

MONO LAKE

N E W S L E T T E R

Fall 2017



Mono Lake Rises 4½ Feet

Big Streamflows Benefit Restoration

Free Drawing

Fall Catalog

Just add water.

Sometimes I think of the Mono Basin as ready-made pancake mix—all you have to do is add water.

The Mono Lake Committee's 16,000 members have been working on perfecting the mix since 1978. We envisioned a future with a healthy Mono Lake and streams, we fought for that future all the way to the California Supreme Court, worked with the State Water Board to set in place the rules that will make a healthy future a reality, and made sure the protections didn't exist only on paper. Flour, baking soda, salt, sugar... And then, this year, we got to add the water!

So much water that Mono Lake's rise was visible from one day to the next. So much water that stream channels were covered in a single huge sheet of floodwater. So much water that DWP hasn't been able to fit its allotment into the Los Angeles Aqueduct yet. It was all we could talk about this summer—all we wanted to talk about. It brought such elation to the Mono Basin's human inhabitants and such relief to its habitats and wildlife.

Each foot the lake rose is a direct result of all our collective diligence on behalf of this place. I don't mean that we made it snow, despite all our snow dances during the drought. But when it did snow, finally, Mono Lake was ready to receive the record runoff, because we have been working to make sure the perfect batter mix was ready.

You'll see more ingredients in the pages of this *Newsletter*: Water flowing to Mill Creek through the return ditch for the first time in more than a decade (butter). Sage grouse relocated to Parker Meadow to bolster that spectacular species' sub-population (powdered sugar). Constant vigilance in case HR 23 passes the Senate or the Grant Outlet project hits more snags (blueberries).

In California's extreme climate, we keep the mix ready so that Mono Lake can take advantage of the wet years that will arrive—like this one did, and more will again—and weather the dry years that happen—as they did in the drought, as they will again.

Mono Lake's level is not and cannot be the sole indicator of the progress the Committee has made for the Mono Basin, but it sure feels good to see the lake rising so much and so fast. Let's gather round and enjoy our pancakes. Pass the syrup?

—Elin Ljung, Communications Coordinator



It's always a treat to see an elusive American pine marten (*Martes americana*), like this one photographed in Lundy Canyon this summer.

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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Huge runoff raises lake, reshapes streams

1930s-era infrastructure still limits Rush Creek restoration

by Geoffrey McQuilkin

Last year we were drought weary and went into winter with low expectations. Those expectations were proven wrong—very wrong. 2017 became the winter of storm after storm after storm that led to a spring and summer of genuine awe at the depth of the snowpack and magnitude of the runoff.

It is hard to fathom the scale of what happened. In three weeks in January, scientists note, more than the equivalent of the entire average annual flow of the Colorado River fell as snow onto the Sierra Nevada. And it didn't stop there. By April the Mono Basin watershed had seen snowfall equivalent to four drought winters—2012, 2013, 2014, and 2015—all stacked on top of each other.

When longer days and warmer temperatures arrived, the snow began to melt and a remarkable runoff season began. The Mono Basin runoff forecast exceeded 200% of average, and it was no surprise that Mono's tributaries ran high as they filled with immense volumes of melting snow (see page 12). And then, the high flows lasted week after week—a truly impressive duration. Dynamic pool scouring and channel shaping processes created habitat for fish and wildlife, while overbank flooding, groundwater



ROBBIE DI PAOLO

During peak flow season Mono Lake Committee staff and hydrology consultants spent days out along the streams, tracking—and reveling in—the incredible amounts of water.

recharge, and seed dispersal benefited the recovery of the streamside forests. In Lee Vining people remarked on the persistent knocking sound of the stream tumbling boulders below town, while on lower Rush Creek multiple stream channels overflowed, creating a single flowing sheet of water.

Mono Lake rose rapidly in response to the large streamflows. By July there were times when the lake was rising almost an inch a day—an impressive amount for a lake nearly twice the size of San Francisco. June set a new record for single-month lake rise and

July was also impressive (see page 12). As the lake rose it hid the white alkali shoreline that typified the drought and pushed up into salt grass and shrubs, giving the shoreline a new “rising lake” look. At Old Marina the water flowed back in among the tufa boulders, rejuvenating habitat and almost making the prominent outcrop there an island once again. Out on the flat landbridge the lake's edge moved daily, eating up shoreline and widening the watery buffer to the nesting islands. Although the lake rose too late to protect the

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The Mono Lake Committee kept close track of the rising lake level through the impressive runoff season—on May 30 Mono Lake's level was 6378.8 feet above sea level.



PHOTOS BY THE MONO LAKE COMMITTEE

After two and a half months of record-breaking runoff, Mono Lake stood 2.4 feet higher, at 6381.2 feet above sea level on August 20.

nesting California Gulls this year (see page 5), the overall rise will be beneficial for the next nesting season.

Overall Mono Lake has risen an impressive four and a half feet since the drought-induced low point in December 2016. It's a tremendous bounce back from five years of drought and the second-largest rise in lake level since diversions began. Still, the drought caused Mono Lake to fall seven feet, meaning that drought impacts linger at Mono Lake as they do across California.

As the aspens turn golden yellow and orange, last winter's snow still lingers in select locations high in the Sierra. Summer wildflowers still bloom, sneaking a few more days into a season shortened by late melting snows. Streamflows have fallen back to modest levels—though still high for autumn.

Talk is in the air of what this coming winter may bring us. Perhaps another wet winter—there is some support in the records for wet-year duos. Or maybe a disappointing return to dry conditions?

Here at the Mono Lake Committee we try to hold off on making guesses about the winter until some snow has fallen, but we do look at the range of what's possible for the lake. A dry winter, if it happens, would lead to a lake level drop of a foot or two. An average winter would add up to a foot. And another

extremely wet winter? That could add another four to six feet, and push Mono Lake to its highest level since the State Water Board decision in 1994.

Lack of Grant Outlet still a limitation

For all of the positive things that happened for stream restoration in 2017, here at the Committee we can't help being a bit wistful. If the new Grant Lake Reservoir Outlet had been in place, as set forth in the 2013 Stream Restoration Agreement between the Los Angeles Department of Water & Power (DWP) and the Committee, this record-breaking year would have done even more to boost the health of Rush Creek. The new outlet in Grant Dam will eventually allow controlled release of high flows to the creek, fixing a serious limitation of the 1930s-era structure that was built to achieve total diversion of the stream. Implementation of the Stream Restoration Agreement is ongoing and the Committee's continuing vigilance is critical to ensuring that outlet construction gets underway quickly.

Rush Creek's streamflows were impressively high this year but they never rose to the minimum amounts specified under the Agreement's new Stream Ecosystem Flow (SEF)

requirements that are tailored for fisheries and stream restoration. Given the large volumes of water flowing downstream, it was reasonable to assume that these minimums would be significantly exceeded. The Committee estimated that unimpaired Rush Creek flows (if no aqueduct or upstream reservoirs existed) would have likely peaked almost 50% higher than the peak actually experienced by the creek, demonstrating how old infrastructure holds back wildlife and habitat recovery on the creek.

In fact, several doses of good luck were required to even get close to the SEF requirements. First, the "Extreme-Wet" year type is defined

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Decades' worth of restoration progress

During the week of the summer solstice, when snowmelt runoff peaked, each day that passed was equivalent to an entire year of changes for Rush and Lee Vining creeks. This tremendous geomorphic work continued beyond that week, adding up to decades' worth of restoration in only a month.

Trees that the Committee planted in 1996 along a recently reopened Rush Creek side channel toppled into the water, providing complex large woody debris habitat to the channel as intended. New channels formed and existing channels shifted daily. Floodplains that hadn't been flooded in decades were awash in deep fast-moving water, accumulating fresh sediment. After a summer of dramatic restoration progress, it is exciting to see where the low-flow channels are ending up as the flows decline.

—Greg Reis



In the Rush Creek bottomlands near Mono Lake, the incredible volume and duration of peak flows advanced decades' worth of restoration progress in just one summer season.

Mono Lake's nesting gulls protected

Coyotes thwarted by electric fence

by Geoffrey McQuilkin

It worked! A mile of citizen-funded solar-powered electric fence successfully protected Mono Lake's nesting gulls—one of the three largest colonies in the world—from mainland predators all spring and summer.

The fence was the result of a year and a half of planning by the Mono Lake Committee and California State Parks along with other agency partners and generous funding from Mono Lake supporters across the country. A dedicated installation and maintenance team overcame many obstacles to make the fence happen, including a remote work site on the landbridge, wind-blown tumbleweeds that threatened to short out the fence, and the rapidly rising lake interacting with the fence in July.

Monitoring fence effectiveness

The fence was carefully monitored for effectiveness in actually stopping coyotes. A past attempt to use an electric fence in 1990 was not very successful, so there was reason for concern. Design changes were made in light of past problems, including using mesh fencing material to provide both a physical and electrical barrier. Different monitoring methods showed the good news: this time the fence worked.

The Committee placed 11 motion-triggered wildlife cameras along the fence, and they all captured photos of coyotes patrolling the fence line, seemingly looking for a way through. No photos showed coyotes on the "wrong" side of the fence, or executing moves that were of concern during the planning phase, such as attempting to leap over, dig under, or swim around the ends.

Additional monitoring of tracks confirmed that coyotes were not getting past the barrier. Tracks had been numerous on the large swath of silty shoreline on the wrong side of the fence before it was completed. After fence activation, revisits to these sites found no tracks at all. In addition, patrols of the fence line discovered multiple sets of tracks that appeared to show a sudden leap backward after an approaching coyote touched the electric fence.



Mono Lake's California Gull colony nested safely this summer, thanks to a temporary fence.

The need for the fence

Five years of drought lowered Mono Lake seven feet, shrinking the protective moat of water between the lake's north shore and Negit Island and adjacent islets—exposing a landbridge that allowed coyotes access to the lake's long-established nesting colony of California Gulls. In 2016 signs were found on a few of these islets that coyotes had indeed walked the landbridge and then swum across shallow water to prey on gull eggs and chicks. In addition to a single year's mortality and nesting disruption, predation also has multi-year impacts. Gulls remember the disruption and become suspicious of returning to these nesting sites in future years. And coyotes remember the food source and work harder, even at higher lake levels, to reach the colony.

Back in January the Committee and partners did reevaluate the necessity of the fence, given the big winter and expectation of substantial lake rise. But our lake level modeling—which turned out to be quite accurate—showed that the lake rise would occur too late in the season to protect the gulls, which begin nesting in early April.

Fence removed and stored

The fence was dismantled in August and removed from the landbridge as planned, leaving no trace of its presence.

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Policy notes

by Lisa Cutting

Damaged land and stream below Tioga Lodge

Progress continues to resolve the damage caused by illegal clearing of three acres of State Park land that took place on Mono Lake's west shore last fall (see Winter & Spring 2017 *Mono Lake Newsletter*). While there has not been visible repair and restoration on the ground yet, the Mono Lake Committee has been tracking the issue as it moves through the correction processes of all four agencies with jurisdiction over the area.

The California Department of Fish & Wildlife (DFW) is the lead agency since the most significant infractions relate to the alteration of Post Office Creek and violations of California Fish & Game codes that expressly prohibit altering, relocating, or otherwise affecting the natural flow of creeks, rivers, and streams without first obtaining a permit.

The Lahontan Regional Water Quality Control Board, California State Parks, and Mono County are also involved because of violations under their jurisdiction, including water quality impacts to Mono Lake, damage to wetlands, rerouting of Post Office Creek, destruction of State land, and non-permitted grading on private property.

These violations all carry some form of fine, corrective action, and possible civil and criminal prosecution. Because of the seriousness of the violations and the potential for legal action, DFW and the other agencies cannot currently share details of the situation. Such a complex investigative matter will likely take time to fully resolve.

Land exchange includes Mono Lake parcel

Fifteen years after the initial threat of development, a 118.3-acre private property on the shore of Mono Lake is



Record-high peak flows washed out a section of the Lee Vining Creek Trail this summer.

one step closer to becoming part of the Inyo National Forest.

The Mono Lake parcel is one of 11 private inholdings totaling 1,296.7 acres that Mammoth Mountain Ski Area has secured to exchange for 35.6 acres of National Forest land underlying the existing main lodge facility. Mammoth Mountain has been wanting to improve the facilities there, but securing funding has been problematic because it doesn't own the land.

The Mono Lake parcel has long been a priority property for the Inyo to acquire. Located on the west shore just north of Lee Vining, it is visible from several key visitor locations within the Congressionally-designated Mono Basin National Forest Scenic Area. The Scenic Area Comprehensive Management Plan directs that "as opportunities arise, [the Inyo] acquire land based on priorities..." and that the "highest priority are lands with water frontage, wetlands, and riparian zones." Threat by the previous owner to develop the parcel with 24 resort-style homes within the Mono Lake viewshed increased the urgency for the Inyo to acquire the inholding.

Once the land exchange is finalized,

public lands on three national forests—the Inyo, Plumas, and Stanislaus—will have a total net gain of 1,261.1 acres. And the scenic Mono Lake parcel will have a greater level of protection under Inyo National Forest jurisdiction and Mono Basin Scenic Area management as public land.

Lee Vining Creek Trail washed out

While this year's big snowpack brought much-needed high flows to Mono Basin streams, we were sad to discover in late June that the flows in Lee Vining Creek had washed out a section of the popular Lee Vining Creek Trail (see map on page 14).

The beloved 1.5-mile trail connects the south end of Lee Vining to the Mono Basin Scenic Area Visitor Center, allowing people to easily walk from town to the Visitor Center while experiencing the stream up close. Interpretive signs along the way highlight the area's natural history and important water story—outlining the water diversions, protections, and restoration of the creek.

Since the damaged portion is roughly

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midway from either starting point, visitors can still get a sense of the area by walking the sections of the trail on either side of the closure. The Committee has been working with partners on a plan to rehabilitate the trail, which will most likely occur by next spring.

Sage grouse relocated to Parker Meadow

A collaborative project to enhance the population size and genetic diversity of the Parker Meadow sub-population of Bi-State Greater Sage Grouse was conducted this past spring. Fifteen female and two male grouse from the Bodie Hills were released to the meadow to supplement the four male grouse that return each year to their mating ground, or lek. As part of the relocation process, the

females were inseminated before being released—a practice that increases the likelihood that the birds will nest in their new location.

The Parker group is one of six sub-populations of Bi-State Greater Sage Grouse, and according to scientists, is at the greatest risk of going extinct. One challenge for this sub-population is abandoned barbed-wire fencing, which is an issue for these low-flying birds. Additionally, power lines and encroaching conifers can serve as perches for predators, which can be problematic when in close proximity to the exposed lek sites. The most significant issue is maintaining sufficient genetic diversity, without which infertility and lower nesting success can become serious issues.

Because the species is not currently listed under the Endangered Species

Act, conservation management actions are not mandatory. This voluntary, multi-agency project is one of almost 80 projects that have been implemented to help protect Bi-State Greater Sage Grouse; it includes staff from the California Department of Fish & Wildlife, Bureau of Land Management, US Geological Survey, US Fish & Wildlife Service, and the land owner, the Los Angeles Department of Water & Power.

High-speed internet for Lee Vining

Residents and visitors will be able to experience internet service at speeds of up to 1,000 megabits per second as early as this fall. The last phase that will connect Lee Vining and other areas of the Mono Basin to the “middle mile” Digital

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Mill Creek return ditch tested successfully



The Mill Creek return ditch delivered water to diversion-damaged Mill Creek for the first time in 12 years this September. Southern California Edison was testing the ditch to evaluate its capacity and reliability as part of an effort to comply with a longstanding hydropower settlement agreement with the Mono Lake Committee and five other agencies and stakeholders. Although the ditch by itself is not large enough to solve the problem of excessive Mill Creek water diversions (see Fall 2015 *Mono Lake Newsletter*), the test was an important step toward a long-term solution. —Geoffrey McQuilkin

395 fiber optic cable is well under way.

Digital 395 is a federally-funded stimulus project that connects Southern California to Carson City, Nevada with a 583-mile-long fiber optic cable. Visitors may have seen the first phase of the project when contractors installed the cable along Highway 395 in 2013. For phase two, the California Public Utilities Commission selected Race Communications to be the “last-mile” provider. The company is currently connecting individual homes and businesses to the main stem fiber optic cable.

Race must adhere to all Mono County codes and guidelines and has obtained the necessary approvals. Once the project is complete, Lee Vining and other areas of Mono County will experience much faster connectivity, bringing previously underserved communities up to urban internet access standards.

Inyo National Forest plan revision

As the Inyo National Forest plan revision process nears completion, the public was recently given a preview of

several sections: recreation, aquatic and riparian resources, Wild & Scenic River (WSR) designation inventory, and species of special concern. Distribution of this information was not associated with any public comment period; rather it was an effort by Inyo staff to keep people updated on the process.

The Mono Lake Committee continues to pay particular attention to sections of the plan affecting the Mono Basin, especially WSR eligibility. Prior to this process, the last time the creeks were evaluated was in 1993—one year before the 1994 State Water Board decision that protected Mono Lake and its tributary streams. The condition of the creeks has improved significantly since then and many segments are now eligible for WSR designation, as detailed in the Committee’s formal comments to the Inyo.

The plan revision process, which began for the Inyo in 2014, will result in a revised Land & Resource Management Plan that will replace the 1988 plan that is currently still in use. The final Environmental Impact Statement and final plan are scheduled to be released by the end of 2017.

Inyo County asserts eminent domain over DWP land

In August, Inyo County supervisors voted unanimously to proceed with plans to acquire DWP land through an eminent domain process. Inyo County is seeking to secure land that it currently leases from DWP and uses for landfills in Bishop, Independence, and Lone Pine. The County asserts that recent lease restrictions imposed by DWP—an increase in rent and much shorter lease durations—make it almost impossible for the County to meet mandatory state landfill requirements.

Inyo County first contacted DWP about condemnation in spring, with specific independently-appraised values for each parcel, but DWP rejected the offers, wanting its own appraisals. Though the Board did vote to proceed with the eminent domain process, both parties remain open to exploring options, including an outright sale of the property by DWP. Neither party appears willing to forego any options at this time.

Mono County is watching the situation very closely as it also has numerous leases with DWP. ♦

Federal bill aims to subvert the public trust doctrine

by Geoffrey McQuilkin

Over the summer the US House of Representatives passed HR 23—shocking legislation that, among its many water provisions, would override all California authority to administer environmental protection under the public trust doctrine.

Yes, that is the very same legal doctrine that resulted in the landmark Mono Lake decision by the California Supreme Court. It is not just the cornerstone but the actual legal foundation of Mono Lake’s protection.

HR 23 is purported to “provide drought relief in the State of California,

and for other purposes.” But even a quick read of the 137-page bill is alarming. HR 23 is quite clear in its wording regarding the public trust and its intent to strip the state of the ability to protect public resources like Mono Lake:

...Nor shall the State of California, including any agency or board of the State of California, restrict the exercise of any water right obtained pursuant to State law ... in order to protect, enhance or restore under the Public Trust Doctrine any public trust value.

HR 23 passed the House in July.

Although the legislation’s prospects in the Senate appear dim, legal scholars emphasize that the alarming and radical nature of the provision can’t be understated, because of its bold attempt to override established environmental protections, California water law, and the state constitution.

Here on the ground at Mono Lake, and also in Sacramento, we are watching this legislation closely and apprehensively. If it were to be passed into law the Mono Lake Committee would need to mount a strong and immediate legal defense of Mono Lake.

The million-grebe question

by Robert Di Paolo

More than 90% of all Eared Grebes in North America stop at either Mono Lake or Great Salt Lake to feed on brine shrimp before continuing their migration to wintering grounds in the southern United States and Mexico. Each year more than a million Eared Grebes depend on Mono Lake's abundant supply of brine shrimp in order to successfully complete their southbound migration.

Efforts to quantify the number of Eared Grebes at Mono Lake started in the 1980s, but it wasn't until 1996 that a reliable methodology was developed. By flying over the lake in mid-October (when grebes were assumed to be at peak abundance) and using aerial photography, researchers were able to more accurately estimate numbers. Dr. Sean Boyd, a Research Scientist with Environment & Climate Change Canada, has coordinated grebe surveys at Mono Lake since 1996, which have provided invaluable data for understanding the Eared Grebe fall migration through Mono Lake as well as the overall health of the species in North America. Recognizing the value of this research, and our ability to help by being the local, on-the-ground coordinator of flights and volunteer photographers, the Mono Lake Committee began assisting Dr. Boyd with the Eared Grebe surveys in 2008.

Changing abundance patterns?

In the years leading up to 2008, photo surveys indicated a range of 770,000 to 1,800,000 Eared Grebes on Mono Lake in mid-October. The 2008 survey estimated closer to 260,000 grebes—the lowest number since the study began. This raised an important question: Had peak abundance actually decreased, or had it possibly shifted earlier or later?

To answer this question, the Committee worked with Dr. Boyd to increase the number of surveys from one flight in mid-October to five flights conducted bi-weekly from mid-September to mid-November, in order to have a greater chance at counting the peak abundance.

In 2013, the first year of multiple surveys, data showed the peak number of grebes occurred in mid-October. However, in 2014 and 2015 the data showed that the peak happened as early as mid-September, if not earlier. The 2016 photo counts

showed peak abundance occurred in mid-October again, but overall abundance was relatively low. These four years of multiple surveys suggest that the fall staging pattern and peak number of grebes on Mono Lake can change dramatically from one year to the next, and suggest that the pre-2013 counts done in mid-October, while accurate, may not have captured peak abundance.

Migration tracking

The variability of grebe numbers at Mono Lake raises other interesting questions: Do Eared Grebes change their migration routes, with some staging at Great Salt Lake in some years and at Mono Lake in others?

This year Dr. Boyd secured Canadian government funding to start answering these questions by equipping 30 Eared Grebes in British Columbia with small geolocators and radio transmitters. The geolocators will give us specific information on when the grebes arrive and depart Mono Lake and Great Salt Lake. After the grebes return to their breeding grounds in British Columbia, Dr. Boyd will retrieve the geolocators and analyze the data to determine information on the timing of their migration, wintering area(s), and migration routes.

While the grebes are at Mono Lake, Committee staff are tracking their radio transmitter signals, which will allow Dr. Boyd's team to determine the percentage of time the birds spend under water, which will be used to increase the accuracy of the aerial photo counts.

Mono Lake is important habitat for over a hundred bird species, but the reliance of a significant proportion of the entire North American population of Eared Grebes on the lake is particularly impressive. By adding multiple survey flights and telemetry tracking, Dr. Boyd, with the support of the Mono Lake Committee, is seeking to develop better and more accurate information about these amazing birds and the important role Mono Lake plays for them. ❖

Special thanks to LightHawk volunteer pilot Geoff Pope from Black Mountain Air Service for his many years of flying for the annual Mono Lake Eared Grebe surveys.



Aerial surveys are conducted each fall to estimate the peak population of Eared Grebes stopping at Mono Lake during their migration.

SoCal water notes

by Geoffrey McQuilkin

Los Angeles is a leader in water efficiency, so what does the city do when a record winter delivers far more water than the city needs? Stash it everywhere possible.

The Los Angeles Aqueduct has been running full for many months and with reservoirs topped off, the Los Angeles Department of Water & Power (DWP) has gotten creative with where to put surplus water.

For example, the scenic Silver Lake Reservoir near downtown LA, which had been drained for construction work, was refilled months ahead of schedule.

Near the iconic LA Aqueduct cascades, DWP has been repairing a hundred-year-old concrete tunnel known as the Maclay Highline so that it can be reactivated to carry aqueduct water to spreading grounds in Pacoima for groundwater recharge. The \$4.5 million project is scheduled for completion soon.

DWP has also made arrangements to transfer water—a lot of water—to the Metropolitan Water District for redistribution throughout Southern California. DWP will provide up to 200,000 acre feet of water and receive credits for the return of half that amount in subsequent years.

The Mono Lake Committee has proposed another good place for DWP to sequester its surplus water: Mono Lake.

DWP can choose to forego some or all of its authorized water exports and allow that water to raise Mono Lake instead. In addition to the environmental benefits, a higher lake increases DWP's certainty of being allowed by State Water Board rules to export water in future drier years when it is needed in Los Angeles.

This idea may be more creative than DWP likes, but with several months remaining before Mono Basin exports can begin, no final decision has yet been made. ❖

Trail Chic Fashion Show fundraiser



PHOTO BY ELIN Ljung

This year's Trail Chic Fashion Show fundraiser was a success, raising over \$3,000 for the Mono Basin Outdoor Education Center Access Fund during a fun evening in late August at the Lee Vining Community Center. The OEC Access Fund helps bring underserved students to the Mono Basin for five days of life-changing outdoor activities and hands-on learning about the source of their water (see page 11).

This year the models took creativity to a whole new level—the AstroTurf runway was graced by backpackers, coyotes, a snowman, and even the gull fence, all in support of the cause. A huge thank you to all the runway models, to Patagonia for donations to the silent auction, and to the Mono Market for the delicious trail snacks. Special thanks to Randy Arnold and Barefoot Wine & Bubbly for donating the wine that helps to make the event successful. For more about Trail Chic, visit monolake.org/trailchic. —Gabrielle Renteria

Watershed moments

news from the

Mono Basin Outdoor Education Center



Notes from the field: The power of nature

by Rose Nelson, Outdoor Education Instructor

In mid-August we welcomed a group from Homeboy Industries in Los Angeles to the Mono Basin Outdoor Education Center (OEC). These men and women were all former inmates, gang members, or trapped in the drug world. Homeboy Industries provides a chance for them to start fresh, get work experience, and get their lives on a good track. They have lived through experiences that most of us cannot even imagine. And for them, we are living a life here in the Mono Basin that they cannot even imagine. It was a week of lives and experiences colliding in beautiful ways.

Homeboy gives these men and women opportunities they would otherwise never have—including the opportunity to come to Mono Lake. It was life-changing for every single one of them. I kept hearing “I feel so free,” “This is beautiful,” “Can I go swimming here?” and again, “I feel so free.” They were able to experience beauty in a way that was never before attainable for them. It was a bittersweet reminder to me of how lucky we are to live and work here.

Everywhere we visited, we stayed and explored until time simply ran out and we had to leave. We had so much fun canoeing, playing in the snow for the first time, hiking, doing restoration activities, everything. There were also emotional moments of sharing stories and asking, “How can we make a difference?” “How can we change what we went through for our children?” “How can we break this cycle so we can thrive instead of just survive?”

These questions felt unanswerable, but we came together and talked about how every little choice makes a difference in this life. Choosing to come to Homeboy made a difference. Their trip to Mono Lake made a difference. They left knowing that they can and will be back here with their families and with the inspiration to keep fighting to change their communities for the better.



Bighorn lessons

Five lucky OEC groups got to do some hands-on learning about a fascinating, yet not-always-easy-to-see local animal: bighorn sheep. Sierra Nevada Bighorn Sheep Foundation board member Virginia Chadwick has a big bag of bighorn teaching tricks—a slideshow, horns, skulls, and field research supplies. The students were enthralled and loved practicing the methods scientists use to gather data on this endangered species.

Thank you, Virginia, and the Sierra Nevada Bighorn Sheep Foundation for this wonderful opportunity.

Thank you OEC program supporters

The OEC has two new appliances to help keep the program running smoothly—a stove from Mono Lake Committee member Bob Finch and a refrigerator from member Nancy States. Also this year, the program was the fortunate recipient of generous grants—from the William C. Bannerman Foundation, the Scott Evans Foundation, the Andrea Lawrence Fund, and the Sierra Club. These critical grant funds helped us reach out to three new groups of students, purchase much-needed equipment, and bolster the OEC Access Fund for transportation assistance and scholarships. Thank you for helping make OEC programs accessible to more future water leaders!

MONO BASIN
Outdoor
Education Center



Our mission is to build understanding and appreciation for the Mono Basin/Los Angeles watershed through education programs and muscle-powered recreational activity; to demonstrate that balanced solutions are possible for meeting the water needs of people and the environment; and to kindle stewardship through service projects that restore and improve the quality of the Mono Basin watershed.

monolake.org/education

PHOTOS BY SANTIAGO M. ESPINOZCENA

Mono Lake's rapid rise sets new records

by Greg Reis

Rapid snowmelt runoff in June raised Mono Lake more that month than in any other month on record: 1.37 feet. A near-record rise in July of 0.96 feet combined with June to set a new record for any two consecutive months, as well as the previous seven months combined. Mono Lake rose an amazing 4.5 feet from January 1, 2017 to late September.

Mono Lake, now at 6381.6 feet above sea level, is as high as it was in 2013, during the second year of the

five-year drought. And it could rise as much as two feet by next April, depending on how wet the winter is. Another wet winter would almost erase the entire decline from the drought.

By mid-August, Mono Lake had already exceeded the Los Angeles Department of Water & Power's forecasted level for next April, even though the April–September runoff forecast was on target. Forecasts based on historical records are often wrong when new records are set, and the April–July runoff was record-setting.

Another reason why the lake level forecast was too low is that the equation on which it is based doesn't consider Mill Creek runoff, and Mill Creek's 220% of average runoff forecast exceeded that of Mono Lake's southern tributaries. Models and their resultant forecasts tend to under-forecast the lake's fluctuations, not doing well at capturing the wettest and the driest conditions. Luckily, this year that meant good news since Mono Lake exceeded the forecasted level. ❖

Streamwatch

Record high flows reshape Mono Basin stream bottomlands

by Greg Reis

As the extraordinary snowpack melted in June, it gave rise to extraordinary flows on Mono Lake's tributary streams. A 100-year flood on Rush Creek and a 20-year flood on Lee Vining Creek did significant geomorphic work in the lower stream reaches, furthering the restoration of these recovering streams. Desired ecological outcomes of the floods included delta building, channel avulsion, side channel entrance alteration, prominent bar formation, and advanced floodplain deposition.

Peak flows occurred June 19–24, though they usually occur in July in most wet years. This was due to a dense snowpack, the result of the relatively warm winter with high snow levels, and very warm and dry weather in the late May and June snowmelt runoff

period. April–July runoff was 215% of average—a new record, and higher than all but four April–September periods and six April–March runoff years. This runoff percentage placed this year into the “Extreme-wet” year-type category; the Mono Basin hadn't experienced an Extreme-wet year since 1995.

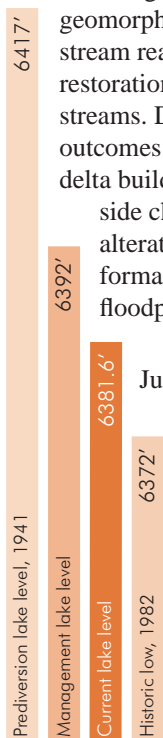
We estimate the Rush Creek unimpaired peak—the calculated flow had there been no dams or diversions—was a 50-year event (this means there is a one in fifty chance of it occurring each year). The Lee Vining Creek unimpaired peak was probably a 20-year event, with a one in twenty chance of occurring each year.

At the Los Angeles Aqueduct, Lee Vining Creek set a new springtime peak flow record of 588 cubic feet per second (cfs)—just short of the 640 cfs record set during the January 1997 flood—while Rush Creek experienced its second-highest flow on record of 747 cfs. In the bottomlands near Mono Lake, Rush Creek peaked near 900 cfs with the addition of runoff from Walker and Parker creeks.

The importance of these rare flows for restoration can't be overstated—the streams have been waiting a long time for this to happen!

These high flows did incredible restoration work, but most amazing was their extended duration. Lee Vining Creek exceeded 400 cfs for 30 days, and Rush Creek exceeded 500 cfs for 47 days. These flows are typically only exceeded for a few days in the wettest years, yet this was double the 1995 duration on Lee Vining Creek and almost seven times the 1995 duration on Rush Creek. These long-duration high flows recharge the groundwater system along each creek, revitalizing drought-stressed riparian vegetation, and transport a tremendous volume of sediment, creating the habitat the stream ecosystems need to thrive. ❖

Greg Reis is the Committee's Information & Restoration Specialist. In 1995 and 2017 (both Extreme-wet years), he observed flooding during winter rains on the California coast and also flooding from summer snowmelt in the Mono Basin.



Mono Basin Journal

A roundup of quiet happenings at Mono Lake

by Geoffrey McQuilkin



GEORGE MCQUILKIN

This year I played a guessing game I had never played before. There was a special moment in spring, when all the sensors and airborne surveys and spreadsheets of the modern day told us that the lake would soon be rising multiple feet, that the streams would be swollen to overflowing.

But none of it had happened yet.

We had the perfect opportunity to photograph change over time, to show a time-lapse of the lake rising and the streams reshaping. But where to put the camera?

I roamed the lakeshore one warm day with a five-foot pole, touching it to the lake's edge and crouching low, trying to guess where the future lake surface would be. I'm used to projecting what a future, higher Mono Lake will look like, but this was the first time I had a guarantee that results would be delivered in 90 days.

The images would have to be interesting at multiple lake levels. Ideally the view would include the undulating shore, some short tufa that would be submerged, some tall tufa to serve as gauges of lake rise, and perhaps a Mono Lake icon like Negit Island in the distance to establish location. It would also be handy if the camera didn't wash away.

I found a shoreline spot that I thought would fit the bill. The camera ran all summer, and when I returned in fall it was surrounded by water. You can see the results on page 3 and a timelapse video at monolake.org—and evaluate my guessing skills for yourself. ♦

Geoff McQuilkin is the Committee's Executive Director. His three-year-old daughter Cassia saw the first dusting of snow this season and said "let's go skiing!"

Benchmarks



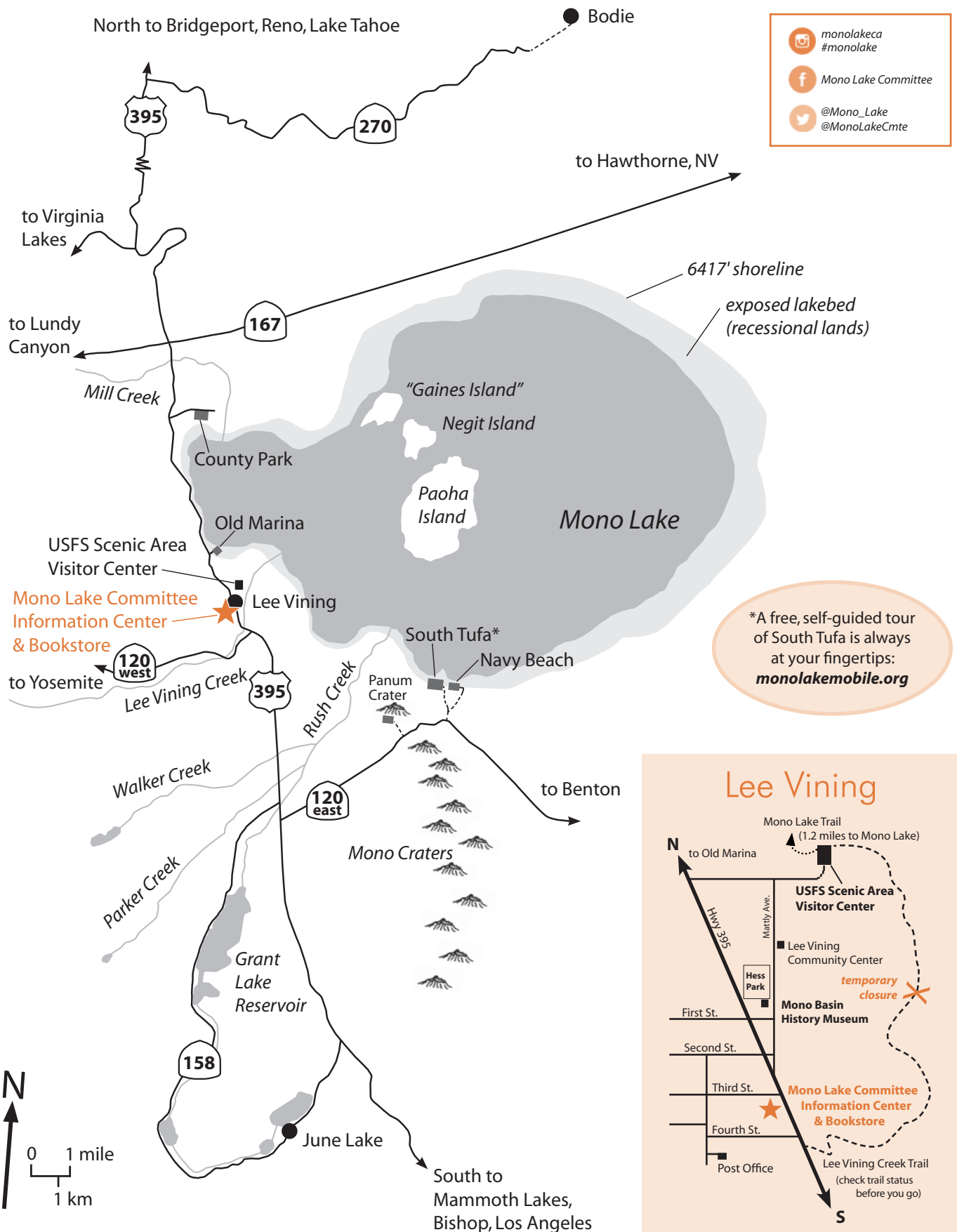
January 11, 2017: Robbie points to a submerged sandbar after early-January precipitation raised Mono Lake four inches in less than two weeks to 6377.5 feet above sea level.



PHOTOS BY ANDREW VOUSSEF

September 5, 2017 and 6381.5 feet above sea level: Just eight months later Robbie stands in the same spot after more than 200% of average runoff led to a four-foot lake rise.

Mono Lake map



Free Drawing to protect Mono Lake

Tickets due by December 10

Thank you to the generous businesses and organizations who donate the wonderful prizes for the Mono Lake Committee's annual Free Drawing—one of our largest fundraisers. Send in your tickets today (find them in the center of this *Newsletter*) for a chance to win. Thank you, and good luck!

Enter today to win...

- a Cali4nia ski pass for Mammoth Mountain, June Mountain, Bear Mountain, and Snow Summit
- a Mono Basin retreat with lodging at the Double Eagle Resort & Spa, a Committee guided trip, gift cards to Stellar Brew and The Stove, a horseback ride with Frontier Pack Train, a boat rental at Silver Lake, and Committee logo gifts
- a stay at Rainbow Tarns Bed & Breakfast with lunch at The Stove, a guided fishing trip with The Trout Fly, a movie at Minaret Cinemas, and dinner at Giovanni's Restaurant
- a sailing trip on San Francisco Bay with Captain Kirk's Sailing Adventures and lodging at the Golden Gate Hotel
- a mountain retreat at Sorensen's Resort in Hope Valley
- a stay at Convict Lake Resort with movie tickets to Minaret Cinemas, lunch at Giovanni's Restaurant, an REI Camp X Chair, and a Juniper Ridge gift basket
- a two-night stay at the Inn at Benton Hot Springs
- a Bishop escape including gift cards to Great Basin Bakery and Eastside Sports, a gift basket from Spellbinder Books, and a stay at the Joseph House B&B
- an Island Packers cruise adventure to Channel Islands National Park
- a getaway to the Westin Monache Resort, a boat rental and lunch at Silver Lake, coffee at Stellar Brew, and tickets to Minaret Cinemas
- a Trail Discovery guided hiking trip in Palm Springs, California
- a National Parks annual pass, plus an outdoor adventure, hat, water bottle, and books from Yosemite Conservancy, a copy of Dan Suzio's *Death Valley Photographer's Guide*, and Lonely Planet's *National Parks of America*
- tickets to the California Academy of Sciences and a stay at the Golden Gate Hotel
- a Friends of the River package including a whitewater rafting trip, tickets to the 2018 California River Awards, a water bottle, mug, hat, and book
- a membership, T-shirt, and pint cup from Friends of the Inyo
- a season pass to Mammoth's Tamarack Cross Country Ski Resort
- Patagonia clothing: men's and women's R2 jackets
- a Mono Lake Committee gift pack with *The Mono Lake Story* DVD and a Mono Lake Klean Kanteen, T-shirt, cap, and 2018 calendar
- tickets to Bodie Photo Day for sunrise or sunset
- a day aboard the USS Midway in San Diego
- passes to the Aquarium of the Pacific
- a Mono Lake Committee canoe tour for four
- tickets for two to The Huntington
- an iPad mini 4

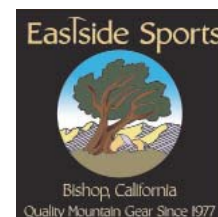
Mammoth



RAINBOW TARNs BED & BREAKFAST



patagonia



JUNIPER RIDGE

Experience the seasons in the Mono Basin

by Nora Livingston

Fall is perhaps my favorite time of year in the Mono Basin. It's like the whole ecosystem relaxes—it takes a deep breath after the constant rush of summer and lets it all go. The air is crisp and clear, the sagebrush sea becomes silent after its birds have flown south, the aspen leaves flutter gold and they too will let go. Yes, fall is a nice time to visit, to stroll along the lakeshore, watching Eared Grebes dive and float in the buoyant water, and the last of the lingering California Gulls pick alkali flies off the foamy shore.

And then winter in Lee Vining: snow floats softly down from the pearly sky, padding the ground with thick, chilly silence. The streets appear empty, but there are small flocks

of Cedar Waxwings filling their bellies with winter berries on leafless trees—“tseee-deee-seeee,” they call. They are smooth balls of color in a seemingly monotone winter wonderland—white all around them, their *café au lait* colored heads and chests fade into a rich buttery yellow, their waxy tails look dipped in lemon custard. Even the steel grey of their wings and tails are more vibrant than the muted tones that aren't white snow. Their sleek black masks and chins stand out the most, bobbing around on the branches as they reach for the farthest berries. Winter is magical in the Mono Basin—come see for yourself! ❖

Winter custom guided trips

Winter in the Mono Basin offers solitude, majesty, and quiet. Snow-capped peaks, white meadows, and icy lakes invite exploration. Our custom guided trips make hard-to-plan winter adventures more convenient and accessible. Whether you are searching for a guided cross-country ski or snowshoe tour, a snowy exploration of the Mono Craters, or a winter birding trip, we have the knowledge and local insight to set up a great outing just for you. Learn more at monolake.org/trips and make your plans today by contacting Lead Naturalist Guide Nora Livingston (guides@monolake.org) at (760) 647-6595.

Cross-country ski and snowshoe adventures

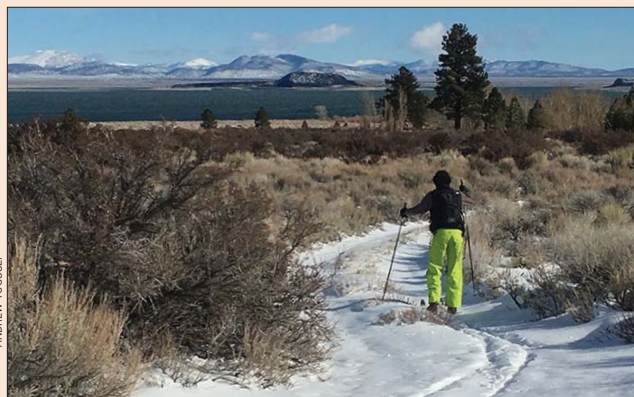
How about gliding through a frost-sparkling Jeffrey pine forest on skis, snowshoeing along a quiet winter trail, or visiting a snow-covered volcano? We can customize a ski or snowshoe adventure for you.

Winter birding

Many bird species stay in the region all winter long, and some Eastern Sierra specialties can only be seen in winter. We'll make sure you have a rewarding day of winter birding.



BARTSHE MILLER



ANDREW YOUSSEF

Ice & fire

Winter is a great time to experience the geology of the Mono Basin. Explore glacial remnants, dormant volcanoes, and be transported thousands of years into past landscapes and climates.

Winter photography

Winter at Mono Lake offers snow-laden peaks, mysterious poconip fog, and serene tufa towers. We'll take you to locations with great conditions, lighting, and combinations of time and place you might not discover on your own.

as having runoff of 160% or more of average—2017 exceeded 200% of average, meaning Rush Creek was awash with water in spring. In addition, upstream hydropower reservoirs held back far less water than usual, passing higher flows downstream and causing Grant Lake Reservoir to fill and, thus, spill more quickly. As a result, Rush Creek flows arrived in about the best pattern possible without an outlet—but there's no reason to expect similar results in a future year, especially one closer to the 160% of average mark.

What 2017 has reinforced for us, through documenting on-the-ground results, is this: The principles that guide stream restoration at Mono Lake work. Mimicking the natural pattern of Sierra snowmelt runoff, as required by the State Water Board, is the ticket to restoring stream and fishery health.

The corollary is clear: The Committee must remain persistent and vigilant to ensure full implementation of the 2013 Stream Restoration Agreement. If DWP prepares the necessary documents on schedule, the process of license amendment through the State Water Board will be complete in the coming months. And that will initiate construction of the new Grant Outlet, make the SEFs mandatory, and ensure that when the next big winter rolls around Rush Creek will see the most restorative streamflows possible. ❖

SCE moves extra water for safety

To manage extraordinarily high runoff in the Rush Creek drainage over the summer, Southern California Edison (SCE) took unprecedented action to bypass flows at its hydroelectric facilities. Water normally flows through a series of high-elevation reservoirs (Waugh, Gem, and Agnew), generating hydropower at the Rush Creek power plant. When the capacity of the system is exceeded, water spills over the dam spillways. But as a result of seismic concerns, SCE was ordered to keep all three reservoirs at 50% capacity for public safety reasons since communities in the June Lake

area lie directly downstream. In spring, SCE engineered pipe modifications and a pump system to carry 500 cubic feet per second (approximately five times the power plant capacity) over the Agnew Lake Reservoir dam. All season, helicopters could be seen flying materials and personnel into the Agnew area, and then out again, after the flows subsided. It is not clear whether or not this will be a permanent operational strategy—it will likely depend on future snow amounts and if the seismic concerns can be addressed with infrastructure improvements.

—Lisa Cutting



SCE is required to keep its Rush Creek watershed reservoirs at 50% capacity—this year, that involved moving water over Agnew Dam using pumps on barges.

Gulls protected from page 5

The Committee is storing the materials in case of future need. A return of dry conditions could cause the lake to drop and make the fence necessary again; fence installation is already permitted for subsequent years.

In 2018 we expect Mono Lake to stay several feet above the 6380-foot fence trigger level and do the job of protecting the gulls naturally. Annual scientific studies of the reproductive success of the gull colony will continue and researchers will be alert for any signs of coyotes on the nesting islets

that would suggest adventuresome predators are willing to swim greater distances than previously seen.

The success of the gull fence is a demonstration of the value of continued persistence in protecting Mono Lake. Although the Committee could not have completed the fence project without our partners at State Parks and the US Forest Service, it is fair to observe that the agencies would not have been able to run the project without the Committee. Committee staff brought on-the-ground engagement with the

gull scientists, flexibility to research and plan an unusual project, willingness to commit substantial time to lead the effort, and the capacity to precisely forecast future lake conditions. And most importantly, Mono Lake supporters brought a concern for the gull colony that put a spotlight on the need to take action and produced substantial funding for the acquisition of fence materials. After a season of electric fence success we can all be proud of making a big difference for Mono Lake and California Gulls. ❖



MONO LAKE COMMITTEE

INFORMATION CENTER & BOOKSTORE

Fall Catalog



MONO LAKE COMMITTEE 40TH ANNIVERSARY SHIRT

Next year marks the Mono Lake Committee's 40th anniversary and we've created this shirt, modeled by Andrew and Jess, to commemorate our 40 years of protection and restoration efforts at Mono Lake. This long-sleeved heather grey shirt features an anniversary logo on the front, and a bathymetric map of Mono Lake on the back with the words "The public trust is an 'affirmation of the duty of the state to protect the people's common heritage in the streams, lakes, marshlands, and tidelands' —California Supreme Court, 1983." *Mono Lake Committee exclusive.* *Mono Lake Committee 40th anniversary shirt, 100% cotton, S-XL: \$25.00, XXL: \$28.00*

MOON OVER MONO SHIRT

Add another layer to your fall wardrobe with this popular Mono Lake long-sleeved shirt, modeled by Maureen and Geoff (above left). A striking graphic of Mono Lake tufa towers lit by the full moon stands out beautifully on the back of this 100% cotton, navy blue shirt. *Moon over Mono shirt, S-XXL: \$21.00*



VINTAGE MONO LAKE HOODIE

Look cool and feel warm in this heather blue hoodie, modeled by Molly and Mike. Made of a 55% cotton and 45% polyester blend and featuring a vintage 1980s design, this sweatshirt is a great way to show your love for Mono Lake. *Mono Lake Committee exclusive.* *Vintage Mono Lake hoodie, S-XL: \$48.00*



FRONT

HOLIDAY CARD SETS

Wendy Morgan's original designs of black bears, chickadees, and an ermine are perfect for delivering winter season's greetings. Each set includes 10 cards of the same design with the message "May you have a happy holiday and joyous New Year" printed in red ink inside.

Holiday card set, 10 cards with envelopes, 4½"x 6¼", please specify black bear, chickadee, or ermine set: \$13.95



BLACK BEARS



CHICKADEES



ERMINE

order at monolake.org/store or (760) 647-6595



MONO LAKE BEANIE

Keep warm and think of your favorite lake in one of these cozy beanies, modeled by Char and Alex. Soft and stretchy acrylic knit construction and Mono Lake tufa embroidered on the cuff make this hat a cold-weather essential.

Mono Lake Committee exclusive.

Mono Lake beanie, one size, please specify charcoal or navy: \$17.50



MONO BASIN CRITTER T-SHIRTS

Piper and Cassia show off two new designs, printed in water-based inks on super-soft T-shirts—great for the little ones in your life. Choose from playful foxes frolicking on a butter yellow 100% cotton shirt with “Play all day at Mono Lake” written across the back, or a curious raccoon dipping its paws in a stream on a heather grey 93% cotton and 7% polyester shirt with “Discover a stream at Mono Lake” on the reverse.

Mono Basin critter T-shirts, please specify yellow foxes or grey raccoon, available in toddler sizes 2, 3, and 4: \$18.00



HANDMADE CERAMIC MONO LAKE MUG

Cozy up with a warm beverage in this new ceramic mug. These American-made mugs have a beautiful, blue-green glaze and feature a customized Mono Lake design. Pair with Flying Bird Botanicals drinking chocolate or tea (below) to create the perfect gift.

Handmade ceramic Mono Lake mug, 12-oz: \$9.95

FLYING BIRD BOTANICALS DRINKING CHOCOLATE

These exotically-flavored, organic drinking chocolates make great gifts for those with a sweet tooth. Choose from the following delicious flavors: spiced cacao chokola; sweet, rich cacao especial; or soothing lavender mint.

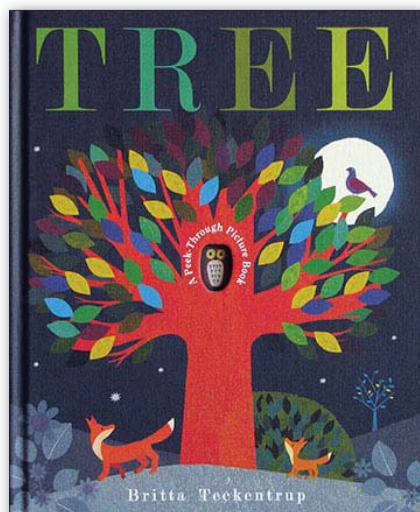
Flying Bird Botanicals drinking chocolate, 3½-oz per container, please specify cacao chokola, cacao especial, or lavender mint: \$9.50

FLYING BIRD BOTANICALS TEA

You'll fall for these delightful teas, made from organic ingredients from the Pacific Northwest, which give them deliciously distinctive aromas and flavors. Choose from cedarwood chai (a woody, spicy black tea), cloud mountain (a fresh, flowery green tea), or bluebird morning (a complex, lively herbal tea).

Flying Bird Botanicals tea, 15 biodegradable tea bags per container, please specify cedarwood chai, cloud mountain, or bluebird morning: \$14.90





TREE: A PEEK-THROUGH PICTURE BOOK

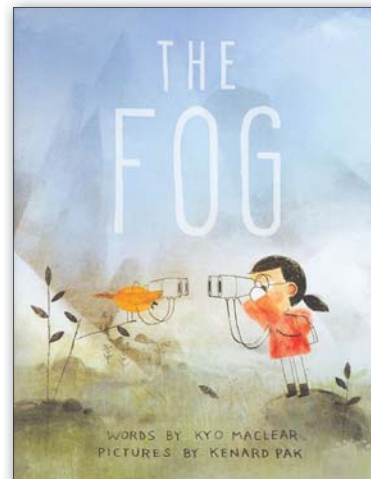
BY BRITTA TECKENTRUP

Explore the seasons with this beautiful picture book. Each illustrated page gives you a peek into the lives of the creatures that make the forest their home throughout the changing seasons. A fun, simple, yet engaging book for children ages 3–7.

Tree, hardcover, Doubleday Books for Young Readers, 32 pages, 9"x 11": \$14.99

a Yellow Warbler with a knack for human-watching, as he investigates a mysterious fog that has appeared on his island home. This environmental fable is a humorous reminder of the importance of environmental observation and is geared toward children ages 4–8.

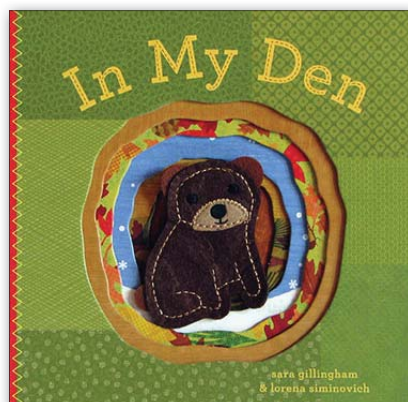
The Fog, hardcover, Tundra Books, 48 pages, 8½"x 11": \$16.99



THE FOG

WRITTEN BY KYO MACLEAR,
ILLUSTRATED BY KENARD PAK

This whimsically illustrated book follows Warble,



IN MY DEN

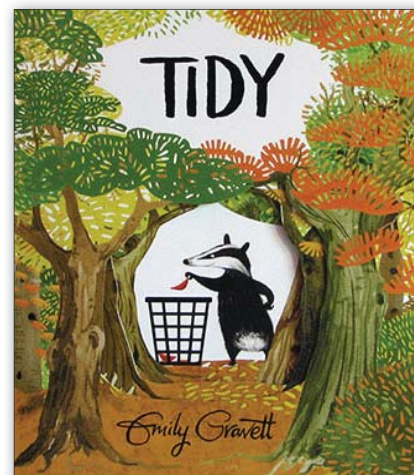
WRITTEN BY SARA GILLINGHAM,
ILLUSTRATED BY LORENA SIMINOVICH

This interactive board book explores a bear den through the seasons with colorful illustrations, reassuring messages, and an attached bear finger puppet. This book is sure to delight young children ages 2–5.

In My Den, board book, Chronicle Books, 12 pages, 7"x 7": \$8.99

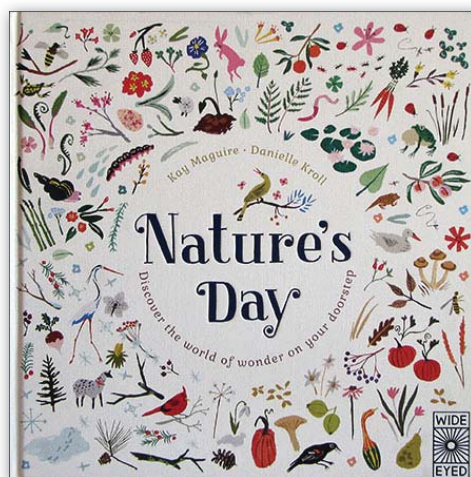
This playfully illustrated story follows Pete the badger as he tidies up his forest home—however, Pete soon discovers that cleaning up can go too far. *Tidy* delivers an environmental message through a fun story for children ages 4–8.

Tidy, hardcover, Simon & Schuster Books for Young Readers, 40 pages, 9"x 10½": \$17.99



TIDY

BY EMILY GRAVETT



NATURE'S DAY: DISCOVER THE WORLD OF WONDER ON YOUR DOORSTEP

WRITTEN BY KAY MAGUIRE, ILLUSTRATED BY DANIELLE KROLL

In this informative nature guide for young readers, Maguire explores the four seasons at nine different locations including the pond, the field, and the woods. This lovely large-format book is embellished with Kroll's vibrant illustrations, making it a great introduction to the wonder of wildlife and ecosystems for children ages 5–8.

Nature's Day, hardcover, Wide Eyed Editions, 80 pages, 12"x 12": \$24.99

❧ Fall Catalog ❧

NANOBLOCKS

These micro-sized building blocks are a blast to put together! Choose between an adorable river otter and a majestic Bald Eagle.

Recommended for ages 12 and up.

Nanoblocks, approximately 1½" tall, please specify otter or eagle, 120 pieces: \$9.99



OTTER

EAGLE



SQUIRREL

BLUEBIRD

FINGER PUPPETS

Bring your wild buddies from the Mono Basin home with you to play! These plush, lovable, high-quality Folkmanis finger puppets make for great interactive play. Choose from two Mono Basin species: squirrel and Western Bluebird.

Finger puppets, approximately 3½" tall, please specify squirrel or bluebird: \$9.00

MONO BASIN PLUSH ANIMALS

Cuddle up with your favorite Mono Basin locals. It doesn't matter how old you are—these plush pika and black bear animals are cute, soft, and make excellent cuddle buddies.

Mono Basin plush animals, please specify 4" pika: \$9.00, or 12" bear: \$15.00



PIKA



BEAR



MATCH A PAIR OF BIRDS: A MEMORY GAME

This fun, educational memory game is great for any budding bird enthusiast. Can you match the male and female pairs of these 25 species?

Match a pair of birds, 4"x 5½": \$14.95

THINKING PUTTY

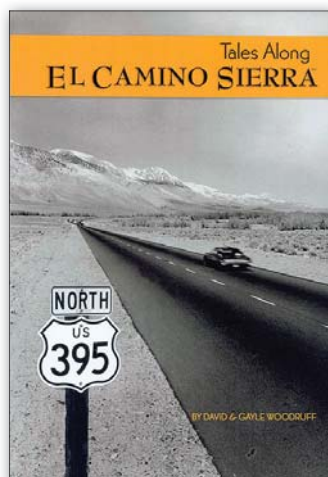
Kids of all ages love playing with thinking putty. These non-toxic, American-made putties are a great way to explore different physical properties—they're stretchable, tearable, sculptable, and bounceable. Choose between sunburst, a color-changing heat-reactive putty, and ion, a photo-reactive putty that glows in the dark.

Thinking putty, packaged in 2" tins, please specify sunburst or ion: \$3.00



Make sure you're on our bookstore email list to get special offers—sign up at MONOLAKE.ORG/STORE to get 10% off today!

order at monolake.org/store or (760) 647-6595



TALES ALONG EL CAMINO SIERRA

BY DAVID & GAYLE WOODRUFF

This top-selling regional book by Eastern Sierra locals David and Gayle Woodruff contains a collection of little-known stories involving the people, places, and events that enrich the cultural history of the beloved and scenic Highway 395.

Tales Along El Camino Sierra, paperback, Eastern Sierra Publishing, 154 pages, 6"x 9": \$10.95

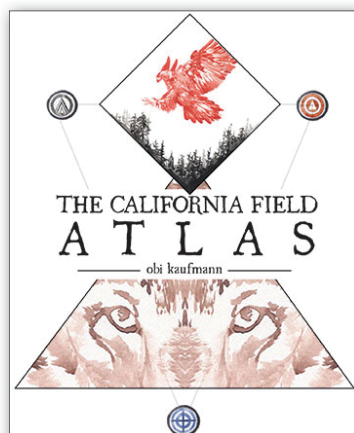
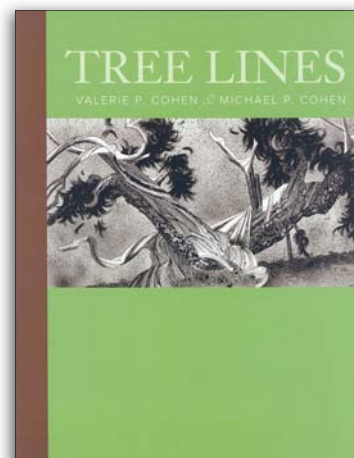


TREE LINES

BY VALERIE P. COHEN & MICHAEL P. COHEN

Tree Lines, put together by a local couple, captures the beauty of the Sierra Nevada's high-elevation pines. Michael's poetic vignettes are inspired by the pen-and-ink artwork of his wife Valerie, and together they create a beautiful book to behold and read.

Tree Lines, paperback, University of Nevada Press, 80 pages, 8½"x 11": \$29.95



THE CALIFORNIA FIELD ATLAS

BY OBI KAUFMANN

Naturalist and artist Kaufmann has compiled an extensive collection of his work into *The California Field Atlas*. Featuring full-color watercolor illustrations of wildlife, trails, and maps, this book encompasses many layers of the natural world, from the broad to the detailed.

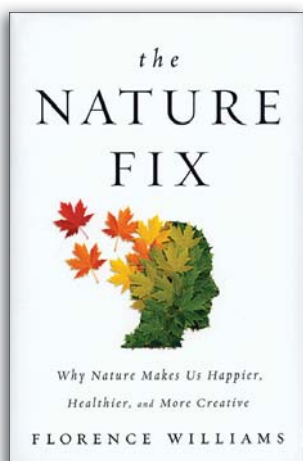
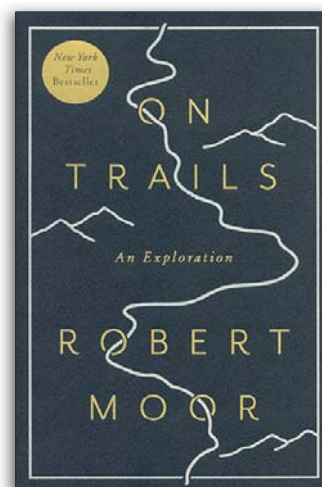
Impressive in scope, content, and beauty, this book is a must-have for those who love California. *The California Field Atlas, paperback, Heyday, 608 pages, 5½"x 7½": \$45.00*

ON TRAILS: AN EXPLORATION

BY ROBERT MOOR

This fascinating book explores the natural history of trails and how they shape our understanding of the world. From the invisible trails left by ants, to the Appalachian Trail, freeways, and the internet, Moor offers an engaging look into the paths that intersect our lives.

On Trails, paperback, Simon & Schuster, 352 pages, 5½"x 8": \$16.00



THE NATURE FIX: WHY NATURE MAKES US HAPPIER, HEALTHIER, AND MORE CREATIVE

BY FLORENCE WILLIAMS

Many of us are familiar with the nearly instant relief a walk in nature can provide when we're stressed. Williams explores the science behind this effect and nature's ability to improve our cognition and creativity. From soothing the symptoms of PTSD and ADHD to inspiring the creation of symphonies, exposure to nature does wonders for the human mind. Through compelling evidence based in medicine, psychology, and biology, this book reinforces the importance of time spent outside.

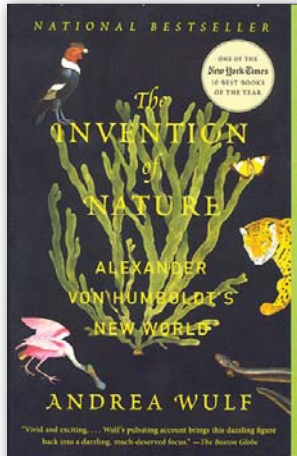
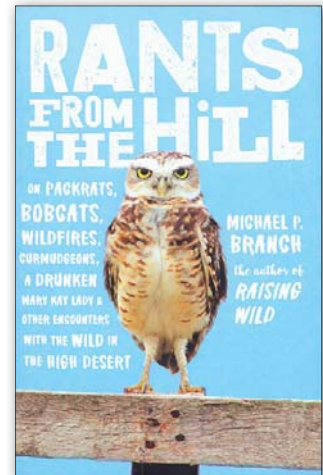
The Nature Fix, hardcover, W. W. Norton & Company, 304 pages, 6½"x 9½": \$26.95

**RANTS FROM THE HILL: ON PACKRATS, BOBCATS, WILDFIRES, CURMUDGEONS,
A DRUNKEN MARY KAY LADY, AND OTHER ENCOUNTERS
WITH THE WILD IN THE HIGH DESERT**

BY MICHAEL P. BRANCH

This collection of so-called rants highlights the interesting life of humorist, environmentalist, and self-proclaimed desert rat Branch. From encounters with wildlife to interactions with his quirky neighbors, these essays are sure to entertain.

Rants from the Hill, paperback, Roost Books, 232 pages, 5½"x 8½": \$14.95



**THE INVENTION OF NATURE:
ALEXANDER VON HUMBOLDT'S NEW WORLD**

BY ANDREA WULF

In this fascinating biography of Alexander von Humboldt, Wulf describes the naturalist's connection to the creation of modern environmentalism and explores how his discoveries changed the way we understand the natural world. Among his most revolutionary ideas was the concept that nature is a complex, interconnected global force that does not exist for the use of humankind alone.

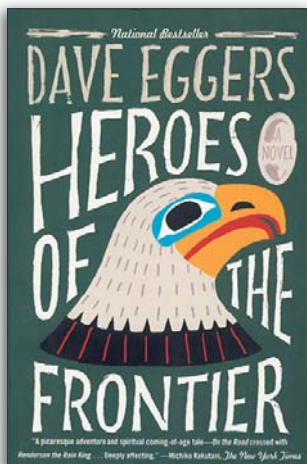
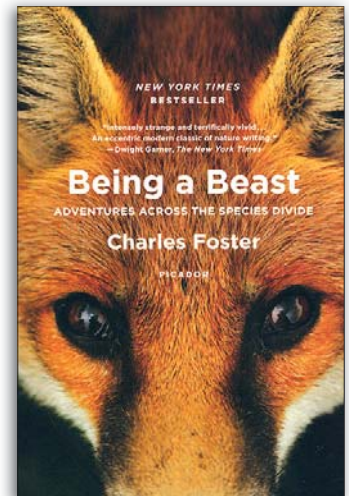
The Invention of Nature, paperback, Vintage, 576 pages, 5"x 8": \$17.00

BEING A BEAST: ADVENTURES ACROSS THE SPECIES DIVIDE

BY CHARLES FOSTER

In a quest to understand non-human animals, Foster attempted to live like them—eating worms with badgers, foraging like a fox, fishing with otters, and migrating with swifts. The intriguing combination of neuroscience, psychology, nature writing, and memoir draws parallels between species, making for a captivating read.

Being a Beast, paperback, Picador, 256 pages, 5½"x 8": \$16.00



HEROES OF THE FRONTIER

BY DAVE EGGERS

Eggers' most recent novel follows a single mother fleeing from her past to Alaska with her two young children. *Heroes of the Frontier* is a captivating, often hilarious novel of family, loss, wilderness, adventure, and contemporary life.

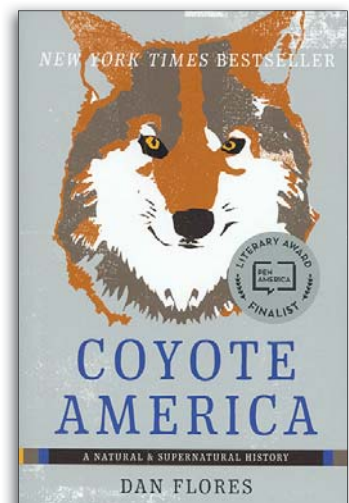
Heroes of the Frontier, paperback, Vintage, 448 pages, 5"x 8": \$16.95

COYOTE AMERICA: A NATURAL & SUPERNATURAL HISTORY

BY DAN FLORES

This five-million-year natural history of the coyote follows the species from its North American origins to the present day, highlighting this animal's resilience and expansion across America despite eradication campaigns.

Coyote America, paperback, Basic Books, 288 pages, 6½"x 10": \$16.99





MONO BASIN WILDLIFE ORNAMENTS

Liven up your holiday decorations with these Mono Basin wildlife ornaments. The brine shrimp ornament measures 3 inches tall, and serves as a festive tribute to the *Artemia monica* of Mono Lake. These *Mono Lake Committee exclusive* ornaments come in silver and gold. And new this year, whimsical blown glass wildlife ornaments that are sure to delight. These delicate handmade glass animals measure approximately 1½ inches tall and feature iconic Mono Basin inhabitants black bear, bighorn sheep, and Steller's Jay.

Brine shrimp ornament, please specify silver or gold: \$10.00

Blown glass ornaments, handmade items may vary slightly, please specify black bear, bighorn sheep, or Steller's Jay: \$15.00



MOUNTAINSCAPE EARRINGS

Show your love for the mountains of the Mono Basin with these beautiful, locally-made earrings. Each pair features a mountain scene created by Bishop artist Mary Lou Aukee. Earrings are approximately 1 inch in diameter and are made of mixed metals: copper, silver, and brass, with sterling silver ear wires.

Mountainscape earrings, designs vary slightly: \$45.00



MOON PENDANT

These simple, elegant pendants are made locally by Yosemite artist LothLorien Stewart. Each crescent moon is crafted by hand and hung on a 20-inch silver chain. Available in copper and sterling silver, these pendants are a lovely reminder of the beautiful night sky.

Moon pendant, ¾" long (shown actual size), please specify copper: \$40.00, or silver: \$45.00



MONO LAKE TEA TOWEL

Bring the vibrant ecosystem of Mono Lake into your home with this 100% Egyptian cotton tea towel featuring the artwork of California naturalist John Muir Laws. This easy-to-ship floursack towel makes for a beautiful, useful gift any time of year. *Mono Lake Committee exclusive.*

Mono Lake tea towel, 28"x 30": \$12.00

SIERRA ESSENTIALS SOAPS

These eco-friendly soaps are hand-crafted in the Tahoe area and contain the best organic ingredients and essential oils, making them one of our top-selling products. Choose from the following fragrances: vacation (a lovely blend of citrus, coconut, and vanilla); fir needle (a festive, fresh, evergreen aroma); or woody (an earthy blend of cedarwood, patchouli, and clove).

Sierra Essentials soaps, 5½-oz, please specify vacation, fir needle, or woody: \$8.00

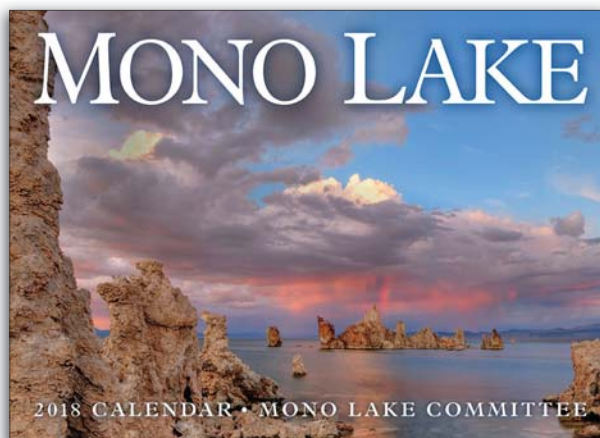


order at monolake.org/store or (760) 647-6595

2018 MONO LAKE CALENDAR

The 2018 *Mono Lake Calendar* features stunning images of this wild and wonderful watershed. Bring Mono Lake into your home 365 days a year, with views of the Mono Basin's tufa towers, sunsets, streams, storms, fall colors, and winter landscapes as captured by skilled photographers. Printed in the USA on recycled paper. Call us for holiday gift shipping options and for special bulk pricing on orders of two or more calendars. *Mono Lake Committee exclusive.*

2018 *Mono Lake Calendar*, 13"x 9½": \$14.95



CHICOBAG TRAVEL PACK

This travel pack, modeled by Julissa, is extremely lightweight without sacrificing functionality. The durable fabric is made from 100% post-consumer recycled plastic bottles. It includes space for a water reservoir and can accommodate water bottles in the stretchy side pockets. When expanded, this pack measures 17½" by 9½" and folds into its own pouch for easy storage (6" by 8"). It weighs just over 7 ounces and is available in black, grey, or blue.

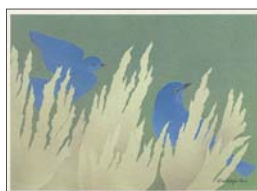
Chicobag travel pack, please specify black, grey, or blue:
\$30.00



MONO LAKE CARD SET

Featuring the popular art of Wendy Morgan, this *Mono Lake Committee exclusive* card set features 12 local and beloved wildlife species from sage grouse to pika. These cards are blank inside making them great for any occasion.

Mono Lake card set, 12 notecards with envelopes, 4½"x 6¼": \$18.90



See all products in color and place your order online anytime at MONOLAKE.ORG/STORE. Or call (760) 647-6595—we're here weekdays, 9:00AM to 5:00PM, ready to take your order.

Staff migrations

by Jessica Horn

This spring and summer we saw a huge influx of water—more than anyone expected—and longtime and new staff alike shared in communal elation as the lake level rose. As always happens in the fall, the seasonal staff have migrated on, taking their experience at Mono Lake with them.

Congratulations to **Lily Pastel**, Information Center & Bookstore Manager, and **Robbie Di Paolo**, Restoration Field Technician, who were married on September 16 in the Mono Basin!



Newlyweds Robbie Di Paolo and Lily Pastel.

Our Outdoor Education Center (OEC) Instructors are key to creating a welcoming and supportive atmosphere for OEC students as they canoe on Mono Lake, climb mountains, do hands-on stream restoration, and learn about where their water comes from. **Antonia Chihuahua** came back for her second summer as an OEC Instructor. She has returned to Southern California to care for family and continue working in education. OEC Instructor **Rose Nelson** jumped right into the position of Outdoor Education Center Instructor after working as a California State Parks Interpreter, and will continue at the OEC through the end of the season.

Gabby Renteria spent the summer as the Information Center & Bookstore Assistant Manager, telling people about Mono Lake, helping with California Gull research, organizing Mono Lake meet-ups in Mammoth Lakes, and gathering ideas for recruiting younger members. She returned to her position as Project Specialist in October.

Information Center & Bookstore Assistant **Alex Beeken** was great at giving helpful Mono Lake information to visitors, and was a huge help with receiving store merchandise. He also used his coding experience to update the educational, interactive touch-screen in the bookstore.

Julissa Rosales, Canoe Coordinator, stayed busy leading weekend canoe tours and special tours during the week. She also wrote letters for the membership program and did interpretive programs on the deck of the Information Center & Bookstore. Julissa has started a Master's degree in Planning,

Public Policy, & Management with an emphasis in Non-Profit Management at the University of Oregon in Eugene.

All interns helped with stream monitoring, canoe tours, South Tufa tours, and bookstore shifts, answering phones, and were always seeking extra projects because they finished their assigned projects so efficiently. Thank you all!

Jenny Rieke not only led weekly trips at County Park as the Birding Intern, she also developed a new weekly bird walk in Lundy Canyon. She helped with California Gull research and worked on an educational display for the front of the bookstore as well.

Mono Lake Intern **Molly Casey** organized this year's Refreshments with Refreshing 'Ologists lecture series with weekly presentations by scientists doing research in the area. She also helped with OEC groups during their canoeing and hiking trips. This fall she is working in South Lake Tahoe at the Great Basin Outdoor School.

You may have seen Mono Lake Intern **Char Johnston-Carter** when she hosted this summer's Facebook Live video. She also wasn't shy when it came to wearing a *papier mâché* tufa costume to engage visitors in interpretative programs on the bookstore deck. She has returned to British Columbia, Canada to finish her degree in Biology and Environmental Studies at the University of Victoria.

Mike Morris, Mono Lake Intern, spent much of the summer helping with monitoring and invasive species removal programs all around the Mono Basin. He kept the brine shrimp tank and South Tufa tour backpacks clean,

Continued on page 27



The 2017 Mono Lake Committee staff.



From the mailbag

News from members and friends

by Ellen King

Watching Mono Lake rise was the highlight of the summer—at times the change in lake level was discernible from one day to the next. Thank you to all of you who sent in contributions in honor or in memory of your friends and loved ones. These gifts help us carry on the work that will keep Mono Lake a special place through wet years and dry.

In honor

Margaret Lohfeld of Los Angeles gave a gift in honor of her brother **Martin Engel**. **Rebecca Lyons** of Forest Falls made a donation in the name of **Mile High Chemistry, Class of 2017, University of Redlands**. **Robert & Joyce Schieferstein** of Walnut Creek sent a contribution in honor of the birthday of their son **Craig Schieferstein**.

In memory

We received donations in memory of **Craig Harper** from his widow **Anne Harper** of Berkeley, from **Bob & Mary Craig** of Sonoma, and from **Jim & Dolores Whitley** of Bakersfield. **Jonathan Hirabayashi** of Piedmont gave a gift in memory of **James Wilson**. **Cheryl Melin-Collins, Rick Melin, & Ron Melin** sent a contribution in memory of **Marm Beischel**: “Marm was a longtime camper in the Eastern Sierra since the 1940s.” **Enid Meyer** of Oakland made a donation in memory of **Martha Jane Boughey**. **Elizabeth Midyett** of Hemet gave a gift in memory of her husband **Lloyd Midyett**: “Mono Lake always held a special place in his heart.” **Linda O’Keefe** of Mountain Ranch sent a contribution in memory of her husband

Michael O’Keefe. **John Warneke** of Lee Vining gave a gift in memory of his canine friend **Panda** and their many walks at DeChambeau Ranch.

Jan Simis passes

Sad news arrived for the Mono Lake family as we went to press: **Jan Simis** passed away on September 24 at her treasured ranch in the Mono Basin. Jan had a deeply heartfelt love of nature, Mono Lake, and the Eastern Sierra. She and the Simis Ranch have been integral to the protection of Mono Lake, providing a home in 1976 for the camping band of scientists that identified the imminent threats to Mono Lake and would go on to found the Mono Lake Committee. A quiet friend to all in the Mono Basin, Jan will be greatly missed.

Mono Lake Committee goes net-zero with solar

One of the Mono Lake Committee’s goals has been to generate all the power needed for the Information Center & Bookstore and Committee office on site. This summer local company Sierra Solar installed the final 16 panels needed to achieve net

zero power demand on the grid.

We started the process of converting to solar power in 2010 with nine solar panels installed on the roof of the “ice house” office building, and then added an additional 33 panels to the roof of the bookstore building in 2012. We also took a number of conservation measures, such as switching to LED bulbs in the bookstore, and have been monitoring our usage carefully—by 2016 we had reduced our annual grid power demand by over 80%.

Most of the solar panels are largely invisible to members and visitors since they’re atop roofs. We asked Sierra Solar to check the power-generation potential of panels on the awning over the main bookstore doors, so that we could better show our commitment to solar. It turns out that panels there generate a fair amount of power in the bright morning sunshine, so look for those when you visit.

With 58 panels total, we now generate as much power as we use, and a little more as a buffer for additional electronics or projects in the future. Thanks to Sierra Solar and member contributions, we’re taking good advantage of the Eastern Sierra’s sunlight. ❖

Staff migrations from page 26

and took a leadership role in increasing membership recruitment.

As a Mono Lake Intern, **Aviva North** interviewed Mono Lake Volunteers and wrote posts for the Mono-logue (monolake.org/today) to highlight their great work. She was the Lee Vining town

ambassador, and brainstormed ways to improve new membership sign-ups during South Tufa tours. Aviva returned to school at Mount Holyoke College in Massachusetts this fall to continue her degree in Geography.

Ava Stavros began the summer

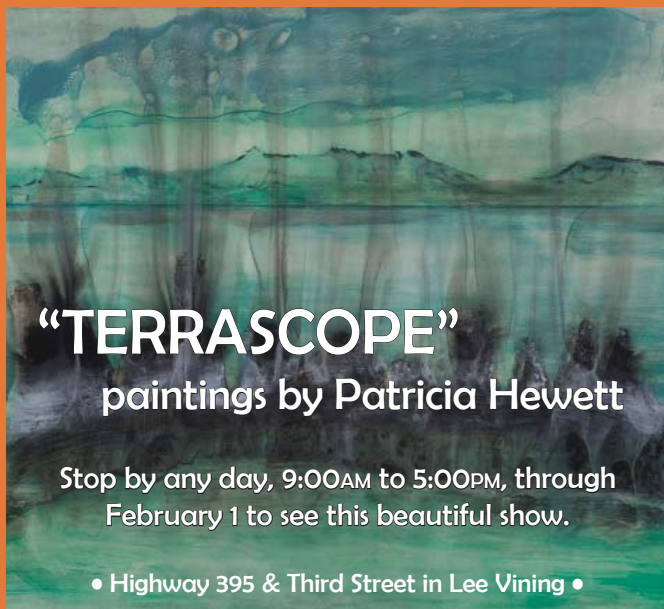
as a Mono Lake Intern, helping with interpretative programs at both the lake and the bookstore deck and led invasive species removal programs to clean up the Lee Vining Community Center grounds. She is currently finishing the season as an OEC Instructor. ❖



MONO LAKE COMMITTEE

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Winter custom guided trips

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Shop the fall catalog for all your holiday gifts!



See pages 18–25 or visit monolake.org/store