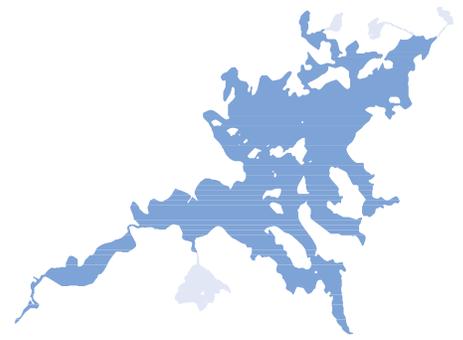


# *the Loon Flyer*



Published by the Squam Lakes Association Winter 2003

## SQUAM WINTERFEST 2003

Squam Winterfest was held on Saturday, January 18th and offered fun activities for all ages. Over 200 people attended the winter event at SLA's Resource Center and they enjoyed Chilifest, skating, snowshoeing, winter golf, cross-country skiing, and the warm campfire. Chili was donated by: Common Man Restaurant, Walter's Basin, Golden Pond Country Store, Sandwich General Store and Yankee Trail Motel. Mugs were sold for a modest fee and the public tasted the various chilies and voted for their favorite. Bill Waldrip of Yankee Trail Motel won the first Chilifest competition. Thanks to all the restaurants for providing delicious chili.

An ice skating oval and rink were cleared on the lake, and many skaters tried demo Nordic Skates, which were provided by Jamie Hess of the Nordic Skater. The skates clip into cross-country ski boots and are recreational speed skates for lakes and ponds. The ice rink was popular for ice hockey and many people enjoyed leisurely skating around the skating oval. Some even played winter golf in their skates.

The first Winter Golf Open was held during Winterfest, on a challenging five hole course on the lake. Participants used tennis balls and golf clubs for the mini-golf type course, which had plowed fareways and greens. Tyler Devine won the 12 and under age class with a score of 17, which was 3 under par. Bev LaFoley and Steven Hodecker won the women's and men's categories, respectively with scores of 17 and 16.

Mark Beauchesne, NH Fish & Game Aquatic Resources Educator provided ice fishing instruction and wildlife education. Mark demonstrated a hand auger to drill holes in the ice and tip-up fishing devices. SLA offered demo Tubbs Snowshoes to the public and promoted other SLA Winter Events, including: Full Moon Snowshoe Tours, day time mountain Snowshoe Tours and Cross-Country Ski Tours around the lake and at SLA Natural Areas.

Squam Winterfest 2003 was enjoyed by all ages, despite the cold winter weather. See the Winterfest Photos on page 7.



*Many people enjoyed the Chilifest during Squam Winterfest, on January 18th. Photo by Eric Morse.*

## 2002 SQUAM LAKES WATER QUALITY MONITORING SUMMARY

The Year 2002 was the twenty-fourth year the Squam Lakes were monitored in conjunction with the NH Lay Lakes Monitoring Program (LLMP), a collaboration between the SLA and UNH Center for Freshwater Biology. Weekly to bi-weekly water quality data were collected in the Squam Lakes between May 31 and September 14, 2002 by the SLA's volunteer monitors. Generally speaking, the 2002 Squam Lakes water quality remained excellent as summarized in Table 1, which displays the pooled (all sites combined) statistics for the data collected for each lake in the context of classification criteria.

Many participating LLMP lakes were characterized by deeper water transparency measurements and less microscopic plant "algal" greenness, relative to the 2001 levels. The increase in water transparency is likely attributable to the dry summer of 2002 that limited the flushing of sediment, runoff and nutrients into our lakes. Sediment and runoff directly reduce light penetration into the water column while elevated nutrient levels indirectly affect light penetration by stimulating algal growth.

*Continued on Page 4*



The Loon Flyer is published quarterly by  
**Squam Lakes Association**  
 PO Box 204, Holderness, NH 03245  
 (603) 968-7336  
 e-mail: [info@squamlakes.org](mailto:info@squamlakes.org)  
 website: [www.squamlakes.org](http://www.squamlakes.org)

The Squam Lakes Association is dedicated to conserving for the public benefit the natural beauty, peaceful character and unique resource values of the lakes and surrounding area. In cooperation with local and state authorities and other conservation organizations, the Association promotes the protection, careful use and shared enjoyment of the lakes, mountains, forests, open spaces and wildlife of the Squam Lakes region.

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## VOLUNTEER WATER QUALITY MONITORS NEEDED

The Squam Lakes Association is entering the 25th year of water quality monitoring, in collaboration with the University of New Hampshire (UNH) Lay Lakes Monitoring Program. The SLA is looking for three volunteer water quality monitors for Piper Cove, Livermore Cove, and Moultonboro Bay.

These positions requires a weekly secchi disk reading and biweekly water sample collection on Fridays, Saturdays, or Sundays from June 6 through Labor Day. Volunteers are supplied with the necessary equipment, however they must have access to a motorboat. No experience is required and training will be provided. For more information please contact Lisa Vickers at SLA (603) 968-7336.

## SQUAMLAKES.ORG

Have you visited [www.squamlakes.org](http://www.squamlakes.org) recently? There is a new Squam Forum, where members of the community can discuss Squam issues, such as: milfoil, boating, trails, wildlife, events, etc. You can also vote for your favorite Squam trail or campsite. Check the Squam Forum this spring for the annual Ice Out Contest. If you pick the day ice goes out on Squam, you will win a \$20 gift certificate to the SLA Store.

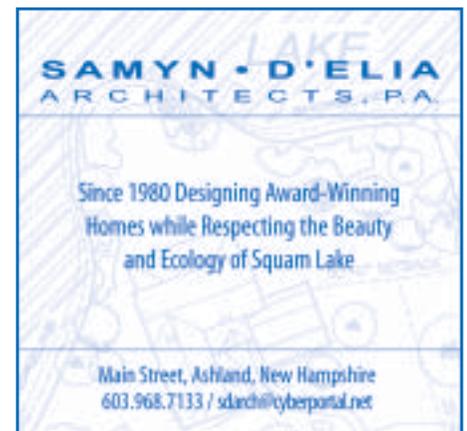
*The Squam Lakes Association gratefully acknowledges the support of*



## IMAGES NEEDED FOR THE SQUAM CENTENNIAL HISTORY BOOK

Your response to our request for photographs for our book on the history of the Squam Watershed has been fantastic. We thank each person who has contacted us, met with Rachel, or attended one of our photo collection events. We have hundreds of wonderful images of scenery, family events, and historical milestones. Rachel is now preparing some of the early history chapters. As we compare the images we have collected to the historical data, we are now better able to see what images we still need. Here is our wish list.

- Photographs of Squam families that include 3 or 4 generations.
- Excellent views of the Squam Range, the Sandwich Range, and the Rattlesnakes. In various seasons. (We seem to lack quality photos taken in winter with snow covering the peaks, but any season will do)
- Winter scenes, and ice scenes.
- Photographs that depict the various stages of 'ice out'
- Original Paintings of Squam. There were a number done in the 1800's and we are trying to track them down. Also contemporary ones.
- Views of camps on islands, including those which include shoreline and water (such as on the small islands and points).



*whose generous contributions underwrite this issue of the Loon Flyer.*

- Logging scenes on Squam, Little Squam or the Squam River
- Mt. Israel and the Intervale
- The Pemigewasset River and the Intervale
- Any prints or paintings of the 'year without summer'
- Farming photos, either old or contemporary, especially if they include views of the lakes in the background.
- The Shepard Tavern, Ashland
- The buildings of Cotton Farm, in color, and wide angle

Slides or negatives will reproduce the best. If you have any of these items, or know where we can find them, please contact the SLA office at 603-968-7336, or email Rachel Carley at [rcarley@hotmail.com](mailto:rcarley@hotmail.com).

## SLA RESOURCE CENTER RENOVATIONS

There has been a flurry of activity at the SLA Resource Center over the winter months, with the ongoing renovations to the building. As of January 29<sup>th</sup> Conneston Construction, Inc. (CCI) is around 70% complete with the renovations. The east and west wings of the building have been gutted and reconstructed with a central hallway, new staircase, new electrical and communi-

cations wiring and plumbing. The east sub-basement has a cement floor and a new boiler and heating system are being installed. A new meeting room will be located east of the Great Room, which will include technology for Power Point presentations. The Ecological Monitoring Lab will be much improved as will be public restrooms and staff housing.

The remaining work includes: finish carpentry, flooring, exterior siding and installation of fixtures. The staff looks forward to moving into their own offices after almost 5 months in close quarters in the Great Room. SLA will host a **Business After Hours Open House** in conjunction with the Squam Lakes Chamber of Commerce on May 29<sup>th</sup> from 5 to 7 pm, so all can see the "New" SLA Resource Center.

## CHAMBERLAIN-REYNOLDS MEMORIAL FOREST 50TH ANNIVERSARY

New England Forestry Foundation (NEFF) and SLA are planning a 50th anniversary celebration for the Chamberlain-Reynolds Memorial Forest on August 2<sup>nd</sup> from 9:00 am to 12:00 pm. An educational forestry tour and volunteer trail work will take place.

## ROWING CLASSES



If you've ever wanted to learn to row a scull (a lightweight, sliding-seat rowing craft), the opportunity may be yours this summer. With enough interest, classes will be held in July and August following an Alden Demo Day on June 26. Alden Rowing Shells are built in a variety of designs, from the very stable traditional craft to the sleek racing shell. Classes will be taught on the recreational models. Please contact Katie McComas and Nancy McDonald at [mccomas@rcn.com](mailto:mccomas@rcn.com) or (617) 566-6162.



The SLA Resource Center renovation project is 70% complete. Photo by Eric Morse.

## SQUAM LOG BOOKS

### Moon Island

7/2/02 *Congrats to SLA for maintaining the fine balance between nature and public use. Thanks.*

8/10/02 *I used to come here in the 60's when the Hamm's lived here. Wonderful to see it so well preserved. We live in Seattle but come back every summer - no lake anywhere is as wonderful as Squam and it's efforts like this that keep it so. Thanks!*

### Belknap Woods

9-23-02 *300 Lb Black Bear and 2 cubs seen at Beaver Pond at 6 pm*

### Bowman Island

10/2/02 *Enjoyed a summer like day with picnic here. Temp is 75° and overcast, breezy but sun peaking in and out. Hard to say farewell to summer and Squam. Til next year.*

## Water Clarity (measured as Secchi Disk transparency)

The 2002 Squam Lakes Secchi Disk transparency values generally fell within the range of values documented over the past twenty-three years of monitoring (1979-2001). A notable exception occurred at Piper Cove, where the seasonal average Secchi Disk transparency of 7.2 meters was the highest value on record. On another positive note, the 2002 water transparency improved (higher visibility) at the Squam and Little Squam Sampling stations with the single exception of Sandwich Bay where the water transparency decreased.

The lake bottom was visible during all visits to the Inner and Outer Squaw Cove sampling dates and suggest these sites were characterized by relatively high water clarity as well. The water clarity levels measured in 2002 were, on average, adjusted by -0.5m to account for the use of new improved view scope devices used in conjunction with the Secchi Disks.

Parameter	Squam Lake Average (Range)	Squam Lake Classification
Water Clarity (meters)	7.4 (3.5 - 11.5)	Oligotrophic > 4.0
Chlorophyll a (ppb)	1.6 (0.6 - 3.6)	Oligotrophic < 3.0
Phosphorus (ppb)	9.9 (2.9 - 86.0)	Oligotrophic < 15.0
Parameter	Little Squam Lake Average (Range)	Little Squam Lake Classification
Water Clarity (meters)	7.4 (6.6 - 8.4)	Oligotrophic > 4.0
Chlorophyll a (ppb)	2.1 (1.4 - 3.1)	Oligotrophic < 3.0
Phosphorus (ppb)	6.4 (4.2 - 12.4)	Oligotrophic < 15.0

Table 1 - 2002 Squam Lake Water Quality Summary

Site	Seasonal Average Water Transparency (meters)
Little Squam West	7.6 (range: 6.9 - 8.4)
Little Squam East	7.2 (range: 6.6 - 7.8)
Cotton Cove	6.2 (range: 5.3 - 6.9)
Livermore Cove	7.4 (range: 6.0 - 8.1)
Inner Squaw Cove	4.0 (range: 3.5 - 4.6)
Outer Squaw Cove	4.9 (range: 4.3 - 5.3)
Sandwich Bay	7.6 (range: 6.5 - 8.8)
Kent Island	9.3 (range: 8.2 - 9.9)
Moultonboro Bay	7.5 (range: 6.5 - 8.6)
Sturtevant Bay	8.6 (range: 8.0 - 9.2)
Dog Cove	7.0 (range: 6.2 - 7.7)
Piper Cove	7.2 (range: 6.0 - 8.3)
Loon Reef	9.4 (range: 7.8 - 10.5)

Table 2: 2002 Squam Lakes Water Clarity Data

## Microscopic plant abundance “greenness” (measured as chlorophyll a)

The 2002 Squam Lakes chlorophyll concentrations fell within the range of values documented over the past twenty-three years of monitoring (1979-2001): no new chlorophyll a minimum or maximum values were documented in the year 2002. The 2002 seasonal chlorophyll a concentrations were near or below the 2000 seasonal chlorophyll a concentrations at all stations and likely reflect the atypically dry conditions over the past two years of water quality monitoring during which limited annual phosphorus runoff resulted in reduced algal growth.

As in the past, the highest seasonal average chlorophyll a

concentration was documented at the Inner Squaw Cove sampling location while the chlorophyll a concentrations documented at the more open water deep stations (i.e. Kent Island and Sandwich Bay) included some of the lower chlorophyll a concentrations.

## Total Phosphorus: the nutrient considered most responsible for elevated microscopic plant growth in our New Hampshire Lakes

Total phosphorus concentrations measured in the surface waters (epilimnion) were generally low when collected by the volunteer monitors and ranged from 2.9 to 86.0 parts per billion (ppb) in Squam Lake and ranged from 4.2 to 12.4 ppb in Little Squam Lake. The majority of the surface water phosphorus concentrations fell below the concentrations of 10-15 ppb considered sufficient to cause an algal bloom. However, notable total phosphorus spikes were documented for the Inner and Outer Squaw Cove sampling stations where the concentrations reached 86.0 and 67.2 ppb at the inner and outer sampling locations, respectively. Such “excessive” phosphorus concentrations often coincide with short-term algal blooms and short-term water transparency reductions. Neither site experienced a short-term algal bloom nor short-term reduction in the Secchi Disk transparency, which suggest this phosphorus might be in a particulate form. During windy periods, debris off the bottom can often be resuspended into the water column. Such resuspensions are particularly common at the shallow sites such as the Squaw Cove sampling sites.

If you are interested in volunteering for the Squam Lakes Water Quality Monitoring Program, please see the story on page 2.



Site	Seasonal Average Chlorophyll a (ppb)
Little Squam West	2.0 (range: 1.4 - 3.1)
Little Squam East	2.1 (range: 1.4 - 2.9)
Cotton Cove	1.6 (range: 0.9 - 1.9)
Livermore Cove	1.4 (range: 0.9 - 1.9)
Inner Squaw Cove	2.4 (range: 1.4 - 3.6)
Outer Squaw Cove	1.6 (range: 1.2 - 2.1)
Sandwich Bay	0.9 (range: 0.6 - 2.3)
Kent Island	1.3 (range: 1.1 - 1.9)
Moultonboro Bay	1.4 (range: 1.1 - 1.7)
Sturtevant Bay	1.5 (range: 1.1 - 2.2)
Dog Cove	2.0 (range: 1.5 - 2.5)
Piper Cove	1.8 (range: 1.2 - 2.1)

Table 3: 2002 Squam Lakes Chlorophyll a data summary

## COMMUNITY YOUTH SAILING PROGRAM PLANS FOR SIXTH SUMMER SAILING SEASON

The Summer of 2002 marked the 5th CYSP season of providing community youth ages 8 to 15 years with safe, educational and fun opportunities to learn the skills of sailing. The program, started in 1998 with a gift of six Optimist sailboats, has expanded to include four Club Junior sailboats and a Lightning for more advanced instruction.

In 2001, the Russell Spirit Awards were initiated to honor the late Jack Russell and Betty Russell for their contributions over many years to the enjoyment of sailing on the Squam Lakes. Recipients of these awards, Kristen Spera and Sam Lovett in 2001, and Sarah Solomon and Andrew Hedberg in 2002, were recognized by their instructors for courage and perseverance in pursuing sailing knowledge and skills, for team spirit, and for their positive effect on others. Congratulations to these young sailors!

As the program has grown and developed, we are now seeing older, more experienced sailors who are ready for advanced opportunities. In 2002, a few youth were able to crew for the Lightning Races and we are in the process of compiling a list of CYSP alumni who would like to be considered for this opportunity in 2003. Also, the program for CJ Instruction has been extended from 5 half days to 10 half days with the purpose of moving toward a higher quality of learning experience, and increasing confidence and competence of the sailors who participate. We are looking forward to this next season with pride in the accomplishment of our youth and optimism and hope for another season of good sailing!



*Community Youth Sailing Program (CYSP) students learn how to rig Club Junior sailboats at the SLA Resource Center. Photo by Sara Rothschild.*

## JSLA WINTER UPDATE

The JSLA Committee has been actively mustering plans for the youth programs. See the SLA Youth Programs Brochure for more information. JSLA and CYSP reservations may be placed as soon as you receive this Loon Flyer.

We continue to upgrade and add to our fleet of kayaks as well as plan new activities and challenges for the kids. The revival of our Skills Book, a journal of skills learned, is a keepsake for the kids and fun to look at years later.

The **scholarship program** available to

area youth is an on-going offering. It is a program we are proud to contribute to, in the hopes of encouraging total community involvement through educational and fun opportunities for our youth.

**Bike Around the Lake** is July 13<sup>th</sup> 2003. JSLA will be calling all families... as we plan a "Parade Route" of bikers for the fun biking event. This year we hope to organize "host" family, water stations and even a van to pick up the mini-milers! Look for a fun filled day of camaraderie, food, awards and fund raising in support of our youth programs.

*The Squam Lakes Association gratefully acknowledges the support of*

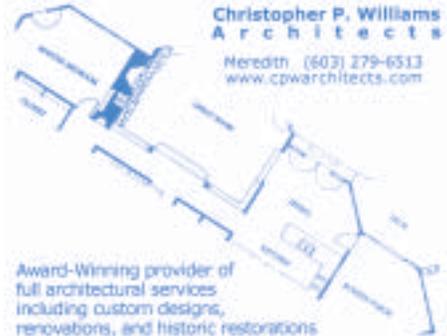
**SLA USED BOATS  
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Manteo kayak	\$450
Looksha IV kayak	\$700
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Captiva Sailboat	\$1,500

For more information call Steve Sanders at SLA (603) 968-7336.

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*whose generous contributions underwrite this issue of the Loon Flyer.*



SLA Full Moon Snowshoe Tours were held on Saturday and Sunday, January 18th & 19th to West Rattlesnake. Photos by Eric Morse.

## FULL MOON SNOWSHOE TOURS

Despite cold temperatures, the SLA's first annual Full Moon Snowshoe Tours were very popular and enjoyable. SLA provided Tubbs rental snowshoes and offered cheese fondue, hot chocolate, mulled wine and cider, and cookies at the summit of West Rattlesnake. Eric Morse and Steve Sanders, SLA Staff co-led the tours on the Old Bridle Path.

Twelve people participated in the Saturday tour and eleven on Sunday.

"It was a beautiful night to be out, even though it was -5°. It was a treat to have a little spiced wine at the top while enjoying the view of Squam by moonlight," said Sarah Sherrill.

SLA has day time Snowshoe Tours scheduled for February 22 to Mt. Morgan, February 23 to West Rattlesnake, and March 15 to Mt. Israel. A Cross-Country Ski Tour is scheduled for March 1 in Chamberlain-Reynolds Memorial Forest (NEFFA).



## BRIGHT NIGHTS: A LIGHT POLLUTION DILEMMA

Have you noticed a big glow in the sky as you look at the horizon while driving towards a city or large town? Have you tried unsuccessfully to find a favorite star when standing near a lighted building or parking lot? These are consequences of light pollution, a term describing the effects of outdoor lighting. As New Hampshire continues to be developed, these effects are increasing.

Appropriately designed and properly installed, outdoor lighting can increase safety and security, provide recreation, and allow for nighttime work. However, inappropriate outdoor lighting results in dangerous glare, overlighting, skyglow, energy waste, and in some cases, adverse effects on wildlife.

Light pollution effects us in many ways. Not only has star gazing become difficult for professional and backyard astronomers, but the "rural character" of our New Hampshire Communities has been altered with brightly lit skies.

There are several things you can do to reduce the negative impacts of outdoor lighting. Ask your lighting retailer for new compact fluorescent lighting fixtures or "shielded" lighting that offer more control by putting light where it is needed. You can also conserve energy and decrease light pollution by controlling where and when the lights are used, how long they are on, and how bright they are. Use individual controls and timers rather than lighting large areas off of one switch. Adjust light timers with changing daylight hours, or simply turn off when not needed.

If residents are concerned about inappropriate lighting in their community, new development zoning ordinances or regulations can be adopted that require shielded or direct street lights. For more information contact the NH Office of State Planning at 271-2155.





*Nordic Skates Demo*

*Photos by Eric Morse*



*Ice Skating & Winter Fun*



*Ice Skating on Squam*

*Ice Hockey*

*Winter Golf anyone ?*

*NH Fish & Game - Ice Fishing*



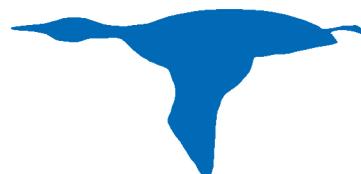


## SLA CALENDAR OF EVENTS

February 22	Snowshoe Tour to Mt. Morgan 10:00 am - 2:00 pm
February 23	Snowshoe Tour to West Rattlesnake 10:00 am - 12:00 pm
March 1	Cross-Country Ski Tour to Chamberlain-Reynolds Forest 10:00 am - 2:00 pm
March 15	Snowshoe Tour to Mt. Israel on Wentworth Trail 10:00 am - 2:00 pm
May 29	SLA Resource Center Open House - Business After Hours Squam Lakes Chamber 5:00 - 7:00 pm
June 7	Trail Maintenance Workshop at Mt. Morgan Trail 9:00 am - 2:00 pm
June 14	Trail Maintenance Workshop at Mead Conservation Center 11:00 am - 4:00 pm
June 30	JSLA and CYSF Programs commence Monday - Friday
July 5	Trail Maintenance Workshop at Mead Conservation Center 9:00 am - 2:00 pm
July 6	Lightning Sailing Races at Diamond Ledge, Sunday afternoons through August 17, 2:00 - 4:00 pm
July 12	Pancake Breakfast at SLA Resource Center 8:30 - 10:00 am
July 13	Bike Around The Lake (Benefit for SLA Youth Programs) at SLA Resource Center at 9:00 am
July 19	Squam Wildlife Census
July 26	Hike For The Trails (Benefit for SLA Trails) at Mt. Morgan Trail at 8:00 am
August 2	Chamberlain-Reynolds Memorial Forest 50th Anniversary 9:00 am - 12:00 pm
August 2	SLA Annual Meeting at SLA Resource Center at 4:30 pm
August 3	Around the Lake Sailing Race at Diamond Ledge at 2:00 pm

Calendar subject to change - check the SLA Website - [www.squamlakes.org](http://www.squamlakes.org)  
or call (603) 968-7336 for the latest information

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603-968-7336  
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