

THEMONO LAKENEWSLETTER

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The Mono Lake Newsletter features updates on the latest developments affecting Mono Lake's future as well as articles on the natural, geological and human history of Mono and other Great Basin Lakes. We invite your comments and contributions. The newsletter is edited by the Mono Lake Committee in cooperation with the Mono Lake Coalition.



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Your Donations Help Us Help The Lake

by Ed Grosswiler Executive Director

Regular readers of the Mono Lake Newsletter may sometimes get the impression that the Mono Lake Committee does nothing but raise money. Sometimes the staff feels that way too.

Raising money is an unavoidable part of fighting a grassroots battle against a mammoth public utility with tually unlimited resources. We have no way to match the fiscal resources. Instead, as I wrote in the last newsletter, we'll continue to rely on the dedication and commitment of thousands of Mono Lake Committee members.

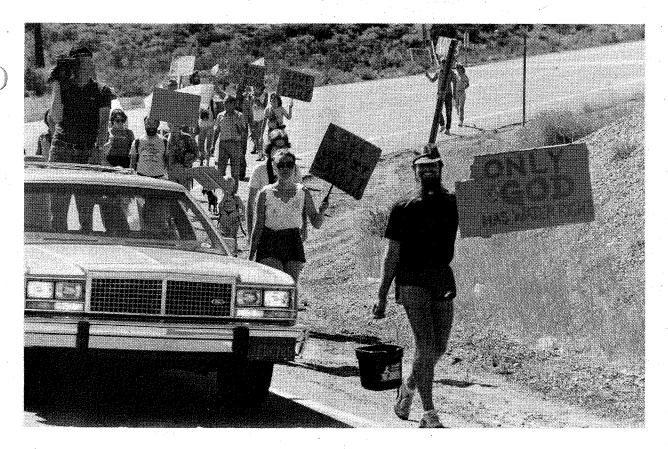
Nevertheless, hard cash is required to finance our day-today operations. So, you're thinking, here comes another appeal for money. Not this time.

This is a sincere THANK YOU for your financial support ... and a simplified report on how your donations are helping to save Mono Lake. Incidentially, fund-raising professionals marvel at our continued strong support. They would understand after visiting the lake.

A formal financial statement will be published in our next newsletter. My purpose here is to give you a general idea of how our funds are raised and spent.

The Mono Lake Committee brought in about \$250,000 in the fiscal year ending May, 1982, with about \$100,000 from merchandise sales and the remaining \$150,000 from membership dues, donations and special fund-raising events, such as the bike-a-thon.

Operating the Information Center and the Mono Lake office, including field trips, slide shows, newsletters, membership, correspondence and such fund raisers as the bike-a-thon, requires three full-time staff members and a full-time internyear around. During the summer, additional interns a volunteers keep the center open 12 hours a day, 7 day week. In total, the Lee Vining operation uses about half of our operating budget—about \$50,000 for purchasing mer-



Bucket walkers, led by Father Christopher Kelley, bring the lake a drink.

crandise for resale and about \$75,000 for other activities—while raising about two-thirds of our total income.

The Los Angeles office, staffed by the executive director, Southern California coordinator and business manager, uses about one-quarter of the annual budget (the position of Southern California coordinator is temporarily vacant). The executive director oversees all committee activities, and develops and implements strategy and policy. The Southern California coordinator directs our volunteer, grassroots and media efforts. The business manager handles our bookkeeping and payroll, including retail and wholesale sales.

The remaining quarter of our annual budget is expended in Sacramento, where the Committee has a full-time lobbyist, and in San Francisco, where we have a fund raiser and special events coordinator.

Full-time MLC staff members are paid \$900 per month. Interns receive a small stipend, plus housing, during their tenure in Lee Vining. The executive director receives \$2,000 per month. Minimal travel expenses are covered for all staff, interns and volunteers.

The Committee budget does not include the costs associated with the lawsuit now pending before the California Supreme Court, which are paid by the National Audubon Society. Other than litigation, however, we raise most of the ds for the save Mono Lake effort—including the slative, media, grassroots and educational campaigns—through your contributions. Financial help also comes from other environmental organizations, which have

assigned staff members to the campaign. These include the National Audubon Society, local Audubon chapters, Friends of the Earth, Sierra Club and Greenpeace.

Your financial support is obviously vital. And it is deeply appreciated by all of us on the Committee staff. Together, we'll save Mono Lake!

ON THE COVER. Rusty Brockman's exquisite wool tapestry, *Tufa Towers*, *Mono Lake* is one of more than 30 fine prizes that have been donated to the 1982 ARTS DRAWING FOR MONO LAKE, to be held November 19. Our blackand-white photograph does not do justice to the tapestry's delicate, pastel colors. It took over six months to complete, and measures almost five by six feet. For more on the drawing, please see our back page.

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Mono



Lake O Watch

A One-Year Reprieve

This summer, thanks to nature's generosity, Rush and Lee Vining creeks sang all the way to Mono Lake. The Los Angeles Department of Water and Power (DWP) was unable to divert all the water. There was more runoff than the aqueduct system could handle.

Enough water reached Mono Lake to arrest its decline. When 1983 rolls around, the level of the lake will be very close to, and possibly slightly above, its January 1, 1982, elevation of 6371.6 feet. Los Angeles Mayor and gubernatorial candidate Tom Bradley will have honored his pledge to stabilize the lake this year.

It would have happened anyway. Because of the high runoff, DWP had no choice but to release about 40,000 acrefeet of water into Mono, and would have done so even if the lake were not a focus of public and political concern.

In fact, DWP diverted virtually every drop they could. Approximately 140,000 acre-feet were prevented from replenishing the lake—water that could have raised its level 2-3 feet to an elevation of approximately 6375 feet. Were it not for diversions, Mono would receive more water during droughts than it did this year—one of the wettest on record.

Still let's be grateful that Mother Nature prevented the lake from falling below the January 1982 level of 6371.6 feet—its lowest elevation in at least 20,000 years.

Shrimp Rebound to High Numbers

Biologists, and probably gulls, too, are scratching their heads over Mono's brine shrimp. Historically, these delicate little animals matured in large numbers by June, providing food for tens of thousands of hungry gull chicks. For the third consecutive year, however, brine shrimp densities remained abysmally low until a second generation matured in mid-July. Were it not for a fortuitous emergence of cicadas, the gull chicks, might have faced starvation (see box).

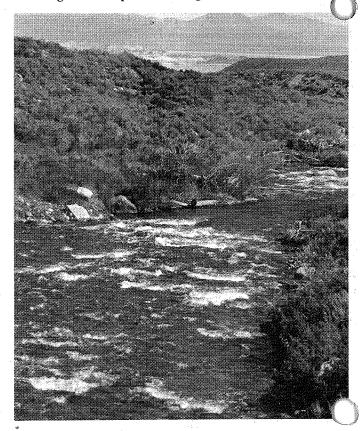
By August, however, Mono became a brine shrimp metropolis. According to censuses conducted by DWP biologist Melinda Thun, densities reached about 57,000 per square meter of lake surface, the highest ever recorded.

The explosion of shrimp came too late for nesting gulls, but in plenty of time for southbound phalaropes and other migratory water birds. Wilson's Phalaropes arrived in their usual high numbers in July—100,000 fattening on brine shrimp in preparation for non-stop flights to Argentina and

Peru. They were followed by Northern Phalaropes and a variety of other shorebirds. "Mortality has been very low," reported ornithologist Joseph R. Jehl, Jr., a DWP consultant who has been studying Mono's birds all summer.

The Mono Lake Ecosystem: Thriving or Threatened?

According to DWP, Mono Lake is thriving. "Indications are that the ecosystem at the lake is surviving very nicely," Chief Engineer Duane Georgeson told the Western Law Journal this summer. "We've got grebes coming out of our ears," added DWP attorney Kenneth Downey. And, in a jibe at the Mono Lake Committee, DWP complained that "the timing and magnitude of possible changes have been exaggerated."



Water DWP couldn't divert flows down Rush Creek to replenish Mono Lake.

much of [the scientific data] having become lost in a sea of emotional appeals."

this true? Consider the ecological changes that have ady occurred since diversions began:

- 1. Nesting gulls have been forced to abandon Negit Island (1979) and Twain and Java islets (1982).
- 2. Estimated numbers of fledging gull chicks have fallen from 27,000 in 1976-78 to less than 4,000 this year.
- 3. Ducks and geese have declined to a small fraction of their former numbers, probably due to increasing salinity.
- 4. Brine flies, which once darkened Mono's shores for mile after mile, have become relatively scarce, reducing the amount of food available to birds.
- 5. Spring brine shrimp populations have declined to about 10% of the numbers recorded in 1979, probably due to the failure of their overwintering eggs to hatch normally; this decrease has resulted in a dramatic increase in algae in late spring, and has markedly altered the overall dynamics of the ecosystem.

These changes are warning signals we cannot ignore.

If DWP does not curtail diversions, increasing salinity will poison Mono Lake's living community—perhaps next year, perhaps two decades from now. Salinity has already doubled. At present diversion rates, it will triple by the turn of the century and quadruple by the year 2015. Mono's shrimp, flies, algae and birds can thrive in saline, alkaline water up to a critical point, but not beyond. While biologists have not yet rmined that critical point, they agree it will be passed long before the lake stabilizes at a salinity of approximately 27%. There is no lake on earth that approaches that salinity and still supports large numbers of invertebrates and birds. Whenever the collapse happens, it will be swift and quite possibly irreversible.

The Mono Lake Committee refuses to risk the greatest ecological disaster in California's history. As Congressman John F. Seiberling told a House Subcommittee last May, "If we don't know the answers, the only way to be safe is not to aggravate the situation . . What is the point of mounting a study if before the study is completed the patient may be dead?"

Fortunately, Mother Nature has granted Mono Lake a oneyear reprieve. Brine shrimp still dance in its waters, and uncountable flocks of birds yet grace its shores. Spires of tufa still rise from their reflections into the sky. There is still time to reach the conscience of Los Angeles, and bequeath to our children a living, beautiful Mono Lake.



Gull Decline Stirs Debate Among Scientists

Mono's gulls have problems. In 1976, 1977 and 1978, approximately 50,000 adults fledged about 27,000 young. In 1979, a land-bridge connected Negit Island to the mainland and coyotes routed its 33,000 nesting gulls. The following year, most of Negit's gulls colonized the small islets west of Paoha Island and northeast of Negit, and about 12,000 chicks fledged. In 1981, however, virtually all the chicks—approximately 25,000—died before fledging. Of the 2,000 that did fledge, most were so weak they died before leaving the lake. This year was not quite so grim: an estimated 3,900 chicks fledged—fat, healthy and with excellent survival prospects. The gulls would have fared even better had not two major nesting islets, Twain and Java, been invaded by mainland predators. Still the number of chicks was only a fraction of that fledged in the recent past.

What caused the 1981 chick deaths? Why did more survive this year? These questions have caused disagreement among scientists studying the lake.

In our newsletters, we have reported the views of David W. Winkler, a graduate student at the University of California at Berkeley who has been working with Mono's gulls for the past six years. Winkler believes that the high chick mortality in 1981 was 'probably due to the collapse of the early season food supply." Adult brine shrimp densities were approximately eight percent of normal through late June, the period during which the shrimp comprise a critical food source for nesting gulls and their chicks. Unusually hot weather in June, Winkler adds, "certainly exacerbated a situation made bad already by the reduced food supply." This year. Winkler suggests that the abundance of cicadas compensated for the scarcity of shrimp, assuring the remaining gull chicks adequate food. His data indicates that up to 49% of the food items fed to chicks during June of this year were cicadas, compared to virtually none last year. Moreover, 1982's cool summer favored chick survival. In sum, Winkler believes that food availability is probably the crucial factor, but that temperature plays a synergistic role.

The "food hypothesis," however, has been questioned by David E. Babb, a biologist with the Los Angeles Department of Water and Power, and by Dr. Joseph R. Jehl, Jr., of Hubbs Sea World Research Institute. Babb and Jehl suggest that extreme June temperatures, not the reduced first hatch of brine shrimp, were primarily responsible for high chick mortality in 1981, "In 1981," Babb reports, "the average June temperature was nearly 10 percent higher than in any June in the past five years." The lower mortality this year is attributable, not to the abundance of cicadas, but simply to cooler temperatures. "Considering the astronomical number of shrimp," asks Babb, "would the low numbers . . , actually mean that there was not enough food for the chicks?" In sum, Babb believes that the gulls are probably finding more than enough to eat. Since they were driven from Negit's shrub-covered slopes, however, they have been forced to nest on shadeless, alkali-encrusted islets where the chicks are susceptible to heat stress.

Next year's nesting season may resolve the debate. Because of the high runoff, the level and salinity of Mono Lake will be about the same as this year. Spring adult shrimp densities will probably be low and cicadas nonexistent, so if food is important, the gulls will be in trouble. Under the direction of Dr. Jehl, shade structures will be erected in some of the colonies to combat the heat and test the temperature hypothesis. Biologists from the Pt. Reyes Bird Observatory will be joining Winkler, Jehl and other researchers in monitoring the gulls' nesting success and censusing the colonies.

Legislative and Legal Update

Congressman Norman Shumway's Mono Lake National Monument bills are still alive, but no action is anticipated until 1983. The bills are currently before the House Subcommittee on Public Lands and National Parks. Chairman John Seiberling is interested and well informed, and may visit Mono next year.

The Mono Lake research bill, authored by California decision is expected sometime this fall. If the ruling Assemblyman Norman Waters, died for lack of funds, but will be case will probably return to federal court for trial.

revived in 1983. There was widespread support for the bill, which would have appropriated \$500,000 for the purpose of evaluating the impact of water diversions on the Mono Lake ecosystem.

We are still on the edge of our seats waiting for the California Supreme Court's crucial ruling on whether the "public trust doctrine" can be invoked to limit water diversions and save Mono Lake. A decision is expected sometime this fall. If the ruling is favorable, the case will probably return to federal court for trial.

Congressman Patterson Visits Mono Lake

After a tour and canoe trip among the tufa, Orange County Congressman Jerry Patterson agreed that Mono Lake is indeed "worth saving." The congressman, his wife and son were introduced to Mono's wonders by Barbara Blake of the Sierra Club and Ed Grosswiler and David Gaines of the Mono Lake Committee. We look forward to his help in finding a way to keep the lake alive and healthy.

Bradley on Mono Lake

This form letter was sent by Los Angeles Mayor and gubernatorial hopeful Tom Bradley in response to recent inquiries about his stand on Mono Lake. It is dated July 27, 1982.

Thank you for sharing with me your comments relative to the Mono Lake issue. I, too, am deeply concerned over the environmental problems associated with Mono Lake, the source of 20 percent of Los Angeles' water supply.

Recently the City of Los Angeles has received several requests from State legislators and environmental interests to effect a reduction in our 1982 water diversions from the Mono Basin in order to maintain the water level of Mono Lake at its present elevation.

I have been actively working with our Los Angeles Department of Water and Power on a variety of approaches to stabilizing the lake this year. I am pleased to inform you that through these efforts and the fact that there has been an above normal amount of runoff from the Sierras [sic] this year, the Department of Water and Power now plans to release enough water into the lake to stabilize the 1982 Mono Lake elevation and still meet the needs of the City of Los Angeles.

The Department of Water and Power has also joined with the U.S. Fish and Wildlife Service in a three year study of migratory birds at Mono Lake. I see this study agreement as a significant step toward gaining a better understanding of the lake environment.

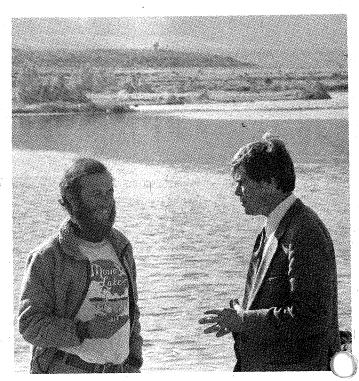
I appreciate your interest and concern in this matter, and I am gratified to be able to advise you of these recent positive steps which we have taken to address the Mono Lake problem.

Lehman Vows Support For Mono Lake

On a recent visit to Mono, Assemblyman Richard Lehman declared himself "committed to the preservation of the lake" and willing to "fight to see that it is protected."

Lehman, a Democrat, is seeking election in the new 18th Congressional District created by reapportionment. The district includes the Mono Lake area and the northern San Joaquin Valley.

Mono Lake's current representative, Republican Norman Shumway, has had his district shifted northwards. Shumway, a strong Mono Lake supporter, is the author of the current national mormant legislation.



California Assemblyman and Congressional candidate Richard Lehman discusses the Mono Lake situation with MLC Chairman David Gaines. Lehman is a strong Mono Lake supporter.

Yes on 13

This November California voters will have the opportunity to enact far-reaching, needed reforms in state water policy by voting Yes on Proposition 13.

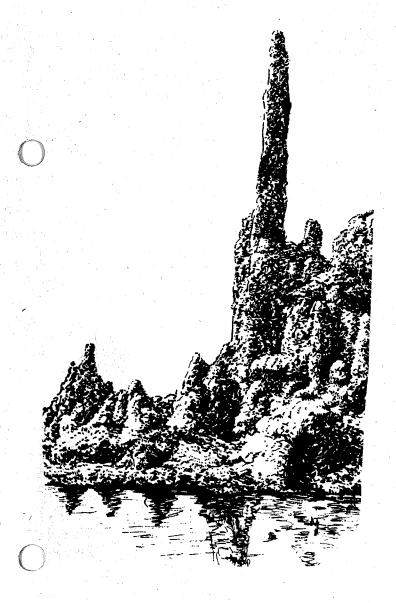
The water reform initiative, which is strongly supported by the Mono Lake Committee, California League of Women Voters, National Audubon Society, Sierra Club and many other groups, would mandate water conservation, control of groundwater overdraft and greater protection for rivers, lakes, bays, estuaries and wetlands. It would also restrict the filling of New Melones Reservoir on the Stanislaus River until contracts are signed for delivering 75% of the water at its actual (non-subsidized) cost.

Prop 13's common-sense, urgently needed reforms are be-

ing bitterly fought, however, by well-heeled agribusiness and water interests, including the Los Angeles Department of Water and Power. "It gives a lot people who are our enemies a lot of arrows in their quiver," DWP attorney Kenneth Downey told the L.A. Times.

It will take a massive, grassroots, volunteer effort to counter the considerable muscle of Prop. 13's opponents. Unlike the Peripheral Canal, agribusiness and water interests are united against the water reform initiative, and will be spending millions of dollars to defeat it. But with **your** help, we can pass Prop. 13 and save what is left of our natural waterscapes.

This is a key battle we have to win.



THE NATIONAL AUDUBON SOCIETY Invites Mono Lake Committee Members and Friends To Its 77th ANNUAL DINNER

Thursday, November 4, 1982
Cocktails at 6:30 p.m.
Dinner at 7:30 p.m.
The Biltmore Hotel
515 South Olive Street
Los Angeles
FEATURING
Address by Dr. Russell W. Peterson

President of National Audubon Society

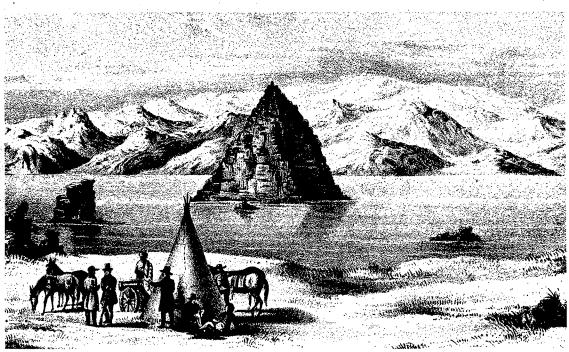
Presentation of the Prestigious Audubon Medal

New Audio-Visual Presentation on Mono Lake by David Gaines

Informal \$30.00 per Person For Reservations, call National Audubon at (213) 441-3466

Nevada's Pyramid Lake: Another Mono?

by John Anderson and Janice Enns



SKETCH OF THE PYRAMID FROM FREMONT'S REPORT

Although Mono Lake possesses its own unique beauty, it is by no means the only large lake within the confines of the Great Basin desert. Pyramid Lake, approximately 140 miles north-northeast of Mono, shares many of the features that make Mono so exciting from both an esthetic and a biological point of view. Moreover, like Mono, Pyramid Lake faces an uncertain future because of ongoing water diversions.

Pyramid, like Mono, forms the final natural catch-basin for a river drainage system, in this case the Truckee River. The Truckee rises in Lake Tahoe, and flows east through Reno to end in Pyramid Lake. Since the only way that water can then leave the lake is through evaporation, Pyramid has become quite saline, though not on the scale of Mono.

Although the waters of Pyramid Lake are too bitter for prolonged human consumption, they do support a diverse fish population, including chub, trout and an endemic species of lake sucker, the Cuiui. This latter species served as a major food source for members of the Paiute Indian tribe, who were the original human inhabitants of the area. The Paiute still own the lake and the land immediately surrounding it.

At the present time, Pyramid Lake contains a single major island, Anaho, which provides a safe nesting site for several species of colonially nesting birds. These include a small colony of California Gulls, as many as 200 Great Blue Herons, over 1,000 Double-crested Cormorants and what may once have been the world's largest colony of White Pelicans.

As the California Gull is the symbol of Mono, the White Pelican best represents the bird life of Pyramd Lake. Even the most hardened bird-hater cannot fail to be moved by the pelican's awesome grace and beauty in flight, while to a biologist, the Anaho Island pelican colony presents a marvelous series of puzzles crying to be answered.

Before the arrival of large numbers of Europeans in the Pyramarea, well over 15,000 White Pelicans may have nested on Anaho. Persecution by misguided fishermen during the late 1910s and early 1920s, however, led to a major decline in pelican numbers. The fishermen mistakenly believed that the pelicans were responsible for the collapse of the Pyramid Lake fishery. Recently, aided by joint protection from the Pyramid Lake Paiute Indian Tribe and the U.S. Fish and Wildlife Service, which administer the Anaho Island National Wildlife Refuge, the birds appear to be staging a comeback. There are currently about 6,000 pelicans nesting on the island.

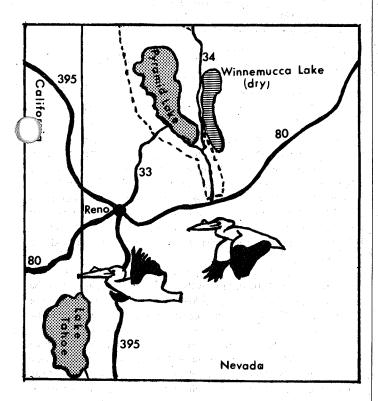
The real cause of the decline in Pyramid's fish population was the loss of spawning runs in the Truckee River with the construction of Derby Dam. At this dam, Truckee River water is shunted into the Newlands Agricultural Project. As a result of this diversion, the surface level of Pyramid Lake began to fall rapidly in a manner analagous to Mono. From a level of 3,869 feet in 1910, the lake dropped to 3,784 feet in 1966. Projections indicated that Anaho Island might be joined to the mainland as early as the mid-1970s. Should this have occurred, we would have seen a disaster of even greater proportions than we are witnessing at Mono, because Pyramid's thousands of pelicans, gulls and cormorants have no other islands available to them for nesting. Fortunately, however, changes in water use policies postponed the colonies' demise, and Pyramid Lake has even managed to rise several feet in the interim.

Still the Pyramid Lake ecosystem is seriously threatened. The rapidly growing population of the Reno area is placing an increasingly heavy burden upon the existing water-supply systems. As the demand for water rises, there may be increasing pressure for furth diversions from the Truckee River with potentially disastrous consequences for Pyramid Lake.

Mono Lake Vignette - January 17, 1937

from the journal of ornithologist Joseph Grinnell (thanks to Steve Herman for passing this on)

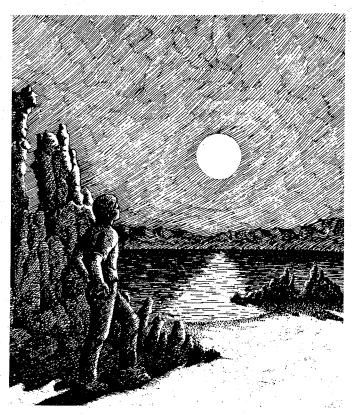
Clear; quiet; marvelously beautiful morning. We went strolling, from 7 to 9:30. The lake in this segment of its margin, which is against quickly rising high mountains with banks of snow still persisting a seemingly short distance up them (but probably 2,000 feet at least), has a belt of seepage ground, with abundant springs here and there. There are large thickets of willow and shepherdia, and lines of non-native poplars (mostly now dying) about the one-time ranches now "going back to nature," because here, as in Owens Valley, they've been bought out by Los Angeles, so that all the water can be taken from the east-Sierra drainage. When the tunnel "under the craters" is done, nine miles of it, then all the inflow of Mono Lake will be taken, and the lake will dry up! No more breeding colony of California Gulls on Paoha and Negit islands (I heard a man say last night the present colony there numbers 60,000 birds!).



→ A group of concerned citizens has joined together to form the "Friends of Pyramid Lake," a non-profit educational, scientific and charitable corporation. They plan both local and national campaigns to educate the public about the unique resources of Pyramid Lake and the importance of preserving these resources for future generations.

At present the Indians of Pyramid Lake Paiute Tribe are involved in lawsuits against the Truckee River farmers, the City of Reno, the es of Nevada and California and other groups. Friends of amid Lake plan to work with the Paiute Indians in their efforts to protect the lake.

For further information, contact: FRIENDS OF PYRAMID LAKE, P.O. BOX 5963, RENO, NV 89505; (702) 359-2234.



Mono Basin Naturalist

We cannot remember a summer with so many spectacular cloud shows. Tropical storms swept north from Baja California across Arizona and Nevada into the Great Basin, sending billowy thunderheads over Mono Lake. One August evening, a vast shimmering rainbow arched from Black Point over Negit and Paoha islands to the south shore, forks of lightning flashing beyond.

With the July arrival of Wilson's Phalaropes, the weather finally warmed. During our lunch breaks, we swam with the brine shrimp and birds in Mono's briny water. Bobbing about like corks, we floated nose to beak with phalaropes, watching them "unwind" in tight little circles to stir up food.

In August, the golden blooms of rabbitbrush announced the wane of summer. A luxuriant flowering of sagebrush lent an auburn tint to Mono's hills. Delicate blue asters adorned the dry slopes. Orange-crowned Warblers, White-crowned Sparrows and other migrants appeared in the thickets of willow along Mono's west shore.

September brought the first frost, zapping our squash and tomatoes and coaxing fiery colors from the aspens. Late in the month, we enjoyed a two-day tropical downpour that washed out a dam near Bishop and gave the lake another big drink. That was followed by a hard freeze and snowstorm that turned the Mono Craters into snow cones. The White Mountains were white with snow when the first full moon of autumn climbed into the sky above them. Its shivery white light shone on half a million Eared Grebes, which had returned to Mono Lake to molt their feathers and put on fat.

No new species were discovered at the lake this summer, although there were several rarities. A Wandering Tattler wandered to Mono's shores on September 4, and two Sabine's gulls—one a breeding plumage adult—appeared around the autumn equinox. Among the more unusual landbirds were a Red-naped Sapsucker, Bobolink and Baltimore Oriole, all in late September.

4

Research Roundup

During 1982, scientists continued to monitor the Mono Lake ecosystem and investigate the impact of increasing salinity.

Over the past three years, the Los Angeles Department of Water and Power (DWP) has taken an increasing role in Mono Lake research. According to a recent report, DWP has spent more than \$300,000 on Mono Lake studies since 1980. In fact, DWP is now funding most ongoing biological research through in-house scientists and hired consultants. In general, DWP has been cooperative in sharing data with other, independent scientists.

In June, DWP signed a three-year cooperative study agreement with the U.S. Fish and Wildlife Service. Its purpose is "to facilitate the cooperation of the two parties in developing and exchanging scientific information on the migratory birds that commonly occur at Mono Lake, and the ecological requirements of these species at Mono Lake and other lakes as may be determined to be important for this research." DWP agreed to allocate \$150,000, and USFWS an equal sum contingent upon availability of funding from Congress.

Several independent scientists reported that their research was hampered by lack of funds. "Support of both science and scientists," wrote David Herbst of Oregon State University, "is desperately needed ... Monitoring alone will not provide credible answers to why Mono is an endangered ecosystem ..."

The following unedited research updates were submitted by scientists currently working at Mono Lake.

Algae and Brine Shrimp

During 1982, we continued to monitor Mono Lake's brine shrimp on an ongoing basis. This included semimonthly censuses during spring and summer, and monthly censuses in the fall. Our program included vertical and horizontal shrimp tows, phytoplankton measurements, and salinity, pH, temperature and dissolved oxygen readings at 12 stations in the lake. Several times during the year we took water samples for chemical analysis. We also began preliminary experiments on the brine shrimp's hatching mechanisms.

From mid-summer to early fall, Dr. Frank Conte of Dircon Consultants joined us on several of our surveys. Dr. Conte conducted a DWP funded census of the brine shrimp in Mono Lake's shallow shoreline tufa areas. Mr. Robert Jellison of the University of California at Santa Barbara also accompanied us on some of our surveys. Mr. Jellison, under the direction of Dr. John Melack of UCSB, conducted a DWP-funded study on primary productivity, nutrient concentrations, and light levels in Mono Lake.

Melinda Thun and Gwen Schnoor Los Angeles Department of Water and Power

An ongoing limnological research project at Mono Lake is now in its fifth year. Over the past four years we have maintained a standardized sampling program for the brine shrimp, algae and physical and chemical parameters in order to monitor changes accompanying the drop in lake level. Over the past several years there has been a major decrease in the spring brine shrimp densities, apparently due to the failure of overwintering eggs to hatch normally. This pattern was continued in the present year, making it extremely unlikely that the drop is a fluke or a temporary fluctuation in the population. This decrease has had several repercussions through the ecosystem, including an increased reproductive rate in June leading to a veritable population explosion by late July. At the same time, the algal food supply, which is in excess for the spring shrimp, has been dropping

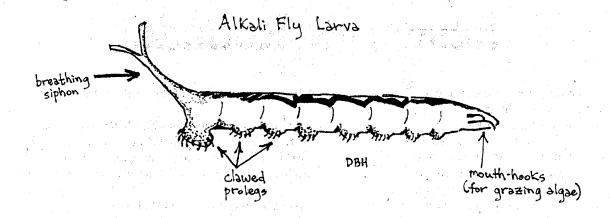
to unusually low levels by mid-summer. It is too early to say whether the shrimp-algae ecosystem has stablized in this new pattern, or whether further repercussions are in progress.

Given adequate funding, future work will continue and hopeful, expand the systematic year-to-year sampling program, which is essential to documenting any changes within the ecosystem. Of particular interest will be to determine whether a new stable state will be reached or whether further disruptions are imminent. Special in situ and laboratory experimental work will focus on understanding the impact of these ecological perturbations on critical points, such as the brine shrimp reproductive cycle, nutritional requirements, fecundity and egg quality.

Petra Lenz University of California at Santa Barbara

In late February of this year, Petra Lenz and I launched the first in depth study of spring brine shrimp population dynamics at Mono Lake. Much of our efforts were directed toward studying the hatching of the shrimp's dormant egg. My recent laboratory work on hatching showed the eggs of the Mono Lake shrimp to have unique dormancy requirements: they require a three month period in cold, low oxygen conditions before optimum hatching occurs. We would like to know how these laboratory results relate to the egg in its natural environment. Our research this spring has provided us with a basis from which to answer questions such as this.

A low rate of hatching occurred from late February through mid-April this year, contrasting with the large synchronous hatch observed in March of 1979. This low hatching frequency also contrawith laboratory experiments in which synchronous hatching was most commonly observed. Overall numbers remained low until a large second generation was produced in June, continuing a pattern



which has been observed over the last several years. We were also interested in where the eggs were hatching throughout the spring season: near-shore vs. offshore, and deep vs. shallow depths. To supplement field work, we undertook a series of laboratory hatching experiments in which we addressed factors such as timing of hatching and the effects of temperature, salinity and cyst character type.

We learned a tremendous amount about the spring brine shrimp hatch. However, many aspects of the hatch are still unclear, for instance, the role of oxygen and temperature in dormancy at Mono Lake. Laboratory studies will continue to better our understanding of how key environmental parameters affect dormancy. It is desirable to continue a spring sampling program in conjunction with the ongoing summer sampling so that we can detect changes in tring hatching and population dynamics that may occur due to man-induced disruption of the Mono Lake ecosystem. It can not be stressed enough how important the spring hatch is to the continuation of a viable and productive brine shrimp population.

Gayle Dana University of California at Davis Besides direct effects on the physiology of larvae, concentrating of lake salts may indirectly affect the larval stage by changing the quantity or quality of algal food available. This aspect is being investigated through studies on chemical limitations to algal growth, and food budgeting prioritites of developing larvae.

Comparison of the size of adult flies at Mono Lake to populations at other lakes and ponds in the western Great Basin has suggested that salinity may in part have produced distinct differences in size and related traits such as egg producing capacity. Review of museum collections of adult flies and pupae from Mono Lake documents a reduction in size of these life stages over the period from prior to diversions to present. This supports the hypothesis that increasing salinity is a restricting factor in the life cycle and abundance of this insect.

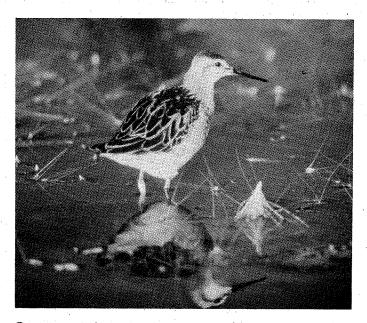
Experimental studies of innate and environmental influences on development, reproduction, and the physiological division of nutritional resources, are being pursued so that the extent and limits of adaptability can be predicted.

> David Herbst Oregon State University

Brine Flies

Along the shallow margins of these alkaline desert waters dwell the immature stages of the adult flies which darken the shores of Mono Lake. Alkali fly larvae move about on short clawed legs over wave-washed tufa-reef of the inland oceans, and graze algae from the surface of these finely sculpted deposits. Completing their development through three stages, the larvae become rigid and attach themselves securely to the tufa, forming a hardened case (the pupa) within which the adult fly forms and soon emerges from the lake to live out its life at the water's edge. To this world of dense salt waters I have directed my attention for six years, to understand relationships between the chemical stress of this environment and the vitality of the alkali fly, its algal food, and the Mono Lake ecosystem in general.

Increased salt concentration and limited food supply both prolong the development of larvae and produce high mortality rates when conditions are most severe. Earlier stages are more sensitive to these stresses than later stages. Rearing this insect through several generans in the laboratory is underway, and exposure of successive generations to graded increases in salinity will indicate the potential for an evolved (genetic) adjustment to occur in the Mono Lake population as the habitat becomes more saline.



Over 100,000 Wilson's Phalaropes arrived at Mono Lake in July, right on schedule.

Terrestrial Insects

Insect ecology in all aspects was influenced heavily this year by the unusually abundant rainfall in every month. By mid-summer the Mono Craters region was carpeted with a thick mat of the small monkey flower *Mimulus coccineus*, making the sand flats glow a fluorescent pink. Many other wildflowers flourished, providing excellent forage for bees, flies and other nectar-feeding species. Bumblebee populations may be high next year if the early winter does not dispatch too many queens before they can dig their hibernation chambers. Competition studies involving honey bees and wild species were complicated by several rainstorms and a devastating hail on July 25 which severely depleted the resource base at Big Sand Flat.

The ongoing burn refaunation study at Panum Crater demonstrated the slow nature of ecological recovery of sagebrush scrub from fire. The burn occurred in mid-July, 1981. After one year and superabundant rainfall, less than 10 plant species had begun to invade the site. The area still appears almost as blasted as when the embers glowed last year. However, contents of pitfall traps show that the ground is teeming with arthropod activity, especially at night. Scorpions were common in the traps, and ground spiders of various species. Also abundant were the wide-ranging and familiar "stink bugs," actually a ground beetle. Different from last year was an apparent increase in jerusalem crickets—large, subterranean root feeders. This indicates that the roots of many of the large shrubs at the site may still be alive. Control traps in the unburned brush yielded many tiny, moisture-loving springtails or "water fleas," and a greater number of lizards and mice, which seek shelter from predators in the brush.

Evan Sugden University of California at Davis

Migratory Birds

Year-round studies on migratory birds were carried out by a research team from Hubbs-Sea World Research Institute, with the support of the Los Angeles Department of Water and Power, under a cooperative agreement with the U.S. Fish and Wildlife Service.

A major program, directed by Sheila A. Mahoney, addressed the question of how the California Gulls are able to cope with the extremely high salinity of the lake. The program combined field and laboratory studies of gulls of all ages to determine their ability to tolerate lake water of differing concentrations. In addition, behavioral studies were made of the birds' daily movement patterns, their use of fresh water sources and their foraging habits.

Supplemental studies involved determining the fledging success of juvenile gulls from islands to the west of Paoha and comparing the dispersal patterns of chicks from several nesting islands. Approximately 300 chicks were color-banded and weighed, and many were recaptured, providing important data on growth rates.

Detailed studies on the migratory schedules, distribution, abundance, age and sex ratios and ecological requirements of Wilson's Phalaropes, Northern Phalaropes and Eared Grebes, begun in 1981, were continued.

Beached bird censuses were conducted at several parts of the lake through the entire year to establish current patterns of mortality for all of the major species. These data, when combined with information on abundance, provide an estimate of mortality rates as well.

Joseph R. Jehl, Jr.

Hubbs-Sea World Research Institute, San Diego

California Gulls

With the assistance of Virginia Norris and field assistants, I continued to study fledging success, clutch size, egg quality and parental care behavior of Mono Lake's California Gulls. Additional work focused on the physiology and ecology of thermal regulation in the chicks. I also conducted similar, comparative studies at Great Salt Lake in Utah. I am now completing my Ph.D thesis on the California Gull, and will be publishing the results of my studies in several papers over the next two years.

David Winkler University of California, Berkeley

Other Studies

In addition to the above, the following studies were pursued at Mono Lake this year:

- 1. Scott Stine (University of California, Berkeley) continued to study lake level fluctuations and volcanic events of the past 10,000 years. He has also initiated a study of the tufa.
- 2. Dr. David Chapman (University of California, Los Angeles) conducted research on the salinity tolerance of Mono Lake's algae. He is funded by DWP.

Volcanic Tufa?

Are tufa towers "ancient volcanic extrusions?" Not according to geologists, who agree that tufa towers form as freshwater springs bubble up through Mono Lake's carbonated brine.

Nevertheless, the July 20 New York Times employs a dramatic photograph of Mono's tufa to illustrate an article headlined, "In Sierra Nevada, Ominous Tremors Could Mean Another Mt. St. Helens." At least New Yorkers are hearing of the lake, even though their reporters are confusing "tuff" with "tufa."

Historical Mono Lake Photographs Needed

We need historical photographs of recreational activities at Mono Lake, especially during the 1920s and 1930s. If you are willing to loan us original photographs, we will copy and return them. Or we would be happy to cover the expense of having copies made.

Mono Lake Christmas Bird Count Scheduled for December 31

The sixth annual Mono Lake Christmas Bird Count has been scheduled for Friday, December 31. Everyone with an interest in birds is invited to participate. You need not be an expert to contribute to this annual count of every bird within a 15-mile diameter circle centered along Mono's west shore. The Mono Lake Committee offers all counters a place to throw a sleeping bag on the nights of the 30th and 31st. There will be a compilation and potluck dinner of New Year's Eve. Bring plenty of warm clothes, and don't forget sk and binoculars! For more information, call the Mono Lake Committee in Lee Vining.

MLC News and Activities



Bikeathoners Bring Back Water

The Third Annual L.A. to Mono Lake Bike-a-thon was a resounding success. Thirty-two hardy cyclists—three times last year's ew—scooped water from DWP's moat-like reflecting pool in downtown Los Angeles and vanished into the traffic and smog. For six days the riders battled gravity and politics to carry the water across 350 miles of mountain and desert to its natural destination—Mono Lake. More cyclists joined the watery crusade along the route, swelling the ranks for the final triumphant swoop down to Mono's receding shores.

The enthusiastic bikeathoners ranged in age from 14 to 67. There were national class racing cyclists and triathloners as well as many attempting their first long-distance tour. They came from across California and from as far away as Wisconsin to pedal for a cause they believed in . . . and had a good time doing it.

The bike-a-thon made news all the way to the lake. It was covered by Los Angeles television, and by numerous radio stations and newspapers throughout California. Labor Day vacationers learned of the bike-a-thon on their car radios, and honked support as they sped past. In Inyokern, the cyclists were even toasted by the president of the local Chamber of Commerce.

As a fund raiser, the bike-a-thon exceeded our most optimistic expectations. Pledges passed the \$13,000 mark, with about \$6,000 coming from MLC members, \$4,000 from pledges raised by non-staff bikeathoners, and \$3,000 from business sponsors, mostly in Mono and Inyo counties. Edith Gaines, one of Mono's most tireless boosters, raised over \$1,000 from Mammoth Lakes businesses alone! Over 500 people sponsored the epic trans-desert ride.

Pucket Walk Hikes Our Spirits

The 1982 Labor Day "bucket walkers" made up in enthusiasm what they lacked in numbers. Led by Father Kelley of Bishop, the 100 sign-carrying marchers toted water from the Lee Vining Creek

Diversion Dam to Mono Lake. Among the participants was David Brower of Friends of the Earth. Ed Grosswiler, Marty O'Malley and Michael Hoke inaugurated the "first annual" bucket run. Brett Engstrom, Steve Catton and David DeSante helped keep things organized.

In the afternoon, hard-core monophiles gathered at the Mono Lake County Park for our annual meeting, state-of-the-lake report and picnic. As a full moon rose above Paoha Island, storyteller David Barrett danced out of the willows and enchanted us with stories of coyote and the time before the white man.

Busiest Summer Ever

Our Mono Lake Information Center in Lee Vining enjoyed its busiest and most successful summer ever, recruiting almost 1,000 new members and raising over \$50,000.

With the help of able, dedicated volunteers and interns, we were able to keep the center open 12 hours a day and 7 days a week from June through September. We led free field trips every weekend, and presented the Mono Lake slide program at least 5 times every day.

Are we ever grateful to volunteers Steve Catton, Viki Lang, Sarah Jewett, Kathleen O'Connell and George Larrimore, and to interns Cheryl Archer, Janice Enns, Debby Jewitt and Laura Shank. Come back next year!

Staff Hellos and Good-byes

We bid reluctant farewell to our Lee Vining office managers Jim and Liz Marotta-Jaenaecke, as well as our summer cover-girl Jasmine and her brother, Mischa. Because of a heart condition, Jim found he could not remain healthy at 6,800 feet. Fortunately, he has found satisfying sea level employment at Friends of the Earth as David Brower's personal assistant.

Luckily, one of our most competent, dedicated and personable interns, Debby Jewett, has taken the reins as our new Lee Vining office manager.

Michael Hoke has resigned as Special Events Coordinator to complete his degree in political theory at San Francisco State. Michael worked tirelessly on the coordination of the Mono Lake-Water Reform Drawing as well as numerous volunteer nights at our San Francisco office. Michael pledges to keep on helping as one of the coordinators of our Bay Area volunteer network. Thanks for everything, Michael!

Fortunately, we won't miss a step because Michael Guilkey, who has been helping out on the drawing since day one, has become our new Special Events Coordinator. Michael also will be working with our development director Marty O'Malley on many other fundraising projects and events.



Hooray, Bikeathoners!

To the intrepid participants in the 1982 L.A. to Mono Lake Bike-athon, we owe the success of this vital awareness and fund-raising event. Tufa cheers to everyone, especially Steve Wenker, Norr Vedder, Bill Mendoza, Michael Green and Jill Ramstedt, for raising over \$500 apiece!

Gwynne Axelrod Ann Bikle June Bishop Chris Burge Art Campbell Bryan Cashore Rob Clark Lou D'Allesandra Paul Ennis Martin Fauts Tom Fisher

Dayid Gaines
Will Gleason
Heidi Hopkins
Karen Johnson
Nathaniel Jorden
Patty Kline
Jill McIntire
Bill Mendoza
Ruth Newman
Jill Ramstedt
Laura Saltzman
John Schaefer

Craig Schlattman Steve Shkolnik Sierra Bicycle Club Diana Skinner Jim Stehn David Takemoto-Weerts Tony Teti Norma Vedder Bob Weiss Steve Wenker Stuart Zakow

Bikeathon Business Sponsors

Lee Vining and June Lake

Augie's Chevron Service, Best Western Lakeview Motel, Channel Union 76, El Mono Motel, Gateway Motel, Hess Garage and Exxon Service, June Lake Garage, Kellogg's Arco, Lee Vining Market, Warren's Off-Highway Motel

Mammoth Lakes

Berger's, Cask 'n Cleaver, Convict Lake Resort, Doug Kittredge, Designs Unlimited, Filson's, Gateway True-Value Hardware, High Mountain Trading, Lake Mary Store, Mill City Laundry, The Mogul, Mammoth Lakes Laundromat, Pioneer Market, Pea Soup Andersen's, The Outfitter, Rafters, Dennee's Resort Furnishings, Sky King Photo, Swiss Cafe, Sports and Trails, The Store for Natural Foods, Tamarack Lodge, Tilly's Terrace, Whiskey Creek, Wilderness Sports, Wood's Lodge

Bishop

Bill Bowles Insurance Agency, Bishop Cleaners, Carol's Hallmark, Don Leake Jewelry, Fred Henke Insurance, Hal's Auto Body, Holmes Health Haven, Inyo-Mono Body Shop, Joseph's Bi-Rite Market, KIBS Radio, Meat House, Paradise Lodge, Richmond Auto Body, Silver Spoke Bicycle Shop, Tiger Tote Mini-Mart, Wheeler and Wilson Shoe Shop

Yosemite

Yosemite Park and Curry Company, Yosemite Natural History Association

Elsewhere

Clyde Engle Screen Process Company (Oakland), Genny Smith Books (Palo Alto), Missing Link Bicycle Shop (Berkeley)

Bike-a-thon Letter

The following letter was sent by bikeathoner Nathaniel Jorden to his sponsors:

Thank you for your support. We made it all the way from the smog-filled L.A. basin to the beautiful Sierra, of which Mono Lake is an integral part.

The central part of the trek, through Owens Valley, was hot but beautiful. To me it was ironic that on our ride to save Mono Lake we were traveling through an area that had been sucked dry by the City of Los Angeles. All the way up the valley we met people who ardently supported our efforts, people who live in the small, green towns that stand out for miles in a valley that was once a thriving ecosystem but is now, thanks to DWP, dry and struggling for survival.

One particular statement that to me summed it all up was made by Father Kelley, a minister in Bishop. The comment was, "only God has water rights."

Thank you again for your support. I rode the 350 miles and now its your turn to help save Mono Lake. You'll be helping Mono Lake but you're also helping yourself to a more enjoyable stay on earth.

Thank Yous

We owe the success of the bike-a-thon to many individuals and businesses, especially everyone who pledged support to the riders.

The wit, wisdom and compassion of our chief sag-wagon driver, nurse and bottle washer Sandi Johnson kept everyone in high spirits. Jim Stehn, one of the bikeathoners, loaned us his van for use as a sag wagon and inspired us onward with virtuosic trumpet solos. Nancy Hopkins also sagged along faithfully and catered a luscious fruit salad dinner beneath the cottonwoods at Lone Pine. We are especially grateful to Father Christopher Kelley, and the congregation of St. Timothy's Episcopalian Church in Bishop for lodging and food, both spiritual and material, in the form of a special mass for Mono Lake followed by a delicious chili dinner. The Kern County Parks Department graciously let us sleep in the Inyokern City Park, and even turned off the sprinklers that traditionally douse bikeathoners at two in the morning. At Mammoth Lakes, Camp High Sierra provided camping space free of charge. Gardner Martin of Easy Racers, Inc. of Watsonville lent his state-of-the-art recumbent bicycle of the future to bikeathoner Tom Fisher. Thanks also go to Tim Gray of Gray's Graphics and MLC intern Cheryl Archer for the printing and design of commemorative "I Survived the 1982 L.A. to Mono Lake Bike-a-thon" T-shirts, all free of charge. The U.C. River side Bicycle Club was kind enough to lend us a bike rack. Last but not least to everyone who encouraged us on with gestures and honks of support, we offer our gratitude and extend an invitation to join us next year on the 4th Annual L.A. to Mono Lake Bike-a-thon!

REI Grant Helps Membership Development



Building our membership is crucial to developing the political clout to save Mono Lake. Recreational Equipment, Inc., a large outdoor cooperative, has awarded the Mono Lake Committee a \$2,500 grant for membership development. These funds will enable us to send Mono Lake information to thousands of prospective new members.

MLC Development Director Marty O'Malley accepted the grant from Arlene Hiuger, manager of REI's Berkeley store, on August 26. The evening ceremony included a festival of Mono Lake visual naterial, including two films and the MLC slide show. Our sincere lanks to REI for their generous support and faith in our efforts.

Mono Lake—Water Reform Drawing Successful

The Mono Lake-Water Reform Drawing has raised over \$30,000 for the Mono Lake and Proposition 13 warchests, and donations are still pouring in. Proceeds are being divided equally between the Mono Lake Committee and the California Water Protection Council, the backers of the water reform initiative.

A note of apology and explanation to all our members who received multiple mailings: the drawing packages were sent to over 200,000 people on more than a dozen mailing lists, and it was logistically impossible to prevent duplications. We appreciate your understanding.

Position Available in Lee Vining

We have an opening for a full-time (40 hours/week) intern at our Mono Lake office in Lee Vining. The internship could lead to full-time employment in January, when two of our staff go on half time.

Requirements include an active interest in environmental issues and natural history, the ability to communicate effectively with the public, good work habits and typewriting skills. The ownership of a car is desirable.

Responsibilities include sorting and answering mail, filling mail rders, answering visitor questions, presenting slide programs, ading field trips, maintaining information center displays and other "special" projects as time allows.

Compensation consists of housing in Lee Vining and a stipend of \$250/month. Full-time staff receive \$900/month.

A Word from the Mail Desk

We thought an explanation of how our mailing list is processed would help you help us.

Our mailing list is stored on a computer in Oakland. In Lee Vining, we fill out forms to add, change or delete names, addresses and renewal dates. Every month these are sent to Oakland to update the list. We try to be as up-to-date as possible before mailing out newsletters, but a lag time of about a month is unavoidable.

Your mailing label includes more information than just your name and address. On the upper left is your computer number which we must refer to when updating or correcting the mailing list. On the upper right are four code numbers which tell us (1) when your membership expired, (2) your membership category, i.e., regular, sponsor, monomaniac, etc., (3) whether you are willing to write letters or volunteer, and (4) special information, such as whether you do not want your name to be traded with other environmental groups. For instance, if you are coded 9-2-2-10, we would know your membership expires in the fall of 1983, you joined as a regular member, you are willing to write letters and you do not want your name traded.

Due to understaffing, we are always a week or two behind in answering and processing mail. You can make our job faster and easier (and cheer up the mail crew) by:

- 1. Telling us your computer number or sending in your cut-out label (if you are already a member).
- 2. Telling us what your check is for, e.g., renewal, new membership, mail order, additional donation, etc.
- 3. Renewing with the first renewal letter.
- 4. Letting us know of any errors on your mailing label. Is your name mispelled? Is your address correct? And don't forget to tell us when you move!

We do occasionally make mistakes, so please let us know and we'll correct the problem. A real person reads the mail, not a computer.

After you join or renew, you will receive four quarterly newsletters. At the same time as the fourth newsletter, we will send you a renewal notice and remittance envelope. During the year, we also make occasional fund-raising appeals, as for the bike-a-thon. When you donate in response to these appeals, it is treated as an additional contribution, not a renewal.

Can We Trade Your Name?

In order to inform new people about Mono Lake and build our membership, we are trading our mailing list with other environmental organizations. Most groups will trade on a one-to-one basis. If you do not wish your name traded, however, just let our Lee Vining office know as soon as possible.

If you have asked us not to trade your name and contacted us before September 31, please check your mailing label to verify that you are coded "10" in the last column on the upper left. And please remember the unavoidable time lag. If your request arrives in November and we traded our list in October, the other group's literature may reach you in December or January, and you'll then think us traitors (traders). By the way, when we trade our list to another group, it can be used only once and cannot be passed on.

New Mono Lake Area Code

Attention all MLC correspondents! Beginning November 6, the area code of our Mono Lake office will change from 714 to 619. Please update your telephone directories.

Accolades

The Mono Lake Committee and the California Water Protection Council owe great thanks to the 20 volunteers who helped us process over 3,000 returns from our benefit drawing at our San Francisco office: Valerie Benoit, Jo Brownold, Denise Choiniere; Paul Doctor, Larry Eastwick, Joe Friedman, David Goldberg, Jeff Greenhouse, Michael and Sally Guilkey, Arlene, Tom, Jackie, Jennifer and Kathy Hoke, Paul Lyon, Marjorie Sperry, Jeffrey Trotter, Lillian Vaugn and Nancy Wiltsek. Karen Greer of Sandwiched-In, a San Francisco gourmet catering service, provided snacks on volunteer nights. We are also grateful to Friends of the Earth for allowing us use of their conference room and adding machines.

We raised over \$1,000 at the Labor Day Arts and Crafts Fair in Mammoth Lakes, thanks to the help of hard-working volunteers Edith and Mort Gaines, Jan, Matt and Mike Dunn, Steve Catton and George Larimore. We are also grateful to Don Dunn's wood pile for supplying materials for the booth!

To everyone who donated used books to sell at our Lee Vining Information Center, thank you! They are selling briskly and raising funds for our favorite lake. Additional donations are most welcome.

A belated thank you to everyone who helped make the April 16 St. Mary's College reception and benefit in Moraga a success. We are especially grateful to Stony Ridge Winery of Pleasanton and Lake Merritt Wine and Cheese of Oakland for donating wine, to Ethan Luhks of San Francisco Cheese Imports and the Orowheat Bakery Company of San Francisco for donating cheese and bread, and to Elaine DeMann of Alameda for preparing elegant deserts. Steve Johnson, curator of the At Mono Lake Photographic Exhibit, Mark Palmer of the Sierra Club and Ann Harlow of St. Mary's College gave generously of their time and energy.

Thanks to Marc Chappell and Mrs. Wesley M. Noble for donating valuable photographs. Our sincere gratitude to the California Alpine Club, West Los Angeles Group of the Sierra Club, the Eastern California Historical Society, the Fresno Audubon birdathoners, the Palos Verdes Pennisula Audubon Society and the Pasadena Audubon Society for generous donations and continuing support. We gratefully acknowledge a memorial donation on behalf of J.H. Embry.

Electrical Handyman Needed

We need help rewiring our Mono Lake Information Center in Lee Vining to improve lighting and safety. If you would like to volunteer, we would be happy to reimburse you for travel expenses and to put you up while you are here. For more information, please contact Debby Jewett at our Lee Vining office.

Letters

Dear Committee:

I suppport your work, but question the necessity of stamping the return envelopes you enclose with renewal mailings. I now have three stamped envelopes on my desk. I don't like to see my donation wasted.

We share your concern, but have found that stamping remittance envelopes approximately doubles the return. Perhaps people put the unstamped envelopes aside, only to forget about them.

As you didn't respond to our first renewal letter, we sent two reminders. We find many people renew only after one or two reminders. But you can save our funds for more important work by responding to our first renewal appeal.

Sally Judy Gaines, Mail Clerk

I appreciate your kind advice and sincere cooperation during my stay at Mono Lake. Since I came back to Japan, I've been very busy coping with successful work which I brought back from the States. Whenever I take a look at these films, I cannot help remembering

Mono Lake Tufa State Reserve Enjoys Busy First Summer



Over 57,000 people visited the Mono Lake Tufa State Reserve in July and August alone, reported ranger David Carle at MLC's annual Labor Day meeting. Almost 2,000 people attended interpretive walks and slide programs during the same period. Although the majority of visitors came from California, people from India, Israel, Iran, China, Norway, Saudi Arabia, Algeria, Indonesia, Tazmania and 26 other foreign countries also enjoyed Mono's haunting land-scapes. The new reserve is off to a healthy, dynamic start!

The visitor display cases which have been installed at South Tufa and the Old Marina will soon feature graphic materials on tufa formation and the Mono Lake ecosystem. A temporary trail has been established at the Old Marina to guide visitors to the tufa while avoiding the "Mono muck" exposed by receding water. The trail has been getting lots of use.

The road to Navy Beach on Mono's south shore, damaged by winter storms, has been repaired. Numerous buoyant swimmers have been enjoying the broad beach of pumice sand.

Joint management of the reserve by the California Department of Parks and Recreation and the U.S. Bureau of Land Management has been working smoothly. BLM has provided law enforcement rangers on weekends. No tufa-nabbers have been apprehended, and even the heavily used South Tufa Grove has remained virtually free of litter.

While regularly scheduled "tufa walks" end in October, the rangers will be on duty all winter and available for slide programs and guided, group tours by advance reservation. For information, contact: MONO LAKE TUFA STATE RESERVE, P.O. BOX 99, LEE VINING, CA 93541; [714] 647-6331.

those enjoyable days with my gratitude for you. Let me thank you, again. And I wish you health and prosperity.

Masayo Matsubara Tokyo, Japan

Many thanks for all your help while we were filming at Mono Lake. Our filming trip was very successful and the rushes look very good indeed.

Kristina Taylor British Broadcasting Corporation

Thanks for the revisionist view of history in the latest Newsletter I used to think God sent the gulls to save the Mormons from the locusts. Now I see that God sent the locusts to save the gulls from starvation and that the Mormons were incidental benefactors.

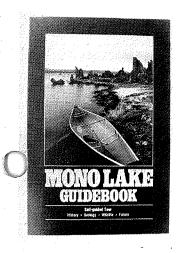
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OMONO LAKE CATALOGUE

T-Shirts, Posters, Postcards, Hats, Honey and Books

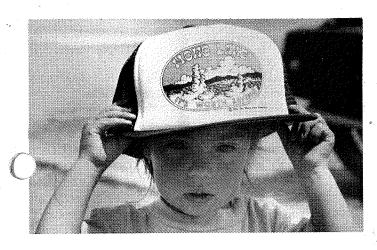
Order early for Christmas . . . and help raise the lake in the new year!

All proceeds benefit the Save Mono Lake campaign.





MONO LAKE GUIDEBOOK. From tufa to volcanoes, brine shrimp to gulls, aqueducts to water conservation, this lively, authoritative guidebook delves into Mono's geology, wildlife and history, and the alternatives to its destruction. Sixty-eight photographs and numerous drawings, figures and tables complement 113 pages of text. By David Gaines and the Mono Lake Committee. \$5.95



MONO LAKE COLOR-AND-LEARN BOOK. An ecological story and coloring book for children of all ages. A waylaid droplet tells the story of Mono Lake's plight. Beautiful drawings and spirited text. "An outstanding accomplishment"... Huey P. Johnson, California Secretary for Resources. By Becky Shearin, Michael Ross, David Gaines and the Mono Lake Committee \$1.95

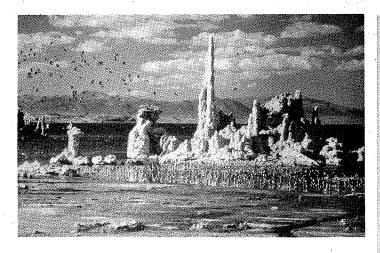


MONO LAKE T-SHIRTS. High quality shirts silk-screened with an evocative and colorful design.

Sizes s, m, l, xl.

Short sleeved kid's in blue or beige	\$6.50
Short sleeved men's in blue or beige	\$7.50
Women's French cut in blue or beige	\$8.50
Baseball jersey style with red, yellow,	
powder blue or navy sleeves	\$9.00

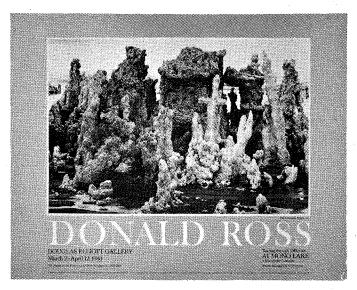
MONO LAKE CAPS. These quality caps, silk-screened with Rebecca Shearin's classic "Mono Lake: It's Worth Saving" logo, are available in six colors (red, light blue, dark blue, brown, purple and black). Their size is adjustable, and fits everyone we know. \$4.95



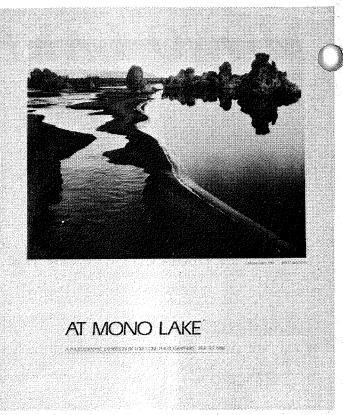
MONO LAKE COLOR POSTER. A striking 15" by 22" color reproduction of shorebirds swooping among tufa spires. \$3.95



SAVE MONO LAKE SEALS. Spread the word! Use these eye-catching blue on white, self-affixing seals on letters and envelopes. Actual diameter, 1½". Roll of 50—\$2.50



DONALD ROSS POSTER. Evocative photograph of tufa formations printed on heavy, 100 lb. cover stock. Blackand-white, 18X22" \$7.50



BRETT WESTON POSTER. Classic 1961 photograph of north shore tufa. This state-of-the-art, laser scan duoton reproduction is printed on 100 lb., varnished cover stock Black-and-white, 18X24". \$10.00

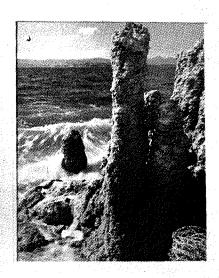




AERIAL POSTER. Looking west from 55,000 feet toward Yosemite National Park, the Coast Ranges and the Pacific Ocean. Mono's ice-age shorelines, the Grand Canyon the Tuolumne, Half Dome, Monterey Bay and most everything in between are clearly visible. Commentary discusses volcanoes, peaks and other geological features. Black-and-white, 19X25". \$1.95



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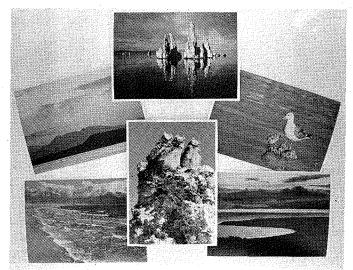
AONO LAKE COLOR PRINTS. High quality 8X10" photographs by Joseph E. Holmes, mounted in 11X14" overmat boards. Two dramatic scenes to choose from: Waves and Tufa (left), or Clouds and Tufa (right).

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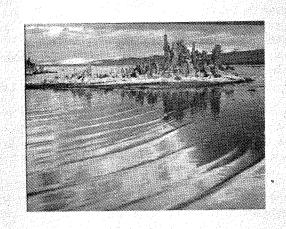
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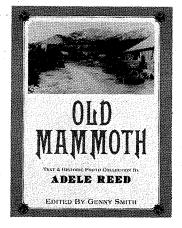
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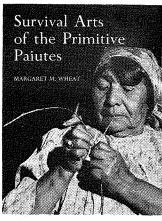
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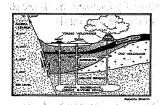
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MAMMALS of the Mono Lake-Tioga Pass Region



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SPECIAL THANKS to Rebecca Shearin for our classic T-shirt and cap designs, to Tim Snyder for our dramatic color poster photograph, to Charlotte Cooper for the art work on our great new seals, and to Evan Sugden and his hard-working bees for a great crop of Mono Lake honey!

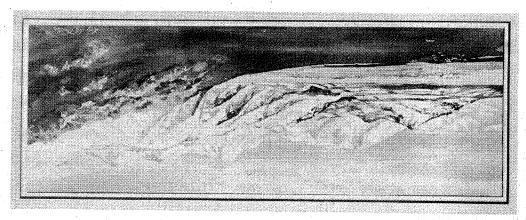
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Mono Lake BENEFIT ARTS DRAWING

Inspired by the creation and donation of a large, all-wool tapestry by Rusty Brockman, an "Arts Drawing" will take place November 19 in the San Francisco Bay Area. Following Rusty's lead, Stephen Johnson contributed his haunting color photograph, Storm, South Shore, Mono Lake, and Lady Jill Mueller offered her exquisite watercolor painting, Winter Vista, Mono Lake. In addition to the generous gifts of these three talented artists, there are 34 other items of brass, stoneware, wood and prints donated by the National Audubon Society from its catalogue inventory.



Winter Vista, Mono Lake

Your contribution to the MONO LAKE BENEFIT ARTS DRAWING will help win water for the lake and might win a prize for you! Just fill out the coupon below and return it with your contribution, and the appropriate number of tickets will be entered in your name.

Everyone is invited to attend the drawing at the REI Co-op in Berkeley at 6 p.m. on November 19, and to join fellow monophiles for dinner at Spenger's restaurant afterwards. For details and more information, please contact Mildred Bennett at (415) 526-1260.

We owe a deep debt of gratitude to Mildred Bennett for voluntarily organizing this great fund raiser. We'll be thanking the many people who helped in our next newsletter.

Enclosed is my contribution of \$_____. Please enter _____ tickets in my name for the MONO LAKE BENEFIT ARTS DRAWING (suggested donation \$1/ticket, \$10/12 tickets). Please make checks payable to the Mono Lake Committee, and return to the Mono Arts Drawing, c/o M. Bennett, 2719 Marin Avenue, Berkeley, CA 94708.



The Mono Lake Committee

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