

MONO LAKE

N E W S L E T T E R

Spring 2006

As we put the finishing touches on this issue of the *Mono Lake Newsletter*, it's raining outside. The rain is not that unusual in and of itself, however, the sounds this particular rainstorm is creating, are. If I stop clicking and typing long enough to listen it sounds like someone is playing Peruvian pipes. These are springtime sounds—water hitting things other than snow. For February, it's unusual. For some reason it makes all of us in the office a bit punchy. "That one sounds like the heater vent" says Geoff as he points to the door. I think I can hear individual drops bouncing between the thin layers of our patched tin roof. "Make sure that water gets to Mono Lake" Lisa jokes as she dodges tree-watering buckets capturing drips in the hallway.

It has been wet this year, and it feels like we should be getting this precipitation in the form of snow, but we can't really complain. Earlier this year we had another rain-related phenomenon. This one was in the form of a frozen mile-long lagoon behind a berm adjacent to the south shore. It was the talk of the town—"You can ice skate right next to Mono Lake!" And sure enough, a quick ski down to the water's edge after work one day was rewarded with Olympic-grade ice, and Mono Basin-grade scenery. With ice below, saline water lapping just an arms-length away, and the expanse of the Mono Basin spreading out in all directions, it was probably the closest I'll ever get to ice skating on Mono Lake. It was spectacular—and only increasingly so with the ensuing sunset—leaving me like a skipping record repeating a single, totally inadequate word, "Wow."

Back here in the office with its own rainstorm soundtrack, I can only hope that something in this issue of the *Mono Lake Newsletter* makes you think, "wow." I'm continually amazed that we can fill these pages with so much good information about this one place, and love the fact that I learn new things every time we compile a new issue. This one is no exception, enjoy!

—Arya Degenhardt, Communications Director



Fresh water turned to ice behind a berm along the south shore of Mono Lake.

Mono Lake Committee Mission

The Mono Lake Committee is a non-profit citizens' group dedicated to protecting and restoring the Mono Basin ecosystem, educating the public about Mono Lake and the impacts on the environment of excessive water use, and promoting cooperative solutions that protect Mono Lake and meet real water needs without transferring environmental problems to other areas.



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MONO LAKE
NEWSLETTER

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Environmental Protection Agency plans to strip federal air quality protection from Mono Lake

by Geoffrey McQuilkin

In the last days of December, the Environmental Protection Agency (EPA) quietly proposed a new set of Clean Air Act regulations that quite literally leave Mono Lake in the dust.

The newly proposed regulations will abandon existing clean air standards that govern the toxic dust storms caused by past water diversions—and they'll do it twice! First, the EPA is proposing to eliminate regulation of windblown dust—just the kind that comes off the exposed bed of Mono Lake. Second, the EPA is also proposing to abandon the relevant “PM₁₀ particulate” regulations in rural areas across the country, including the Mono Basin.

Toxic dust storms have been a health hazard at Mono Lake ever since excessive water diversions from Mono Lake's tributary streams caused the lake level to decline, exposing thousands of acres of dry, dusty lakebed. In fact, the exposed lakebed is one of the largest single sources of particulate matter air pollution in the United States. Dust storms from the alkali-encrusted bed of Mono Lake are full of small particles that lodge in the lungs and they can also contain arsenic and other toxins. Mono's dust storms have been measured to contain particle concentrations of up to 10,500 µg/m³, vastly exceeding the current standard of 150 µg/m³.

There are serious concerns beyond public health as well. The new regulations would weaken the underpinnings of the State Water Board decision that protects Mono Lake. One of the major reasons the lake is on the road to health is that the Water Board determined that the best way to get the dust storms under control was to put the major dust emitting sections of the lakebed back under water. This is strong support for the requirement that the Los Angeles Department of Water and Power limit its water diversions. Without federal air pollution standards, could Mono Lake be vulnerable to excessive water diversions again? Let's not find out!

The EPA, usually respected as a public health agency, appears to be playing a game of politics. In fact, the EPA's

very own Clean Air Scientific Advisory Committee has publicly stated its opposition to the EPA's proposed new rules!

Officials at the Great Basin Unified Air Pollution Control District, which oversees Mono Lake dust pollution, see the

new regulations as extremely problematic. In addition to the health threats, they note that retaining standards in urban areas while abandoning them in rural areas is a “14th Amendment ‘equal protection’ and environmental justice issue.”

The Mono Lake Committee is also concerned about the Mono Basin's tourism-based economy. If clean air goals are abandoned and dust storms rage unabated, tourism is sure to decline.

The Committee is calling for the EPA to make two critical changes to the proposed regulations:

1. The EPA must apply the PM_{10-2.5} standard to the Mono Lake area, the Owens Valley, and the entire country, not

just urban areas.

2. The EPA must use the PM_{10-2.5} standard to regulate windblown dust, in particular the dust originating from the exposed bed of Mono Lake; creating a loophole is not appropriate for pollution of this magnitude.

Other groups are concerned about the EPA's proposed rule changes, too, but Mono Lake supporters need to speak up for Mono Lake specifically. The Committee will be mailing an Action Alert with further details to all members. Details are also available at www.monolake.org. ❖

**If the EPA gets its way,
these air quality monitors will
just gather dust.**



**Speak up for Mono Lake
before April 17!**

GEORGE MCQUILKIN

How you can help!

You can submit comments on the EPA's plan to change the air quality rules up until April 17. Watch your mailbox for an Action Alert from the Committee with more details and a sample comment letter to sign or to reference when writing your own.

You can also visit our website www.monolake.org or call (760) 647-6595 for more detailed information.



BARTSIE MILLER

12 Years and counting: Mono Basin restoration progress report

by Lisa Cutting

It has been twelve years since the California State Water Resources Control Board's precedent setting Decision 1631 (D1631), which limits Mono Lake water diversions by the Los Angeles Department of Water and Power (DWP). Included in the State Water Board's renowned decision was a mandate for DWP to develop and implement restoration plans in order to repair over 50 years of damage caused by excessive water diversions.

The restoration plans were formally adopted in 1998 when the Water Board issued Orders 98-05 and 98-07. These two orders identified specific physical actions and monitoring required of DWP to fulfill its restoration obligation in the Mono Basin. While some interim restoration activities had already taken place prior to D1631 and Orders 98-05 and 98-07, the majority of the restoration work began in 1998.

What is restoration?

The scientists who developed the Mono Basin restoration plans relied upon the dictionary definition of the word restore: to bring back into existence or use; to bring back to an original state. Restoration activities approved by the State Water Board in 1998 focus on re-establishing natural processes and historic conditions, rather than specific former landscapes. Because several important former land features are irrecoverable and some processes need a helping hand, the Water Board also ordered certain activities, such as planting trees, opening formerly plugged stream channels, and instituting an interagency prescribed burn program in lake-fringing areas.

The goal of the restoration plans is to reestablish the habitat conditions and ecological processes that will enable the lake and the streams to essentially restore themselves over time. Even though the primary emphasis is on restoring natural processes to the greatest extent possible, it should be noted that some damaged areas will never be fully restored.

Prediversion conditions

Before the turn of the century, all water in the Mono Basin watershed flowed into Mono Lake. Millions of migratory waterbirds depended on the lake's unique ecosystem, teeming with brine shrimp and alkali flies, and on its associated mix of habitat types, including islands, protected lagoons and lake-fringing springs and wetlands. The inlet mouths of the streams, where the fresh water mixed with the lake's briny water, provided particularly productive environments where birds could rest, bathe, and feed.

Upslope of the lake, Mono's tributary streams descend from the Sierra Crest through the arid Great Basin landscape, supporting lush bottomlands in the stream floodplain. These "wooded wetlands" featured multistoried cottonwood forests, deep meandering multiple stream channels, backwater ponds, and wet meadows.

Damage caused by excessive water diversions

In 1941, DWP began diverting four of Mono Lake's five tributary streams for urban water use for the city of Los

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Angeles. By 1990, Mono Lake had dropped 45 vertical feet, doubled in salinity, and lost a number of freshwater habitats, such as delta marshes and brackish lagoons that formerly provided habitat for millions of waterbirds. Tributary streams dried up and lost stabilizing streamside vegetation. Periodic floods in high runoff years degraded the stream channels and caused downcutting and channel abandonment, which lowered the water table. In turn the lush cottonwood forests in the stream's floodplain died. The Mono Basin lost a premier fishery on Rush Creek as well as over 90 percent of its former populations of ducks and geese.

Water Board decision

In 1994—after a lengthy series of court battles and public outcry—the California State Water Resources Control Board issued Decision 1631, which set a target lake level for Mono Lake, established minimum flows and annual peak flows that DWP must deliver to the creeks, and ordered DWP to develop restoration plans for the streams and waterfowl habitat. The restoration plans were formally adopted in 1998 and set a course that DWP would follow in working to undo some of the damage caused by excessive diversions.

Hydrologic models developed at the time of the decision predicted that the lake could reach its target level established by the State Water Board by 2014. Because water will continue to be diverted to Los Angeles, the Mono Basin will not ever be completely restored to its original state. Mono Lake will still be 25 feet lower than its prediversion level, the streams will carry less flow than they once did, and former cottonwood-willow riparian forests will still be maturing. Climate variability, including locally documented climate change, could increase the amount of time it will take to reach the target lake level.

Mono Lake restoration

D1631 set the rules for restoring Mono Lake to a healthy level. The target lake level set by the State Water Board is 6391 feet above sea level. This target represents a level at which Mono Lake's ecosystem—alkali fly, brine shrimp, and California Gull populations—will be stable and at which shallow flooding will significantly reduce the toxic dust storms on the eastern shore of the lake. Future wet and dry years will cause the lake to fluctuate around the target level.

Stream restoration

The stream restoration plan focuses primarily on restoring habitat by maintaining flows that mimic the pattern of former natural flows—but not the magnitude or duration of former flows, since some water is still being diverted to Los Angeles. A key component of the hydrograph, the record of flow in the stream over time, is the specified peak flows—called stream restoration flows. In the spring and early summer runoff season stream restoration flows help create habitat through erosion and deposition.

Other stream related restoration activities include:

- Reopening certain side channels in stream floodplains

in order to distribute water to raise groundwater levels and allow riparian vegetation to spread out and become self sustaining.

- Rehabilitating the Rush Creek Return Ditch, which allows for restoration flows to be conveyed to Rush Creek.
- Prohibiting livestock grazing within the riparian corridor on DWP land to allow vegetation to reestablish along the creeks.
- Restoring riparian vegetation to pre-diversion acreage amounts, which will ensure that habitat complexity is established and self-sustaining.
- Evaluating and implementing ways to pass sediment down the creeks below the diversion structures will provide fine gravels for fish habitat and seed beds for new vegetation.
- Limiting vehicle access in sensitive areas near the streams allows vegetation to spread out from the creek edges.
- Removing invasive tamarisk along lower Rush Creek. Tamarisk is an introduced, invasive plant that out-competes native species.
- Placing large, woody debris in the creeks, which helps create habitat complexity in the creeks by creating cover for fish and providing habitat for invertebrates.

Waterfowl habitat restoration

The single most important action identified for restoring waterfowl habitat was to raise the level of Mono Lake, in order to recreate shoreline habitat. The Water Board also ordered DWP to implement a controlled burn program with the goal of reestablishing open water areas at springs around the shores of Mono Lake that have been identified as essential waterfowl habitat. It should be noted that in 2003 the State Water Board decided to suspend the required waterfowl habitat

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The Rush Creek return ditch transports water from Grant Reservoir to Rush Creek.

prescribed burn program until the lake reaches its management level at which time the burn program will be reevaluated.

What restoration activities have been completed?

Some of the activities, especially monitoring, are ongoing. Others have been completed, and others are yet to be done. The following requirements are examples of restoration activities that DWP has completed:

- The Rush Creek Return Ditch was rehabilitated in 2002, tested in 2004, and can now operate at its full capacity—380 cubic feet per second (cfs). This allows for dry and normal year stream restoration flows to be reliably conveyed to Rush Creek. Wetter year stream restoration flows require augmentation from Lee Vining Creek or spills over Grant Lake Reservoir.
- DWP has physically reopened side channels on Rush Creek. Other side channels remain on the list and scientists are currently evaluating potential benefits against any impacts associated with the mechanical intrusion required to open a channel.
- DWP improved the Lee Vining Creek diversion dam in 2004 with a sediment bypass facility that helps insure the appropriate flows are delivered downstream. Walker and Parker Creek sediment bypass evaluation is ongoing.
- Large, woody debris has been placed in the creeks in order to provide habitat complexity.
- Dirt roads that previously existed in stream floodplains have been closed to vehicle access.



The upgraded Lee Vining Creek sediment bypass facility no longer blocks sediment needed for fish habitat and new vegetation, but allows it to pass downstream.

Ongoing monitoring

DWP conducts annual monitoring of restoration progress in order to chart its course to successfully fulfilling its requirements under the Water Board orders for restoration. Every year a comprehensive compliance report summarizing restoration activities and detailing the scientific monitoring results is produced by DWP and submitted to the State Water Board and other interested parties. The monitoring includes actions such as:

- Lake level measurements

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The role of adaptive management in restoration

Adaptive management is an approach used to address uncertainties by viewing management actions as experiments derived from hypothesis, conducting extensive monitoring, evaluating the results, and then determining if the management and underlying assumptions need to be changed accordingly.

Stream restoration flows (SRFs)—high flows due to snow melt in the spring—are a good example of how adaptive management works on the ground. The magnitude, duration, and frequency of the SRFs and the physical actions specified by the Water Board orders were based upon educated “guesses” by stream scientists of what was needed for restoration. Because of the uncertainty associated with some of the restoration recommendations, especially the SRFs in wetter years and the ability of DWP to reliably deliver them, the Water Board approved the adaptive management process that the parties developed through the legal settlement.

The Water Board specifically ordered the “stream monitoring shall evaluate and make recommendations, based upon the results of the monitoring program, regarding the magnitude, duration, and frequency of the SRFs necessary for the restoration of Rush Creek; and the need for a Grant Lake bypass to reliably achieve the flows needed for restoration of Rush Creek.”

Presently, Grant Lake does not have an outlet for reliably delivering the recommended SRFs in the wetter years. However the Committee has agreed to a test period of monitoring the streams and evaluating alternative approaches to delivering the SRFs to Rush Creek, including augmenting Rush Creek peak flows with Lee Vining Creek diversions. The final SRFs have not been determined and will require the scientists to collect additional data before making a final recommendation. This recommendation will ultimately influence whether or not a Grant Lake Reservoir outlet is needed.

- Vegetation studies at key sites around the lake
- Aerial photography of the streams and lakeshore
- Geomorphic monitoring of stream channels
- Vegetation mapping of entire stream corridors
- Fish population studies
- Waterfowl surveys

What still needs to be done?

Decision 1631 and the restoration orders lay out a specific road map for DWP and the scientists to follow in order to satisfy the various restoration requirements. Although the orders are quite clear in some areas (minimum stream flows, peak flow amounts, etc.) some areas aren't as clear, especially when the process of adaptive management (see box on page 6) is being followed.

In 2004, ten years after the State Water Board decision, Committee staff and consultants began compiling a restoration matrix in order to track all the restoration requirements and to establish the status of each one as either complete, incomplete, in progress, or deferred. In the summer of 2005, the Mono Lake Committee and DWP representatives spent two full days in the field verifying how we had categorized each item. The group looked at matrix items such as revegetation of specified locations, opening of stream channels, and closing of roads in the stream floodplains.

Both the Committee and DWP have been refining this document and the status report is nearing completion. Once completed, it will be submitted to the State Water Board in order to show the restoration progress that has been made, the activities that still need to be completed, and to alert the Water Board to potential disagreements that may need intervention. This report will serve as a valuable tool in guiding restoration activities this coming year and in future years.

When is restoration “done”?

In some ways, the Mono Basin restoration as envisioned by the Water Board and scientists will not be “done” in our lifetimes. At the time of the decision, it was estimated that it would take 20 or more years for Mono Lake to rise to its target level of 6391 feet. The streams will take even longer to fully recuperate. While riparian vegetation is coming back along the formerly dry channels, the cottonwood seedlings along the stream banks will take 50 years to mature. Rebuilding the floodplain and stabilizing channels will take decades.

Although restoration will take a long time, DWP's obligations under the Water Board order may be satisfied much sooner. The restoration orders specify certain “termination criteria” which are essentially stated endpoints that the stream restoration actions are focused on achieving. Once these requirements are fulfilled to the Water Board's satisfaction DWP will be relieved of its detailed monitoring obligations.

How is the Committee involved?

The Committee and its dedicated consultants continue to work closely with DWP in the ongoing restoration process.

The Committee is the “watchdog” for restoration, using its presence in the Mono Basin to stay on top of what is happening and to provide input and feedback to DWP and the stream scientists.

For example, Mono Lake Committee staff and consultants attend bi-annual restoration meetings that DWP convenes to report on their restoration and monitoring activities and to describe their plans for the upcoming year. These meetings include representatives from DWP, the State Water Board, and other interested parties that were involved with the original court proceedings.

After these meetings, the work is far from over. The Committee cross-checks data and decisions every step of the way, ensuring that DWP's information is correct and more importantly, that actions adhere to the State Water Board order. Routine examples of the Committee's work in this area include tasks such as analyzing stream hydrographs; determining when the “peak” will occur—another critical timing element dependent on temperatures and available snow pack; and monitoring daily aqueduct reports to make sure the creeks are receiving the minimum flow of water required.



Committee staff record piezometer readings, measuring groundwater levels at key points around the Basin.

Because the parties are operating under an adaptive management strategy, there are often times when the scientists want to gather additional data or test hypotheses and this may require deviation from the order and therefore approval from the State Water Board. The Committee works with the scientists to achieve an understanding of their goals and associated rationale for the exception. The Committee makes every attempt to approach these requests in a balanced way—often times straddling the line between the quest for additional information and still conforming to the intent of the order.

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How is the working relationship with DWP?

The Committee and the DWP mutually agreed to accept the Water Board decision as the resolution of the decades-long water diversion controversy, and both have oriented on good-faith implementation of that decision. A good relationship has been established while pursuing these restoration objectives because we are working within a well-defined process that allows for discussion, dispute, and resolution of debates. While there certainly are disagreements, there is also commitment from both sides to work together and to resolve issues internally whenever possible. As a last resort, if resolution between the Committee and DWP is not possible, either party has the ability to request a ruling from the State Water Board.

It is clear that the Mono Lake Committee's ongoing and permanent presence has continued to improve the protection and restoration of Mono Lake and its tributary streams. As a result of these efforts, Mono Lake is now a recognized icon of how it is possible to find win-win solutions to save a special place. Today, Mono Lake and its streams are in the process of healing, showing how it is possible to restore an entire watershed that had been significantly degraded. ❖

Lisa Cutting is the Committee's Eastern Sierra Policy Director. With spring in the air, she's ready to hang up her skis and get out her fly rod.

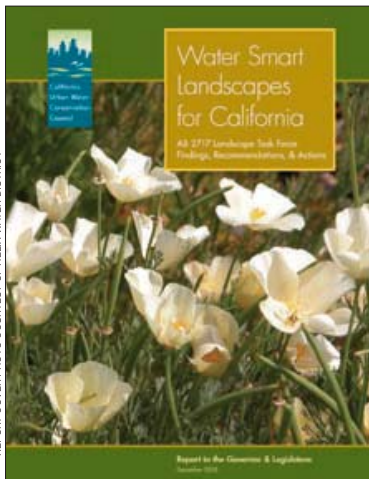
Meeting with DWP Commissioners

On January 31, the new DWP commissioners hosted a workshop on Eastern Sierra issues at their regular meeting. Mono Lake Committee staff presented an overview and status report on Mono Lake restoration and the Committee's youth education program.

The restoration status report included a review of the history of the Mono Lake water diversion controversy and outlined the solutions now being implemented. Committee staff discussed the status of DWP's Mono Lake obligations, including stream restoration, lake restoration, and aqueduct facilities management. Discussion with the commissioners provided the opportunity to underscore the win-win solutions that have been found at Mono Lake, where the water needed to protect Mono Lake has been replaced through conservation and reclamation in Los Angeles. For more information on the DWP commissioners meeting see page 9.

The Committee is looking forward to working with the new DWP commissioners to assure that Mono Lake restoration continues to be successful and to pursue new initiatives that benefit the Eastern Sierra.

Water-smart landscapes for California



The Task Force's recommendations to the Governor and legislature for water-conserving landscapes in California.

What is one of the most cost-effective ways every Californian can help protect Mono Lake and other natural areas that must share water with agricultural and urban areas now and in the future? Turn home gardens and city and business landscapes into beautiful "water-smart" places without high water demands.

The Landscape Task Force was charged by the legislature to evaluate and recommend proposals for improving the efficiency of water use in new and existing urban landscapes in California. The Task Force, lead by Ron Munds, City of San Luis Obispo, and vice-chaired by David Zoldoske, President of the Irrigation Association and Frances Spivy-Weber, Mono Lake Committee Executive Director for Policy, published its recommendations

in December 2005. When these recommendations are implemented, Californians will save 600,000 to 1 million acre-feet of water per year—enough to meet the needs of up to two million households for a year without further damaging ecosystems through water diversions.

The top five recommendations are:

1. Adopt water conserving rate structures. Water consumers should get a price signal when they are using too much water.
2. Reduce the state's recommended landscape water budget and review the budget every ten years. New technology and new research will make gardening more water efficient.
3. Enforce and monitor compliance with local ordinances. Are you familiar with your community's rules?
4. Require dedicated landscape meters. It is hard to know how much water you are using on the landscape if you have a meter than combines indoor and outdoor use.
5. Promote the use of recycled water in urban landscapes. Recycled water is a drought-proof, reliable source of water and it saves potable water for human consumption.

For more the full recommendations, go to www.cuwcc.org or contact Fran (frances@monolake.org) at (310) 416-0041.

Los Angeles' exciting new leadership

by Frances Spivy-Weber

Los Angeles Mayor Antonio Villaraigosa took office on July 1, 2005, and soon after, citizens who are concerned about a host of environmental issues saw highly qualified, bright appointees going into positions of power and influence. The Mayor did not simply appoint "yes" people. His message: the City of Los Angeles can be the greenest city in the nation *and* be prosperous for its citizens.

Here is a sampling of the City's new leadership involved in water issues:

Los Angeles Department of Water and Power (DWP): Mary Nichols, Director of the UCLA Institute of the Environment and former State Resources Secretary during the Davis administration, heads the Board of Water and Power Commissioners, the volunteer commission that oversees budgets and policies for DWP. She is flanked by four extremely strong leaders, who bring important experience and talents to the Commission:

David Nahai, attorney and three-term member of the Los Angeles Regional Water Quality Control Board; Nick Patsaouras, businessman, serving as the fiscal hawk over DWP's expenditures; Edith Ramirez, attorney and leader in East and Northeast Los Angeles; and Forescee Hogan-Rowles, specializing in community development.

Mayor's Office: Nancy Sutley is the Deputy Mayor for Air and Water and one of four new City of Los Angeles appointees to the Metropolitan Water District of Southern California. She was on the State Water Resources Control Board until last spring and she has also worked for the California Environmental Protection Agency and the US Environmental Protection Agency. She is ably helped by Kecia Washington and Romel Pascual, Associate Directors for Energy and Environment, respectively, each with a long history in environmental protection and environmental justice.

Los Angeles Board of Public Works: Paula Daniels is one of five full-time Commissioners on a Board that is instrumental in setting policies and approving budgets for recycled water and Clean Water Act watershed protections. Daniels also serves on the San Francisco Bay-Sacramento/San Joaquin Delta (Bay-Delta Program) Authority and on Heal the Bay's Board of Directors.

City of Los Angeles City Council: Eric Garcetti, a strong voice for the environment, is the newly elected President of the Council. He reorganized Council committees, putting DWP into the Energy and Environment Committee. The Committee Chair is Jan Perry, who is very interested in outdoor opportunities for inner-city youth. Garcetti is Vice Chair, joined by Wendy Greuel, an advocate for environmental protection and Tom La Bonge and Alex Padilla, who also have good environmental voting records. ❖

Mono Lake Committee connects Eastern Sierra with Los Angeles' leaders

The Mono Lake Committee is unique among Eastern Sierra environmental organizations in having staff in Southern California. Frances Spivy-Weber, Co-Executive Director, lives in Los Angeles County and promotes water-saving policies that enable Los Angeles to leave plenty of water for streams and wetlands in the Eastern Sierra *and* still have plenty for the city's people and its economy.

With the new DWP Board of Commissioners put in place last fall, Fran organized a workshop on Eastern Sierra environmental issues. On January 31st in Los Angeles, Eastern Sierra leaders made presentations on permanent protection of DWP land in the Eastern Sierra, restoration in the Mono Basin and on the Owens River, and outdoor education opportunities

for Los Angeles youth in Inyo and Mono Counties. The Commissioners asked excellent questions and there was genuine conversation on each topic. At the end of the day, everyone who attended used the same word to describe the future: hope.

These are the panels and people who presented:

Land planning and development protection on DWP land: Byng Hunt, Supervisor, Mono County Board of Supervisors; Andrea Lawrence, Founder and President of the Andrea Lawrence Institute for Mountains and Rivers (ALIMAR), and member of the Mono Lake Committee Board of Directors; Julie Bear, Executive Director, Eastern Sierra Land Trust.

Restoration on DWP land in Mono County: Geoff McQuilkin, Co-Executive Director, and Lisa Cutting, Eastern

Sierra Policy Director, Mono Lake Committee.

Outdoor education opportunities for Los Angeles youth: Susan Szewczak, Ph.D., Executive Director, Eastern Sierra Institute for Collaborative Education; Santiago Escruceria, Assistant Education Director, Mono Lake Committee, and director of the Outdoor Experiences Program; Charles Thomas, Executive Director, Outward Bound Adventures; Ronald Ozuna, science teacher at Roosevelt High School; and David Myers, Executive Director, Wildlands Conservancy.

Lower Owens River restoration: Carla Sheidlinger, President, Owens Valley Committee and Mike Prather, Outreach Coordinator, Owens Valley Committee.



BARTSHÉ MILLER

The earth spins, birds fly, and the Chautauqua turns five

Mono Basin Bird Chautauqua: June 16–18, 2006

by Bartshé Miller

As the earth wobbles about its axis and perpetually falls through the space warped by our nearest star, we mark the changes in our days and seasons. The birds are doing the same, preparing for the hectic days of migration that will soon begin.

In late June when the earth's wobble points the North Pole towards the sun, we will be counting the *Fifth Annual* Mono Basin Bird Chautauqua and another year of something that is not your ordinary bird festival.

What is the Mono Basin Bird Chautauqua? It is field trips, workshops, science, history, art, music, presentations, friends, family, food, storytelling, music, a bird-calling contest, and of course—birds!

Mark your calendar for June 16–18, 2006, and join us for the most photon and bird intensive weekend of the year in the Mono Basin. Presenters and leaders include: Don Banta, Ryan Burnett, Roy Churchwell, Susan Colletta, Jon Dunn, Sacha Heath, Debbie House, Ann Howald, Jack Laws, Burleigh Lockwood, David Lukas, Jeff Maurer, Chris McCreedy, Paul McFarland, Peter Metropulos, Kristie Nelson, Phil Pister, Melissa Pitkin, Mike Prather, Cathy Rose, Ane Carla Rovetta, Dave Shuford, Rich Silver, Dr. Scott Stine, Wezil Walraven, Erick Westerlund, Ben Winger, David Wimpfheimer, Jerry Zatorski, and more.

The weekend's attendance benefits scientific research through the Mono Basin Bird Chautauqua Research Grant. The Mono Basin is one of the most intensively studied natural areas in California. The research legacy includes early surveys by Joseph Grinnell in 1915, the pioneering birding/conservation work of David Gaines and David Winkler in the late 1970s, and continues today with biologists from PRBO Conservation Science and many others.

Organizing partners for the 2006 Chautauqua are PRBO Conservation Science, the Mono Lake Committee, Friends of the Inyo, California State Parks, Eastern Sierra Audubon, Inyo National Forest, and the Mono Basin National Forest Scenic Area.

As the earth wobbles toward the summer solstice, grab your sunscreen, and don't forget your binoculars.

Online registration begins April 17, 2006.

Check for complete Chautauqua details online at www.birdchautauqua.org.

Call the Mono Lake Committee at (760) 647-6595 for more information and to find out how to register by fax or mail.

The Mono Basin Bird Chautauqua ... not your ordinary bird festival! ❖

Bartshé Miller is the Committee's Education Director. He has been bringing much-coveted Latte Da coffee to share in the office on cold winter days.

Wine Flight

A wine-tasting and silent auction to benefit the Mono Basin Field Station

Saturday, June 17
4–6:00 pm

\$50 per person, at the Mono Inn

Sign up as part of Chautauqua Registration at www.birdchautauqua.org or call (760) 647-6595 to reserve your spot.

The root of the problem

Plans to manage invasive plant species in the Mono Basin are underway

by Clare Cragan

Lee Vining Creek is a hop, skip, and a jump from the Mono Lake Committee offices, and serves as a good reminder of nature's restorative power. Rushing water, vibrant shades of green, and trumpeting bird songs are all signs of the creek's returning good health. Yet even as the willows and wildflowers flourish, so do other more tenacious and habitat-threatening plant species. One in particular is the fragrant bouncing bet, a lovely five-petal flower that grows in abundance along Lee Vining Creek. But don't be fooled by the flower's sweet scent! Bouncing bet has some unpleasant characteristics.

A pervasive invasive

Bouncing bet (*Saponaria officinalis*) is an invasive plant species that spreads quickly, replacing native vegetation particularly in areas of plentiful water. The California Exotic Pest Plant Council has labeled bouncing bet as one of the "most invasive wildland pest plants; documented as aggressive invaders that displace natives and disrupt natural habitats." This exotic plant has done exactly that along the banks and exposed creek bed of Lee Vining Creek, and is now pervasive in the creek's delta. Bouncing bet is also poisonous, so plants growing near water may potentially threaten fish in the recovering creek.

Why not let nature take its course?

Most of the restoration techniques used along damaged Mono Basin streams emphasize encouraging natural processes to help the creeks recover. However, letting nature take its course with invasive plant species poses serious problems. If left untouched, bouncing bet could cover vast areas along Lee Vining Creek, out-competing varieties of native flowers, shrubs, and trees to create a monoculture—a situation where there is no diversity in the plant life. In the case

of invasive plant species like bouncing bet, human intervention is a crucial part of the restoration process; it's frightening to imagine how the future habitat might look without any management!

A plan of action

In July of 2005 the Mono Lake Committee received a grant from the National Forest Foundation to develop a management plan for invasive plant species in the Mono Basin. During the past six months Mono Lake Committee and Forest Service staff mapped areas of infestation and researched methods to control several kinds of invasive species. Although bouncing bet poses the most significant problem, cheat grass, Russian thistle, and woolly mullein are also prolific and problematic in the Mono Basin. Each invasive species has specific habitat requirements and creates unique threats to the environments where it grows, and will eventually require specific removal techniques. As the snow begins to melt, removal teams will use these newly created maps to track down where the invasive plants exist and begin to dig, pull, and uproot.

The help of many hands

Bouncing bet is a difficult plant to remove from creek banks because it can re-sprout an entire plant from even the smallest small fragment of a root left in the ground. Successfully removing bouncing bet requires not only uprooting the plant but also sifting the soil to ensure no root fragments are left behind. Since bouncing bet is found along the entire length of lower Lee Vining Creek, eradicating the well-established plant will take much time and effort. Such a large undertaking requires the help of many hands.

This spring, Mono Lake Committee staff and volunteers will head to the creeks with students from Lee Vining Elementary School to begin pulling

bouncing bet. Groups of youth and young adults participating in the Mono Lake Committee's Outdoor Experiences program (see article page 12) will also lend helping hands along Lee Vining Creek this spring, pulling invasive species and planting young Jeffrey pines. Volunteer help is essential for the success of this difficult project!

Thanks goes to the National Forest Foundation for providing the means to begin thinking long-term about the effects of invasive plant species in the Mono Basin. With a careful eye the Committee and Forest Service will be watching where bouncing bet sprouts as winter becomes spring. Hopefully, with a little help nature can take its course again along Lee Vining Creek. ❖

Lend a hand!

Are you planning a visit to the Mono Basin this May? Join the Mono Lake Committee for a spring restoration day and get your hands in the dirt! On Saturday, May 13th volunteers will be heading down Lee Vining Creek to dig up bouncing bet and replant native vegetation. Enjoy great scenery, hard work, and good company during this restoration day. Meet at the Mono Lake Committee Information Center & Bookstore in Lee Vining at 10:00 am; we will walk to Lee Vining Creek from there. Contact Policy Coordinator Clare Cragan (clare@monolake.org) at (760) 647-6595 if you're interested in helping out. Tools, gloves, snacks, and a lesson in invasive plant ecology provided; just bring a hat, sunscreen, water, sturdy shoes, and clothes you can get dirty.

Clare is the Committee's Policy Coordinator. In her spare time she has been sleuthing out all of the live music she can find in the Eastern Sierra.

Outdoor Experiences with a new twist

New program helps kids connect with nature in their home towns

by Elin Ljung

When snow blankets Lee Vining and extends across Mono Lake to the eastern shore, it is difficult to imagine the Mono Basin bustling with groups of kids and young adults participating in the Outdoor Experiences (OE) program. OE groups come primarily from Los Angeles as well as other communities around California and Nevada. Melting snows and fresh springtime air mean that the upcoming OE season is fast approaching!

This year, OE participants will benefit from some new programs introduced by Mono Lake Committee Assistant Education Director Santiago Escruceria during the summer of 2005. These ideas arose from an Association of Environmental and Outdoor Educators (AEOE) conference that Santiago attended in April 2005, and while they are still taking shape, they will be important components this year.

Sense of Place

Many OE participants travel far from Los Angeles to find nature in the Mono Basin's open spaces, but it does also exist in their home communities. Santiago said he began the sense of place activity to "encourage students and participants to visit local outdoor places and realize the wealth of nature in their own backyards." The activity is designed to give participants the sense of belonging in and stewardship of the nature at home.

To facilitate a connection between nature and the inner-city, Santiago obtained a large map of metropolitan Los Angeles, and with the assistance of the Committee's Southern California staff he began marking the locations of nature centers, natural history museums, and parks. By the time groups began arriving in May, they could clearly see the nature in their backyards marked on the map.



OE participants from Roosevelt High School in LA doing a caterpillar walk to learn to be more aware of all their senses in the outdoors.

Santiago said, "We mentioned the sense of place activity during opening circles, and the kids were not interested yet." During a week of intense outdoor experiences in the Mono Basin—canoeing on Mono Lake, hiking to the top of the Sierra crest, and learning about wise water use, the kids' attitudes toward nature began to shift. Santiago incorporated the sense of place map into the week's activities, and he noted that "we mentioned it again during closing circles, and the kids were participating, looking at the map and talking about it."

Kids who wanted to continue the program from home located their neighborhood and found the addresses of surrounding outdoor centers on the map, and then received a postcard to take back home. Santiago encouraged the kids to visit an outdoor center when they got home, experience the place through the new ways of listening and learning about nature that they learned during their OE week, and write back to him about their adventure.

One student who wrote back to Santiago described his hike to the HOLLYWOOD sign with his family. "While we were going up I saw many different trees. I also saw a little pond with tadpoles," he wrote. Parts of the student's letter touched on meaningful experiences from his OE week. He wrote, "Things might look hard but they are easy if you climbed



Continued on page 13

Yosemite. Then everything is easy.”

The sense of place activity extends participants’ connection with the OE program, the Mono Basin, and nature as a whole. Instead of a student’s outdoor experiences ending when the van heads back to the LA, students are inspired to continue seeing wildness in the middle of a city. Santiago noted that “with the tools participants acquire during their visit to Mono Lake, they can teach their peers, family members, and friends about how to experience an outing in nature.” One great result of the sense of place activity is how it extends the life of the OE program long after a student leaves the Mono Basin.

For this upcoming OE season, Santiago hopes to emphasize connecting students with nature at home even more than in 2005. Herley Jim Bowling, the Committee’s Education Coordinator, will mention the sense of place activity during the outreach sessions he conducts in LA prior to each group’s departure for the Mono Basin. Once the kids arrive at Cain Ranch, Santiago plans to incorporate the activity more directly into the week’s programming. We look forward to the day many OE graduates will be going outdoors in their own home towns and sending their postcards back to Mono Lake!

Guided Meditation

Another OE activity designed for all California and Nevada participants is just getting off the ground. Last season was the pilot year for a guided meditation in the lush meadow along upper Lee Vining Creek. “This gives the



The Olympic Academy OE group doing a guided meditation in a meadow by Lee Vining Creek.

students an opportunity to relax their physical bodies and by doing that, somewhat relax their mental state. Some of these kids have never had a chance to just stop and be present,” Santiago explained.

After a series of simple relaxation exercises, he asks the kids to imagine that they are a single water molecule going through the water cycle as he narrates their journey. “I have had kids tell me they felt safe during the meditation,” Santiago said. “One student said he felt like he was sinking into the earth and the earth was protecting and embracing him.”

Santiago has been reading about and practicing meditation techniques this winter and spring, and wants to implement some of these new ideas during the 2006 season. “This is a way to quiet down the kids’ minds and bring nature sounds to their ears and hearts,” Santiago said, which is a unique and valuable outdoor experience indeed.

Developing new interesting and new OE activities like these is one of the most exciting parts of Santiago’s job. He plans to attend this year’s AEOE conference in April to keep the list of new hikes and new activities growing! ❖

Elin is the Committee’s Communications Coordinator. She has been taking snowboarding lessons from Policy Coordinator Clare this winter.



Olympic Academy celebrating their ascent of a 12,000 foot peak above Mono Lake.

Streamwatch

2005-2006 Runoff higher than expected

by Greg Reis

Runoff for the April 1, 2005 to September 30, 2005 runoff season was higher than the 137% forecasted last spring. Preliminary totals show that unimpaired runoff was 151% of average. The "Runoff Year" is not over and runs from April 1st to March 31st, but a preliminary estimate for the whole year is 143% of average runoff, compared to the 132% forecasted. This was the first above-average Runoff Year since 1998.

Preliminary Runoff Year totals show that Lee Vining Creek carried 139% of average runoff above the diversion and 125% below. Rush Creek had 153% of average runoff enter Grant Lake, and 94% downstream. The difference above and below the diversions is accounted for by the 16,000 AF (acre-feet) of water annually exported to Los Angeles and the 25,000 AF that filled Grant Lake Reservoir.

Parker and Walker Creeks are only diverted in dry years, so their entire flows passed downstream to Rush Creek and Mono Lake. 140% of average runoff coursed down Parker Creek and 149%

Watershed	April-March Runoff Year Forecast	April-Sept Runoff (preliminary)	April-March Runoff Year Estimate	Runoff Year Est. Below Diversions
Lee Vining Cr.	124%	141%	139%	125%
Walker Cr.	126%	171%	149%	149%
Parker Cr.	134%	148%	140%	140%
Rush Cr.	139%	163%	153%	94%
Mono Basin	132%	153%	143%	109%

came down Walker Creek contributing to the 103% of average flow in the Rush Creek bottomlands. Total flow through the four aqueduct-influenced tributaries below the diversion dams to Mono Lake was 109% of average. These totals are all preliminary and the final numbers will be slightly different.

What about the coming Runoff Year? On February 3rd, 2006, snow surveyors visited three snow courses in the Lee Vining Creek drainage and measured the water content and depth of the snowpack. By the end of the day, every place they measured was already over the April 1st average. Overall, they found 121% of the April 1st average and 192% of what is usually there in February. A

snow sensor at Gem Pass in the Rush Creek drainage is reporting 133% of average to date and 86% of the April 1st average. Based on this information, the Los Angeles Department of Water and Power has issued a preliminary runoff forecast of 121% of average in the Mono Basin for the 2006 Runoff Year.

The December and January storms were like a fire hose of moisture from the Pacific Ocean aimed at the northern and central Sierra. If the remainder of winter is dry, the snowpack and runoff could drop below average. However, all we need is another good storm sequence before the winter is over to assure another above average year for the creeks and Mono Lake. ❖

Lakewatch

Mono Lake is rising rapidly

by Greg Reis

A warm and dry autumn suddenly ended at the end of November when the first wintry storms began to drop snow down at Mono Lake's elevation. December stayed relatively warm and a record eight inches of precipitation fell, mostly as rain, causing Mono Lake to begin rising again after its annual autumn decline.

Following a warm New Year's rain that caused flooding in June Lake, the 5.7 inches of

precipitation in January mostly fell as snow. In fact, during one storm, between nightfall on January 1st and late-morning on January 2nd, a span of only 18 hours, over 40 inches of snow fell in Lee Vining. This caused avalanches which closed Highway 395 for four days and brought great skiing at elevations as low as Bishop.

The 13.7 inches of precipitation during December and January equals Lee Vining's average annual precipitation. Mono Lake rose 0.8 feet during these two months, and continues to rise. In early February the lake was at 6382.7 feet above sea level—1.6 feet higher than at the same time the

previous year!

The Pacific Ocean is entering a cold La Niña phase, which portends an early end to winter and a thunderstorm-filled summer. Already we are having warm and sunny days, with adult brine shrimp and alkali flies visible at the lakeshore in early February to greet the returning California Gulls. But thanks to two months of extremely wet weather, 2006 is most likely to be an above-average year for runoff, resulting in another year of a rising Mono Lake. ❖

Greg Reis is the Committee's Information Specialist. This winter he investigated a more humid climate in Kauai.

6417'

Prediversion lake level, 1941

6392'

Target lake level

6383'

Current lake level

6372'

Historic low, 1982

Mono Basin Journal

A Roundup of Quiet Happenings at Mono Lake

by Geoffrey McQuilkin



Geoff McQuilkin

Finding thirty-six inches of snow outside your front door makes winter, well, unavoidable. Not that the cold temperature and high winds of the season are exactly shy and retiring, but one could pretend they weren't there, maybe, by rushing from heated car to heated house.

But there's no rushing through three feet of snow. It's wading, really, and when you are using your waist as a snowplow and wondering exactly where your car is, you know it's winter. When you look out across Mono Lake's blue water to the islands and you can't distinguish them due to the snow equally burying black Negit, light colored Paoha, and the distant shore, you know it's winter. When it takes days to clear the backlog of snow from the center of the highway in Lee Vining, you know it's winter.

Here in the Mono Basin, this massive three-footer of a storm arrived right after the New Year. The road crews did a fine job keeping the highway open, but there was the little

matter of the avalanche that did a fine job of closing it for several days. The avalanche swept down the steep Sierra slope, crossing the road near Old Marina. How much more snow remained up above was unknown, and rumbling blasts of explosives rolled across the still Mono Basin landscape as crews tried to dislodge lingering pieces.

Now, two months later, the last of the snow is washing away in a rainy week-long deluge. The lake is rising, the creeks are high, Negit is black once more, the avalanche debris fading away, and you can almost pretend spring is here. Almost. But no one has ever gotten very far here by underestimating winter; it may be only tomorrow when I open the door again to find an awaiting blanket of knee-deep snow. ❖

Geoff McQuilkin is the Committee's Co-Executive Director. He has been spending his weekends trying to keep up with his four year old daughter, Caelen, on the ski slopes.

MonoCam gets new image, Clearinghouse gets new research

by Elin Ljung

Thanks to donations from members, a new Mono Lake WebCam overlooks Mono Lake from the Scenic Area Visitor Center. The self-contained camera and server make maintenance easy, and the image quality is superb. When you're homesick for Mono Lake, stop by this site to see the spectacular views. At both the Mono Lake and Lee Vining WebCams, look for the link to the Amazon donation page. With your support we can reach our goal of raising \$2,000 to upgrade the Lee Vining WebCam and add another WebCam in a new location! Visit www.monolake.org/live/monocam.htm.

www.monobasinresearch.org

This quarter, the Mono Basin Clearinghouse at www.monobasinresearch.org/research boasts impressive new postings. Under "Current and Ongoing Research," look for the data from aerial Eared Grebe surveys. The 2005 count estimates over one million grebes dotting Mono Lake's surface—and this is a relatively low year.

Click on "Reports & Studies Online" to find two reports by Chris McCreedy of PRBO Conservation Science about the endangered Willow Flycatcher population along Rush Creek. The *2003–2004 Habitat Characteristics Summary* and the *2005 Progress Report* provide insight into Willow Flycatcher habitat selection on Rush Creek and offer proof of restoration success along Mono Lake's tributaries. Unfortunately, none of PRBO's Mono Basin riparian research is funded for 2006, including the Willow Flycatcher Project. Please contact Sacha Heath (sheath@prbo.org) if you would like to contribute to the research fund.

A new weather station at 8,900 feet atop the Warren Bench above the town of Lee Vining has recorded impressive wind speeds—a 178 mile-per-hour gust occurred around New Year's. Stop by the link to "Lee Vining Hill" from the "Roads and Weather" page to see these hourly recordings at www.monolake.org/visiting/roadinfo.htm.

Seeing through the fog

Unraveling the mystery of poconip

by Douglas Dunaway

Mono Lake and the Mono Basin have been inhabited for the last 15,000 years by human beings—be they indigenous Native Americans, Old World explorers, or miners and settlers pushing westward from the Continental Divide. What remains today is a rich cultural heritage that has been glued back together like the shards of a broken clay pot.

Take a look at local history books and maps, and you will see how a blending of these cultures has produced some interesting and imaginative names for the local weather, geography, and towns. Rattlesnake Gulch, the ghost town of Bodie, the islands of Paoha and Negit, and even the town of Lee Vining have bits and pieces of the native peoples and settlers terminology intermingled. In some instances, this has caused confusion over what is really correct and what has morphed its way into the texts of books and maps, and is now commonly used language. Poconip is



A view from above of poconip fog shrouding Mono Lake from sunny Conway summit.

one of those local Mono Basin words that has become commonly accepted language, but really can't be verified as a real word with a proper definition.

The word "poconip" has been used for years around the Mono Basin to describe the unique fog that forms over Mono Lake and fills the Basin, blanketing everything with "rime," a beautiful ice coating that consists of feather-like ice crystals. Incredible as it sounds—even when temperatures drop to minus 40 degrees, water doesn't necessarily freeze as ice. In order for water to form as snow or rain, it needs a condensation nucleus. This can be anything from microscopic dust particles to specks of airborne salt crystals. In the case of Mono Lake's poconip, super cooled fog forms in the Mono Basin and stays in a liquid form until it comes into contact with

a subfreezing surface. When this happens, rime ice is formed and covers everything—sage brush, cottonwoods, willows, tufa towers ... even your car's antenna. Looking every bit like frozen crystalline bird feathers, the rime ice can build into long delicate spikes, always forming into the direction of the blowing wind.

The results can be breathtaking—visitors and locals are treated to a surreal winter wonderland where time seems to stand still and senses sharpen, perhaps hoping to catch a glimpse of that elusive elfin creature Jack Frost, whom folklore portrays as a mischievous painter of beautiful ice patterns. But when the fog hangs around for days on end, the magic wears off and the grumbling starts, and soon locals are finding any excuse to get above the Mono Basin where they can find blue skies and warmer weather.

If you look in the dictionary for the definition of "poconip," you'll be disappointed. The word doesn't exist, though it is used extensively, and has even found its way into a song by folk

Continued on page 18



Rime ice forms delicate white snow crystals on everything in the poconip.

Scientific research in the Mono Basin

News from the Mono Basin Field Station and beyond

Decomposition patterns in cold deserts

Zach Aanderud, UC Davis

Deep in the sagebrush forest northeast of Mono Lake, UC Davis scientists are conducting a three-year project measuring the decomposition patterns of leaf and root matter in cold deserts.

The study focuses on carbon dynamics along a dune chronosequence, which is a series of dunes of different ages with similar soil types. The Mono Basin chronosequence consists of four dune complexes ranging in age from 47 years old to approximately 3,000 years old. The dunes were created by fluctuations in Mono Lake's level during the late Holocene as well as during the last 65 years of water diversions to Los Angeles.

The work involves measuring seasonal variations in the rate of carbon dioxide (CO₂) produced from the soil and buried leaf litter and root matter. Over the course of several weeks, Ph.D. candidate Zach Aanderud takes flux measurements from 240 soil cores under sagebrush (*Artemisia tridentata*) and greasewood (*Sarcobatus vermiculatus*) plants. He fits an automated CO₂ analyzer over each core, and every 30 minutes during a 24-hour period the chamber lowers, sealing the core and trapping CO₂ evolving from the soil in order to measure the amount of CO₂ respired.

Measuring these rates of CO₂ emissions gives a pulse on

the health and activity of an ecosystem; it is similar to measuring your own rate of breathing to diagnose respiratory problems.

By examining the total amount of carbon present across the chronosequence and the rates of carbon flowing in and out, these studies are trying to answer the bigger picture question: are these soils carbon

sources or carbon sinks for greenhouse gases that influence climate change? Decomposition is the greatest flux of CO₂ from an ecosystem into the atmosphere, but other parts of an ecosystem (growing plants and alkaline soils) draw CO₂ out of the atmosphere as well. Soils may be either a contributing or a mitigating factor in CO₂ concentrations in the atmosphere, and the UC Davis researchers aim to get closer to an answer. ❖



Zach Aanderud measures the rate of CO₂ production in Mono Basin dune soil.

Fisheries sampling in Mono Lake tributaries

Chris Hunter, Ross Taylor, Ken Knudson, Brad Shepard, and Matt Sloat

Although the streams flowing into Mono Lake did not naturally support fish populations, early European settlers introduced trout to several creeks which blossomed into popular and heavily utilized fisheries. These fisheries were then severely impacted when the City of Los Angeles started to divert water in the early 1940s. Interestingly, it was trout that spilled out of Grant Reservoir into Rush Creek during wet years in the mid-1980s that required Los Angeles to maintain a minimum year-round flow in the creek.

Since 1997 sampling of trout populations in Rush, Lee Vining, Parker, and Walker creeks has occurred annually pursuant to State Water Resources Control Board (SWRCB) Decision 1631, Orders WR 98-05 and WR 98-07, and the negotiated Settlement Agreement. Fish population monitoring will continue until streams have met termination criteria included in the Settlement Agreement. The termination criteria were based on presumed pre-project (pre-1941) conditions for fish population structure.

In 1997 and 1998 pilot studies were conducted to determine the most appropriate methods to generate population estimates of trout. Methods tested included electro-fishing and snorkeling. The pilot studies determined that electro-fishing was the most appropriate means to capture fish and generate statistically valid population estimates.

Annual sampling is conducted in September and requires about two weeks to complete. From seven years of sampling the following



Ross Taylor and Brad Shepard electro-fish a riffle on lower Rush Creek, September 2001.

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Lago de Chapala, partner on the Pacific Flyway

Mary McDermott, Sociedad Amigos del Lago de Chapala



Mono Lake has much in common with its Living Lakes Partner in Mexico, Lago de Chapala. Both are very old lakes, both were once considerably larger, both are ringed by mountains: in California the Sierra Nevada, in Mexico the Sierra Madre. Both have been over-utilized as water sources for large sprawling cities, Los Angeles in California, and Guadalajara in Jalisco, Mexico. Both lakes once had extensive wetlands as part of their habitat, and today they are working to regain them. Having nearly experienced ecosystem collapse at the hands of humans, both are now recovering and have the worldwide support of environmentalists.

Not surprisingly, both Lake Chapala and Mono Lake are also important migratory stops for shorebirds and waterfowl on their routes to overwintering sites, as they are both part of the Pacific Flyway, a major bird migration route—beginning in the Arctic and ending in western Mexico. Chapala is approximately 1,500 miles south of Mono as the Black-necked Stilt flies, and it is conceivable that some of the very birds that stop at Mono make their way through Mexico to land at Chapala's shores for the winter. Both lakes host over 300 species in their lake basins, and in fact, share many of the same bird species, including the American Avocet, Western Sandpipers, White faced Ibis, and many others.

However, at Chapala, toxic pollutants and chemicals are still at dangerous levels in the lake and its main tributary. Consequently, bird numbers are considerably higher at Mono Lake than at Chapala, where it has been decades since the “thousands upon thousands” of waterfowl once enjoyed by visitors graced its shores.

Yet, like its United States counterpart, Lake Chapala is fighting for its continued survival. For more information on efforts to save Lake Chapala please visit the Amigos del Lago website at www.amigosdelago.org.



PHOTO COURTESY OF AMIGOS DEL LAGO

Lake Chapala in 1976 on the left, and in 2002 on the right. Recent wet years have raised the lake back up towards the boardwalk.

Poconip from page 16

singer-songwriter Gillian Welch called “Wrecking Ball”, where one of the lyrics says “an’ I was a farmer in the poconip of a weed that I recall was like a wrecking ball”. Hmmm ... this looks like it warrants further investigation.

Webster’s Dictionary does have the word “pogonip”, with a “g” instead of a “c” and is defined as “A dense winter fog containing frozen particles, formed in the deep valleys of the Sierra Nevada.” The word “pogonip” has been around for awhile, and seems to be used prevalently in the northern parts of the Great Basin, especially in Nevada.

The Shoshone Native Americans call the pogonip fog “pakenappeh” or “white death” and early settlers, dreading the pogonip, took cover when the fog rolled in. Cases of pneumonia increased, and it was reported that Native Americans and settlers alike stayed indoors, only venturing outside with mouths and noses covered so as not to inhale the deadly vapors.

Tracking down where the term “poconip” came from has proven problematic—the native Mono Basin Kutzadika^a Paiute have no written language and do not use poconip in their oral language. Further investigation revealed that they are just as puzzled by the usage of the word as I am, and in fact, are amused that some people refer to it as “white death.” The Kutzadika^a traditionally spent the winter months on the eastern shore of Mono Lake, where the now-extirpated Jeffrey Pine forest provided shelter above the cold fog and the

temperatures were warmer. Being nomadic people by nature, when the poconip showed up, they simply migrated to a more hospitable climate.

Raymond Andrews, a Kutzadika^a Paiute ancestor, talked to the tribal elders to find out what their word for the Mono Basin fog was. “Paginabi” is the accepted name, even though you won’t find it in any literature. Translating the word is confusing to the lay person: some of the meaning has been lost in trying to translate an oral language into a written language, and some of the language has simply been forgotten. All Kutzadika^a words that have “pa” in them describe some form of water. Paoha Island is an example of this: “pa” means “mist” and “oha” means baby, so their translation is a place “where the water babies live.”

Paginabi translates to a form of “ice fog”—non-threatening and simply a part of nature’s cycle in the Mono Basin. The nomadic Kutzadika^a way of life intertwined with the weather cycles. They didn’t try to change it, they didn’t complain about it, they simply adapted to it—doing their best to survive, pushing one generation after another into the future. The same fantastic displays of rime occurred then, and I’m sure the ancients marveled at its beauty as we still do today. ❖

Douglas Dunaway is the Committee’s Membership Coordinator. He keeps a not-so-secret-anymore stash of sweet tarts at his desk to help get him through stacks of mail each day.

2005 Free Drawing winners

Congratulations to these lucky winners from the 2005 Free Drawing!

Mr. Henry M. Feilen & Ms. Karlene M. Campo of Chino won the Grand Prize **Southwest Airline Tickets**. Mr. & Mrs. Harold I. Jacobson of Santa Barbara won the spa package from the **Double Eagle Resort & Spa in June Lake**. Mr. Noel Franklin Owen of Laguna Hills won the Sonoma Getaway from the **Sonoma Chalet and Barefoot Cellars Winery**. Mr. Ellis L. Tubbs, Jr. & Mrs. Barbara J. Tubbs of Woodland Hills won the **Zephyr Cove Resort at Lake Tahoe** package. The Masse Family of Woodland Hills won the **Wilson's Eastside Sports Camping Package**.

Mr. Norman Jeff Brown of Lake Hughes won the **Rainbow Tarns B&B** vacation package. Helen Hauser of Las Vegas, Nevada won the **Sorensen's Resort** getaway package. Diana Woodbury of South Lake Tahoe and Ms. Masako Nagumo of San Mateo won the **Patagonia R2 Jackets**. Mr. James G. Burke of Grover Beach won the Salomon Ski package from **Footloose Sports in Mammoth Lakes**. Michael Klimas of Riverbank won the **Yosemite Association Seminar**.

Ruth Borun of Los Angeles won the **Nicola Voorhees original watercolor** of Mono Lake. Mr. John Wegner of Newberry Springs won the Native American Flute donated by **Susan Toncray and the Walker Lake Interpretive Association**. Richard W. Weaver of Apple Valley won a gift

certificate to the **Toggery in Bishop**.

Ms. Monica Padilla of La Mesa, Leigh Brasington of Alameda, and John K. English of Laguna Beach all won **Mono Lake Committee** gift packs. Mr. Lynn Maack & Ms. Sandi Genser-Maack of Richmond, Ms. Lillian Vallee of Modesto, and Jim and Marilyn Thorpe of Laguna Woods all won **Jim Stimson's Mono Lake: Explorations and Reflections** coffee table book. ❖

How you can help

The annual Free Drawing for Mono Lake is one of the Mono Lake Committee's most important fundraisers. Each year we put together a list of enticing prizes donated by friends of the Committee, and offer tickets to raise money to continue our work for Mono Lake. We're always looking for new and exciting Free Drawing gifts—would you, or anyone you know like to donate prizes? We're looking for airline tickets (do you have miles to burn?), weekend getaways, spa days, and things that conscientious, adventurous Mono Lake Committee members would find interesting. In exchange we offer a great advertising package for your business to an enthusiastic and dedicated audience. Contact Elin Ljung (elin@monolake.org) at (760) 647-6595.

Fish Studies from page 17

conclusions can be made:

- Brown trout are the dominant trout species with rainbow trout comprising less than 5% of the populations in Rush and Lee Vining creeks.
- Ample spawning habitat is available, annual production of young-of-year fry is variable, yet has little bearing on resulting numbers of older trout.
- Very few trout are surviving past four years of age, thus termination criteria has not yet been met.
- The most artificial section of Rush Creek (the 1.2 miles of diversion ditch below Grant Reservoir) supports brown trout that meet termination criteria.
- The natural channel lacks sufficient amounts of habitat complexity preferred by large trout; mainly deep pools, low velocities, and overhead cover. These habitat features are forming and may take additional years to fully develop as the riparian corridor matures.

In 2005, a radio telemetry study was initiated in which radio tags were surgically implanted in 54 brown trout in Rush Creek. Each month researchers "relocate" these fish with a radio receiver; take habitat measurements at that spot in order

to hopefully understand what types of habitat are being used and to determine if there are seasonal differences in habitat preferences. ❖



Ken Knudson relocates a radio-tagged brown trout holding underneath shelf ice and overhanging willows, January 2006.

2006 Field Seminars



FIELD SEMINAR INSTRUCTOR RICHARD KNEPP

South Shore Kayak

June 11

Stuart Wilkinson and Mono Lake Committee Staff

\$90 per person/ \$80 for members

Late spring reveals snow-capped mountains towering over Mono Lake—a great time to kayak! Join Stuart Wilkinson and a Mono Lake Committee staff member for a guided naturalist expedition along Mono's south shore. Your leaders are well versed in Mono Lake geology, ecology, history, and politics. This natural history kayak tour will cover a wide variety of topics relating to this unusual Great Basin lake. Plan on four to five hours for the tour. Expect to see underwater tufa towers, birds, brine shrimp, and lake-bottom springs. Some kayak experience is helpful, but not necessary. Kayaks and safety equipment are provided. This seminar is being offered for the 10th year in a row, and is highly rated by past participants. Please note that this year's kayak seminar is on a Sunday. Space is limited in this popular seminar, so register early!

New!

Register online at
[www.monolake.org/main/
seminars.htm](http://www.monolake.org/main/seminars.htm)

Birding the East Side

June 14–16

David Lukas

\$140 per person/ \$125 for members

Looking to get a little focused birding in before the Mono Basin Bird Chautauqua? This field seminar will concentrate on the identification and ecology of birds in the Mono Basin and local Eastern Sierra. Visit a wide variety of habitats including desert scrub, marshes, riparian forests, and mountain slopes, in search of breeding birds and a few late migrants. With over 300 species having been observed in the Mono Basin, this course will be of great interest to both beginning and more advanced birdwatchers. The class will explore a number of sites intensively, mixing short leisurely walks with periods of observation and natural history discussion—taking time to learn about birds by watching them closely. Generally, walks will be chosen for their accessibility, but participants should be prepared and capable of wandering off-trail in pursuit of special sightings. David Lukas has led over one hundred birdwatching and natural history programs for the Nature Conservancy, Yosemite Association, Audubon Society, Elderhostel, and other groups. He is the author of *Watchable Birds of the Great Basin*, *Wild Birds of California*, and the recently revised *Sierra Nevada Natural History*. He is hard at work on an upcoming field guide to birds of the Sierra Nevada, and a website on North American bird identification: <http://www.whatbird.com/>. This seminar begins on a Wednesday morning, leading up to the 5th Annual Mono Basin Bird Chautauqua.

www.monolake.org/main/seminars.htm or (760) 647-6595 to register

Wildflower Macro- Photography in the Mono Basin

July 7-9

David Gubernick

\$225 per person/ \$200 for members

Enrollment limited to 10 participants,

Learn to take creative and beautiful close-up images, further develop your artistic vision, and enhance your photographic skills in a warm and supportive learning environment in this new workshop for beginning to advanced amateur photographers. The workshop will be conducted in the Mono Basin and upper reaches of the Sierra and includes classroom instruction, demonstrations, and individual coaching in the field that will help you take your photography to the next level. Evenings will be spent discussing and providing feedback on participants' fieldwork as well as prior work (please bring 10-15 examples). Also learn the identities of the flowers you photograph. Both film and digital are welcome. Further information, reading material, and a recommended supplies list will be sent to registered participants. David Gubernick, Ph.D., is an internationally and nationally published and award winning nature photographer and workshop leader. Some of his exhibition prints can be seen at Gallery Sur in Carmel and the Ventana Inn and Spa in Big Sur. He provides fine art prints and stock images for the advertising, corporate, editorial, and home décor markets. His first photography book *Wildflowers of Monterey County* published in 2002 has been a best-seller and has garnered rave reviews. He is currently working on several other photography books, including one on the wildflowers of the Mono Basin. This seminar begins on a Friday evening.

Miwok-Paiute Willow & Tule Basketry

July 14-16

Lucy Parker and Julia Parker

\$185 per person/ \$170 for members, \$65 materials fee

Primitive group campsite included (please, no pets)

During this three-day seminar, participants will prepare materials and create a medium-sized, oval-shaped basket. Learn to prepare and work with willows for the base. Tule will be sized and twined between the willows. A form of twining will be used to make the baskets. Traditionally, Miwok-Paiute style willow and tule baskets were used for gathering and as a trade item. This seminar is appropriate for all levels of weavers and begins on Friday morning. You are encouraged (but not required) to camp with the group, and Saturday evening will be spent around the campfire sharing food and traditional songs and stories. This seminar is designed for weavers of all levels, beginning through

advanced. Lucy Parker is a descendent of the Yosemite Miwok, Mono Lake Kutzadika^a, and Kayasha Pomo Peoples. She learned traditional handiwork from her mother, a master basket weaver, and will pass on some of her knowledge in this special three-day/two-night camping seminar. Julia Parker is Lucy's mother and has dedicated her life to learning and teaching basketry as well as continuing the traditions of her people. She is one of the famous basket weavers of California, and the only weaver still practicing who was taught by women that wove in the early 20th century.

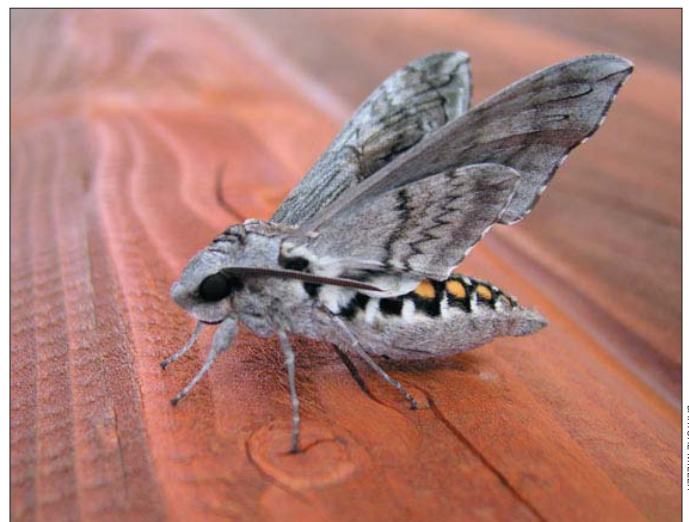
Moths and Butterflies in the Mono Basin

July 21-23

Paul McFarland and Bartshé Miller

\$130 per person/ \$115 for members

Join local naturalists Paul McFarland and Bartshé Miller for an exploration of butterflies and moths in the Mono Basin. With everything from desert alkali flats to alpine rock gardens, the Mono Basin is an excellent place to get acquainted with these bright splashes of living color. This seminar will focus on using Jeffrey Glassberg's wonderful field guide *Butterflies through Binoculars* to learn the basics of "butterflying." Identifying host plants, understanding the life cycle of butterflies, migration, habitat preferences, and their relationship to the entire ecosystem will all be covered. The group will also spend a night with moths, venturing out on a Saturday evening to observe a world of Lepidopterae (and other creatures!) not found in daylight. Throughout this seminar, we will also be keeping an eye out for other creatures including, but not limited to, dragonflies, damselflies, beetles, and of course, the larger winged creatures that eat them all. Beginning Friday evening with an introductory slide presentation, the group will spend the next two days leisurely exploring the alkali meadows along Mono Lake, fluttering aspen groves, and alpine trails. Last year, seminar



Sphynx moth (*Manduca quinquemaculata*)



BARTSHE MILLER

Fireweed (*Epilobium angustifolium*)

participants identified over 50 species of butterflies, moths, and dragonflies from the shore of Mono Lake to the headwaters of Lee Vining Creek near Yosemite National Park. Paul McFarland lives in Lee Vining, is the Executive Director of Friends of the Inyo, and has spent the last several summers chasing down anything with wings around Mono Lake. Bartshé Miller is the Mono Lake Committee's Education Director. He has been raising a few moths at home, and has taken to bright lights on moonless summer nights.

Identifying High Country Wildflowers

August 4–6

Mark Bagley

\$140 per person/ \$125 for members

At the headwaters of Lee Vining Creek there's a rich summer display of wildflowers, shrubs, and trees along cascading creeks, jewel-like lakes, green meadows, and rocky granite slopes. There, amid the towering peaks of the Sierra at the source of Mono Lake's water, learn how to identify this great diversity of plants using Norman Weeden's *A Sierra Nevada Flora*. This is the most complete small field guide to Sierra plants and provides identification keys and plant descriptions that minimize the use of special terminology and are suitable for use by beginners. This weekend's seminar will begin Friday evening with a three-hour hands-on session to introduce the basics of plant identification for beginners, including basic plant structures and essential terminology. Saturday and Sunday will be spent in the field on a couple of easily paced short walks (generally less than a mile) at high elevations (generally above 9,000 feet) with much

more time stopping and keying out plants than walking (bring a folding chair or stool!) Mark is a consulting botanist in the Eastern Sierra and Mojave Desert who has been leading field seminars in the Mono Basin since 1988. He is well known among past seminar participants for his easy-going pace and engaging teaching style in the field.

Introduction to High Country Plants and Habitats

August 11–13

Ann Howald

\$140 per person/ \$125 for members

This class will explore the mosaic of habitats that make up the Eastern Sierra high country—lush flower-filled meadows fed by meandering streams, sagebrush-covered slopes, forests of hemlock, lodgepole and whitebark pines, subalpine lakes bordered by willows, and flowery rock gardens. The class will focus on sight identification of common trees, shrubs, and wildflowers, but won't neglect any birds, bugs, or critters that come to check the group out. With any luck, you'll be zoomed by hummingbirds defending their patches of paintbrush and columbine, and see noisy Clark's Nutcrackers collecting and storing whitebark pine seed. This weekend's seminar will begin Friday evening with an introduction to the basics of plant identification and a slideshow preview of some of the habitats and plants to be seen during the fieldtrips. Walks will be around the 10,000-foot elevation level with a modest pace over moderate terrain. Ann is a consulting botanist who has taught plant classes in the Eastern Sierra for many years.

Blizzards and Floods, Dams and Pipelines:

What happens to creeks when they reach the desert

August 19–20

Greg Reis

\$130 per person/ \$115 for members

Water is both the essence of life and of controversy in the Mono Basin. Mono Basin streams take an intriguing journey full of detours and strange passages. Join Mono Lake Committee Information Specialist Greg Reis for an investigation of the Mono Basin's link in the water cycle, an intriguing maze of humans and natural influences. Discuss climate, snowmelt, DWP and SCE reservoir operations, the creeks, and Mono Lake, as well as the mysteries of where water goes below ground. On the first day visit the watersheds south of the lake, the

conveyances, and the recovering creeks. On the second day take a tour of the north Mono Basin, and learn how the recently signed settlement agreement will help restore Mill Creek. This seminar will focus as much on the management of the water as the natural habitats dependent upon it. Greg has over a decade of experience in Mono Basin hydrology and restoration and keeps close track of Mono Basin water.

Fall Bird Migration

August 19-20

Dave Shuford

\$130 per person/ \$115 for members

The east slope of the Sierra Nevada is a major migration route for birds traveling from northern nesting areas to warm southern habitats. As a result, early autumn is the time of year to see the greatest diversity of landbirds, shorebirds, and waterbirds in the Mono Basin and on Crowley Reservoir. Dave Shuford has been a staff biologist at PRBO Conservation Science for twenty years. He has conducted numerous surveys and research projects in the Mono Basin and beyond and is well acquainted with where to find birds in the Eastern Sierra. This is one of our most popular field seminars so register early!

Visions of the Past: Bodie, Masonic, and Aurora

August 25-26

Terri Geissinger

\$130 per person/ \$115 for members

This guided tour is for folks who love history, enjoy the outdoors and don't mind miles of dirt roads. In the beautiful Bodie Hills, all within 20 miles, lie three ghost towns. Their stories are filled with pioneer families, prospectors, muleskinners, heroes and gunslingers. In 1880, Bodie was known to be the second largest city in California. Now, Bodie is the largest unrestored ghost town in the west with over 170 buildings remaining. As you tour the town and the cemetery, you will hear the fascinating stories of those who lived here and the ones who never left. Nestled in a beautiful canyon, nearly 500 people resided in Upper, Middle, and Lower Town Masonic. Gold was mined with great hope and produced \$600,000 in its time. Rock cabins and foundations mark its place in history. Aurora, once a bustling town of 8,000 souls in the 1860s, now rests forever in peace amongst the sagebrush and pinyon pine. A cemetery and few foundations are all that marks this historic place and time. Terri Geissinger is a Bodie State Historic Park Historian, Interpreter, and Guide. She is active in the Mono Basin Historical Society, and has a talent for making history come alive.

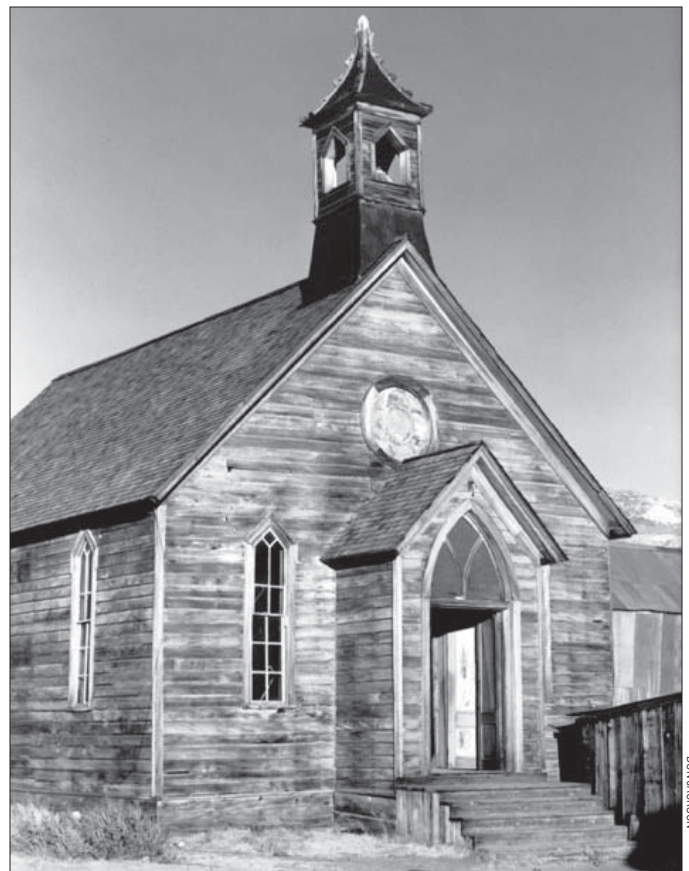
Living on the Edge: Sierra Nevada Bighorn Sheep in the Mono Basin

September 9-10

John Wehausen

\$150 per person/ \$130 for members

The US Fish and Wildlife Service listed the Sierra bighorn sheep as Federally Endangered in 1999. This field seminar will involve discussions of the biology and conservation of these animals in the field. The fascinating biology of these animals, and their relationship with other mammals, including mountain lions and humans, will be discussed. Past participants saw Bighorn four out of the last five years, and there is a very good chance of seeing Sierra bighorn sheep in the wild during this seminar, but there's no guarantee. John Wehausen is a research scientist at White Mountain Research Station in Bishop. He has been investigating various aspects of the Sierra bighorn and working for their conservation since 1974. In the late 1970s he initiated the restoration program that brought bighorn back to the Mono Basin. Some of the proceeds from this seminar will benefit the Sierra Nevada Bighorn Sheep Foundation. Please be



The church in the ghost town of Bodie.



Bighorn sheep spotted in Lee Vining Canyon.

aware that this seminar involves strenuous hiking at the 10,000-foot elevation and above.

The Story Behind the Land: Geology of the Mono Basin

September 16-17

Tim Tierney

\$130 per person/ \$115 for members

The Mono Basin is a geological showcase, featuring young volcanoes, glaciated landscapes, stark mountains, and strange mineral towers, all set about ancient and saline Mono Lake. Explore this land with geologist Tim Tierney (author of the Committee's field guide *Geology of the Mono Basin*) and learn how to recognize the geology, know the reasons behind why things have happened, and what the future may hold. The first day of the seminar will be spent gaining an overview of the area via car and short walks. The second day will focus on thoroughly exploring a few select areas with extended hikes. Cooler fall weather and the first tinge of fall color will highlight the geologic wonders of this popular field seminar. Tim is an excellent teacher and interpreter of the "hard" languages, and has been a popular seminar leader among geology sleuths and laypeople alike.

Paiute Cattail Basketry

September 22-24

Lucy Parker and Julia Parker

\$185 per person/ \$170 for members, \$65 materials fee

Primitive group campsite included (please, no pets)

During this three-day seminar participants will prepare materials and create a small cattail basket. Students will work with cattail fibers to create a twine basket. The Tule Basket is a traditional work basket used for gathering pine nuts, berries, and other foods. This seminar is ideal for beginning and

intermediate weavers alike. Different techniques of twining will be incorporated in our baskets. You are encouraged (but not required) to camp with the group, and evenings will be spent around the campfire with traditional songs and stories. This seminar is designed for weavers of all levels, beginning through advanced. Lucy Parker is a descendent of the Yosemite Miwok, Mono Lake Kutzadika^a, and Kayasha Pomo Peoples. She learned traditional handiwork from her mother, a master basket weaver, and will pass on some of her knowledge in this special three-day/two-night camping seminar. Julia Parker is Lucy's mother and has dedicated her life to learning and teaching basketry as well as continuing the traditions of her people. She is one of the famous basket weavers of California, and the only weaver still practicing who was taught by women that wove in the early 20th century.

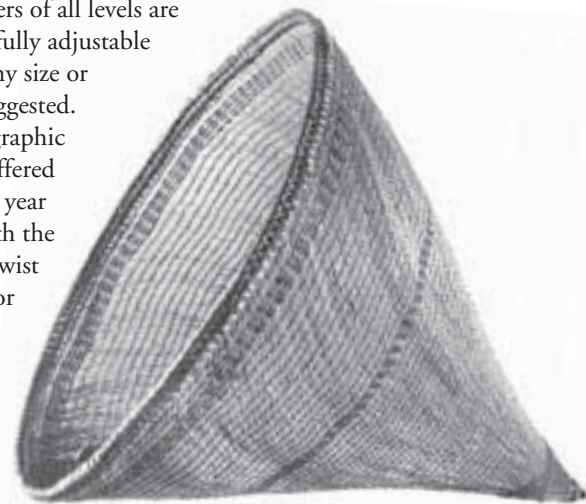
Mono-Bodie Fall Photography

September 22-24

Richard Knepp

\$275 per person/ \$255 for members

Autumn in the Mono Basin is one of the greatest photographic experiences in the country. Spectacular foliage and skies combine with exceptional light, presenting ample subject matter for photographers in both color and black and white. And, for the third year, the class will spend Saturday in Bodie, inside some of the buildings! Join accomplished photographer Richard Knepp to explore varied shoreline locations at sunrise and sunset, fall color in nearby canyons, and the old ghost town of Bodie. Beyond his photographic expertise, Rick is intimately familiar with the Eastern Sierra and Mono Lake locale. In Bodie, Rick will be joined by Bodie expert, photographer, and good friend Jill Lachman. Jill has taught photo workshops in Bodie for many years. It is quite a special treat to have the opportunity to photograph inside some of the buildings. Subjects for discussion include composition, exposure techniques, filtration, basic theory of the Zone System, and developing a personal vision. Photographers of all levels are welcome; a fully adjustable camera of any size or format is suggested. This photographic seminar is offered for the 12th year in a row, with the new Bodie twist continued for 2006!



Reading the Aspen Groves: Arborglyphs and Aspen Natural History

September 30–October

Richard Potashin and Nancy Hadlock

\$130 per person/ \$115 for members

Known for their breathtaking fall color displays and distinctive quaking, aspens border the high meadows of the Glass Mountains and the Mono Basin. A century of sheep grazing brought many Basque sheepherders into these meadows. With their leisure time they left numerous carvings—or arborglyphs—on the aspens. Join the instructors for an enchanting journey into the aspen groves to explore this historic, organic art form and the natural history of the trees themselves. Learn about the numerous wildlife, insects, and birds that are drawn to the groves. During leisurely walks the instructors will discuss the history of the sheep grazing in the Mono Basin, the Basque culture, the cultural significance of the carvings, and efforts to document them. Richard Potashin, aka Alkali Aspenowza, is a long-time Eastern Sierra resident and past Mono Lake Committee intern and canoe guide who has been discovering and documenting aspen carvings for many years. He is currently a Park Ranger at Manzanar National Historic Site. Nancy Hadlock has her BS from the University of Nevada at Reno, her MS from California State University, Sacramento



An arborglyph of a fish on an aspen tree.

and has worked as an Interpretive Ranger since 1982. She has participated in UNR's Basque Studies Program and has been a passionate student of Basque culture, history, and stories for over 20 years.

Field Seminar Registration Information

New! Register online at www.monolake.org/main/seminars.htm or call the Mono Lake Committee at (760) 647-6595 and ask for the seminar desk to register.

More extensive seminar descriptions are available upon request or online at www.monolake.org.

We accept VISA, MasterCard, and Discover or personal checks payable to the Mono Lake Committee. Sorry, we cannot accept registration by mail or email. Checks must be received within two weeks of registration.

Seminars are limited to fifteen people except where noted. If a seminar receives less than six participants (with some exceptions) the seminar will be cancelled two weeks in advance, and full refunds will be issued. If you cancel three weeks prior to the seminar start date, we will refund your payment (less a \$10 processing fee). No refunds after that date, but tuition can be applied to another class in 2006.

Participants must sign a liability release form. All seminars operate under permit from the Inyo National Forest.

The Committee works with instructors and field leaders that have received high ratings from past seminar participants. We emphasize a spirit of learning and camaraderie in a magnificent outdoor setting for a reasonable cost.

Proceeds from the Mono Lake Committee Field Seminars benefit research and education in the Mono Basin.

Mono Lake Committee Field Seminars are open to everyone, but Mono Lake Committee members get advance notice and class discounts. If you are not a current member of the Mono Lake Committee, you may receive the discount by joining when you register.

Staff migrations

by Geoffrey McQuilkin

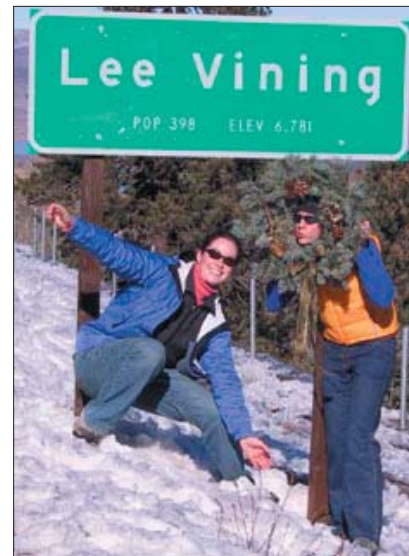
Migrations are underway, and we're excited to announce a few of our own. Around Christmas time when we got a holiday card from Interns Clare and Elin (see photo at right) we realized we couldn't let these two go. Welcome aboard, and hold on!

Just in time for a flurry of new policy issues, we're lucky to have found **Clare Cragan** for the Policy Coordinator position. Clare is a recent graduate of the University of Wisconsin-Madison where she graduated in Economics and Environmental Studies; one of her successful campaigns as student was convincing Dell computers to establish a computer and electronics recycling program! She's particularly excited to be in the Eastern Sierra working on solution-oriented approaches to environmental problems and she's already hard at work on Mono Lake's behalf.

Many of you may recognize the name **Elin Ljung** from her numerous articles in the *Newsletter* over the past two years. A recent graduate of St. Olaf College in Minnesota, Elin has stepped into the new Communications Coordinator position and already has us wondering how we ever got by without

her. She's working on everything from the new education wall in the Bookstore to organizing our grant-writing efforts, with press releases and new brochures in between—keep your eyes out for her work!

Special thanks to **Rebecca Petzel**, Naturalist-intern from last summer, who extended her stay to pinch hit at the membership desk last fall. We miss your great energy and wish you the best of luck!



Elin Ljung and Clare Cragan, the Committee's new staff members, and Lee Vining residents numbers 399 and 400!

Mono Lake volunteer training starts May 24!

The Mono Basin Volunteer Program, now in its third year, is a joint agency initiative benefiting the US Forest Service, California State Parks, and the Mono Lake Committee. Volunteer training consists of six half-day sessions, Wednesdays and Thursdays, May 24–June 8, focusing on becoming familiar with visitor areas around the Mono Basin. There is no charge for training, but participants agree to volunteer at least eight hours each month from June to September.

The core volunteer jobs are roving at South Tufa, staffing a bird watching station at the State Reserve boardwalk, and answering questions at the Forest Service Visitor Center and Mono Lake Committee front desks. Volunteers choose their jobs to suit their own interests.

Janet Carle, retired State Reserve Ranger, conducts the training. She also organizes Volunteer alumni gatherings throughout the year with Mono Basin experts. Janet's expertise, knowledge, and dedication to the program are an important part of its success. The costs for the program are covered by the US Forest Service, California State Parks, and the Mono Lake Committee.

The joint program has been extremely beneficial to Mono Lake. In 2005 volunteers contributed almost 700 hours! Some return volunteers got additional interpretive training and were able to lead tours at South Tufa.

If you are interested in the volunteer class for 2005, please contact Fran (frances@monolake.org) at (310) 316-0041.

Music and Ecology Camp at Mono Lake

Explore Mono Lake through this independent camp run by Cole and Priscilla Hawkins for instrumentalists ages 11–18. There are two camp sessions this year: June 18–24 and August 6–12, 2006 both in the Mono Basin.

Mornings focus on studying the ecology and natural history of the Mono Basin and Sierra Nevada. Morning activities include horseback riding, hiking in the Sierra, climbing into a volcano, a boat tour on Mono Lake, and optional swimming at a spa or hot spring.

Afternoons focus on music—playing instruments in coached chamber groups, private lessons, and classes on improvisation, performance, and music listening.

Nights will be occupied with star gazing, jam sessions, slide shows, and learning about local Native Americans.

Camp will conclude with a concert for the public held at the historic Mono Inn.

The cost for camp is \$550 per session, and there are two scholarships available. For more information, contact camp organizers Cole and Priscilla Hawkins at (530) 753-1927, and visit <http://members.dcn.org/~chawkins/MUSICandECOLOGY.html>.





From the mailbag

News from members and friends

by Douglas Dunaway

"So come visit Mono. The old lake needs new friends, and will not begrudge some more human footprints along its shores, provided we walk lightly." —David Gaines

Some days after I have finished work, I feel like my eyes are crossed. The reason: numbers. They are the cornerstone of the Membership Coordinator job. There are 15,000 generous members continually donating monies to advocate for Mono Lake's continued protection. Even when I stop thinking about numbers it's hard to get away from them. I just read the October 2005 count for the Eared Grebes—936,617 birds on the lake. Research tells me that there can be over 20,000 brine shrimp in one cubic yard of Mono Lake's saline waters. A small number of coyotes impacted 33,000 breeding gulls on Negit Island. Sometimes numbers are good, other times not so good. Lake levels drop, particulates in the air increase with the winds. Mono Lake's history is full of fluctuating numbers, but today things are different.

If you walk the entire shore of Mono Lake, you will cover over 211,200 feet. Here's where the math gets interesting. If you took all of our 15,000 members and lined them along Mono Lake's shoreline, each member would be protecting 14 feet. Now, *that* would be an impressive sight. Even more impressive would be if the shoreline was lined with advocates with linked arms like a suit of armor. That's a number to strive for. Mono Lake will always be under some kind of pressure ... development, recreation, litigation, restoration ... the Committee needs to remain strong, and with your continued support, it's not impossible to imagine all of the members with arms linked, protecting one of our most treasured places on earth.

In memory

Mrs. Margret E. Lohfeld of Los Angeles gave a gift in memory of her brother, **Martin Engel**. Mrs. Carol Mathews of Walnut Creek renewed her membership in loving memory of **Robert Mathews**. Mrs. R Warren Cleary of Laguna Beach renewed her membership in memory of **Mr. R. Warren Cleary**. Mary L. Bryan of Red Bluff sent a gift in memory of **Ray Fiock**. Louise & Jay Bollman of Tacoma, WA sent a donation in memory of their dear uncle and aunt, **Harlan & Anna Marie Pratt**. A gift was received from **Duncan M. Simmons** in memory of **Mr. William D. Simmons & Mrs. E. Simmons** of Berkeley. A donation in memory of **Henry Miller** was given by **Albert & Lilli Miller** of Sherman Oaks. **Corinne Nydegger** of San Francisco sent a gift in memory of **Irving Rosow**. A donation in memory of **Liz Jackson** was sent by **Cynthia Barrick Lewis** of Pasadena. A contribution was made in memory of **The Morse Family** by **Pamela Branch** of Stockton. **John Callen** of Rancho Santa Margarita sent gifts in memory of **Thomas N. Callen**. **Doris Caldwell**

of Modesto sent a gift in memory of **Warren Hughes**—a long time Mono Lake advocate who loved collecting rocks and following the wildflowers.

David & Mortimer Gaines

Edith Gaines of Los Angeles sent a gift in memory of her son, **David Gaines**. **Mr. Leverett Smith** of El Cerrito sent a gift in memory of **Mortimer Gaines**. **Jeffrey & Jean Weiss** of Berkeley gave a gift in memory of **David Gaines**. **Emilie A. Strauss** of Berkeley sent a gift in memory of **Mortimer Gaines**.

Special gifts

Christine Ryland of Meadow Vista gave a gift in honor of her children—**Kelsey & Jory Ryland, and Brittney, Kelsey & Chuck McKeever**. And a birthday gift was given in honor of **Laura Jean Moore** by her mother, **Barbara Moore** of San Diego.

Going the extra mile

An extra special thank you goes out to **Kelly Ogle**, a Committee member who set out on April 19th, 2005 to hike the Appalachian Trail—all 2,174.9 miles of it, as a fundraising event for three of

his favorite charities, one of which is the Mono Lake Committee.

Kelly started in Georgia and ended his hike in Maine. Reaching his personal limits of endurance, he had to call it quits, just shy of his goal. "Well, the hike is over, and it was a long and hard trudge, full of moments of beauty and brilliance, the joys of meeting lots of truly wonderful folks, and LOTS of rain. My Appalachian Trail hike ended on a cold and dreary October 16, in Delaware Water Gap, Pennsylvania after six months, five hurricanes, one evacuation, one broken collar bone, 1,874 miles, and as I said, lots of rain. With only 300 miles left to go, I stopped walking."

Kelly kept us informed during his hike with inspirational postcards full of his thoughts and experiences. The Mono Lake Committee will receive \$1,332—a wonderful gift from a dedicated Mono Lake advocate. To read more about his adventure, go to our website at www.monolake.org/committee/ogle.htm. If you feel inspired by Kelly's trek, you can make donations in his honor. For more information contact Douglas (douglas@monolake.org) at (760) 647-6595. ❖

Become a Mono Lake Volunteer



Training begins Wednesday, May 24th

See page 26 inside, and contact Frances Spivy-Weber
(fran@monolake.org) at (310) 316-0041 for more information.

Volunteer work day!

Lend a helping hand to the
invasive plant removal effort
on Lee Vining Creek

Saturday, May 13th

See page 11 inside and contact Clare Cragan
(clare@monolake.org) at (760) 647-6595
for more information.



the 26th annual

Tioga Pass Run

12.4 miles ... only one hill

Sunday, September 10th, 2006

Run and registration details online at
www.basecampcafe.com/tioga.htm

Proceeds benefit the Mono Lake Committee

the fifth annual

Mono Basin Bird Chautauqua

June 16–18, 2006

Birds • Science • Art
Music • Field Trips

Not your ordinary bird festival!

Wine Flight 2006

A festive wine tasting during the Chautauqua

Saturday June 17th 4–6:00pm

Proceeds benefit the Mono Basin Field Station



Registration for both events begins April 17, 2006 online at
www.birdchautauqua.org. See page 10 inside for more information.



**MONO LAKE
COMMITTEE**
Highway 395 at Third Street
Post Office Box 29
Lee Vining, CA 93541

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