



# BIG MORONGO CANYON PRESERVE

## NEWSLETTER

*Friends of Big Morongo Canyon Preserve*

Fall 2015



### **Betty Zeller**

**August 27, 1930—April 19, 2015**

*You live on in our hearts  
as a continuing inspiration to us all.*

Betty, along with Dee Zeller, was the Bureau of Land Management on-site host and caretaker for Big Morongo Canyon Preserve from 1996 until she passed away in April.

What Betty actually did during those years was to run the ship so to speak of BMCP. Using her administrative skills, enthusiasm, and humor, Betty managed and developed activities at the Preserve. She initiated and administered the highly successful BMCP Docent and Volunteer Program and worked extensively with local community organizations to integrate the efforts at the Preserve with those in the community.

Betty's work at BMCP followed a lifetime of service, including years of involvement with youth ministries where she had a profound effect on many young people.

We at BMCP are fortunate to have had Betty among us as an inspiration and guide, and we gratefully acknowledge this remarkable woman.

### **Big Morongo Canyon Preserve Education Update**

*by Kc McKay*

Big Morongo Canyon Preserve Environmental Education is a busy program. We have three areas of education that are focused on educating children about nature, conservation, and science. Our first is a program where we have grade school children bused in and educate them about nature. Our second program is our Summer Nature Encounter Program, where we have children visit daily for a week and study a specific subject relating to the Preserve and nature. The third is the Junior Docent Program; this is for grades 7 thru 12 and meets monthly, teaching students about nature, leadership, and conservation.

Last spring and fall brought over 1100 students to visit the Preserve. The students went on nature walks, learning about nature and enjoying the different noises that they heard, from the wind rustling in the trees, fooling the children into thinking a small river or beach was close, to the croaking of the Pacific treefrogs, the birds singing in the trees, and the woodpecker busily pecking away at a tree. After their walk, they enjoyed a hands-on activity that related to their subject of study in the Education Center. In some cases, the children were able to view wildlife, birds, snakes, lizards, and deer. These sightings, especially the deer, brought many smiles and excited chatter to the children, some never having seen a deer or other animals in the wild. At the end of their visit, the children went to Covington Park to enjoy their lunch and some play time.

In July, we had our annual Summer Nature Encounter. We had 12 children in grades 3 through 6, 4 junior docents, and an adult leader. The children visited the Preserve daily for one week from 9 a.m. to

2 p.m. During that time, they studied Native Americans and the fact that the Serrano tribe had stayed in the area. The children went on walks, learning about some of the animals, plants, and trees that played a crucial role in their survival. The students also made different Native American crafts, such as dream catchers, gourd rattles, and medicine bags, as well as many other projects, and played outdoor games. A hot dog lunch was served on Friday, the last day of camp, so that parents could visit and see their children as they received their certificates for completing the program and the children could show their families what they had done. This was a fun-filled week for everyone.

The Junior Docent Program did well this last year, participating in Earth Day at the Yucca Valley Community Center, representing the Preserve and the programs it offers to our youth. They of course did a great job. The junior docents also participated in the Summer Nature Encounter Program as leaders. This allows them to develop their skills not only in leadership but also in communication. These skills, as we all know, are important to their future success. The junior docents that completed the program requirements have gone from being trainees to being full junior docents and have stayed on as assistant leaders and have provided other junior docents in training with assistance in completing the requirements to graduate the program.

All three of these programs have proven to be successful, growing each year and requiring more and more volunteers for our future success. If you are interested in being involved in any aspect of the Environmental Education Program or know someone who is, please contact Kc, Director of Environmental Education, (760) 285-3210, [kcrobin@netscape.com](mailto:kcrobin@netscape.com). Call, text, or email.



Bob Cullen

**Bighorn Sheep on Yucca Ridge  
August 2015**

**Bird's Eye View ... and more**  
*gleaned from*  
*Dee Zeller*

The Preserve has been fortunate to have escaped direct effects from this summer's devastating fire season, but there have been indirect effects, mainly the unavailability of work crews to maintain BMCP's trails. Cal Fire and Bureau of Land Management (BLM) fire crews normally help maintain our trails, which become heavily overgrown with seasonal growth, but this year the crews have been in a constant battle with wildfires.



Thanks to John Kalish, BLM Field Manager for the Palm Springs Office, and his son Paul, the Desert Willow Trail did get badly needed maintenance at the end of August. Along with Dee, they cut back mesquite limbs on this trail so that visitors no longer have to bend under to avoid the head knockers.

Another effect from fires in the nearby San Bernardino Mountains was that birders spotted some fire refugees. Mountain Chickadees and White-breasted Nuthatches, not normally seen at BMCP in the summer, moved into BMCP to escape the fire.

With a few exceptions, bird activity this summer was relatively normal, including normal levels of nesting. Vermilion Flycatchers did well, with three pairs nesting and one of these pairs producing a double clutch. Lazuli Buntings were seen more often than usual, but Ash-throated Flycatchers were seen less often. There was a huge batch of Hooded Oriole young this summer, and while at the end of August the male Hooded Orioles have already left, activity at the Preserve's oriole feeder is still going strong, with orioles and Ladder-backed Woodpeckers draining the feeder daily.

Then there are the White-winged Doves, which continue to thrive. Dee sees as many as eight at a time at the feeders, whereas four years ago you wouldn't have found one. This brings up a theory Dee has

about Eurasian Collared Doves, a species introduced to the area in recent years. Eurasian Collared numbers are up dramatically in the neighborhood around BMCP where people have put out seed, but few Eurasians are seen at the Preserve's feeding area. Dee thinks this is because the Eurasians are mainly ground feeders, and he does not scatter seed on the ground. In this respect, the Eurasians seem different than White-winged Doves, as this later species is often seen feeding at the Preserve's hanging feeders, several crowding onto one feeder.

At summer's end, mule deer (they have black tails) are prevalent. One day Dee saw three males, two young spike bucks and one full-grown stag, all still with velvet on their antlers, following a lone female. Later the same day, another female with a young fawn also came by the Zeller trailer.

It was a good summer for mountain lion and bear sightings. And bobcats are present, with one having been seen a few times disappearing under the same large mesquite. Looking into the mesquite with binoculars or a scope, one can see mounded up dirt that appears to be the entrance to the bobcat's day den—the shade from the mesquite providing the bobcat with a cool retreat from the summer's heat.



**BMCP's new hat**

Many thanks to Kurt Leuschner for providing the Preserve with new, very attractive hats that have the Preserve's signature bird, the Vermilion Flycatcher, brilliantly embroidered on the crown. The style of the hats is similar to those used by the Desert Cities Bird Club. The new hats have been popular, and the Preserve will order more when the initial batch have been sold.

**BIG MORONGO CANYON PRESERVE**

NEWSLETTER

Editor: Donna Thomas

Fall 2015

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**Blue Elderberry: New to BMCP** by Donna Thomas

In the spring of 2014, BMCP Docent Tom Haworth was hiking in the Big Morongo Canyon and spotted a large bush blooming with white flowers. He did not recall having seen a plant like this at the Preserve before. Little did Tom know at the time, but he had in fact made a significant discovery.

The bush turned out to be blue elderberry, *Sambucus nigra* subsp. *Caerulea*, which was not formerly known to occur at BMCP. Its presence in BMCP is significant because the Preserve is outside the known range of this plant species. Except for one occurrence of a blue elderberry bush in Joshua Tree National Park in 1975 (where it hasn't been found since), this species doesn't generally occur in California east of the San Bernardino Mountains.

So how did the blue elderberry get to BMCP? Botanist Robin Kobaly thinks a flood event may have carried its seeds from higher up in the San Bernardino Mountains down into lower Big Morongo Canyon.

How long has it been here prior to Tom's discovery? Robin puzzles over that because the size of the bush (and even more elderberry bushes found close to the original sighting) indicate they are of some age. But, the plant species was certainly not here when George Helmkamp extensively botanized BMCP and created the Preserve's on-site herbarium records in the 1980s. Nor was it here when well known botanist Bob Muns listed known BMCP plant species in 1986.

Robin collected specimens of the Preserve's blue elderberry, which will be housed in the BMCP on-site herbarium and also at The University of California Riverside (UCR) Herbarium, where scientific researchers and other botanists will now have access to information on BMCP's new plant.

If only the blue elderberry had arrived at BMCP much earlier. The Native American peoples who originally lived here would have been happy to have had these berries close at hand. Elderberries were highly prized by the Cahuilla and other tribes.



Botanist Robin Kobaly collects elderberry specimen for herbarium records

Throughout the months of July and August, the Cahuilla gathered small clusters of the berries in large quantities. The clusters were dried carefully on the drying floor and preserved in considerable amounts. When wanted, they were cooked into a rich sauce that needed no sweetening. A Cahuilla family during this season of the year would subsist largely on these messes of "sauco." Frequently, the elderberry was so greatly enjoyed that families would live for weeks on little else. Many were dried for use in the winter, and were either recooked or eaten raw.

What a special plant is BMCP's new blue elderberry.



Blue elderberry, *Sambucus nigra* subsp. *Caerulea*, flower and berry

**ATTENTION ALL MEMBERS**

The **ANNUAL MEETING** of the Friends of Big Morongo Canyon Preserve will be held on **WEDNESDAY, OCTOBER 14, 2015**, at **1 PM** at the **EDUCATION CENTER AT BIG MORONGO CANYON PRESERVE.**

The Annual Meeting will be held in conjunction with the regularly scheduled board meeting of the Friends. To balance out the unavoidable dryness of board discussion and reports there will be beverages and snacks. The board truly hopes that you will come and share our enthusiasm for the Preserve.

**MEETING DATES FOR VOLUNTEERS OF BIG MORONGO CANYON PRESERVE**

**Tuesday, October 20, 2015, 9 am**  
**Tuesday, January 19, 2016, 9 am**  
**Tuesday March 15, 2016, 9 am**

**ALL MEETINGS HELD AT THE EDUCATION CENTER**

**EVERYONE IS WELCOME**

## It's Hot. Dealing With It Like a Bird *by Jane Olson*

The bird looked like it was in distress. The mouth was gaping, the wings drooping, and the small creature was huddled on the shady side of the trunk of a tree. It was one of our balmy summer days with temperatures hovering above the 110-degree mark. Fortunately the bird was not as heat distressed as it appeared. It was just demonstrating some of its coping behavior to keep its body temperature within an acceptable range.

Many plants have developed strategies that allow them to flourish in a desert. They have adapted to extreme temperatures and periods of drought. Birds live in the desert, but there are only a couple that are considered to have adapted to desert conditions to any degree as plants have. Birds arrived in desert ecosystems pre-adapted. Their physiology and behavior allows them to deal with the heat in ways different than that of mammals.

We can observe some of the ways birds reduce the effects of high temperatures on their bodies, as I did when I observed the mockingbird in my yard. Birds can't sweat, so their evaporative cooling takes place mostly internally. The gaping mouth indicated the bird was panting and passing air over the extensive system of air sacs and the lungs of its respiratory system. The air moving over these moist surfaces causes evaporation from those warm surfaces. As the heat and moisture leave the body, the organs of the body are cooled. Some species achieve internal evaporative cooling by fluttering their throat muscles. You may have noticed roadrunners, herons, egrets, quail, owls, or doves doing this. The gular membrane is richly supplied with blood vessels for dissipating heat. Few muscles are used in gular flutter, so there is a limited expenditure of energy. The down side to evaporative cooling is the loss of water from the body. Birds must replenish the lost water by drinking water or finding it in their diet. However, their bodies are good at conserving available water. Their waste is excreted in a semi-solid form. In comparison, mammal excretory systems need more water.

It is good to have feathers when it's hot. That is not our usual view is it? Feathers are a heat shield. A scientist researching feathers found that the temperature at the outside surface of a bird exposed to sun could be fifteen degrees hotter than the temperature under the feathers next to the skin. Have you ever noticed that summer birds look trimmer than winter birds? They slick down their feathers to compress the hot air trapped next to their skin. Or, they might look slimmer because they have fewer feathers. Sparrows reduce the number of their feathers in summer by forty percent. They have around 2,500 feathers in winter and around 1,500 in summer.

The bare areas on a bird's body can help to dissipate heat too. The drooping wings on my yard bird were exposing bare tracks of skin called apteria that are among the feather tracks. While birds don't have sweat glands, they do have the ability to release water directly through the skin of these featherless patches. By shifting the position of feathers to expose these bare areas, the bird allows air to pass over them and efficiently cool down. Other bare parts on some birds, such as wattles and combs, are infused with blood vessels and also can disperse heat. Bills and legs can radiate heat also. A valve in the artery that supplies blood to the legs and feet can be closed or opened to allow less or more blood to flow to the feet. On a hot day, if you see a nesting bird standing at the nest and panting, she has opened that nifty little valve and is allowing the air to carry off the heat from the blood flowing through her legs and feet.

There is another important advantage that birds have over mammals that live in the desert. A bird's natural internal temperature ranges from 100 degrees to 112 degrees. The temperature for most small birds falls in the upper range. Because their normal internal temperature is higher than ours, our feathery friends aren't feeling the heat as soon as we do. As temperatures rise, they don't need to employ cooling techniques as quickly as we do. Bird's intense lifestyle demands a high metabolic rate to quickly convert food to energy.

There is another way for birds to keep cool. They can use their wings and flee to somewhere cooler. Sometimes this means that a species migrates great distances. Sometimes it means just flying higher. Raptors and ravens use thermals to raise them off the desert floor into the sky where the air temperature can be fifty degrees cooler. Other birds may head to the mountains. Like any other permanent desert dweller, they seek shade.

Birds may not be specifically adapted to desert heat, but they deal with it very effectively.

## Hats Off to Summer Volunteers *by Jane Olson, Volunteer Chairman*

It is natural for life to move to the slow lane during our desert summers. But, there were still volunteers carrying out various jobs during our warm weather months. Bird walks continued to be led. Invasive weeds were pulled into late spring. Progress continued on the renovation of the kiosk. Merchandise inventory and sales functions were carried on. The fall issue of the newsletter was prepared. A one-week day camp was put on by the Education Chair and the Jr. Docents. The recycling effort was sustained throughout the hot weather. And those were just the activities of which the Volunteer Chairman was aware.

Our first volunteer meeting will be October 20, 2015, at 9 am at the Education Center. It will be a busy agenda. After talking about summer accomplishments at the Preserve, we will discuss the needs of the Preserve and how our group can meet them. As always, there will be an educational component. At the conclusion of the meeting, we will honor Betty Zeller by sharing our memories of her. Our volunteer group probably would not exist if she had not founded and nurtured it.

Everyone is invited to attend and, please, bring a friend.

# BIG MORONGO CANYON PRESERVE

## CALENDAR

at BMCP

SEPTEMBER – DECEMBER

Gate open 7:30 a.m. to sunset

### Wednesday Bird Walks

Every Wednesday at 7 a.m. in September and at 8 a.m. beginning in October, except there will be no walk on November 25. Bring your binoculars and spend a couple of hours strolling the trails with birding experts. Beginning birders welcome.

### Saturday Bird Walks

Same format as Wednesday Bird Walks

October 17 at 8 a.m.

November 21 at 8 a.m.

## Upcoming Events

Sep. 19, Sat. (10:00 a.m.-noon) - Junior Docent Meeting.

Oct. 14, Wed., 1:00 p.m. - Friends of BMCP General Membership Meeting. See page 3.

Oct. 17, Sat. (10:00 a.m.-noon) - Junior Docent Meeting.

Oct. 20, Tues., 9:00 a.m. - Volunteer Meeting.

Dec. 19, Sat. (7:30 a.m.-late afternoon) - Christmas Bird Count. Join with birders from across North America in participating in Audubon's annual event. Bring binoculars and meet at the Preserve kiosk. Teams will be formed to bird a variety of habitats within a 7.5-mile radius of the Preserve. Late in the afternoon we will gather to tally data and enjoy some refreshments.



FRIENDS OF  
BIG MORONGO CANYON PRESERVE

*Yes, I Want to Help*

PLEASE RETURN YOUR TAX-DEDUCTIBLE DONATION TO:

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

NAME(S) \_\_\_\_\_

MAILING \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

EMAIL \_\_\_\_\_

#### ENCLOSED MEMBERSHIP DUES:

- \$ 25.00 INDIVIDUAL ANNUAL MEMBERSHIP  
 \$ 35.00 FAMILY ANNUAL MEMBERSHIP  
 \$ 250.00 LIFETIME MEMBERSHIP

#### ADDITIONAL CONTRIBUTIONS:

- \$ 10.00                       \$ 50.00  
 \$ 20.00                       OTHER

## BECOME A MEMBER OF FRIENDS OF BIG MORONGO CANYON PRESERVE

Friends of Big Morongo Canyon Preserve is a nonprofit 501(c)(3) association organized solely for the advancement of programs at Big Morongo Canyon Preserve/Area of Critical Environmental Concern. The primary purpose of the Friends is to enhance wildlife viewing, wildlife protection, educational programs, and recreational opportunities provided by the Bureau of Land Management (BLM) within the Preserve. The Friends provide ongoing support of the Bureau's conservation, education, and recreation programs within Big Morongo Canyon Preserve. The Friends achieve these goals by raising funds, accepting donations, recruiting volunteers, and assisting the BLM in the planning, creation, and maintenance of programs and facilities at the Preserve.

All donations received from visitors are used by the Friends to purchase materials for trail construction, benches, signs, and displays. Maps, trail guides, brochures, and educational and informative printed material are also provided to visitors from these funds.

**Donations to the Friends are tax-deductible and are not used to cover overhead or operational expenses.**

As a Friend, you will receive an annual summary of accomplishments and, if requested, new environmental education materials and programs made possible through the donation fund. Friends of BMCP are invited to attend the annual fall general membership meeting. As a special thank you, new Friends receive a unique BMCP embroidered color patch. Lifetime members also receive a canvas Preserve tote bag in addition to two BMCP color patches.



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## NEWSLETTER

*is published by*  
Friends of BMCP  
P.O. Box 780  
Morongo Valley, CA 92256

GO GREEN . . . to choose the digital  
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the Preserve



**Summer Nature Encounter 2015 participants**

### **BMCP Weather** *by Ray Yeager*

June 30 is the official end of the weather year and hopefully the end of a record four-year drought. The health of the marsh appears unchanged, but the ground water that enters Morongo Valley via Big and Little Morongo Canyons has been diminishing over the years. Lack of snow in the San Bernardino Mountains in the last four years will impact the Preserve's water table in about seven years.

The average rainfall for Morongo Valley for June, July, and August historically totals 0.60 inches. This year 1.10 inches was recorded. We can only hope for more, as the probability of an El Nino is extremely high for this coming winter.