

Interpreter

A Publication of Sugarloaf:
The North Shore Stewardship Association
9096 Highway 61, PO Box 63
Schroeder, MN 55613 218.740.2755

The Big Burn

Smokey says, be careful with fire. That's just what we did. Very carefully and with Smokey's help, we burned a whole half-acre of Sugarloaf Cove.

The fire started ten years ago, in a sense, with North Shore botanist Chel Anderson, recognizing that the damp alder patch along our interpretive trail had the potential to be an upland white cedar forest. Chel knew that the early surveyors in this region found mostly cedar and spruce forests. She knew that the cedar grew particularly well in the lower, damper areas along the shore.

Ecologists have determined that many of the native forest types along the North Shore are "fire-dependent," meaning that at some point in their life cycle fire is helpful. Perhaps it's a ground fire that clears out competition, nice to keep white pine parklands cleaned up. Maybe it's a big raging crown fire that burns the seedbed to a mineral crisp, perfect for red pine seeds.

It turns out the white cedar forest is fire-dependent too. If Sugarloaf was going to get a cedar forest back, respecting natural cycles, we had to get the fire back too.

But having a fire is not nearly as simple as lighting a match. While controlled burns are now standard operating procedure for the prairies the west of Minnesota, they are rare tools for forest management in the northeast.

A youth crew from the Minnesota Conservation Corps took the first step, cutting a fireline through the alder around the outside of the proposed burn area. That let us get into the thick alders, to assess the potentials for burning and for risk.



Andrew Slade

But a stand of alder wasn't going to burn on its own. Alder is notoriously damp and fire-resistant. We needed dry wood and we needed flammable wood. In came Phil Monson and some power tools. Phil took a brush saw to the alder in late fall 2005, getting the woody material dead and down, so it could have the winter to dry out and get more flammable. Phil also thinned out the nearby red pine stand and hauled any flammable

branches from there into the burn area.

By April 2006 we were ready to burn. But doing a safe and effective burn required skills and experience none of us had. Fortunately, our

(cont'd on pg 3)

Time to gather 'round the kettle!

Sugarloaf members, mark your calendars for Saturday, August 19th. We'll start with a site tour at 2:00, the annual membership meeting at 4:00, and then the fish boil itself at 5:00. See you there!

Members will elect board members for a three-year term. We're looking for new board members with skills in fundraising, accounting and law. If you're interested, contact Andrew at sugarloaf@lakenet.com or 218-740-2755.

SICA's VISION is a healthy Minnesota North Shore of Lake Superior where an informed citizenry takes personal and group responsibility to ensure that natural and ecological systems and human economic and social systems coexist in a fashion sustainable into the future.

Cove

Reflections... from a Lost Forester

There has been an exciting learning experience taking place at the Cove. Sugarloaf received a grant to sponsor about 15 or so local North Shore landowners who applied for a Woodland Advisor Program sponsored by the University of Minnesota Extension. The Woodland Advisor Program is a multi-course, hands-on education experience that took place over the past year.

Several Saturdays were spent at the Cove and surrounding properties to learn about Minnesota forest ecology, forest productivity and general overall forestry management matters. The Program is open to any interested parties, but because of the grant Sugarloaf received, the local landowners were "scholarshipped" into the program.

These landowners each shared a special interest in the issue of the dying birch that we are experiencing along the Shore. We hoped to focus efforts on what we and others can do to reclaim the forest to the historically natural form which has been lost over the past century. Hence, our local group was affectionately dubbed the "Lost Foresters" by Andrew Slade.

For the past year, our small group of Lost Foresters has been focused on the history of the local silviculture, what has caused the change-over of the forest from towering white pines and white cedars to dying birch, and the different efforts and challenges to recreating and impacting the future forests of Northeastern Minnesota. Each Lost Forester landowner received an onsite management survey and forestry plan prepared by Eric



Hofstad, a professional forestry consultant, to aid them in identifying the history of their property and ways to address forestry issues and re-forestation opportunities.

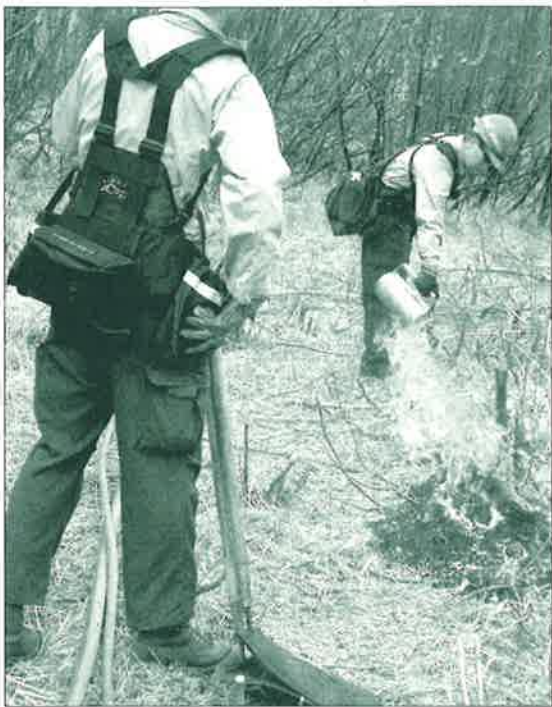
Now, a year or so after beginning, it is not certain we Lost Foresters have found all the answers as to how to positively impact the forest, but, WOW, we have learned a lot. Most of us have a new appreciation of how the forestry situation is intertwined, what has occurred to transform the North Shore forests and how we can begin to impact it for future generations.

As part of the program, we are encouraged to volunteer time and what we have learned to help others identify the characteristics of their property and how they can begin to address their particular situations. So, talk to a Lost Forester (if you can find one!) and ask for their input! It has turned out to be a great experience and, for me anyway, a new-found interest in the trees on my land and a vision of what it can be again sometime in the future (probably for my grandchildren)!

GREG KOSCHINSKA

neighbors at the Superior National Forest have all the experience and training necessary, plus the cool tools...and they were ready and eager to help.

Superior National Forest burn crews spend the first part of their seasons lighting fires and the second half putting them out. Controlled burns have been an important to maintain so-called wildlife openings, grassy fields five to twenty acres that create important habitat in the midst of thicker forest. Spring is perfect for maintaining these openings with carefully controlled fires. By the end of May, however, concern turns to the forests themselves, which depending on the dryness of summer might be ready to ignite out of control.



After waiting three weeks for just the right conditions of temperature, humidity, wind speed and weather forecast, the Tofte District burn crew arrived on April 30 ready to go, with crew boss Cory Berg. The wind was off the lake, the temperature was in the mid-50s, and the forecast called for rain that night.

A quick review of the conditions told them they needed to have water and firehoses. Nearest water: Sugarloaf Cove itself. So they ran 800 feet of hose down to the shoreline where a pump was readied to supply precious water.

After a safety briefing, the crew set about its work. Bree was assigned to "ignition" and Mike to "control". The trees downwind from the burn area got a thorough soaking with Lake Superior

water, then Bree lit her drip torch and, for the first time in probably 100 years, fire returned to the forests of Sugarloaf Cove.

The crew brought the burn back against the wind. Any panic or concern on our part was gone in a few minutes as the crew was so obviously in control of this controlled burn. Bree slalomed back and forth across the cleared area, dropping flame behind her at every step.

The dry grass from last year went quickly. When the slowly creeping grass fire hit one of the red pine branches, flames shot up briefly but hot. A few larger piles of red pine slash put up quite a show as flames got to ten feet high. To no one's surprise, the alder Phil had worked so hard last fall to cut and let dry did not ignite. By the time the flames were halfway across the clearing, the initial burn area was already smoldering in ashes.

It took less than two hours to burn the whole field. Drivers on Highway 61 might have noticed a little fog-like smoke drifting across the highway. When the rain came that night, it put out any remaining hot spots.

The charred field that last year was thick with alder was now ready for planting and for a new forest to return to the shore.

This controlled burn was supported in large part by the National Fish and Wildlife Foundation. Special thanks to the Tofte Ranger District, Superior National Forest.

Did you get your Coastal Forest booklet?



To get your copy and to learn how to do your part in restoring the North Shore's Lost Coastal Forest, contact Andrew at sugarloaf@lakenet.com or 218-740-2755.

ShoreLink learning carts are back

"Take a moment, learn a lot." That's the theme of Sugarloaf's popular ShoreLink learning cart program. For the second year in a row, Sugarloaf is bringing hands-on coastal learning to popular North Shore waterfronts. The program is funded by:

THE LAKE SUPERIOR COASTAL PROGRAM
COOPERATIVE LIGHT AND POWER
WESTERN LAKE SUPERIOR SANITARY DISTRICT
MINNESOTA SEA GRANT
NORTH SHORE SCENIC DRIVE
GRAND PORTAGE LODGE AND CASINO

Watch for the cart on Thursday in Grand Portage, Fridays at Tettegouche, Split Rock and Gooseberry, and in Duluth's Lakewalk and Canal Park area on weekends.



Welcome, Molly!

Molly Thompson of Duluth has joined the Sugarloaf staff as the program manager. She'll be busy this summer staffing the ShoreLink learning cart. Starting this fall she'll be working on our new project at the "Limno Lab" and organizing a conference on our Lost Forest project. Molly moved to Duluth from upstate New York where she worked for Sea Grant doing interesting coastal outreach projects very similar to Sugarloaf's work on the North Shore.

North Shore parks and trails get needed attention

Sugarloaf is coordinating the new North Shore Parks and Trails Coalition. This group of North Shore private and nonprofit organizations is supporting the important natural "infrastructure" of the North Shore experience: the state parks and trails. Sugarloaf executive director Andrew Slade traveled to Saint Paul with the Gitchi Gami Trail Association's Scott Harrison to meet with local legislators. Something good must have happened, because virtually all the North Shore park and trail initiatives got fully funded, including the new visitor center at Grand Portage State Park.



FREE Programs at Sugarloaf Cove – Summer 2006

JULY 8 10:00 AM Jim Cordes & Patty Johnson
Memories of the Blowdown *Relive the July 4, 1999 blowdown*

JULY 15 10:00 AM Barb Liukkonen
A Superior Lake *Learn more about the greatest of lakes*

JULY 16 11:00 AM-1:00 PM Barb Liukkonen
Lake Superior Day *Celebrate by playing the Lake Superior Game on Sugarloaf Cove beach*

JULY 22 10:00 AM Carol Christiansen
You Don't Have to be a Weatherman... *Learn fact from fiction about old wives' tales and how Lake Superior affects the Northland's weather*

JULY 29 10:00 AM Kurt Mead
Dragonflies *Let's learn more about these unique colorful mosquito eating insects*

AUGUST 5 10:00 AM John Morrin
Grand Portage Ojibwe Life *Learn how Native Americans lived on the shores of Lake Superior*

AUGUST 12 10:00 AM Clayton Koss
Fishing a Family Tradition *Clayton tells stories of his life as a commercial fisherman on Lake Superior*

AUGUST 26 10:00 AM Larry Weber
Spiders *This exciting educator will take us into the lives of spiders*

SEPTEMBER 9 10:00 AM- 3:00 PM
Grandparents Day *Nature centers across Minnesota are claiming the annual Grandparents Day for the Environment. After a stressful first week of school, treat your grandkids to a special day just for you and them at Sugarloaf Cove.*

10:00 AM	Raptor program
12:00-3:00 PM	Guided Bird Hikes
12:00-3:00 PM	Environmental Art
12:00-3:00 PM	Play Kubb, a traditional Viking game

The North Shore on Fire

By Andrew Slade

It was destruction so wide and so intense, you can only really imagine it as a black-and-white photo, like Europe in ruins at the end of World War Two or a dry Dustbowl farmscape. But it was right here on the North Shore: the fires of the early 20th century were intense and dramatically widespread across the shore.

According to forester and historian John Fritzen, after the fires of 1908 to 1918, "it would appear that only a small percentage of the North Shore had escaped burning." But these weren't your typical forest fires burning through old forests. Instead, they were slash fires, intensely burning the branches and stumps and littler trees left behind by the wave of white pine logging that hit the North Shore at the turn of the century.

White pine had fed the dramatic need for lumber to build the growing cities of the East and Midwest. Northeastern Minnesota contained the last untouched white pine stands in the United States. Fire had always been a part of the white pine forest, small fires clearing out the undergrowth or occasional large fires burning through the canopy of 200-year-old stands. It was inevitable that these seemingly inexhaustible reserves would be fully utilized.

From the 1890s to the 1910s, the North Shore was buzzing with white pine logging activity, including short-lived logging railroads reaching to the inland ridges and widespread log rafting to get the pine to busy sawmills in Duluth.

A long drought gripped the North Shore in the first decade of the 20th century, followed by a longer drought from 1918 to 1938, part of a national weather pattern also associated with the Dust Bowl. This dry weather happened to correspond with the North Shore's white pine logging boom.

White pine loggers wanted only the tall, straight, clean-grained trunks of the trees. All the branches and needles were left on the ground, only sometimes piled up for intentional burning. Pine wood is always quick to burn, but when it's mostly small pine branches and needles, it's a conflagration waiting to happen. The combination of all that fuel and the long dry period spelled high danger for the North Shore.

Sometimes it was lightening that started the slash on fire. Other times, it was fishermen or

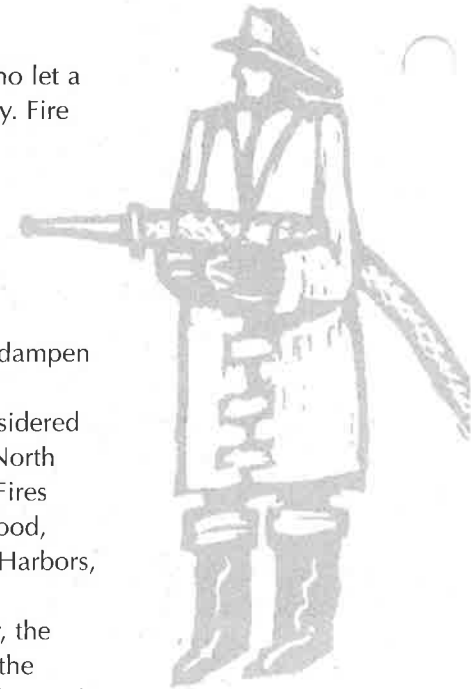
other campers who let a campfire get away. Fire could spread any time of year, but spring and fall were the worst seasons, with little greenery to dampen the flames.

1910 is considered the worst of the North Shore fire years. Fires burned in Lakewood, Knife River, Two Harbors, Silver Creek, the Gooseberry River, the Split Rock River, the Beaver River, and Grand Marais. A fire in Tofte burned down the sawmill, town hall and a church. The famous Cloquet fire of 1918 came down to the shore in Duluth's Lakeside neighborhood and all the way up to Larsmont. Firefighters struggled successfully to save the famous church at Chippewa City, east of Grand Marais. According to historian Fritzen, "one observer stated that everything appeared to be black all the way along the North Shore as far back as he could see."

Near Sugarloaf, 1926 was the most dramatic fire year. One large fire burned from the Manitou River near Cramer all the way to Sugarloaf Cove, burning out at least 10 homesteaders.

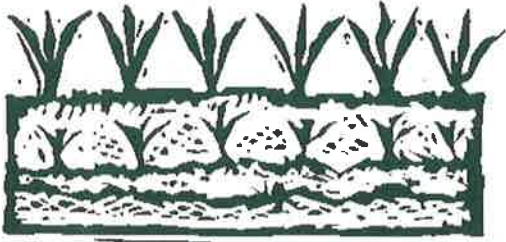
These slash fires burned hot and fast. Since the tall pines were gone, there was no pine or cedar seed source ready to help replace the native conifer forest that had been logged. Instead, wind-blown birch seeds colonized the shore and left us with the widespread but aging birch forest we know today.

Seeing the abundant North Shore forest today, especially in the full flush of summer, it's hard to imagine the destruction from 100 years ago. But to both the ecologist and the historian, the impacts are still seared in the mind's eye.



Spring planting campaign underway...new wildflower trail

Sugarloaf's annual spring planting campaign is now underway. We mailed almost 1500 letters to our supporters and our North Shore neighbors, seeking help with our work at Sugarloaf Cove. We're hoping to exceed last year's donations of \$2700. If you'd like to participate but did not receive the mailing, please contact Andrew at sugarloaf@lakenet.com or 218-740-2755.



New this year, donors of \$200 or more will be able to dedicate part of our new wildflower trail to a loved one or colleague. This trail will feature common North Shore wildflowers and will wind through the woods and creek near the interpretive center.



Thanks to Wally Rauschenfels

Almost four years ago, Andrew Slade was offered a job with Sugarloaf. At the time, Sugarloaf couldn't afford to pay for a Duluth office as well as the new center at Sugarloaf Cove. So Andrew went to his father-in-law Walter

Rauschenfels with a proposal. Let Sugarloaf use a corner of his CPA business, and Andrew could get a great new job. It was just going to be for six months, until Andrew figured out a permanent solution.

Nearly four years later, 1040 Minnesota Avenue is still the administrative center for Sugarloaf. The only rent Walter would accept was help with shoveling snow and the occasional batch of fresh cookies for the office cookie jar. Along the way, Walter and Alyce Rauschenfels became one of Sugarloaf's largest supporters, with the in-kind contribution of office space for almost 60 months worth almost \$20,000.

Wanted: Digital projector

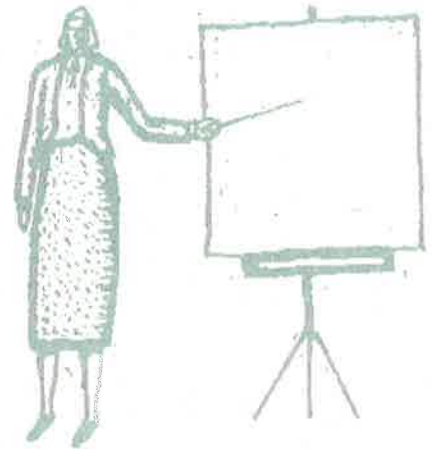
Do you or your employer have a surplus video projector? We need it!

Three years ago, we only had about fifteen programs a year at Sugarloaf Cove, and none of the presenters asked for a digital projector. Last year, we had probably 20 programs on site, and about four of those presenters needed a digital projector.

Fortunately, our friends at Birch Grove School in Tofte were able to loan us a projector when the presenter didn't have their own.

Now we have about 25 programs a year, and half of the presenters are asking for a digital projector. These projectors let our presenters take their fascinating research and beautiful photography and make them available to Sugarloaf members and class participants, easily and dramatically.

A new digital projector would cost \$1000 or more. But somewhere out there is a Sugarloaf supporter with a hand-me-down projector, at work or at home. Contact Andrew at sugarloaf@lakenet.com or 218-740-2755 to arrange a tax-deductible donation.



Sugarloaf: The North Shore Stewardship Association
9096 Highway 61, PO Box 63
Schroeder, MN 55613

NON-PROFIT ORG.
U.S. POSTAGE
PAID
PERMIT NO. 721
DULUTH, MN

S I C A A C T I V I T I E S

J U L Y 1 5

North Shore Naturalist: What's This Rock?,
with Jim Miller

J U L Y 2 2 - 2 3

North Shore Naturalist: North Shore Waterfalls,
with John Green

A U G U S T 1 9

Board meeting, annual meeting and fish boil

*For more information on North Shore Naturalist
programs, visit www.sugarloafica.org.*

Address Correction Requested

The Sugarloaf Interpreter is published quarterly by Sugarloaf: The North Shore Stewardship Association. Subscription is a benefit of membership. Single copies available on request. Submissions welcome. Send to sugarloaf@lakenet.com. Designer: Wendy Strombeck.

Annual memberships are tax deductible. Please make checks payable to Sugarloaf, and mail to the business office at 1040 Minnesota Avenue, Duluth, MN 55802. Sugarloaf is an educational, non-profit 501(c)(3) Minnesota Corporation.

membership
A P P L I C A T I O N

Please enroll me as a member of Sugarloaf in the category I have indicated.

NAME _____

ADDRESS _____

CITY _____

STATE _____

ZIP _____

PHONE _____

E-MAIL _____

M E M B E R S H I P C A T E G O R I E S

- \$ 25 Contributing
 \$ 50 Supporting
 \$ 100 Sustaining
 \$ 250 Sponsor
 \$ 500 Patron
 \$ 1000 Benefactor
 \$ _____ Other

New Renew

SUGARLOAF
1040 Minnesota Avenue
Duluth, MN 55802
sugarloaf@lakenet.com

T H A N K Y O U !