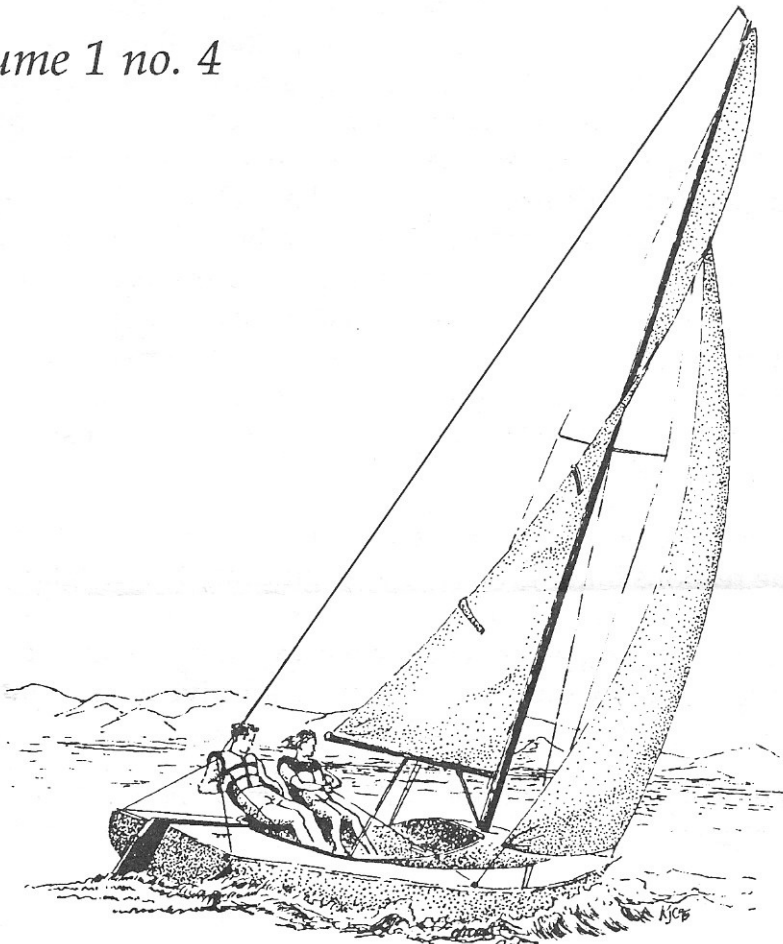


FRIENDS OF GREAT SALT LAKE

Volume 1 no. 4

Summer 1995



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The mission of Friends of Great Salt Lake is to preserve and protect the Great Salt Lake ecosystem and to increase public awareness and appreciation of the lake through education, research, and advocacy.



Dear Friends,

Welcome to the summer edition of the FRIENDS OF GREAT SALT LAKE Newsletter. For those who are getting acquainted with us, Friends is a nonprofit organization dedicated to the protection and preservation of the Great Salt Lake ecosystem and to increase public awareness and appreciation of the lake ecosystem through education, research, and advocacy. We began our activities in the Fall of 1994 and have approximately 250 members. We provide a monthly lecture series in the Fall Winter and Spring during our general membership meetings. The first Antelope Island Spring Workshop and Camp-out in April (see page 4) was very successful and may be held again next year. Friends has also adopted a highway cleanup site near Saltair (see page 5 for Trash Czar Howard's article). The Board is discussing publishing a research report on the state of Great Salt Lake for distribution to our membership, the general public, schools, and agencies. We are excited about this venture because it will provide information about the lake ecosystem to a wide audience and lay the foundation for the future direction of FRIENDS. We have several more ideas for activities such as sponsoring an issues forum, an art show, lake tours, and publishing brochures.

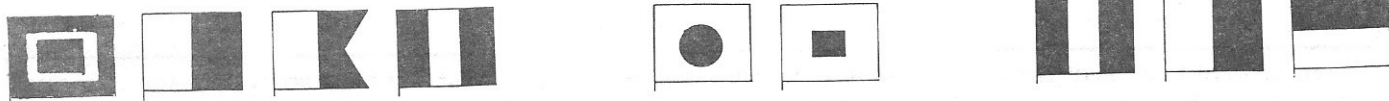
Friends is a growing and learning experience for everyone including me. I am pleased and humbled by the responsibility given to me of guiding this fledgling group through its first year. I am thrilled when I hear that someone enjoyed our events. I would like to hear more from you about how we are doing, what you like or do not like about the group, and how can we be the most effective in fulfilling our mission particularly in the beginning years.

I wish you health, happiness, and some time set aside to go and enjoy the Lake this Summer!

Sincerely,

Kathlyn Collins

President





FIELD NOTES - THE GREAT SALT LAKE IN SUMMER

Joel Peterson

The dynamic ecosystem of the Great Salt Lake slowly shifts again as a result of seasonal climatic changes affecting water temperature, chemistry, and surface elevation of the lake. In the summer, numbers of brine shrimp, brine flies, and young-of-the-year birds are all on a rising curve.

One of my favorite times of year on the lake is in late Summer when the warming water becomes quite clear. Often the water is murky from phytoplankton (microscopic plant life), but grazing by the brine shrimp reduces the phytoplankton in late Summer, enabling the bottom of the lake to be seen in water over four meters deep! This is when I take mask and snorkel to investigate the underwater world of the lake.

I usually wear an old pair of tennis shoes when I'm around tufa reefs but the oolitic sand must be felt by bare feet. It takes at least 20 pounds of added weight in a weight belt for me to overcome the buoyancy of the water! A mask is a must because anything more than a little salt in the eye is extremely uncomfortable. (Just consider those pickled eggs in the big jar.)

The water is not entirely clear because I'm continuously surrounded by brine shrimp. The shrimp cysts which came out of diapause in early Spring and developed into mature shrimp have themselves produced a generation of live shrimp which will also mature in mid-summer. The brine shrimp population will reach its maximum in late Summer.

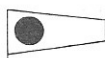
Another interesting life cycle to follow this season is that of the brine fly (*Ephedra* sp.) Their life stages include egg, larval instars, pupae, and the adult fly. An individual brine fly

lives only several days; however, there are overlapping generations within the different life stages so there will be brine flies present throughout the Summer and you can see all the life stages in a single excursion.

If you observe them closely, either from underwater or from the shore, you can see brine flies beneath the water's surface enveloped in a bubble of air! The newly pupated fly emerges to the surface using an air bubble. Likewise, the adult fly entraps a bubble of air around its body as it descends underwater to lay its eggs. The eggs must be continuously hydrated, so oviposition occurs well under the water's surface.

These are just a couple of the interesting things you can see and do at the lake in the Summer. For a more terrestrial experience, keep an eye along the south shore wetlands and in the Bear River wetlands for fledgling white pelicans which will be leaving their nesting colony on Gunnison Island in the North Arm of the lake. Look along the shore at the distribution of the vegetation. Has it changed? Access to the lake can be found at the STATE PARKS AND RECREATION SOUTH SHORE and ANTELOPE ISLAND facilities, or try the DIVISION OF WILDLIFE'S FARMINGTON BAY WATERFOWL MANAGEMENT AREA. Travel to the U.S. FISH AND WILDLIFE'S BEAR RIVER MIGRATORY BIRD REFUGE or GOLDEN SPIKE NATIONAL MONUMENT for views of the north end of the lake. Always remember to preserve the natural dignity of the places you visit.

The Great Salt Lake is a fascinating place to visit in the Summer. Take a picnic, the family, some good friends and be sure to stay long enough to see the beautiful sunset.





ANTELOPE ISLAND WORKSHOP REPORT

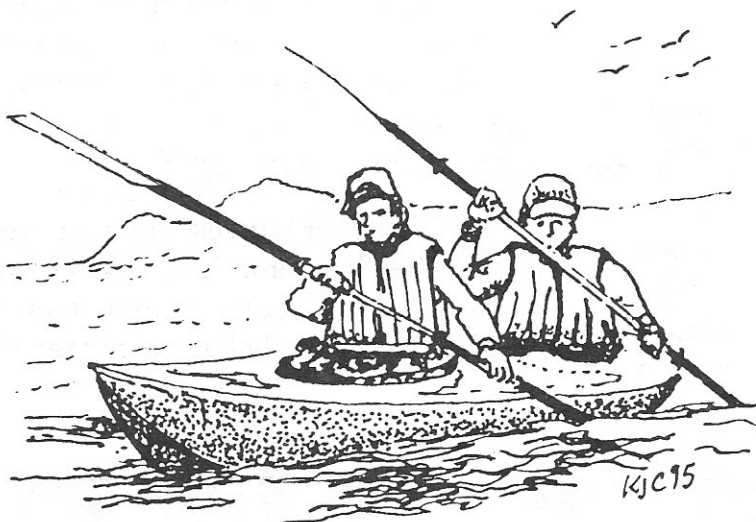
Kathlyn Collins

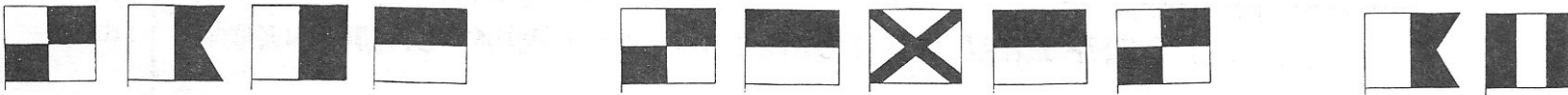
Despite snow and frigid temperatures on Friday, the weather was perfect for a very successful Antelope Island Spring Workshop and Camp-out. Approximately 70 people participated in outdoor classes covering six topics including geology, wetlands, ecology, reptiles, history, birds, plants, and bats. Genevieve Atwood had her students model the Great Basin landform and act out the geologic fault block forces. Brooks Carter's students were up to their _____ in anaerobic soils but everyone made it back for lunch and dinner. Wayne Wurtsbaugh's students intimately examined artemia, daphnia, and chironomids. The search for the elusive lizards of Antelope Island proved fruitless; however, Dave Ross demonstrated a well executed lizard pushup (the judges panel awarded him a 9.5). Peter Czerny regaled his students with his life's adventures around Great Salt Lake. Tim Smith familiarized his students with the park's showpiece—"the longest continuously occupied house in Utah on its original foundation"—as the great horned owls watched from the cottonwood tree. Speaking of birds, Frank Howe, his trusty little dog Moki, and his students spied on the unsuspecting bird

communities of the island and counted 60-some species. Betty Wullstein's students unlocked the island's plant mysteries and saw a few other treats on the side. After the evening potluck and avoiding getting wet with rain or sprinklers, we gathered in the ranch house to see Peter's slides. As the dark settled in Betsy Price turned several volunteer children into bats to demonstrate life from a bat's point of view.

Sunday morning everyone that got out of their tent to have a bagel and fruit pie breakfast had a chance to test out and compare fashion and function notes on raingear. All the while, Al Stokes, premier Auduboner from Logan, entertained everyone with conversation and sampling all available coffee opportunities. Mid-morning, the park's range manager lead us to the location of a planting project. We planted treats for the buffalo and wildlife as we watched the magnificent views of the lake.

Rather than seeing us as a nuisance, Tim invited us back and reserved the same weekend for us next year to do it all again. Friends would like to extend a hardy thank you to Tim Smith and the ANTELOPE ISLAND STATE PARK staff, the instructors, Steve Ingram and the activities committee for organizing, UTAH WATER RESOURCES for patiently putting up with many 'wrong number' calls, and all the participants who signed up for the workshop whether they could come or not.



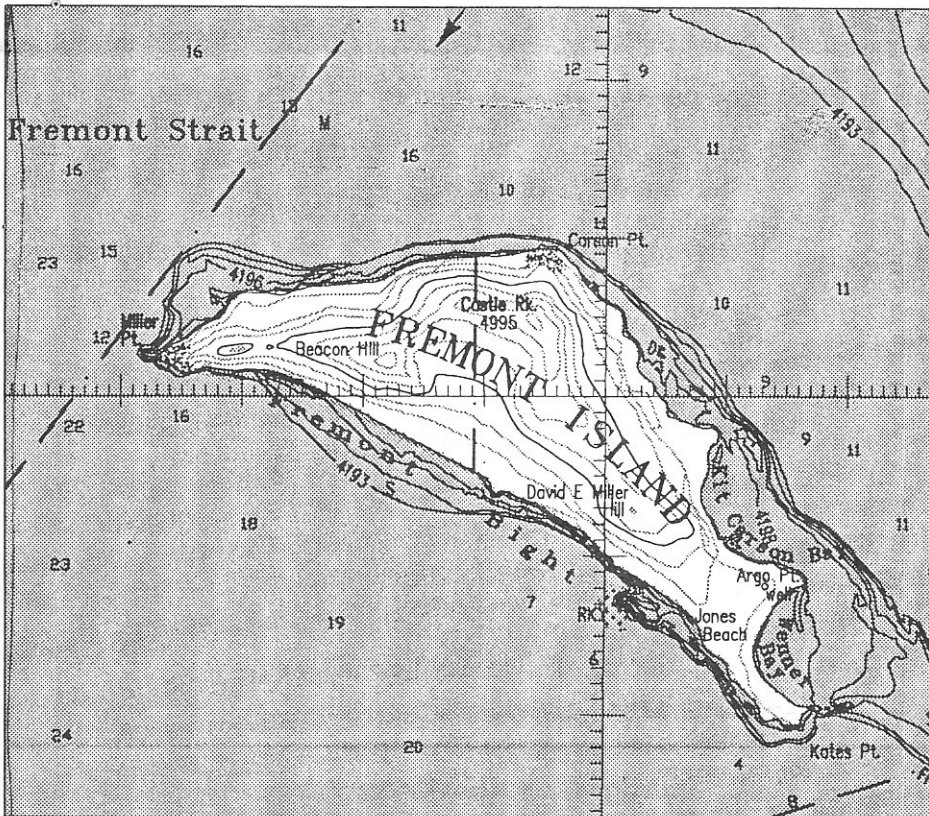


NAVIGATION AIDS

A portion of the nautical chart of Great Salt Lake showing Fremont Island. The shaded area is water with depth soundings marked in feet. The grid indicates latitude and longitude. The lake level shown is at 4,200 feet. The contours on the island represent 100-foot intervals. The arrow indicates the direction of the water current. Fremont Island is the only island of Great Salt Lake in Weber County. The county boundary is the dashed lines north and south of the island. The chart is published by the Great Salt Lake Yacht Club.

SIGNAL CONTEST

Flags are used on boats and ships as visual communication. The flags you see throughout this newsletter spell out a question. The answer to the question is located somewhere in this newsletter. If you are the first person to correctly identify the question and answer, you will receive a one year's free membership to FRIENDS OF GREAT SALT LAKE. Write the question and answer on a postcard and mail to FRIENDS OF GREAT SALT LAKE, P.O. Box 2655, Salt Lake City, UT 84110. Good Luck!



FRIENDS

ADOPT-A-HIGHWAY

FRIENDS OF GREAT SALT LAKE have signed an Adopt-a-Highway agreement with the UTAH DEPARTMENT OF TRANSPORTATION (UDOT) to pick up litter three times per year on I-80 around the Saltair exit. Our first stint at garbage patrol will be on Saturday, August 5, from 9:00 a.m. to noon. UDOT will supply garbage bags and safety vest. FRIENDS should bring a pair of gloves, hat, sunscreen, water, and lunch. Meet at the I-80 Saltair exit at 9 am sharp. Call garbage czar Howard Gross at 486-4565 with any questions.



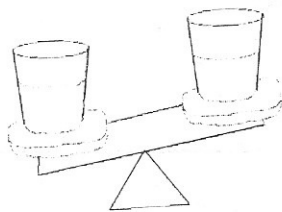
SO, WHAT'S THE DEAL WITH SALT IN THE GREAT SALT LAKE?

Most inland lakes have fresh water, but the Great Salt Lake has a high salt content. That is a very important feature because the salt makes a difference in what organisms, animals and plants, can make a living in the lake. But what makes salt water so different from fresh water?

Here are three experiments that will help us to understand one different characteristic between salt and fresh water. That characteristic is weight.

To do these experiments you will need:

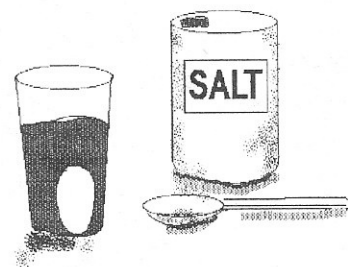
- water from the Great Salt Lake and water from a fresh water lake (or make salt water by mixing one cup salt per gallon of fresh water and use tap water for the fresh water)
- an equal arm scale (actually any scale will do)
- a measuring cup
- two uncooked eggs in the shell



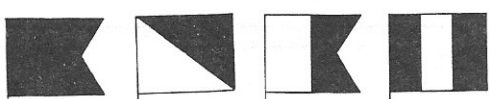
Weight two containers that are identical in size and weight and log the figures. In one container put in a cup of salt water and in the other, a cup of fresh water. Now log those figures. Which one weights more?

Now leave the containers out so the water will evaporate. This will take a couple of days. After the water has completely disappeared weight the cups again. Do the cups weight the same? Now observe the inside of the cups closely. What do you see that would make a difference? How do these compare with the original weights?

Use two identical jars and fill one with salt water and the other with fresh water. Carefully put an egg in each jar. What happens to the egg? Think about why things sink. Now think about the difference in weight between salt and fresh water. From this can you explain what happened to the eggs.

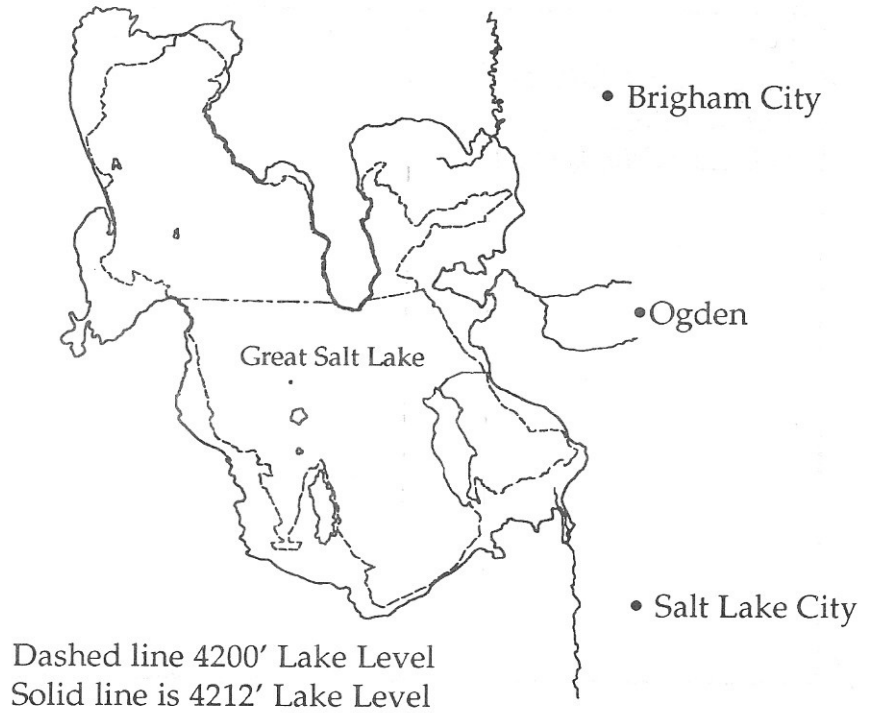


From what you learned with the three experiments, where do you think you would like to learn to swim, in the Great Salt Lake or in a fresh water lake?





<i>GREAT SALT LAKE SURFACE ELEVATION</i>	
June 15	
Saline	4197.80
Boat Harbor	4201.20
May 15	
Saline	4197.40
Boat Harbor	4200.60



*FRIENDS OF GREAT SALT LAKE
BOARD OF DIRECTORS AND COMMITTEE CHAIRS*

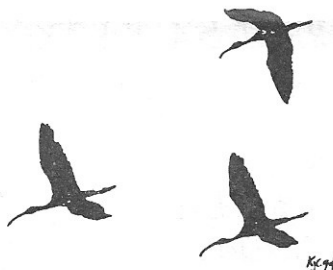
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Patrick Johnson, <i>President Elect</i>	Issues Committee	582-3724
Elise Peterson, <i>Vice President</i>	Membership Committee	485-2394
Howard Gross, <i>Treasurer</i>		486-4565
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Christine Allred, <i>Board Member</i>	Hospitality Committee	261-8183
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Wayne Martinson, <i>Board Member</i>		355-8110
Joel Peterson, <i>Board Member</i>	Research Committee	485-2394
Betsy Price, <i>Board Member</i>	Fund Raising Committee	596-2619
Jeanne Le Ber	Newsletter Committee	532-7384
Ray Smith	Nominations Committee	532-7384
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Salt Lake City, UT 84110-2655

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YES! I want to join the *FRIENDS OF GREAT SALT LAKE*. Here are my dues
in the amount of: (check one)

- Charter member \$ 15
- Regular member \$ 20
- Student \$ 10
- Senior \$ 10
- Sustaining \$500



Charter is a special first year membership rate. **Student** must be at least half time. **Senior** is 62 years or older **Sustaining** is any corporation, institute, organization or individual interested in financially supporting *FRIENDS OF GREAT SALT LAKE* activities.

In addition to my dues, I would like to make a tax-deductible contribution in the amount of: (check one)

- \$10 \$25 \$50 \$100 \$250 other amount _____

Please make check payable to:
Friends of Great Salt Lake

NAME _____

ADDRESS _____

Mail to:

Friends of Great Salt Lake
P.O. Box 2655

CITY, STATE, ZIP _____

Salt Lake City, UT 84110-2655
Phone: 355-5226

PHONE _____

MY SPECIAL INTEREST IN THE LAKE IS: _____