low Frequency radio waves) project, being set up in Wisconsin to communicate with nuclear submarines. ELF was started in 1989 and finally shut down in 2004 as unnecessary, and because of continuing questions about the health and environmental effects of radio-frequency waves.

Fern took part in University for Seniors at UMD, even organizing classes on sulfide mining and nature literature. Fern participated early on in the PolyMet process. This included a tour of the mine site in 2005, along with canoe trips to check out the Embarrass River.

Yet more important than the details in Fern's life is the pattern of her life. Fern remained an activist into her 90's, only slowing down to delve more inward during her last two years. During her activist years, she worked with various environmental leaders and groups in northeast Minnesota. And she both guided and encouraged many of us who are a full generation behind her. Fern demonstrated for us her persistence, and her continued intellectual pursuit. She attended hearings, submitted oral comments, and wrote reams of letters throughout the years, while managing to include family canoe trips and winter skiing into her life. She demonstrated how one can adjust and persevere through all the stages of one's life. Fern impacted a great many people, showing just how much one individual can contribute to the moral fabric of life. Fern will be missed. It only remains to be



seen how far we can carry on her work--to halt PolyMet and protect the ecological balance and remaining integrity of Minnesota's Arrowhead Region. by Elanne Palcich

My relationship with the ice of Lake Superior

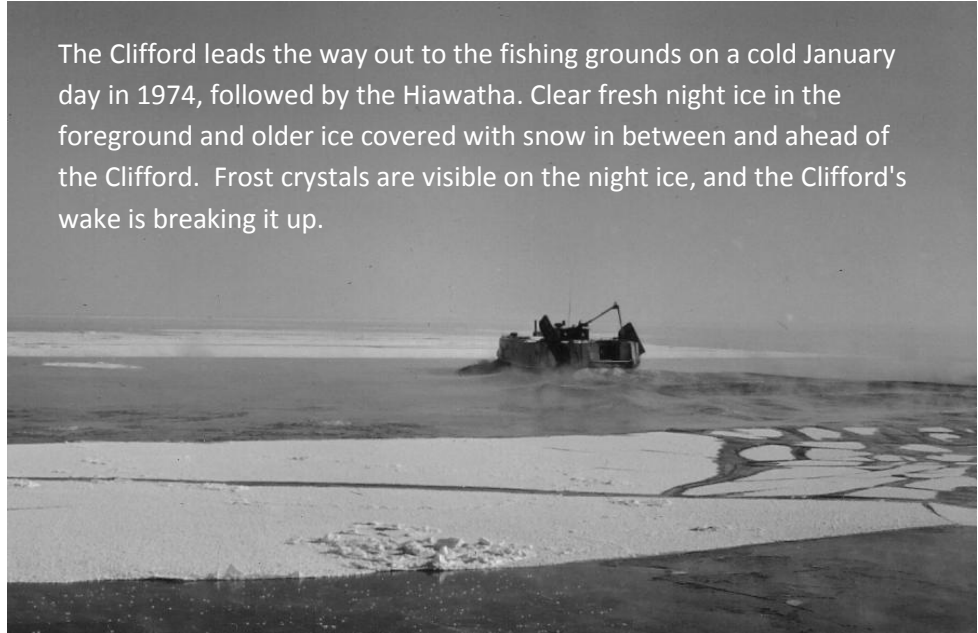
I live in Duluth because of my wife's love of the Lake. She grew up visiting the South Shore with her family, and introduced me to the Lake in 1968 shortly after we met in college. We agreed to move to Duluth after she graduated from college, and shortly afterward I began working on the Lake as a commercial fisherman with Sivertson Brothers Fisheries. After my first smelt season in 1973, I graduated to their Isle Royale ferries working from Grand Portage, and worked til 1977 with Stanley Sivertson on the Wenonah and Roy Oberg on the Voyager II, continuing to fish with Sivertsons in the fall, winter and spring.

On the Isle Royale boats I worked mostly with Stanley on the Wenonah, and learned an immense amount from both him and from Roy about the Lake and Isle Royale, about boating on the Big Lake, the fish, the commercial fishing community on Isle Royale and the North Shore, and the community of Grand Portage. In the course of events, I became captain of the Hiawatha, an historic Lake Superior craft that Stanley had converted to a smelt trawler. After I started fishing in Alaska during the summers, I continued to run the Hiawatha out of Duluth in the fall and winter until the smelt die-offs in the early 1980s.

The winter fishing in the ice is the part of my fishing career on Lake Superior that I miss the most. The sturdy welded steel hull of the 55 foot Hiawatha was specifically designed to break ice, a feature common to many of the commercial fishing boats built by Burger Boat Company of Manitowoc, Wisconsin.

The Hiawatha fished smelt in the winter with the Clifford, Sivertson's other steel trawler, run by Frank Johnson of Two Harbors. Frank and his brothers, all of whom went into nautical careers, had grown up spending summers at the family fish camp on Isle Royale, and winters in Two Harbors, a life style typical for many of the commercial fishing families on the North Shore, before the disruptions of smelt, lampreys, and a changing, more affluent lifestyle that spread across the country after World War II.

The Clifford leads the way out to the fishing grounds on a cold January day in 1974, followed by the Hiawatha. Clear fresh night ice in the foreground and older ice covered with snow in between and ahead of the Clifford. Frost crystals are visible on the night ice, and the Clifford's wake is breaking it up.



Please send us your change of address when applicable.

Your SLSA Board Members

- LeRoger Lind (Pres.),
- Dan Rau (Vice Pres.)
- Will Munger Jr., (Sec.),
- Alice Pierce (Treasurer),
- Arnold Overby,
- Sally Munger,
- Lori Andresen,
- Gary Glass

The Lake would start making night ice about late December or early January, and that was the very most memorable part for me. Coming out of the Duluth Piers early on a calm grey cold day, the thin sheet of ice, from about 1/2 inch to an inch thick, spread across the surface of the lake, and the two boats would spread out and cut a path through it. The Hiawatha, unusual for a commercial fishing boat, had a pilot house forward, with a small open deck at the bow, so we had excellent visibility, especially with the door open, and with the engine confined in the engine room aft, it was quiet enough up forward to be able to hear outside.

As the hull pushed the broken plates off to the side, the breaking ice would crash together as it broke up and mix with the bow wave of the boat, then tinkle as it was pushed aside, skittering across the surface of the still unbroken sheet. The resonant surface of the unbroken ice plate would vibrate from the small plates skittering and tinkling across it, and the broken plates pushing and grinding against each other's edges, along with the

vibrations of the engine and the hull crashing through the ice, contributed many deeper frequencies, resulting in a kind of undulating, resonant, echoing wail from the ice as the boat moved through it.

Sometimes, the frost smoke blowing across the surface of the ice would form crystals on the surface that looked like exotic flowers, maybe an inch or two across, scattered uniformly across the surface of the ice. Sometimes snow would be falling, or had already covered the sheet with a flawless plane of white, almost the perfect visible manifestation of the mathematical definition of a plane, until it was broken by the grey path of the two boats plowing through it, and spreading a vee of broken ice and wet snow in its wake. After the ore boats laid up at the end of their season, about the end of December, the Clifford and the Hiawatha were the only boats working out of Duluth, so we had the entire Lake, as far as the eye could see, to ourselves.

Membership Dues

Please check your Newsletter mailing label for expiration date. If the year is not current, it needs to be updated.
Repeat of new dues structure:
ALL EXCEPT LIFETIME ARE PER PERSON PER YEAR.

\$10 Fixed income	\$50 Sustaining	\$200 Lifetime
\$20 General	\$100 Benefactor	(per person)
\$30 Family		

The Lifetime option is only available to new members or members whose label is currently up-to-date.
Please designate your choice when you renew.
We appreciate your interest as well as your support.



The author at the wheel of the Hiawatha spring of 1982.
Georgia Dunn photo.

Sea gulls were our constant companions, waiting for the inevitable stray fish that would leak out of the trawl while we were lifting it. When we brought the net to the stern of the boat, the air would be thick with a flurry of gulls screeching and diving for the smelt before they could even float to the surface. Mostly the gulls were juvenile Herring Gulls, but we almost always had a couple of practically pure white Glaucous Gulls in the flock, and once, off the Lester River, a rare Arctic visitor showed up, a beautiful, aptly named, Ivory Gull. Between lifts of the net, the gulls would sit patiently on the ice, or cruise overhead.

If we were fishing along the North Shore, the run home at the end of a long, strenuous day gave ample time to contemplate the skyline of the grain elevators of the Duluth and Superior waterfront, silhouetted against the evening sky, and the satisfying feeling of bringing home a load of food to be sent around the country, tempered by the knowledge that the Minnesota Slip may have refrozen while we were out, and that we may have to spend quite a bit of time breaking the heavier harbor ice to bring the boat to her berth.

Dan Rau

SLSA REMEMBERANCES

Alison Contos, a long-time member of the board of directors of the Save Lake Superior Association, died on March 7, 2014, at the age of 94. Alison was dedicated to the organization's efforts to protect and preserve the water quality of Lake Superior. When she felt she could no longer participate fully, she stepped aside as a director. In her honor she was given the title of Director Emeritus, a title held until her death. We offer our condolences to Alison's family and friends.

Alison Contos and Fern Arpi dedicated much time and effort to insure that the Lake Superior basin area would not be harmed by various pollution sources. They believed that we have an obligation to future generations so they may enjoy the benefits of a clean environment. We need people who share this vision to help us continue our work of saving Lake Superior.



Arnold Overby

SAVE LAKE SUPERIOR ASSOCIATION 2014 ANNUAL MEETING

Date: September 20, 2014

Place: Lafayette Square Park on Park Point, Duluth, Minnesota

Time: Program from 9am to 11:30am; Pot Luck Picnic from 12 noon to about 2pm

Speakers:

Professor John Pastor

University of Minnesota Duluth

Dept. of Biology

Save Lake Superior Ass'n

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RETURN SERVICE REQUESTED

The Effects of Climate Change on Minnesota's Forests

Minnesota is at the intersection of three major biomes, the Prairie, the Eastern Hardwoods, and the North Woods. The boundaries separating these biomes have always been and will continue to be determined by climate. As the climate continues to warm, these boundaries will shift, probably within the lifetimes of my son and grandson. Predictions made twenty-five years ago regarding the

dismantling of the North Woods with a warming of about 2 degrees Centigrade are coming true. These changes will affect not only the tree species which comprise the North Woods but also the loons, moose, beaver, trout, and other species that live in this biome. A strong message needs to be sent to elected officials and those who wish to be addressed.

9:30 AM: Liz Minor, Professor, Department of Chemistry and Biochemistry and Large Lakes Observatory, University of Minnesota Duluth

Lake Superior Studies at the Large Lakes Observatory: The Large Lakes Observatory (LLO) studies large lakes throughout the world. This talk gives a brief overview of LLO's on-going projects in Lake Superior as well as highlights from an investigation of the impacts of the 2012 Solstice Flood on the lake. In Minnesota, including the Lake Superior watershed, precipitation patterns are shifting toward fewer and more extreme storm events, such as the June 2012 flood. Analyses in the western arm of Lake Superior showed that the 2012 flood brought large amounts of sediment and colored dissolved organic matter from the watershed into the lake. There was initially a ~50-fold spike in the total phosphorus concentrations (and a 5 fold spike in soluble reactive phosphorus) in flood-impacted waters. This disappeared rapidly, in large part due to sediment settling and did not lead to an increase in chlorophyll concentrations at monitored sampling sites. Instead, lake phytoplankton appeared light limited by a surface lens of warm, brownish water enriched in colored dissolved organic matter. This light-limitation persisted for 2 months after the flood event itself. Researchers at LLO are studying how this and other phenological and episodic changes in the Lake Superior region will affect in-lake processes.

