



# The Sugarloaf Interpreter

A Publication Of The  
Sugarloaf Interpretive Center Association

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Summer 1994

## FUND APPLICATION TO LCMR SURVIVES FIRST CUT

Members of the Legislative Committee on Minnesota Resources have retained the application of the Sugarloaf Interpretive Center Association (SICA) while eliminating more than half of other applications from further consideration.

Under the SICA proposed study, geological and botanical characteristics of Sugarloaf Beach, Cove and Point would be inventoried and catalogued. Test plots would be established to measure potential for reintroducing native plant species and restoring wetlands. The natural history of the area would be interpreted with demonstrations, trail signage, maps, and field guides, and with on-site educational programs.

The application requests \$80,000 of state funds and proposes to raise \$40,000 privately to make up the \$120,000 total. LCMR members will continue their study of applications throughout the summer and make a recommendation to the 1994 session for allocation of approximately \$28 million. Rep. Phyllis Kahn is Chair of the LCMR and Reps. Willard Munger and David Battaglia are members. The programs and projects instituted by the LCMR is one of the less publicized legislative success stories. John Velin is executive director of the activity.

## PROGRESS ON SMALL-BOAT HARBOR AT TACONITE HARBOR

Of significant importance for the creation of a small-boat harbor for Schroeder is the recent action of the North Shore Management Board in voting to include Taconite Harbor as the accepted site in the construction program for the next two years.

The Taconite Harbor site has now received approval of all related agencies, and several sources of financing are being explored. Funds were not specifically provided in the 1994 bonding bill.

## ANNUAL MEETING, JULY 16

The SICA Board of Directors and membership meetings will be held in the Schroeder Town Hall on Saturday, July 16 at 10 and 11 a.m., respectively. The agenda will include reports from the SHORELINK, publicity, program, finance,

and other committees. Elmer L. Andersen will review the progress for the last year, and Ed Landin will give an overview of the LCMR application. Following the meetings, a lunch will be provided after which geologic tours will be conducted by Drs. Green and Ojakangas, both professors of geology at UMD. Provide your own transportation.

## SHORELINK NEWS

At the Two Harbors April 12 meeting of SHORELINK (SICA's committee to share and promote the work of North Shore based organizations), Jeff McMorrow, Director of Lake County Historical Society, described efforts to interpret the newly acquired tug, Edna G. Further, he briefed the group on efforts to develop the historical use of Agate Bay at Two Harbors.

Consideration of the continued efforts of various groups to interpret North Shore environment developed into a proposal to evolve a North Shore comprehensive interpretation plan. Ed Landin will attempt to develop study committees to further this idea. Related to this concept are efforts to begin a directory of North Shore interpretation organizations which would include statements of their missions and objectives.

The next quarterly meeting of SHORELINK will be at Grand Portage National Monument in the Great Hall on July 19, from 2 to 4 p.m.

## CALENDAR

**Saturday, July 16** - SICA board and membership meeting. Schroeder Town Hall. 10 a.m. - Board. 11 a.m. Membership. Lunch. Geologic tours led by Drs. Green and Ojakangas.

**Tuesday, July 19** - SHORELINK Committee, Great Hall at National Monument, Grand Portage, 2 to 4 p.m.

**Saturday, August 20** - "North Shore Visual History" (Lee Radzak slide show). Spirit of the North Theater, Fitters Complex, Duluth, 7 p.m.

**Saturday, October 29** - "North Shore Visual History" (Lee Radzak slide show). Minnesota History Center, St. Paul. 10 a.m. to 12 noon.

## CONFERENCE ABSTRACTS AVAILABLE

All the abstracts of the conference "Ecosystem Management Strategies for the Lake Superior Region," held in Duluth in May, 1994, have been spirally bound into a single volume. It is available for \$8.00, postage paid, from Lynne Olson, UMD-CEE, 10 University Drive, 316D Ad B, Duluth, MN 55812-2496.

## UNUSUAL NORTH SHORE BIRDS SIGHTED BY SICA MEMBERS

Near Tangore Lake, Chel Anderson recently noted the presence of a dickcissel, *Spiza americana*, a bird whose normal range is in the prairie lands and is mostly absent from northern Minnesota. Also seen in the same region was an indigo bunting, *Passerina cyanea*, which is rarely found in heavily forested parts of the northern regions.

Ed Landin, up on the Pike Lake Road, observed on May 26 and 27, a sand hill crane, *Grus canadensis*, normally a denizen of the open prairies, particularly in northwestern Minnesota. And Jan Green reports that in the fall of 1993, in the Sugarloaf area, a red-throated loon, *Gavia stellata*, was sighted.

Jan Green is co-author with Robert Janssen of an excellent book on the subject entitled, "Minnesota Birds, Where, When, and How Many," 1975, University of Minnesota Press.

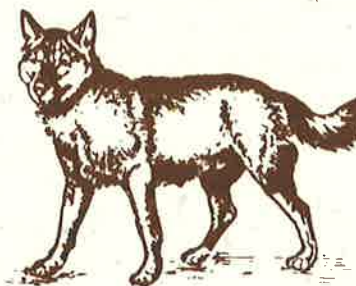
## PLEASE EXAMINE THE ADDRESS LABEL

If the number 93 follows your name on the address label, it indicates that your membership is due for renewal. If there is a dash following the 93 followed by another number, that is the amount of your previous membership contribution. If you can increase it, we would be appreciative and it would help finance an expanding program. If your name is followed by a 94, it indicates you are a member in good standing and we thank you. If your name is followed by a C it indicates you are receiving the Interpreter on a complimentary basis probably because of the position you hold. If you convert that to a paid membership, we would be delighted and will send you a free copy of Duane Lund's "History of the North Shore." This interesting book is available free to all new or renewing members. It has been provided at no cost to the Association.

## RADZAK PREPARING NORTH SHORE HISTORICAL SLIDE PRESENTATION

A Visual History, consisting of North Shore slides and a lecture, will be presented on Saturday, August 20, in the Spirit of the North Theater in the Fitgers complex in Duluth, at 7 p.m. It is being prepared by Lee Radzak, State Historical Manager at Split Rock Lighthouse. Lee is an avid photographer as well as an archaeologist and artist. He will bring an interesting perspective from photographers of the 1870's to the mid 1930's. He is tapping his own photographic library as well as the vast resources of the Minnesota Historical Society.

The program will include an introduction by former governor Elmer L. Andersen. A second presentation will be made at the Minnesota History Center in St. Paul on Saturday morning, October 29, from 10 to 12. There will be no admission charge for either performance.



## WOLVES! WOLVES!

A program which elicited enthusiastic audience participation, especially from the many children present, was presented at Birch Grove Center Saturday evening, June 18. Judy Gibbs superbly depicted with slides and hands-on exhibits the habits and characteristics of the often maligned northwoods resident, the wolf. Judy is on the staff of the Wolf Ridge Environmental Learning Center and presents such programs for the International Wolf Center at Ely. The program was introduced by Ed Landin of SICA and was concluded by Wayne Russ, U.S. Forest Service wildlife biologist of the Tofte Ranger Station, who presented a chronology of the wolf recovery plan particularly in Minnesota.

This was another in the series of SICA-sponsored North Shore programs. It follows the programs of May 7 and 8 by Malcolm and Rosemary MacFarlane who gave an outstanding illustrated lecture "Photographing Rare and Endangered Plants on the North Shore" at Grand Marais and Two Harbors.





## SICA MEMBERS ENCOURAGED TO PARTICIPATE ON COMMITTEES

Lend your expertise, skills, insight, and hard work to Association committees! The Association needs its talented and dedicated membership! As much as the membership dues are very helpful to SICA, participation by members on committees would be a great asset to our planning and realization. And the next year will be a fascinating one as we continue with programs, publications, and networking with other groups through SHORELINK, all to preserve and protect the Sugarloaf site and to provide interpretive and educational public access to it.

Please use the following descriptions to find the committees which interest you the most, and feel free to contact the chairs for further information. Committees generally meet once in these months: August, October, December, February, April, and June, and more often as needed. Locations vary.

### **AUDIT.** Howard Olson, Chair. 612/330-1431

The Audit Committee annually selects the independent, outside accounting firm which conducts an audit of SICA finances. In coordination with the SICA treasurer, it supplies all financial records to the accounting firm, and releases the audit report to the SICA board and membership.

### **BUILDING AND GROUNDS.** Steve Pihlaja, Chair. 612/338-1015

The Building and Grounds Committee is responsible for basic planning, overseeing the construction and maintenance of all structures, trails, landscaping, and other SICA activities which have a physical impact on the 34-acre Sugarloaf site. The major responsibility of the committee is to ensure that the principles set forth in the SICA mission statement are advanced in any SICA project at Sugarloaf. The committee will interview architects and builders and present all proposals for the board's consideration. The committee will actively oversee any construction to ensure that it is performed in conformance with the SICA mission statement. The level of activity of the committee will vary depending upon SICA's activities at Sugarloaf. During all planning and construction, members of the committee will be called upon to commit the time and effort necessary to ensure that the SICA mission and the resolutions of the Board of Directors are respected.

### **FINANCE.** Emily E. Andersen, Chair. 218/724-1270

The function of the Finance Committee is to secure financial support for the capital, program, operating, and endowment needs of the Association. With direction from the Board of Directors and membership, the committee is responsible for developing a financing strategy for the various activities of the Association and implementing this strategy through the solicitation of support from individual, corporate, foundation, and public sources.

The Finance Committee works in partnership with the Program, Building and Grounds, and Audit Committees in the utilization of the funds secured to ensure compliance and faithful performance as represented in requests for support and in accordance with the grantor's conditions.

### **LIBRARY AND ARCHIVES.** Barbara Liukkonen, Chair. 218/724-3034

The Library and Archives Committee is responsible for developing guidance on collecting, storing, and displaying archival materials related to the Sugarloaf Cove and its surroundings, as well as SICA activities. The committee will provide and arrange acquisitions from potential sources of material. This committee works together with the Program

committee to ensure that educational programming utilizes, displays, and enhances archival material. Information distributed through the Program and Membership Committees is an excellent means of identifying and acquiring historical material. The committee will also work with the Building and Grounds Committee to develop guidelines for the library and storage facilities necessary to protect, display, and use archives.

**MEMBERSHIP.** Elmer L. Andersen, Chair. 612/631-8935

In its efforts to increase membership, the committee plans ads for placement in appropriate publications, develops letters for direct mail to selected lists, discusses premiums for new and renewal memberships, staffs booths and membership tables on appropriate occasions, and stimulates present members to recruit new members. Requirements and benefits of membership are regularly reviewed.

**NOMINATING.** Steve Pihlaja, Chair. 612/338-1015

The Nominating Committee is responsible for finding candidates to fill vacancies on the Board of Directors, whether the vacancy occurs by resignation or by expiration of a director's term of office. The committee places in nomination one or more candidates for each director's seat under consideration.

**PERSONNEL.** Jan Green, Chair. 218/525-5654

The Personnel Committee studies and plans personnel needs, drafting potential job descriptions and contracts. It reviews personnel planning in the field of interpretive centers and environmental education, preparing for the time when SICA has staff members.

**PRINTING AND PUBLICITY.** Merlin H. Berg, Chair. 612/641-0010 or 218/387-1614

This committee is currently responsible for a wide range of printing and publicity activities, including the quarterly newsletter, *The Sugarloaf Interpreter*. The committee may soon be subdivided into separate committees - newsletter, publications, and publicity.

**PROGRAM AND EXHIBITS.** Chel Anderson, Chair. 218/663-7603

This committee fosters the preservation and protection of the Sugarloaf Cove site through development and presentation of interpretive programs and exhibits, planned assessment and restoration of natural habitat, and planning for an on-site center for interpretation of the natural and social history of the area. The committee has sponsored public meetings and poster sessions in six North Shore communities and the Twin Cities. The committee has initiated a five-year program schedule. It is dedicated to encouraging public interest and involvement with issues relevant to SICA's stated purpose.

**SHORELINK.** Ed Landin, Chair. 218/387-1377

SHORELINK is a cooperating communication network of interpretive and educational organizations in the Lake Superior region of northeastern Minnesota. Its purpose is to sustain and to improve the services and capabilities of member organizations and individuals in providing effective and educational programming. This collaboration venture will benefit the natural and cultural environment, residents, visitors, and the world beyond Minnesota through advancing the organizations' missions.





# A BRIEF NATURAL HISTORY OF NORTH SHORE NATURAL PLANT COMMUNITIES, UNIQUE HABITATS, AND RARE SPECIES

By Chel Anderson, SICA Board Member

Natural communities and their native species, whether rare or common, are splendidly diverse. They are a foundation of well-being - living libraries of biological and ecological enlightenment about the past, present and future. This article traces the origins of a few distinctive North Shore natural communities, and explores some of their remarkable features.

The North Shore, like most of Minnesota, was concealed periodically beneath massive blankets of glacial ice and snow until about 12,000 years ago. At that time, retreating glacial lobes left the land surface free of ice. Subsequent glacial activity surrounded but never advanced into all of what is now the North Shore. As the land surface became exposed, it was available to pioneering species of plants which could tolerate the conditions existing near the ice margins. The cold, short growing season and the raw glacial deposits were ideal for the thrifty growth of many arctic and subarctic plant species. They quickly invaded the new terrain.

Prevailing winds favored plant immigrants from the north and northwest. Their small seeds were well adapted to dispersal by the wind over the smooth ice and glazed snow surfaces, with no trees to act as seed traps. These pioneer arctic and tundra species continued to migrate into freshly exposed areas as the ice retreated. Descendants of these initial plant colonizers are still present on the North Shore today, representing a wide range of plant families.

The predominance of this earliest group of species was probably short lived. Following hard on their heels came the hardier members of the boreal coniferous forest: willows, aspen, balsam poplar, and spruces.

With the continuing retreat of the glaciers, the climate became less harsh, favoring the expansion and success of this new wave of settlers. They took advantage of areas where soil conditions had been stabilized by their precursors. The full complement of coniferous and deciduous forest species soon was established in all suitable habitats. Despite this pervasive encroachment, the pioneering species must have persisted vigorously in the bogs, on the eroding cliffs and slopes and in the cool pools, lakes, and ravines that were abundant. The cutting of canyons and stream banks, and the dropping of glacial lake levels also created new habitats which pioneer species could occupy.

The most serious setback to the pioneer species came about 3000-6000 years ago, during something called the "post-glacial thermal maximum." The climate was at its peak of mildness, adding perhaps 20-30 days to the growing season and 10°F to the mean summer temperature of our climate today. These conditions severely reduced the extent of habitat suitable for the arctic and subarctic species. However, the warming allowed the extension into northeastern Minnesota of the deciduous forest from the central part of the state. As a result, the North Shore is now home to the sugar maple-dominated Northern Hardwood forest with all its breath-taking beauty and lip-smacking bounty.

Since this milder period there has been a slight cooling and many forest fires. Consequently, the Northern Hardwood forest community is restricted primarily to the upland paralleling the shore of Lake Superior, where there still exists a longer frost free season and natural barriers to fire. A forest community surviving well north of its optimal range in Minnesota is ecologically significant and instructive.

Living in the Northern Hardwood forest habitat are a variety of rare plants and animals. Among them the lustrous muskroot, *Adoxa moschatellina*, and heavily scented flowers of the carolina spring-beauty,

*Claytonia caroliniana*, can be found as the frost-sensitive sugar maples begin to leaf out in the warming spring weather. A number of rare arboreal lichens and nesting black-throated blue warblers, *Dendroica caerulescens*, also thrive in this community. Like all natural communities the influence of the Northern Hardwood forest in human culture has a long history, and is still readily apparent today. It remains a living expression of history with priceless biological, aesthetic, spiritual and recreational value in the present and for the future.

Along with the Northern Hardwood forest, a few other special communities are discernible islands in the mixed forest which dominates today's landscape. These communities provide less common habitats inhospitable to most species but which harbor many of the rare plants for which the North Shore is known, particularly the remnants of the once dominant, pioneering arctic and tundra species whose main range now lies several hundred miles to the north.

North and south-facing slate cliffs of Lake Superior's shore and islands, and also the cool moist canyons cut by North Shore streams as they drop off the uplands to the lake are important refugia for a variety of rare species. In these areas eroding rock provides a constant supply of fresh soil on ledges, in crevices, and at the top of talus slopes. These habitats are characterized by extremes of temperature and moisture, absence of tree root competition and heavy tree shade, and limited competition from other herbaceous species. Qualities very reminiscent of habitats available to plants during and immediately after glacial recession.

Exploring north-facing cliffs we might find the delicate and diminutive *Woodsia* ferns, or the graceful many-armed maiden hair spleenwort fern, *Asplenium trichomanes*. The lime-encrusted saxifrage, *Saxifraga aizoon*, with its compact rosette of finely frosted leaves also decorates these cliffs and canyons. Dry sunbaked south-facing cliffs are home to the time bizarre-looking moonwort fern, *Botrychium lunaria*, and the striking blue bells of the wild heliotrope, *Phacelia franklinii*.

Other important habitats for rare plants restricted to the North Shore are the cold wet ledges and gravel/cobble beaches of Lake Superior. Plants occupying this niche are under the direct influence of the cold water temperature as they perch in small fractures, clefts, or on ledges and around pools - defying the ravages of waves and ice. The state endangered knotty pearlwort, *Sagina nodosa*, dramatically typifies this as it holds precariously to cracks in the rocks, its small white blossoms dancing in the breeze. Adding dimension and detail to the stunning background of the lakeshore are: the silky shimmer of slender hairgrass, *Deschampsia flexosa*; the deep green carpets of purple and black crowberry, *Empetrum atropurpureum* and *nigrum*; Hudson Bay eyebright, *Euphrasia hudsoniana*, with its minute magenta-veined white blooms; the creamy, tufted flower clusters of the small false asphodel, *Tofieldia pusilla*, and the insectivorous butterwort, *Pinguicula vulgaris*.

Investigating the natural history of the North Shore's natural communities of habitats, plants and animals reveals the formative influence of fascinating geologic, climatic, vegetative and human cultural forces, some of which have been described here. Natural communities and their native species are the living substance of a magnificently rich and diverse natural heritage, inspiring our wonder and awe, and a treasure to learn from, cherish and use, with reverence.

First Class  
Postage

Sugarloaf Interpretive Center Association  
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**SUGARLOAF INTERPRETIVE CENTER ASSOCIATION is a Minnesota non-profit corporation with its purpose stated in the By-Laws as:**

- 1) Committed to preservation and protection of a tract of land which includes Sugarloaf Beach, Cove and Point, a portion of which is a designated scientific and natural area that has statutory protection.
  - 2) Committed to the establishment of a public interpretive forum which includes staff, an appropriate non-invasive physical facility, and ongoing, year-round educational programs. This center would depict the diverse aspects of the North Shore of Lake Superior including, but not limited to, geology, biology of native plants and animals, economic origins, history and cultural heritage.
  - 3) Committed to obtaining adequate private and public funding to build and maintain the physical facility, establish a staff and programming, and create an endowment fund for the center's long-range future.
- To fulfill these commitments, the Association is established for the collaborative efforts of many people and organizations of shared purpose.

**Membership Application**

Please enroll me as a member of the Sugarloaf Interpretive Center Association in the category I have indicated. I like the idea of an Interpretive Center on the North Shore and I certainly believe the important Scientific and Natural Area of Sugarloaf Cove, Beach and Point should be preserved, protected and not be endangered.

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Phone: Day \_\_\_\_\_ Evening \_\_\_\_\_

**Membership Categories**

_____ \$5 Student/Senior	_____ \$10 Individual
_____ \$15 Family	_____ \$25 Contributing
_____ \$50 Supporting	_____ \$100 Sustaining
_____ \$500 Patron	_____ \$1000 and up Benefactor

\_\_\_\_\_ Payment Herewith \_\_\_\_\_ Please Bill Me

Make checks payable to Sugarloaf Interpretive Center Association and mail to SICA in care of 140 Engineering Building, College of Science and Engineering, UMD, Duluth, MN 55812. Memberships are annual and expire December 31.