



BIG MORONGO CANYON PRESERVE NEWSLETTER

Friends of Big Morongo Canyon Preserve

Spring/Summer, 2019

Preserve Docents Experience An Adventure in Learning

When was the last time you were on a nature trail and cupped your hands around your ears to hear like a coyote? Have you ever knelt down on the marsh boardwalk to look closely at the bear tracks?

Participants in this year's Docent Training did these activities and more. The training content included techniques and inspirational ideas for engaging



Robin Kobaly shares her tremendous knowledge of Big Morongo plant life with docents-in-training.
Photo by Cindy VonHalle

school groups. We examined mysterious bones and sorted rock specimens. We learned to identify plants by touch and smell. Robin Kobaly taught us historical lessons from Native people to today's preserve management. As a complement to the "hands-on" learning, each docent received an attractive training manual packed with lesson plans.

Throughout the three days of classroom and outdoor instruction, local educators shared their expertise and strategies. Caroline Conway shared best practices to spark student curiosity about science and nature. Tips were discussed to develop "adventure" hikes to add excitement. Friends of Big Morongo Canyon Preserve Executive Director, Meg Foley, expects that approximately 1,000 students will visit this year.

Former BMCP Educator Caryn Davidson lent this advice: "Let nature saturate your senses, and then do whatever you must do, on its behalf." Reaching out and sharing our passion for Big Morongo Canyon is what we docents "must do," on nature's behalf.



Jane Olson (center left) has planned and provided quality educational programming at BMCP for many years now.

Photo by Cindy VonHalle

A big thanks to this year's Instructors: Caroline Conway (retired, The Wildlands Conservancy), Tracy Albrecht (BLM Education), Caryn Davidson (retired, Joshua Tree National Park Ranger-Education), Jane Olson (BMCP Board Member), and Robin Kobaly (Summertree Institute).

by Cindy VonHalle

Joshua Trees Put On An Early Show by Joe Zarki

Among the most spectacular of the desert's wildflowers is the Joshua tree, *Yucca brevifolia*. In our area, the western Joshua tree normally produces inflorescences starting in February. The flower buds start at lower elevations and gradually move upslope into the core of their local range within Joshua Tree National Park. Peak blooms occur in March and last into early May. At Big Morongo Canyon, stands of Joshua trees are found at the upper end of the Preserve along Poleline Road and Highway 62.

However, this year the Joshua tree threw us a big league floral curve. Buds

and a few flowers were first noticed in the Friendly Hills area of the community of Joshua Tree on November 9. By Thanksgiving, dozens of trees had buds and fully developed blossoms. I alerted Joshua Tree National Park Vegetation Specialist Neil Frakes and Palm Springs desert ecologist Jim Cornett to what I thought was an unusual early flowering of the iconic tree. Having lived in the desert for many years, I couldn't recall seeing the trees bloom in November.

Cornett, a biological consultant and former Curator of Natural History at the Palm Springs Desert Museum, had



An early flowering Joshua tree attracts desert birds, November 16, 2018.

Photo by Joe Zarki

Continued on p. 5

**Desert-Wise Landscape Tour
to Visit BMCP Garden**

9:00 to 11:30 a.m.

The Morongo Basin Conservation Association (MBCA) will hold its Desert-Wise Landscape Tour on Saturday, April 27 and Sunday, April 28. On Sunday, tour participants will visit Big Morongo Canyon Preserve to see the 'new and improved' butterfly and hummingbird gardens.

If you want to participate in the 2019 Desert-Wise Garden Tour, information is available at the MBCA website: https://www.mbconservation.org/2019_desert-wise_land-scape_tour_registration

The Joshua Tree National Park Association has announced that Robin Kobaly will receive the 2018 Minerva Hoyt California Desert Conservation Award. Time and place of the award ceremony have not yet been announced.

Congratulations, Robin!

Friends of Big Morongo Canyon Preserve

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- David Miller, President
- Patrick Casey
- Ann Garry
- Robin Kobaly
- Bill LaHaye
- Tish Miller
- Jane Mootz
- Jane Olson
- Laura Sherrod

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- Meg Foley, Executive Director
- Vacant, Education Director

NEWSLETTER

Editor: Joe Zarki

Spring/Summer, 2019

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CHATting WITH DEE... by Cindy VonHalle

As a new volunteer for Big Morongo Canyon Preserve, my recent interview with Dee covered a wide range of topics. Because I'm eager to learn, we talked about donations, recycling, birds and visitation. These are all normal operations. Throw in heavy rainfall, strong wind and snow plus two burglaries in February, and I think it's safe to say this has not been a 'normal' season. Equipment and tools to maintain trails were recently stolen. Items like chain saws, drills, drill chargers, an office printer, and walkie-talkies will have to be replaced. An investigation is ongoing and in the meantime, the parking lot is overflowing with cars.



Visitation is up partly due to the fact that many other local attractions such as the Whitewater Preserve and Indian Canyons, are closed because of winter storm damage. People are calling to ask if the preserve is open. When they ask about an entrance fee, Dee suggests using the

donation box. With all the influx of people, kiosk donations hit an all-time high in January. This was certainly welcome news as the preserve has many needs and never enough funds to meet them.

The weekly bird walks are getting more migrants every week. Visitors were thrilled to see a Townsend's solitaire, a typical mountain species, eating mistletoe berries in a cottonwood tree on the last Wednesday bird walk in February. A female and two male vermilion flycatchers were also dashing about. With the added treat of a Scott's oriole and two species of nesting owls (barn and great horned), is it any wonder more people are coming? Dee says most visitors aren't around to see the bobcats or fox family wander in around twilight. I'm glad to know there is a gate to keep out vandals. I'm happy to know that wildlife has this safe haven. Near the end of our conversation, I look over my notes. Theft, heavy rains, snow, "visitation going through the roof"— it's been a weird winter.

With calm resignation, Dee sums it up this way: "Even when other things seem really bad, the birding is still good."

EXECUTIVE DIRECTOR'S REPORT- RANTS and RAVES by Meg Foley

Rants ...to the thieves who broke into the Education Center and stole critically needed equipment for daily operations. The burglars stole our two chainsaws, six cordless drills, a dozen chargers and batteries, walkie-talkies used by docents on school tours and trail volunteers, circular and reciprocating saws, and the only office printer. The chainsaws are used frequently to remove downed limbs shed by the aging and fire damaged cottonwood trees. Cordless drills and batteries are essential to maintain and fix the boardwalk – a perpetually needed job, given our shifting soil substrate. The thieves also irreparably damaged a metal storage shed. The replacement value exceeds \$5,000, excluding the shed. We did not have property insurance and cannot afford to replace most of the items. If you can help, donations can be made

securely, online at www.bigmorongo.org/donate/.

Raves ...as fall and winter rains set the stage for a wonderful wildflower bloom, and some weather related excitement. The rains were interspersed and frequent enough to leave the ground spongy, soaked, and primed to flood during two incredible storms in February. We received almost 6 inches of rain on Feb. 2, and over 6 inches again on Feb. 14 with several smaller subsequent rainy days. We experienced some significant damage from both storms and luckily had significant help with repairs. The Valentine's Day storm carved a deep, impassable ravine at the entrance drive. Water ran high enough to wash over most of the Desert Willow, Marsh, and Mesquite trails. A small debris flow cov-

Remarkable Ray York Is Honored for His Service to Big Morongo Canyon by Meg Foley

Ray York has been volunteering at the Big Morongo Canyon Preserve since before we were a preserve! He lived in Morongo Valley from 1981-1994 and visited the preserve while a resident. He helped build the first boardwalks and benches and worked on many of the trails. Ever humble, Ray touts his admiration for the volunteers who led many of the projects. "I just pushed the wheelbarrow," Ray noted. "The other guys really knew what they were doing!" His contributions, well beyond wheelbarrow pushing, are still seen today on the West Canyon and Desert Willow trails. Even though Ray moved from Morongo Valley in 1994, he didn't stop volunteering at BMCP. For the last 13 years, nearly every Thursday finds Ray and Dee Zeller gathering recycled glass, cans, and plastics for redemption at the recycling center. Dee and Ray sort CRV items brought by residents, empty



Photo by Meg Foley

the recycling bins attached to each trash can, and pick up items from the recycling center at the Cactus Mart. The sorting task is a dirty physical job since most recycling is mingled with trash, despite the well-marked receptacles. The proceeds are donated to the Friends. The recycling program, managed entirely by Ray and

Dee, contributes an average of \$1,000 per year – even more in recent years!

We feel honored to benefit from Ray's long-term contribution since his time and talents are in very high demand. Some of his current and past volunteer jobs include: Yucca Valley Library, post-Sawtooth Fire revegetation projects in Pipes Canyon and Gamma Gulch, Morongo Basin Coalition for Adult Literacy, and Hippotherapy programs for children with disabilities. Ray claims, "I get much more satisfaction from volunteering than I ever did when working full time." Ray is a truly authentic person. His generosity, shaded by humility and a sense of humor, draws friends no matter where he works. The Friends' Board of Directors is very happy to acknowledge his service by installing his name on Recognition Rock. Thank you ,Ray!

Executive Director's Report (cont. from p.2)

ered a quarter of the Marsh Trail leaving some sections of the boardwalk buried in mud 6 inches deep. Water monitoring gauges showed debris at the 3-foot mark on the Marsh Trail. Along the Canyon Trail, the road servicing the pipelines was obliterated, as was much of trail.

Before the storms, the **Sands RV Club** members worked in two groups to fix the collapsing deck on the Mesquite Trail and two sections of "tilted" boardwalk. They are an experienced group of hikers from Canada who spend several winter months in the Coachella Valley. They feel an obligation to help on lands they enjoy. We struggle to find anyone with the skills to repair the boardwalk and are extremely grateful they have the know-how and willingness to tackle such tough jobs. The **Urban Conservation Corps** was originally scheduled to arrive in January but couldn't come due to the government shutdown. They repaired approximately 30 yards of the West Canyon Trail that was eroded with a 2-foot wide ravine that was 3-feet deep in places. A social trail cutting across the switchbacks on the south side of the West Canyon Trail is still in need of some major work. UCC removed many overhanging limbs from the Marsh Trail and

repaired the Desert Willow Trail. The 10 waterboards they installed after the Feb. 2 storm helped prevent greater damage on February 14.

Nine members of an **Americorps** unit, sponsored by Mojave Desert Land Trust, worked on Martin Luther King, Jr. Day to fulfill some of their personal service requirements. Tackling windstorm damage from the day before they arrived , they helped remove a large cottonwood limb blocking a public area and dozens of palm fronds dislodged by winds. The Americorps crew returned on Feb. 9 to repair ruts and fill potholes in the driveway, remove alkali goldenbush from the parking lot buffer and pull Sahara mustard from the Desert Willow Trail.

A **Red Cross** youth club from the 29 Palms Marine Base arrived for a tour and service project on February 15. The kids helped clear the Marsh Trail, and their dads provided needed muscle by shoveling the deep mud from the debris flow. A friendly neighbor with an excavator filled in the ravine at the entrance.

Bobby McNichols, a Morongo Valley resident, has contributed significant amounts of manual labor in recent

months. In December, when we first experienced trail damage, Bobby started bringing a shovel during his frequent visits. He contributed an average of 40 hours per month during December, January and February. He widened and rebuilt the entire dirt portion of the Mesquite Trail and much of the Desert Willow Trail. He works full time but often comes for a few hours after work and devotes 5-6 hours a day on weekends.

The February 14 storm caused the indefinite closure of the Whitewater and Mission Creek preserves, the Indian Canyons, and the road to the Palm Springs Tramway. We are experiencing increased visitation from a wider range of audiences since we are open, and tourists based in the Coachella Valley are seeking alternative outdoor activities. The beginning of migration and nesting season attracts the usual crowds of birdwatchers this time of year, and the promise of a banner wildflower season has the parking lot overflowing on a regular basis.

As you enjoy visiting the preserve this spring, please give thanks for the many helping hands who kept the preserve accessible during our recent unprecedented weather events!

Our Local 'Outback' Candy Store by Joe Zarki

Birders at Big Morongo Canyon have long known that certain trees 'bleed' sap when injured, and these secretions, called 'exudates,' will attract a variety of birds and insects. In fact, birds such as sapsuckers and ladder-backed woodpeckers are often the cause of these injuries. The well-known sapsucker tree at Covington Park is a regular stop on our weekly bird walks.

Another tree in our area also produces an exudate of a different and more complex nature that provides an equally strong attraction for many resident and migratory birds. Australian eucalyptus trees, often called gum trees, are parasitized by a number of psyllid (pronounced *sill-id*) insects in the family Hemiptera. Most common of these is the red gum lerp psyllid, *Glycaspis brimblecombei*. The 'down under' lerp psyllid arrived in California in 1998. Once here, it rapidly spread through our state's introduced eucalyptus woodlands becoming a major pest in the process—a familiar story in California's long history of invasive insects.

Psyllid nymphs and adults feed on the gum trees' sugar-rich phloem. In the process the nymphs excrete a sticky substance called 'honeydew.' The nymphs use this substance to fashion a protective white covering, or 'lerp.' When psyllid activity produces enough lerps, leaf damage can result, and the trees may start to defoliate. This weakens the trees and can even cause their death.



Lesser goldfinches have a taste for lerps.

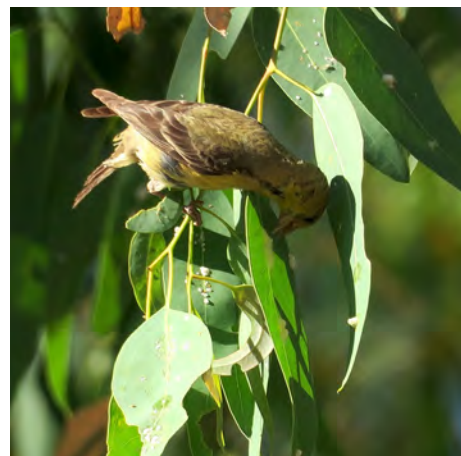
Photo by Joe Zarki

However, for all the problems psyllid infestations create for the trees, birds have found something to like about them. In warm seasons, the sweet lerps dot the surface of eucalyptus leaves like candy dots on paper and attract a wide variety of birds. In Australia, honeyeaters were the first birds found to feed on lerps. Since then an amazing array of 'down under' birds have been found to eat sugary psyllid droppings including many parrot species, finches, bowerbirds, currawongs, choughs, Apostlebirds, woodswallows, shrike-tits, pigeons, reed-warblers, and even purple swamphens. In one study, 22 of 29 species of caged, wild Australian birds accepted lerps as food when it was presented to them.

Lerps owe their existence to the amazingly high sugar content of eucalyptus tree sap. Psyllid nymphs ingest more sugar than they need. Their excretions (perhaps it should be called 'honey-doo') contain as much as 60% sugar. Concentrations of lerps create a virtual outdoor candy store for birds. One Aussie bird, the bell miner, has evolved a behavioral adaptation that is akin to farming the lerps. It will remove the whitish cap from the psyllid nymph leaving it unharmed and free to create another another lerp for the enterprising bell miners to harvest again. Another group of birds called Pardalotes have developed white spot patterns on their plumage believed to help them blend in with the lerp-infested foliage.

Birds aren't the only Australian natives attracted to lerps. In Australia, gliders, flying foxes, and the endangered Leadbeater's possum dine on lerps, and in Madagascar, lemurs ingest sweet gum exudates. Even people can't resist their allure. During the 19th century, some Aussies would gather pieces of sweet gum secretions called 'manna' by the bushel. Once, a stockman from the outback was stranded in the bush and survived for days on lerps. He described it as tasting like wedding cake frosting.

Here at Big Morongo, lerp season is often an exciting time for birdwatchers. The small grove of eucalyptus trees at Covington Park can be swarming with birds



Migrant and resident birds enjoy the energy boost they receive from the sugary lerps.

Photo by Joe Zarki

feeding on the sugary psyllid shelters. Summer and western tanagers, black-headed grosbeaks, hooded and Bullock's orioles, numerous warblers, lesser and Lawrence's goldfinches, and house finches are all known to dine on lerps. During one memorable May morning, I counted at least 25 western tanagers feeding together in the park's small eucalyptus grove. Hummingbirds and wintering Scott's orioles are attracted to eucalyptus flowers although it's uncertain if they feed on lerps.

One danger for birds feeding among eucalyptus flowers is they sometimes come in contact with the sticky gum that the trees exude. This can prevent them from keeping their feathers clean and may even clog their nostrils or interfere with their normal feeding. Many native Australian birds feeding on eucalyptus have developed longer bills that enable them to feed at some distance from the gummy sap. North American birds have not evolved with these trees, and they lack the adaptations of their southern counterparts.

When considering eucalyptus and their invasive psyllid parasites, it can be hard to keep in mind the harmful ecological consequences of these nonnative species. However, for sweet-beaked birds, these considerations are beyond their notice. In their view, this may be a case where two wrongs make a very tasty right.

BIG MORONGO CANYON PRESERVE

Joshua Trees Put On An Early Show (cont. from p.1)

for over 30 years conducted long-term studies on Joshua trees, and confirmed that he, too, had never seen Joshua trees flowering in the fall. Jim reached out to other Joshua tree researchers about the out-of-season bloom and set up some short-term study plots to monitor the unusual phenomenon.

Among the questions to be answered were what prompted Joshua trees to bloom so far out of their normal flowering season; how widespread was this unusual occurrence; would the trees be visited by their only known pollinators—the yucca moth; and would the trees produce seed pods with viable seeds?

During this time, several BMCP volunteers made trips to upper Poleline Road to collect seeds for our butterfly garden from Wright's buckwheat. On a January 22 trip, we found several blooming Joshua trees and more trees showing buds, signs that the early Joshua tree bloom had spread to BMCP lands.

As for the cause of such an early bloom, a major rain event hit the Morongo Basin on October 12 bringing 2-3 inches of rain in just a few hours. Could the intensity of the rain have spurred the trees to flower? More troubling was what we observed after the early blooms withered. Dozens of trees were checked for signs of pollination, and by mid-January only one tree was found to have produced a single, poorly developed seed pod. It seemed the early flowering of Joshua trees had not coincided with a fall flight of yucca moths. For the trees that flowered early, the event was a reproductive failure.

The relationship between Joshua trees and the yucca moth is a classic example of co-evolution. Both the host plant and its insect pollinator have developed physical structures and behavioral adaptations that benefit both species. The moths efficiently pollinate the flowers and obtain food—Joshua tree seeds—for their developing larvae. Yucca moths time their emergence as adults to coin-

cide with the flowering of their hosts.

An unraveling of this carefully orchestrated evolutionary relationship could pose serious problems for the Joshua tree. Climate change will bring more extremes and greater variation to California's climate, even as it grows warmer and drier overall. Recent studies by Cameron Barrows and other researchers suggest that Joshua trees may still survive in local refugia. But if the delicate relationship between Joshua trees and the yucca moth breaks down, the trees face a difficult time generating seedlings to sustain their population.

By late February, the trees appeared to be near full bloom. Yet there are still few, if any, developing seed pods. The green cylindrical pods are easy to spot so their absence is a concern. While the Joshua tree's magnificent flowers may gleam now in the early spring sunshine, we should be mindful the giant yucca may be facing a cloudy future.



FRIENDS OF BIG MORONGO CANYON PRESERVE

PLEASE RETURN YOUR TAX-DEDUCTIBLE DONATION TO:

FRIENDS OF BMCP
P.O. Box 780
MORONGO VALLEY, CA 92256

Yes, I Want to Help!

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NEWSLETTER (WINTER, SPRING/ SUMMER, FALL ISSUES)

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BECOME A MEMBER OF

FRIENDS OF BIG MORONGO CANYON PRESERVE

Friends of Big Morongo Canyon Preserve is a nonprofit 501(c)(3) association organized for the support of programs at Big Morongo Canyon Preserve.

We are dedicated to the exploration, preservation, and stewardship of the preserve by protecting and managing its resources, and by providing educational programs, access for wildlife viewing, and recreational opportunities for the enjoyment of its visitors.

Donations to the Friends are fully tax deductible in accordance with the IRS and State laws. As a special thank you, new Friends receive a BMCP embroidered patch. Lifetime members also receive a canvas tote bag in addition to two BMCP color patches.

BIG MORONGO CANYON PRESERVE



NEWSLETTER

is published by

Friends of BMCP

P.O. Box 780

Morongo Valley, CA 92256

GO GREEN...to choose the digital option for receiving your newsletter, email us @ bmcp@bigmorongo.org.



CALENDAR

AT BMCP

MARCH – AUGUST

Gate open 7:30 a.m. to Sunset, 365 days a year

WEDNESDAY BIRD WALKS

Bird walks are held each Wednesday throughout the year excluding Thanksgiving Eve, Christmas Eve or Day, and New Year's Eve or Day. From October through March, walks begin at 8 a.m. From April through September walks start at 7 a.m. Bring your binoculars and spend the morning strolling the trails with knowledgeable local bird walk leaders. Meet at BMCP parking lot. Beginning birders welcome.

SATURDAY BIRD WALKS

Bird walks held on the third Saturday of each month only from October through May, excluding Christmas Eve or Day, and New Year's Eve or Day. From October through March, walks begin at 8:00 a.m. In April and May, walks start at 7:00 a.m. No Saturday bird walks are held from June through September. Same format as Wednesday bird walks.

UPCOMING EVENTS

March 31, Joshua Basin Water Education Day and Native Plant Sale, 61750 Cholita Rd., Joshua Tree. 1:00-4:00 p.m.

April 3, All Volunteer Meeting, Recognition of Ray York, at the Education Center. 1:00 p.m. Guest speaker– Jihadda Govan, Manager, Sand-to-Snow National Monument

April 20, Yucca Valley Conservation Fair & Earth Day Celebration, Yucca Valley Community Center. 9:00 a.m. - 2:00 p.m.

April 20, Mojave Desert land Trust Native Plant Sale, 60124 29 Palms Hgwy., Joshua Tree. 9:00 a.m.

April 27-28, Desert-Wise Landscape Tour (at BMCP on 4/28), see p. 2 for details.

Check www.bigmorongo.org for more information on future events.