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Great Salt Lake**
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White Rock Bay, Antelope Island by Scott Baxter



FRIENDS of *Great Salt Lake*

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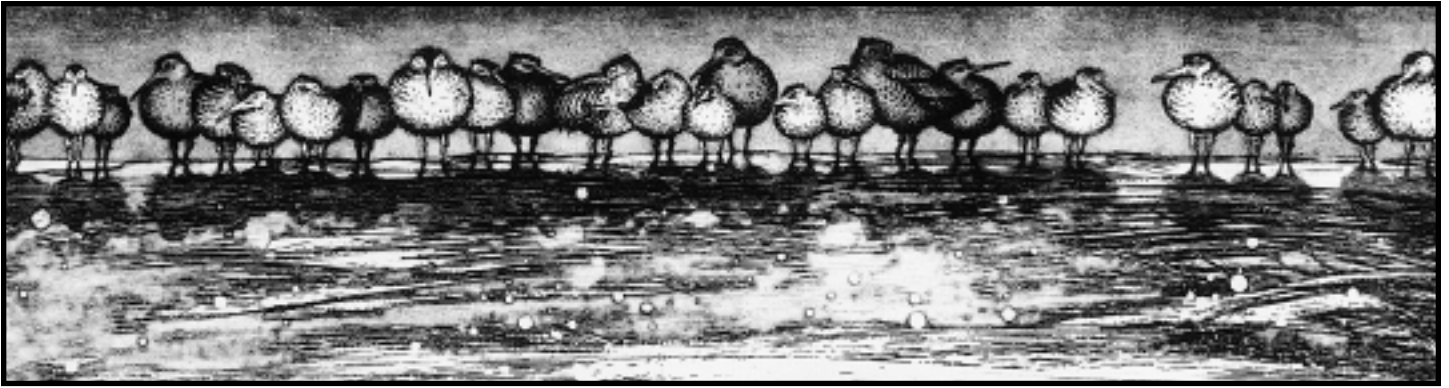
Fall 2004



Jewels of Great Salt Lake by Elizabeth Dewitte ©2004

PRESIDENT'S MESSAGE

Keeping Our Eye on the Prize: Alliances, Political Support and Time



Dunlins by Elizabeth Dewitte ©2000

“You must be the change you wish to see in the world”

Mahatma Gandhi

Could it be that the time for the Great Salt Lake has finally come? I ask this because I begin to sense a growing desire to act responsibly in how we regard our big, salty neighbor.

That's not to say that all is smooth sailing yet. The proposed Legacy Highway remains a threat, as do proposals to expand sewage lagoons in ephemeral playas in Perry City, and to tap shallow aquifers along the Jordan River.

But I do think that the conservation community is a part of a growing consensus that stewardship of the Lake is critical. Ten years ago, when FRIENDS was first organized, this consensus seemed totally absent. And in light of continued growth around the Great Salt Lake, it's not only a welcome response for the Lake's long term sustainability but a critical one, as well.

A recent conference in Salt Lake City focusing on terminal water bodies and closed basins like the Great Salt Lake, explored common themes such as the impacts of growth, water quality and quantity, and species and habitat protection. One of the successes that was highlighted was Mono Lake. As we approach the 10th anniversary of the Mono Lake Decision, the good news is that streams are recovering, brown trout have increased, wetlands are being restored and extensive monitoring and research is ongoing. The conference provided an

opportunity for Great Salt Lake managers to interface with a broader community of stakeholders to discuss the lessons learned about these special systems and strategies for charting a course toward restoration and protection.

There are a number of good examples focused on Great Salt Lake. The Shorelands and Tooele County Regional Plans, now in process, began about 2 years ago. They are addressing the issues of growth along the shores of the Lake, and how to protect this globally important endowment that we have in our backyard.

The Linking Communities program, between Canada, Mexico and Great Salt Lake, is working to ensure habitat protection for millions of migratory birds through communication, education and economic development. In January 2005, the Mexican State of Nayarit on the Gulf of California, will hold its second Bird Festival to foster enthusiasm within its communities about the importance of protecting migratory bird habitat.

The Department of Environmental Quality's commitment to develop numeric standards for the open waters of Great Salt Lake is an appropriate response to the public's concern about further impairment of the Lake and its surrounding wetlands. This long term standards process, will include a panel of nationally recognized



scientist who will begin by considering a standard for selenium. This first step toward a clear and determined recognition of long term management thinking for the Great Salt Lake Ecosystem is very exciting.

The time is also opportune for FRIENDS to retool so that we can operate more efficiently and effectively. Our recent elections for Officers and Directors brings new enthusiasm to the Board. Starting in January of 2005, Tim Brown will be our new President. He is the former Executive Director of the Utah Society for Environmental Education. His experience will enhance the Board's effectiveness in our Lake work and strengthen our momentum. I will move into the position of a full time Executive Director, and continue to carry the flag of FRIENDS throughout the community. This is a good time for us to make this big step.

And since the importance of Great Salt Lake education is paramount to the long term future of the Lake, we are committed to completing Project SLICE, our 4th grade curriculum that uses Great Salt Lake as a system of study. To accomplish this, Bruce Thompson will be leaving his position as Education Director and become

Curriculum Specialist to finish the job. Upon completion, he will be working to implement the components of the SLICE curriculum so that we can see the fruits of the time and labor that went into its development. To assume the many duties and responsibilities Bruce had developed as Education Director, we are in the process of hiring a part time Assistant Director to continue meeting the community outreach opportunities we are involved with. By magnifying the education part of our mission, we expect a long lasting result: increased awareness and appreciation of Great Salt Lake.

After 10 years of working hard to preserve and protect the Great Salt Lake Ecosystem, we are encouraged about its future and ours. 🍀

In saline,

Lynn de Freitas

What You Can Do

Will you help us by making an end of the year gift to FRIENDS?

When you make a gift, you can be assured that your dollars are responsibly managed and carefully used to further our mission. Each part of that mission – research, education, and advocacy – can benefit from your funding.

Please use the membership / donation form on the back cover.

Thanks

FRIENDS ORGANIZATIONAL STATEMENT

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.

FRIENDS has a very active Board of Directors and an Advisory Board consisting of professionals in the scientific, political, literary, education, and broadcast communities. Founded in 1994, we have organized and sponsored an array of programs, activities, and materials in pursuit of our mission.

Since 1996, we have sponsored a biennial Great Salt Lake Issues Forum that provides a gathering for policy makers, researchers, planners, industry and other stakeholders who are involved in and concerned about the Great Salt Lake.

The goal of each Forum is to encourage constructive dialogue about the future of the lake's ecosystem and its resources, and to illuminate the complexities involved in research, management and planning for the lake.

In 1997, we hired Bruce Thompson as our Education Director and initiated a major regional education project designed to enhance both the knowledge

about and care for the future of Great Salt Lake. Bruce wrote and produced a live-narrative slideshow program "The Lake Affect: Living Together Along the Shores of Something Great." Over 11,000 people in the five counties surrounding Great Salt Lake have seen the program.

We hope that the video version of The Lake Affect, and Project SLICE, a 4th grade curriculum using Great Salt Lake as a system of study, will achieve a positive, long-lasting impact on the future of the Great Salt Lake and those who dwell upon its shores.

In 2003, FRIENDS awarded the first Doyle W. Stephens research scholarship. Until his death in May 2000, Stephens served as a research hydrologist for the U.S. Geological Survey. He is particularly remembered for his work toward increasing public awareness of the Great Salt Lake Ecosystem.

FRIENDS was awarded the Conservation Achievement Award by the Utah Chapter of the Wildlife Society in 1998. 🌿

On the Cover

Jewels of Great Salt Lake, Elizabeth Dewitte ©2004
coloured pencil, gold leaf & digital

It's been said much more eloquently before, but I will try to paraphrase as best I can. I too am convinced that if the collective public has a broader perception of what a unique and beautiful location we have here, this environment would be more in the forefront of our minds rather than a mere afterthought.

I find the birds to be the added embellishment to this amazing setting. I see these birds as a beautiful treasure of jewels that sparkle and flicker against colours that astound. An adornment that celebrates this remarkable landscape we have.

elizabeth.dewitte@xmission.com



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10 YEARS OF FRIENDS

GOING FORWARD BY LOOKING BACK



Walking Near Black Rock by Maunsel Pearce ©2004

The Great Salt Lake. Death by a thousand cuts? Which cut are we at now? Is it number 119? 230? 550? 730? 871? Will we be spared a thousand cuts?

The Great Salt Lake. How vibrant is the life? How nourishing? How many more glorious sunrises and migrations?

The Great Salt Lake Ecosystem is arguably not a living organism that will die. Surely, it is an incredibly productive and rich ecosystem that should be preserved and protected.

Looking Back

I tend to save things. I have a large envelope that has scrawled on the front "Start up for Friends of GSL." After dusting it off and looking inside I found the First Newsletter of FRIENDS of Great Salt Lake dated Fall 1994. The newsletter has articles on "The Creation of FRIENDS of Great Salt Lake," "First Members Meeting" for Oct. 25, 1994, "Field Notes," "The Organization of FRIENDS of Great Salt Lake," and "Identifying Major Issues Concerning the Great Salt Lake." Included in the envelope are notes from the

first organizational meeting at Sugarhouse Garden Center on April 21, 1994.

Also, there is an announcement of the four part lecture series titled, "Desert Sea – A Natural History of the Great Salt Lake," sponsored by the Utah Museum of Natural History. On Feb. 9, 1994 I had the opportunity to present with Terry Tempest Williams, John Telford, and Ella Sorensen during one of the lectures. The presentation I gave was "A Call to Binoculars." I still have the names of about 200 people who signed up on Feb. 9, 1994 indicating they were interested in "an organization that will help preserve and protect the Great Salt Lake Ecosystem!!!" (Old Mono Lake Newsletters are also in the envelope. Before giving the presentation I had talked with Elise Peterson (now Elise Boeke), and Joel Peterson and we had agreed that we would work to start up an organization like Friends of Mono Lake.)

Since those dusted off recollections of 1994, there are many more memories of membership meetings at the Sugarhouse Garden Center, board meetings, Issues Forums and issues. Numerous people, events, and issues pass through the mind. Certainly, there are thank-yous



to numerous people especially Kathlyn Collins, the first president, and Lynn de Freitas who has done so much for the organization.

And what has all this effort by so many people meant? There are more cuts on the Great Salt Lake. There is a new runway for the Salt Lake airport, a new tailings pond for Kennecott Copper, some of the footprint of the proposed Legacy Parkway is in, and more developments have occurred all up and down the Lake. Water quality and water quantity continue as major concerns. The population keeps growing. There is no downstream for the Great Salt Lake and it is still the most underappreciated of Utah's natural resources. But FRIENDS is keeping up a good fight. More people listen. More people appreciate. Land is conserved. Selenium concentrates do not go into the Jordan River. Administrators and policy makers often look towards protecting the lake. After ten years, the ledger of cuts as well as measures to maintain the health of the Great Salt Lake Ecosystem is extensive.

The following was my conclusion from "A Call to Binoculars" given on Feb. 9, 1994, "You can help be involved in preserving and enhancing this public trust and the surrounding ecosystem. Hopefully, you will look back someday and say – 'Gee, we really tried to preserve and protect this treasure and we made a difference.'

Going Forward

Ten years later the following can be added to the conclusion above: And FRIENDS of Great Salt Lake is continuing and will continue to make a difference!!!!

Looking another 90 years I enjoy imagining the following article:

FRIENDS Celebrates 100 years of Great Salt Lake
Salt Lake Tribune and Deseret News
Oct. 26, 2094

South Shore of Great Salt Lake. Jose Padilla, Executive Director and Kathy Franks, Chairman of the Board of FRIENDS of Great Salt Lake welcomed approximately 500 people to the 100th Anniversary of FRIENDS of Great Salt Lake yesterday afternoon. In their celebratory speeches they thanked everyone for their ongoing support.

Mr. Padilla gazed towards the Lake as he exclaimed, "This tremendous resource continues to be a haven for water birds. The recent surveys conducted by the Utah Division of Wildlife Resources indicate that the bird species are present on Great Salt Lake in numbers comparable to the surveys conducted from 1997 through 2001. Of course this is a grand indicator that water quality and water quantity have been sustained at Great Salt Lake, that we have preserved a wetland and upland buffer, and that the brine flies and brine shrimp remain abundant. Furthermore, this demonstrates that the human population has paid attention to the Lake over the years and has worked to sustain this incredibly rich ecosystem."

Ms. Franks thanked everyone for their contributions to the FRIENDS of Great Salt Lake South Shore Educational Program. She proclaimed, "This ongoing program, with its mobile classrooms and educational displays has provided information to over 1,000,000 school children and adults over the last 70 years. This is the grand legacy started by FRIENDS almost 100 years ago. My grandmother encouraged my interest in the Great Salt Lake after attending a workshop by the first Education Director of FRIENDS, Bruce Thompson, This South Shore Educational Program, provided in close cooperation with the Audubon Gillmor Sanctuary and other programs throughout the Great Salt Lake Ecosystem continues to provide the Greater Wasatch Front with the fundamental understandings and appreciation of our internationally recognized inland sea. We look forward to the ongoing fulfillment of the mission of FRIENDS of Great Salt Lake for the next 100 years. Thank you all very much for coming. 🌲

by Wayne Martinson, Utah Important Bird Areas Coordinator, National Audubon Society



10TH ANNIVERSARY GREAT SALT LAKE TOUR

September 25th and 26th, 2004



Promontory Panorama by Dayle Record

A tour around the northern end of the Great Salt Lake and environs was held on the 25-26 September. Led by our "Wagonmaster" Kevin Landis, who drove up from Las Vegas to do the honors, the group of five vehicles left the Flying J truck stop near Willard at 9:15 AM with full gas tanks.

We took exit 366 off I-15 and traveled West on highway 83 past the 74,000 acre Bear River Migratory Bird Refuge and thru the town of Corinne, the original "gentle capital of Utah". In the 1870's, Corinne was a major railroad and freight wagon center. In 1872, a stern-wheel steamship, the City of Corinne, hauled ore from Lakepoint to Corinne, sailing 20 miles up the Bear River to the land-locked city of 2000.

A few years later, dropping water levels made the river unnavigable and the vessel was used as a passenger boat on the GSL. In recent times, the Corinne railroad station was transported to Heber City to become part of the Railroad Museum. Today, the town has few residents. The major activity seems to be onion farming.

We continued West on highway 83 to the turnoff for the Golden Spike National Historic Site (pit stop) and on thru fields of sunflowers on a dirt road for some 15 miles. Our destination was Robert Smithson's wonderful rock art masterpiece--the Spiral Jetty.

The Spiral Jetty was completed in 1970 and is now world famous. My son was visiting the Tate Museum of Modern Art in London this summer and was

surprised to find the museum showing a film on the Spiral Jetty. The Spiral Jetty may be better known internationally than it is locally. The lake water has receded well beyond the Spiral Jetty, leaving it high and dry and covered with glistening white salt crystals over which you can walk.

From the Spiral Jetty, we drove NW to Locomotive Springs Wildlife Management Area for lunch. Locomotive Springs is a series of springs and marshy ponds at the extreme Northern of the GSL. The water was only 0.2 % salinity (the ocean has a salinity of 3.5 %) and the water temperature was 15 degrees Celsius.

After lunch, we drove down the West side of the lake, stopping at the ghost town of Kelton. In the 1800's, this small town boasted of railroad facilities, hotels, saloons, and homes. The town was abandoned in 1942 when the rails were removed. Today only the cemetery remains. Dates on the gravestones reveal the harshness of life in the 1870's. Ester Seddon, born February 1844, died 2 March 1878. Baby Henry, born 1 March 1878, died 2 March 1878. Mother and baby died at childbirth.

From Kelton, we continued South toward the Hogup Mountains, stopping at a sandstone arch which we named "Wagonmaster Arch" in honor of our trip leader, Kevin Landis. We made camp high in the Hogup Mountains on a bluff overlooking the GSL. Everyone fixed individual dinners, but Dayle Record had fixed a delicious peach-cherry cobbler which she shared with all the group.





Salt Water Spring by Lynn de Freitas

On the drive in, I had noticed a lot of a noxious imported weed called Halogeton which is poisonous to grazing animals and is an indication of overgrazing. I also noticed a number of u-shaped BLM reservoirs constructed to supply water to livestock and wildlife. They were all dry.

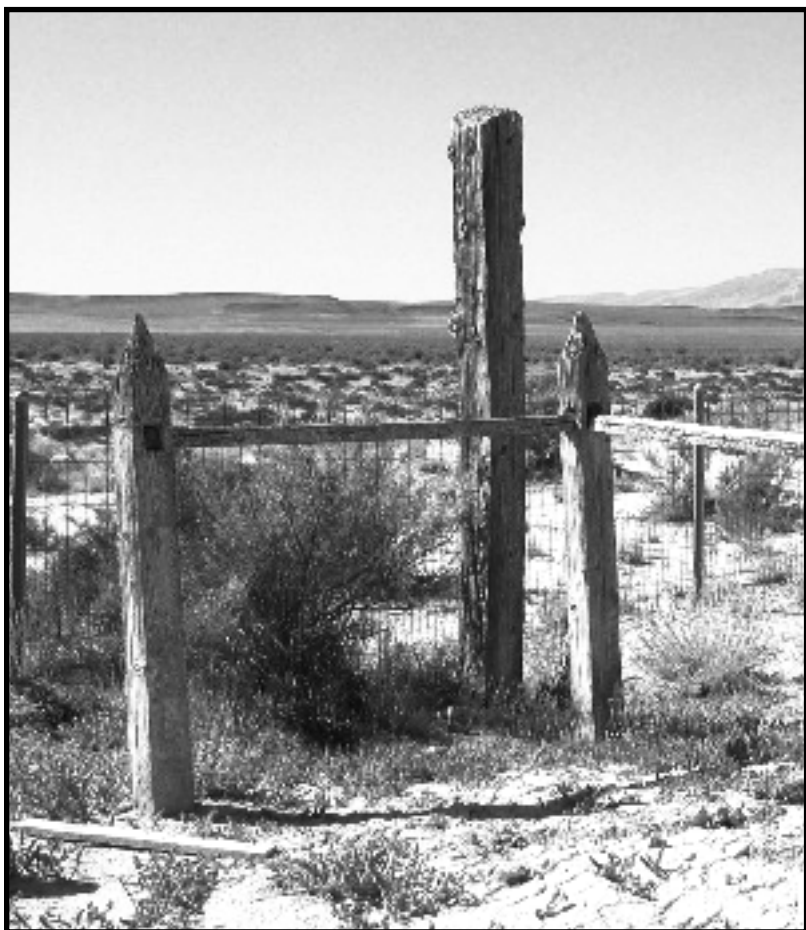
The next morning, after breakfast, we drove over a pass to the West side of the Hogups. Our destination was the archeologically famous Hogup Cave. After parking our cars on the road, we hiked about 1.5 miles to a very large cave whose mouth was probably 20 feet high. The cave was periodically occupied by native Americans from 6400 B.C. to as late as 1800 A.D. The cave was used seasonally for hunting trips and for harvesting pickleweed (*Salicornia*).

After Hogup Cave, we visited some faint petroglyphs, then drove around the South end of the Hogups to intersect with the main road North. We took a more northerly route back, eventually meeting paved highway 30, then I-84 and I-15 and home.

We covered over 400 miles from SLC and return. Nearly 200 miles of the trip were on often dusty dirt roads ranging from very good to single-lane tracks thru the vegetation. Kevin was a genius in leading the group thru a maze of dirt roads. This was a fine trip to an area of our Great Basin most people don't know exists.

Participants: Lynn and Patrick de Freitas, Dayle Record, Amanda Hicks Woodiff and sons Chris and Eric, Barry Quinn (the scribe), and Kevin Landis, our "Wagonmaster". 🐾

by Dr. Barry Quinn,
Avian biologist with GSL Ecosystem Project.



Cemetery at Kelton by Lynn de Freitas

WILDLIFE POLITICS 101:

An Overview for Concerned Citizens and Conservation Organizations



Itchy Sandhill Crane by Rosalie Winard

One can easily become depressed about conservation issues and politics these days. As I write this article, the Farm Bureau and Utah Taxpayers Association are opposing the Open Space ballot initiative, Congressman Rob Bishop is rumored to have had a respected employee of the Army Corps of Engineers relocated for upholding federal wetlands protection laws in the city of Perry, and visionary Wildlife Resources Director Kevin Conway has succumbed to terminal cancer.

Despite the challenges posed by local politics and ravages of fate, good things are happening for wildlife and habitat conservation in Utah. Off Highway Vehicle (OHV) use was recently banned in Waterfowl Management Areas (WMA). An ambitious program of wetlands and nature education is operating two days a week at Farmington Bay WMA, where teachers and students now learn about the Great Salt Lake Ecosystem on site. And the state's first comprehensive plan for protecting species at risk and their habitat is under development, in partnership with entities such as Utah

Audubon Council, The Nature Conservancy, Natural Resource Conservation Service, and the Farm Bureau.

Each of these undertakings was initiated by the Utah Division of Wildlife Resources (DWR), and the backing of citizen constituents and interested conservation organizations is generally an important success factor. Constituents and organizations can provide technical input, supplement resource needs with their own volunteers and grant money, and help secure political support from elected officials.

As Legislative Lobbyist for Utah Audubon Council, it is my job to maximize the involvement of our organization and its members in all of these ways in order to achieve the desired outcome for Utah wildlife species and habitat. Although monitoring bills and testifying at legislative hearings is part of my job, I often find that the most critical accomplishments occur through direct relationships with DWR employees, and through other input processes such as working groups, the Habitat Council, and the Wildlife Board.

Lynn de Freitas, president of FoGSL has invited me to provide her members and readers with a series of articles demystifying local political processes, and explaining how any person or organization, regardless of financial resources, can participate successfully in these processes to accomplish desired wildlife and conservation goals. This series is also being made available to other like-minded conservation groups, and will hopefully instill readers with the knowledge, skills, and motivation to participate as citizens in a democracy.

Rather than tackling legislative technicalities in this first article, I would like to submit a simple proposition to readers, one that has opened a universe of possibilities for Audubon's work in Utah. There is a critical mass of employees and managers, both in DWR and other state agencies, who want to do the right thing for wildlife, habitat, and other natural resources in our state.

These people already possess the technical training, knowledge of agency workings, understanding of project needs and priorities, and conservation ethic that form the basis for good wildlife and habitat management. Simultaneously, these people are threatened and constrained by the Four Horsemen of Wildlife Management Apocalypse: a shortfall of state budget revenues now in its fourth year, the domination of our legislative body by ultra-conservative forces, lack of public awareness about the surrounding ecosystem, and the traditional agency focus on big game and sport fish species. (No offense is intended toward hunters and anglers, but it is important to acknowledge the cultural bias of wildlife agencies throughout the country, and how that impacts agency priorities.)

Referring back to the Farmington Bay nature education program, we have an example of how citizens and agency personnel who share a goal of nature education can support one another, and overcome the impending Horsemen. The existing facilities and program have come into being largely through community support from sources such as the Davis School District, Representative Sheryl Allen (a Davis County educator herself), interested citizens who were willing to be trained as Volunteer Naturalists, and donations from local businesses who operate in or near the Great Salt Lake. FoGSL was contacted, and is exploring with DWR what opportunities exist for partnership and cooperation in education about the Lake and its ecosystem.

While the nature education program was initiated by the DWR Northern Region and supported by their staff and resources, those resources were leveraged several times over by contributions of equipment, labor, and money from the people in the adjacent community who shared the vision. Success tends to attract further support, and donors are now lining up to provide microscopes and computers. Last week, a University of Utah communications student volunteered to design a public relations program for the project as part of her graduate work. Community support has in turn attracted the support of the Davis County Commissioners, and perhaps that will evolve into legislative support in time.

While not every project will achieve the success of this example, it serves to show what can be accomplished when a state agency and its constituents share their vision and resources. Unlike traditional political lobbying, which harnesses money and power and tramples public interest, this method is open to all people and all non-profit groups, and reflects popular will. It is fueled by knowledge, trust, and relationships. In future articles, we will discuss how to build those relationships, and expand upon the workings of governmental processes. 🐾



Coyote by Jeff Lachowski



Dear Friends,

As I approach my seventh anniversary as Director of Education for FRIENDS of Great Salt Lake, I must now announce my departure from that position effective October 31, 2004.

This transition will allow the organization to enter its next phase of services to education, research and advocacy through the hiring of an Assistant Director. When filled, this new position will manage many of the tasks previously undertaken by the Director of Education, as well as expanded work in fundraising, membership, Website management and general communications.

As owner and operator of EcoTracs -- Ecology-based Teaching, Resources And Curriculum Services -- I expect to continue an important professional relationship with FRIENDS by focusing future contract work on the completion of the Project SLICE curriculum package and additional support to SLICE services in Lakeside Learning and the Teacher Training Institute. For the past few years, FRIENDS of Great Salt Lake has enjoyed a level of growth and success that increasingly caused the SLICE effort to be deferred by a variety of other pressing and immediate tasks. The hiring of a new Assistant Director is meant to reinvigorate both the SLICE project and innumerable other efforts to better meet the organization mission.

It has been a distinct honor and pleasure to serve our Lake by way of the sole organization dedicated to its health and recognition. In birder vernacular, this job has surely been a "life-lister". From the early days -- when my sole responsibility was to break new ground through the construction of a unique traveling slide program celebrating the lake and its innumerable virtues -- and onward through the expansion and sophistication of Great Salt Lake education with the advent of Project SLICE and its multiple services to formal education, I have been richly rewarded.

I thank you for the role you have played in this enrichment.

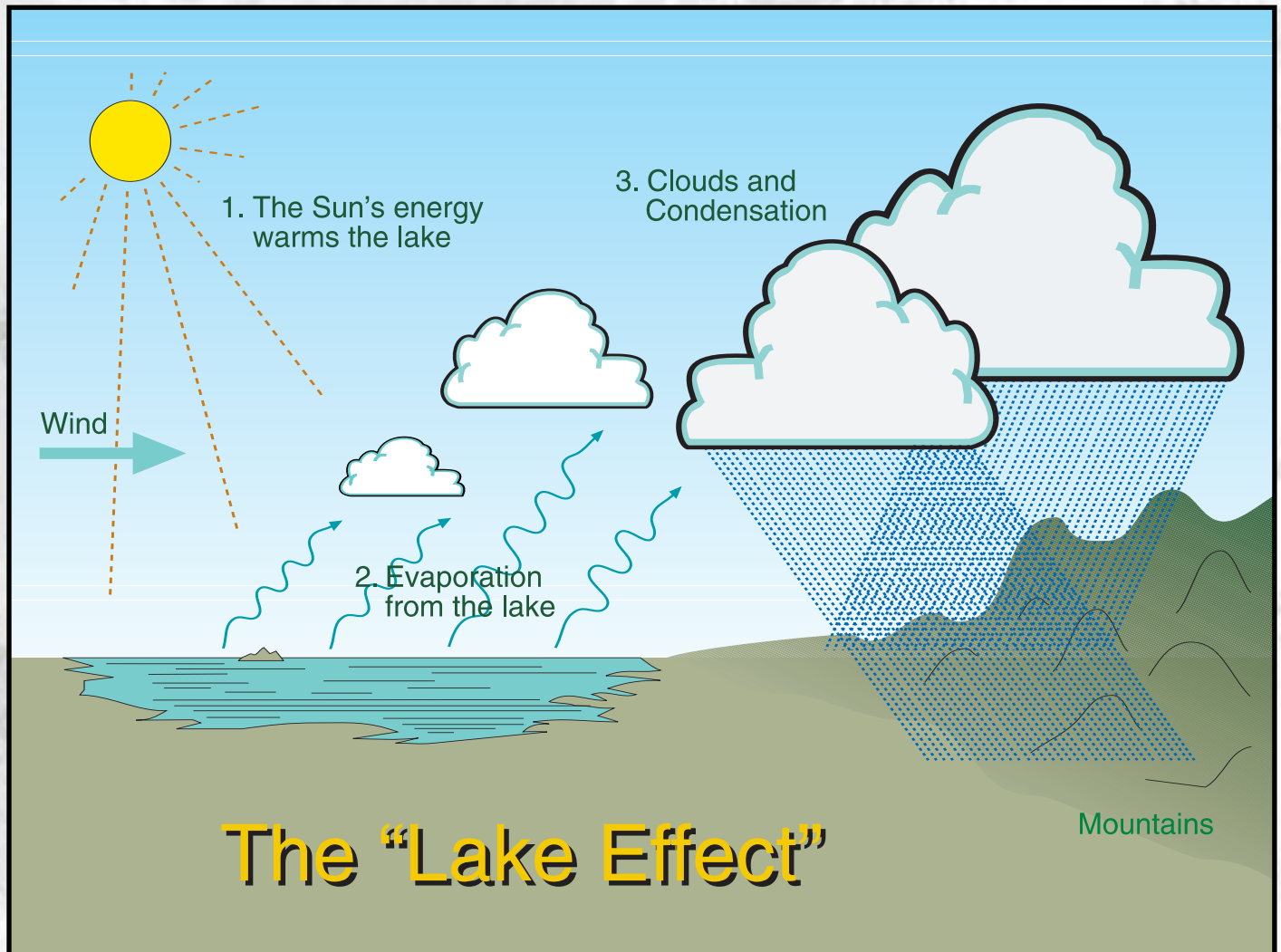
Please replace me as your contact for FoGSL education with the following information:
Leave telephone messages at 583-5593, the FRIENDS Information Line or email: mail@fogsl.org

As always, you can access information about FRIENDS events and activities at www.fogsl.org.

Warm Regards,
Bruce Thompson

A SLICE OF SLICE

THE LAKE EFFECT



The Lake Effect causes our region to get an added boost to rain and snowfall. This graphic depicts the process by which massive quantities of evaporating water are gathered by eastward-moving winds. As the clouds carry their moist air up the Wasatch mountains, they cool to a point where they can no longer hold all the moisture, causing significant amounts of precipitation as rain or snow.

Lake Fact:

How long is the railroad causeway that crosses Great Salt Lake?

See page 19 for answer.

DOYLE W. STEPHENS RESEARCH SCHOLARSHIP

A Call for Applications

The Doyle W. Stephens Research Scholarship, sponsored by the FRIENDS of Great Salt Lake (FoGSL), celebrates Doyle's scientific contributions towards understanding the Great Salt Lake Ecosystem.

This scholarship provides support to undergraduate and graduate students engaged in new or on-going research that focuses on the Great Salt Lake and its surrounding ecosystems. The scholarship award may be used to support any aspect of research including field, laboratory or literature research, attendance at professional meetings, or other activities that further the understanding or protection of the Great Salt Lake Ecosystem. Research located anywhere in the Great Salt Lake watershed can qualify for this award.

Qualifications:

Applicants must be undergraduate or graduate students currently enrolled in an accredited college or university. Specific application details are available at <http://www.fogsl.org/research/doylestephens.html>.

Selection of Award Recipients:

For the year 2005 one award of \$500.00 will be given. Applications will be judged on the following criteria: 1) Probability of successful completion of the proposed research (based on transcripts, letter of support, and feasibility of project), and 2) Potential contribution of the proposed research to the protection, preservation or understanding of Great Salt Lake Ecosystem.

Scholarship Recipient Requirements:

We request that the recipient present their research findings to the FoGSL membership. This can occur as a presentation at a general membership meeting and/or as an article in our quarterly newsletter. Additionally, we encourage recipients to participate in our biennial Issues Forum, which will be held in April 2006.

Application Deadline:

March 11, 2005 - AWARD RECIPIENT WILL BE ANNOUNCED IN APRIL 2005.

Send Applications to:

FoGSL P.O. Box 2655, Salt Lake City, Utah 84110-2655 attn: Scholarship
or emailed to amym@cc.usu.edu

For Applications and More Information:

Visit www.fogsl.org or contact the following:
Amy Marcarelli at amym@cc.usu.edu or 435.797.2517
or the FRIENDS of Great Salt Lake information line at 801.583.5593



E•phy'•dra, a noun; a genus of two species of brine flies that live on the bottom of the Great Salt Lake as larvae and pupae, and along the shores of the Lake as adults.

Brought to you by the Science Committee to help explain the science surrounding Great Salt Lake.
We welcome your questions via email or phone. Contact Amy Marcarelli at amym@cc.usu.edu

The Water Boatmen of the Great Salt Lake

One of the more interesting animals living in the Great Salt Lake are water boatmen *Trichocorixa verticalis*, more commonly referred to as "corixids". These insects inhabit saline and hypersaline waters in coastal areas and saline lakes. In the Great Salt Lake they live at salinities up to 9%, which usually limits them to shallow, less saline areas like Farmington Bay. However, during the high-water years of 1984 and 1985 when salinities decreased they were abundant in Gilbert Bay (Wurtsbaugh 1990).

Corixid eggs hatch in the spring, and the insects grow through five distinct instars or juvenile stages, finally metamorphosing into 5-mm (3/16 ") long adults. After mating, the females deposit eggs on solid substrates. At least two cycles are possible each year. The adults have wings and can fly to new habitats, perhaps explaining how corixids can be found far from shore in the open lake. They are air-breathing organisms that come to the surface to grab an air bubble, and then dive in search of prey.

Corixids are one of the few predators in the Great Salt Lake. They can attack and kill adult shrimp twice as large as they are and they also feed on gnat larvae. Mellison (2000) found that corixids can eat up to 80 nauplii or 4 adult brine shrimp per day, but recent experiments indicate that they prefer intermediate-sized shrimp. When corixids are abundant, they may decrease brine shrimp abundance. Low brine shrimp abundance in Farmington and Gilbert Bays has been correlated with high corixid densities (Wurtsbaugh 1992; Wurtsbaugh & Marcarelli 2004). However, very few studies have been conducted on corixids, so more work is needed to understand how important these insects are in the Great Salt Lake ecosystem. 🦋

Mellison, S.C. 2000.

Functional response of a waterboatman (*Trichocorixa verticalis*) and environmental conditions that affect its distribution in the GSL, Utah, USA. M.S. Thesis, Utah State University.

Wurtsbaugh, W.A. 1992.

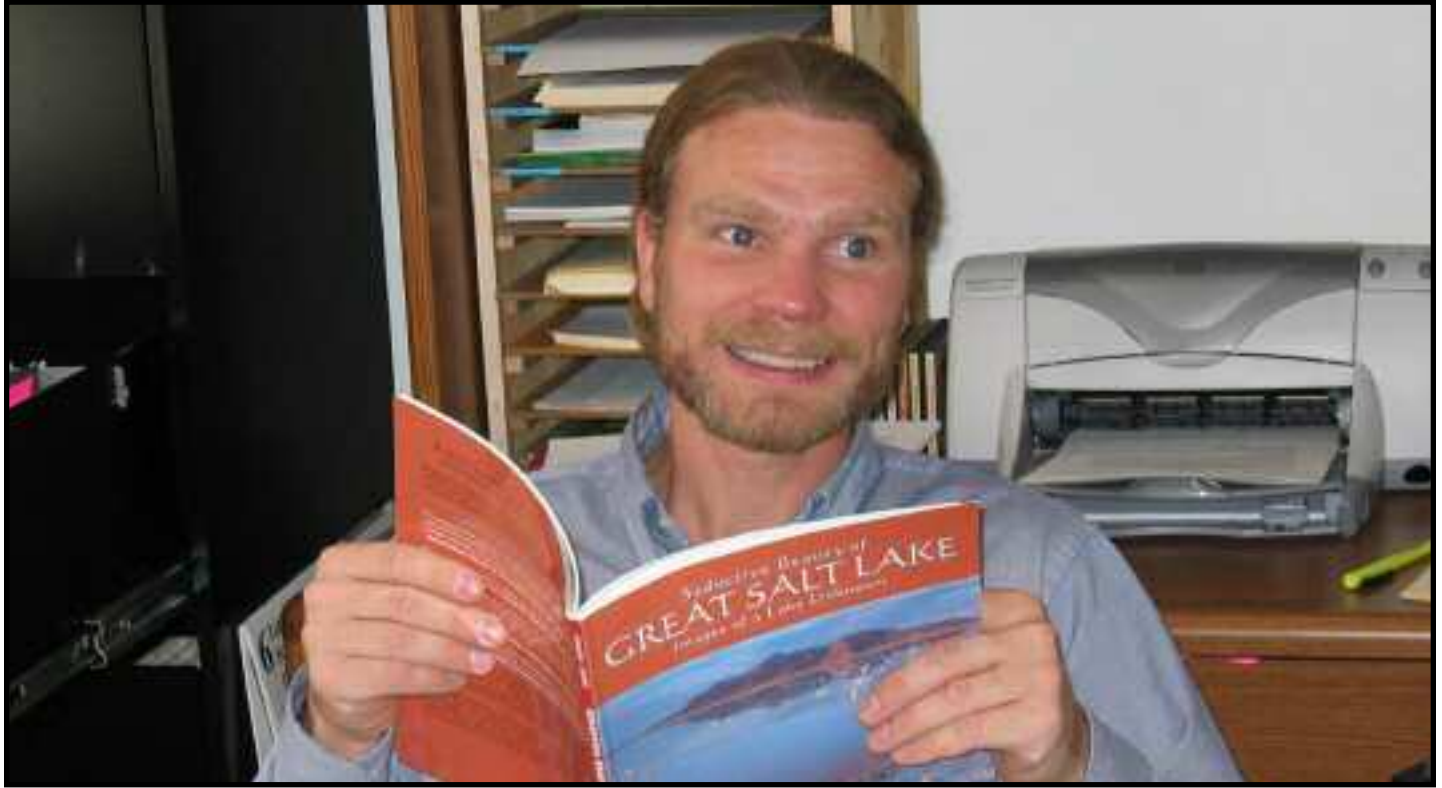
Food-web modification by an invertebrate predator in the Great Salt Lake (USA).

Oecologia 89:168-175. Wurtsbaugh, W.A. and A. M. Marcarelli. 2004.

Phytoplankton and zooplankton in Farmington Bay and the Great Salt Lake, Utah. Report to the Central Davis Sewer Improvement District, Kaysville, Utah. 57 p.



The Corixid Who Ate Salt Lake City by Wayne Wurtsbaugh



Joel Peterson at Work by Lynn de Freitas

I stood on the pier watching phalaropes twirl in the rippling water just as I had many times before. A sailboat in the distance flying the Great Salt Yacht Club burgee added to the familiarity of the scene. But that was nearly all which was familiar as I looked around the bay and the buildings of Port Townsend, Washington. My friends, whom I hadn't seen in nearly eight years, had just arrived, ending their world sailing tour—with GSLYC burgee and all. They began with some of their first sailing experiences on the Great Salt Lake. The familiarity of the phalaropes and my friends brings me back.

I look back over this last decade of growth and change. FRIENDS of Great Salt Lake celebrates their tenth year. Beginning among groups of various lake interests and concerns in the community about the Great Salt Lake, Friends provided the first ongoing forum for discussion and sharing ideas, providing scientific information, and advocacy for the lake in conditions of neglect. Now with the strength of a decade with them, the vitality of Friends has created even more opportunities to educate the public, provide scholarship support for lake research and voice science-based advocacy for a sustainable and functioning lake ecosystem. And also, not to forget, providing exceptional opportunities to simply enjoy the unparalleled beauty and fascination of this unique place.

Recently, scientists concluded that there is no longer any place on Earth that is not in some way impacted by humans. Ironically, as communities grow and develop, we increasingly realize that there were benefits from healthy ecosystems; and the buffering capacities of our now-failing or now-lost natural systems are becoming overwhelmed at great expense to us.

Perhaps this is the basis for examining the next decade. The watershed of the Great Salt Lake is a patchwork quilt of large working landscapes. It contains the most populated city in the area as well as some of the most remote places in Utah. How will we discuss broad issues and find unifying threads among this patchwork of land use, resource use and divergent interests?

Talking about ecosystem-level conservation and the sustainability of these ecosystems will be a tough, exhilarating discussion. The discussion may begin with an ethical approach: "It has intrinsic value and is worth our efforts to protect it", or an economic approach: "will returns on our investment cover our costs", or both approaches together may be appropriate. From a philosophical center of environmental ethics or coming from a political/economic center, there will be common ground to find.

Stop for a moment and think about your family's future generations. How far into the future did you think? Two generations? Seven generations? How do we hold anyone to the task of sustainable development when the expediency of personal and political decisions is not in line with long-term thinking?

What does sustainability mean to us? Economic returns to cover costs? What are some of the most pressing global issues? Land use patterns, water use, water pollution, allocation of food, air quality... Are they influenced locally?

How do we measure impacts? How do we know if we're successful? The number of birds at the lake? What the birds are eating? What the things the birds are eating are eating (and so on). Perhaps monitoring the underpinnings of an ecosystem can give a glimpse of how the whole system is functioning.

Though it begins to look as if all is connected and we're hopelessly bogged down in the detail of assessing impacts everywhere, on everything, and for every issue that comes near the lake, there are some logical separations in the natural world to bring our thinking down to manageable levels and ways that conservation groups can maintain their focus.

The issues are complex as we examine the interconnections of man and nature, information is more readily available now than ever before and I think people in general have reached a higher sophistication in understanding conservation issues. I believe that an effective conservation group explores these connections between related things, becomes a trusted educator and moderator between many interests, and helps people understand and explore the questions in order to make informed decisions.

Let's take an example from the headlines of our newspapers: "Landfill Proposed for Promontory Point". Without losing our focus and purpose, we have an opportunity to look at where the project is proposed, quantify impacts to natural resources, and examine the political and economic structure of the project. But we can also ask where the garbage is coming from, how we all play a part in generating that garbage, and examine how we as individuals, and collectively as a community, play a role in finding alternative solutions which are more sustainable.

I believe we can broaden the discussion to include our personal experience and to explore the connections between individual and global.

The maritime history of the Northwest is long and exciting and even includes a connection to the Great Salt Lake! Wooden workboats were moved by rail from California and the Northwest to Utah to assist with the construction of the original trestle that made the Lucin Cutoff across the lake. Of course, other wooden boats were constructed at the Great Salt Lake, beginning with a yawl for Stansbury's 1849-50 survey and later with Brigham Young's Timely Gull, launched in 1854. 🦋

Joel Peterson, a co-founder of FRIENDS of Great Salt Lake, currently resides in Port Townsend, WA and is enjoying the vibrant conservation community while attending the Northwest School of Wooden Boatbuilding.



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receipt of e-mail or with any questions, suggestions, comments, or ideas.

Deadlines: Sept. 16 (Fall), Dec. 16 (Winter), Mar. 16 (Spring),
and June 16 (Summer).



Your FRIENDS Need You

The strength of FRIENDS comes from its members. All of you, with your individual contributions to Great Salt Lake awareness, help provide this organization with the momentum it needs to carry on its work for the lake. We all know about the tremendous challenges and opportunities for Great Salt Lake. Knowing those challenges and opportunities, FRIENDS' board of directors works hard to identify the best ways to respond to them. Some of our critical activities:

- The Transit First campaign against the Legacy highway
- Commenting on the Great Salt Lake Comprehensive Management Plan
- Educating the public at large about the importance of our big, salty neighbor
- Participating in public hearings and on committees that address development around the lake,

But without the support and participation of the membership, the work of the board is limited. General meetings, field trips, and volunteering are all ways that you can help build public recognition of FRIENDS and its mission. Through these means, you also become more knowledgeable about the lake, its science, its history, and our relationship to it.

One of the goals that the board continues to identify at its annual retreat is building membership. How can we develop a robust and active membership ? We need to develop a critical mass of lake advocates, true friends of Great Salt Lake.

So, we're asking you, our members, to keep active through participation and by keeping your membership current. Check your mailing label for your membership renewal due date. Renew promptly if you have expired. If you have questions about your membership, please call Lynn at 801-583-5593.

And do what you can to help recruit new members to strengthen our voice for Great Salt Lake protection and preservation. Pass on your newsletter to a friend or neighbor. Spread the news about who we are and how we are working for Great Salt Lake.

Big Thanks!

PS. Does this sound like your mother?

Lake Fact Answer:

22 miles.

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