



BIG MORONGO CANYON PRESERVE

NEWSLETTER

Friends of Big Morongo Canyon Preserve

Winter, 2019/2020

Public Lands Day Volunteers Mark Desert Protection Act Anniversary

National Public Lands Day is the largest single-day volunteer effort for America's public lands. On Saturday, September 28, the Preserve benefitted from the energetic efforts of over 60 volunteers ranging from 4 yrs. old to seasoned citizens. The Mojave Desert Land Trust, the Bureau of Land Management, Yucca Valley High School, and the Friends of Big Morongo Canyon Preserve (BMCP) joined local residents to clear trails, remove invasive vegetation and fill a large 40-yard dumpster with trimmings, limbs and weeds. The dumpster, donated by Burrtec, holds approximately 20+ large pickup truck loads of brush. The brush at the BMCP was dragged off the trails by stalwart volunteers and loaded into trucks. Groups of hardy workers cleared

the Desert Willow and Mesquite Trails, swept the Marsh Trail boardwalks, and contributed a very impressive total of 334 work hours.

Jihadda Govan, Manager of the Sand to Snow National Monument led members of the Urban Conservation Corps in removing some large tamarisk trees in the Preserve meadow and marsh and from the upper reaches of Little Morongo Canyon.

The day of stewardship concluded with a presentation by the Bureau of Land Management's Dan Kasang, celebrating the 25th Anniversary of the passage of the California Desert Protection Act. The Act, passed in 1994, designated Joshua



Dee and Luke relax after a hard morning's work during NPLD. Photo by Meg Foley



Over 60 NPLD volunteers gathered this year to contribute much needed volunteer labor at Big Morongo Canyon Preserve. Photo by Cindy VonHalle

Tree and Death Valley as National Parks. Later amendments helped preserve critical wildlife corridors traversing the BMCP. The Friends want to express a hearty 'thank you' to all the volunteers who turned out for the day's activities.

article by Meg Foley

Surviving by Degrees at Big Morongo Canyon by Joe Zarki

Recently, the National Audubon Society released a report, Survival by Degrees, that examines the vulnerability of North America's birds to climate change (see: <https://www.audubon.org/climate/survivalbydegrees>). Though not the first report of its kind, this new study incorporates large datasets to more closely examine how a warming world will affect each of our native birds species and the habitats they rely on for their continued existence. In addition to the report itself, Audubon created a searchable online database so that people can find out just

how their local areas and birds may be affected by changing climatic conditions. It's not a pretty picture. (See also this issue's *Chatting with Dee* column on p.2.)

The report asserts that 389 bird species are vulnerable to the effects of climate change, and it examines how habitats may be altered and how specific threats might affect certain species. The database can be searched by habitat, by migration flyway (ours is the Pacific Flyway), and even by zip code. You can also search by climate scenario, anything

from 1.5°C up to 3.0°C of warming. After plugging in Morongo Valley's zip code of '92256,' I learned that our area has 44 species that are 'highly vulnerable,' 56 'moderately vulnerable' species, 45 species of 'low vulnerability,' and 97 species that are considered 'stable.' Species with 'high' and 'moderate' vulnerability may lose as much as half of their range to climate change.

Breaking down San Bernardino County birds by habitat, the report shows which habitats have the most vulnerable

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Christmas Bird Count

Saturday, December 14
 BMCP Parking Lot at 7:30 a.m.

ALL ARE WELCOME

Birdwatchers are needed for the 120th Annual National Audubon Society Christmas Bird Count. It's fun, it's free, and we can use your help.

Teams will be formed to bird a variety of habitats within a 7.5-mile radius of the preserve. At 4:30 p.m. we will gather to tally the day's results and enjoy pizza. While the event is free, donations will be gratefully accepted.

Bring binoculars, comfortable walking shoes, layered clothing for changeable weather, lunch, and drinking water.

If you have questions, contact Joe Zarki at 760-366-8913, or jwzarki@gmail.com.

Friends of Big Morongo Canyon Preserve

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NEWSLETTER

Editor: Joe Zarki

Fall, 2019

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CHATting WITH DEE... by Cindy VonHalle

Dee's daily routine always includes checking the bird feeders outside his trailer. One morning in late September, he was startled by a tremor. He felt his home shaking and rushed to look outside. It was not an earthquake, as one might expect here in Southern California. Instead, this tremor was the result of a black bear, ravishing the bird feeders stretched on a chain between Dee's RV and a large tree. It may be hard to imagine our friend Dee in a rage, but he reports throwing a boot at the bear and hitting it squarely in the backside. The bear turned around and stared, then ran away behind a tree. Curiously, he returned and retrieved Dee's hiking boot in his mouth. Finding it inedible, he soon abandoned it in the parking lot. When Dee found it later, he was a bit disappointed. The boot was still in good shape and didn't warrant replacing with brand new boots. Old scat and faded tracks are all that's left now of Mr. Bear, perhaps until next year. Big Morongo offers standing snags and large woody debris as a safe haven for bears. However, when wild bears are attracted to dumpsters and bird feeders, they become a nuisance. Statewide, the black bear population is estimated by California Fish and Wildlife to be 30,000 to 40,000, an increase over the years.

The opposite is true for birds. Globally, bird organizations report critically low numbers for numerous species. Observations from Big Morongo confirm the trend. Fewer "crawlers and flyers" are being seen, says Dee, meaning smaller



numbers of beetles, spiders, and damselflies. Fewer bees and other important food insects are available for migrating flycatchers. This year, noisy calls from the Cassin's kingbirds were rarely heard. None of their

large conspicuous nests were found. The black flies that pester birdwatchers on warm summer days don't count as valuable food sources for phainopeplas and western kingbirds, also in decline. Without summer rains, there are fewer watering holes for birds and plants. Dee recalls large fields of yerba mansa with bright white flowers. Over time, alkali goldenbush (*Isocoma acradenia*) has become the dominant plant. Like the quail bush (*Atriplex lentiformis*), more drought tolerant plants are moving in over the years. That's good news for the quail and thrashers, who benefit from food and cover from these woody shrubs. Plants with fruits and insects, daylight patterns, and weather all influence bird migration.

A few exciting migrants have been noted this fall. A rare male painted redstart stopped by. A female dickcissel, with a distinctive yellowish eyebrow and thick bill, was also spotted one day. Observers also saw and photographed a scarlet tanager, typically an eastern species. In mid-November, a stray gray catbird, paid a visit to Dee's feeders delighting birders.

EXECUTIVE DIRECTOR'S REPORT: 2019, The Year in Review by Meg Foley

The past year was marked by increased visitation and weather excitements. It was a frequent occurrence for the parking lot to overflow forcing visitors to park along the entry drive. There are multiple reasons for our increased visitation.

The New Year started during a government shutdown that began on December 22. The 35-day government shutdown increased visitation to Joshua Tree National Park from new audiences attracted by "free admission." Many of these visitors who came during the shutdown also stopped at the preserve on their way to or from the park as do many tourists who visit the park during "normal operations."

January featured a series of rainy days with multiple days of near-zero visibility. Three docent trainings took place on such days, but dedicated volunteers made their way to the preserve despite the extreme conditions.

In February 2019 the area received over 14" of rain; 12" in two weeks which caused widespread regional damage. A storm, on Feb 2nd, dumped over 6" at the preserve on grounds saturated from the storms in January, causing damage on every trail except the Marsh Trail. A 3 ft deep - 30 ft long chasm opened in the middle of the West Canyon Trail. I worked with the Urban Conservation Corps' to repair trails and install waterbars to prevent reoccurrence. The work was tested

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

days later when a February 14th storm unleashed a debris flow that covered one-third of the boardwalk on the Marsh Trail, over-ran the Mesquite Trail and obliterated the Canyon Trail. The event caused the closure of nearly all nearby recreational lands: Whitewater Preserve; Palm Springs Aerial Tramway; Indian Canyons and Mission Creek Preserve. The Whitewater Preserve was closed until mid-November; the Tram was closed for 6 weeks.

The preserve's entry road washed out but was repaired and reopened within one day thanks to neighbors with an excavator who cleared East Drive and filled in the washed out entry. An Americorps crew, sponsored by the Mojave Desert Land Trust, volunteered their personal time to manually fill ruts in the road. Families from the Red Cross Youth Chapter of the 29 Palms Marine Corps Base cleared the mudflow from the boardwalk within days. The preserve was the closest open space to many of the closed lands, and it swelled with visitors seeking a desert experience during the height of the tourist season.

Despite the challenges brought by weather and dramatically increased visitation, we accomplished many milestones and expanded existing programs.

Education & Interpretation:

School Tours: Thanks to generous grant funding from Edison International and the Conservation Lands Foundation we were able to train 13 new docents and host over 1,000 students and chaperones for grade-specific guided tours. The number represents a 23% increase over the previous year! We expanded tour offerings to include the Palm Springs Unified School District's Desert Hot Springs schools for the first time. Students would be unable to visit for curriculum-based tours without funding for bus transportation.

Interpretive Activities:

Volunteers spent 760 hours leading weekly bird walks and hosted 878 birders during the period of Oct 2018 thru September 2019. Their efforts leading walks result-

ing in a whopping 2,317 visitor contact hours! BLM interns began to enter data recorded from the bird walks into the databases.

Joe Zarki developed a preserve butterfly checklist and pollinator garden brochure. Both publications are available free of charge to visitors and are valuable resource. The pollinator garden was a stop on the Morongo Basin Conservation Association's Desert-Wise Landscape Tour. We were able to demonstrate how an attractive, drought tolerant, garden provides needed habitat for birds, butterflies, and bees.

Volunteers opened the Nature Education Center every Saturday morning from October through June. Over 1,250 visitors viewed exhibits and collections and interacted with volunteers. Logo merchandise is available to purchase and kids' craft items are available free of charge. We participated at Hi Desert Nature Museum's Earth Day where 3 volunteers interacted with over 200 visitors and allowed them to dissect owl pellets.

Conservation:

Volunteers maintained our citizen science project that monitors water levels in multiple areas of the marsh on a weekly basis.

We continued as a site for the annual Christmas Bird Count. Fifty-five par-

the surveys. Thirty-three participants performed data tabulation and contributed an additional 28 volunteer hours.

Repairs and Maintenance:

In addition to storm mitigation and repair, volunteers repaired nearly 250 linear feet of boardwalk, on the Marsh & Mesquite Trails, including the collapsed slip fault deck. Volunteers also rebuilt 1,737 linear feet of the Mesquite Trail and repaired approximately .25 mile of the Yucca Ridge Trail. We reduced the fire danger by removing alkali golden bush and invasive vegetation from the parking lot perimeter and entrance driveway and old parking lot in Covington Park, which can now be used as an emergency operation landing zone in fire or medical emergencies.

The winter rains caused unprecedented summer limb drop. We removed nearly 30 overhanging or downed limbs from trails, parking lots and public areas. The Marsh, Mesquite and Desert Willow trails were impenetrable in places due to lush growth but were cleared thanks to a three-week effort by an all-female California Conservation Crew (CCC). The crew brought a large chipper and chipped a bus-sized pile of brush and limbs, spreading the chippings for weed control.

We were able to accomplish so much in the past year thanks to incredible commitment by a group of 45 active volunteers who gave 5,774 hours. Partner organizations like UCC, Americorps, and CCC were invaluable at helping with heavy physical tasks. As our visitation increases and the preserve audience shifts to include more outdoor novices, it is important to continue to increase all our outreach activities. The BMCP has been without co-hosts for over a year, while BLM awaits needed permissions. **Thanks to your support,** dedicated volunteers and assistance from partner groups we were able to assist Dee, the only steady BLM presence, with maintaining the preserve, providing a presence on grounds, and serving our increasing numbers of visitors.

Thank you!



The all-female California Conservation Crew makes short work of a massive brush pile.

Photo by Meg Foley

Participants conducted bird surveys for Audubon's national data base. BMCP volunteers contributed 56 hours leading

BIG MORONGO CANYON PRESERVE

History Trails, Part Four, Events, Threats, Losses and Successes by Steve Hanson, Meg Foley, & Larry Rosen

This article touches upon a few of the events that shaped the preserve over the last 20 years. This time period was marked by a number of significant threats to the preserve's resource integrity. Certain threats, such as wildfires and floods, were due to natural causes, while others were caused by human activity. There were several important conservation achievements as well, the loss of a few dear friends, and a number of notable individual achievements to celebrate.

Early in this period, The Friends of Big Morongo developed the Education Program for area children. Docent Programs were also established to provide a cadre of volunteers trained in subject-matter knowledge about the preserve and its natural and cultural resources, while reinforcing communications skills to bring that information to preserve visitors.

Ann Garry and a dedicated group of volunteers started work in the latter part of 2004 on a new addition to the preserve, the first Butterfly/Hummingbird garden located at the Education Center building. The official opening took place on October 15, 2005.



The old Warren barn is seen here just before it was consumed by the Paradise Fire.

Photo courtesy of Morongo Basin Historical Society

The preserve experienced another wildfire on June 22, 2005. The Paradise Fire burned 3,082 acres along with loss of the iconic Warren barn, a vast stretch of the boardwalk, and most all trails. Six homes in Morongo Valley were also destroyed in the fire. The following summer the Sawtooth and Millard Fires raged in July burning through much of Pioneertown and the northern sections of Morongo Valley and Yucca Valley. Before it was over, the fires merged, and more than 86,000 acres were charred, seventeen people were injured, and one person was killed. The fires left the preserve more vulnerable to future floods and debris flows, yet BMCP provided critical post-fire habitat for wildlife due to the quicker recovery of its riparian ecosystem.

In December 2006, the City of Desert Hot Springs approved the "Palmwood" development, a high-density housing project encompassing the mouth of Big Morongo Canyon. The 1,766-acre project included a large proposed retail development and a golf course. Opposed by the

Sierra Club and the Center for Biological Diversity, land for the project fell within the boundaries of the Coachella Valley Multi-Species Habitat Plan. Beset by environmental and legal troubles, the project was defeated, and threats to the preserve were averted. The property was purchased by the Coachella Valley Conservation Commission, securing the preserve's southern border.



Dave Miller helped lead a successful California Desert Coalition campaign against Green Path North.

Photo courtesy of the San Bernardino Sun

Another major threat to the preserve also came in 2006. The Los Angeles Department of Water and Power (DWP) proposed the installation of 500 kV transmission lines through the ACEC, Pioneertown, and Hesperia. Called Green Path North, the 200-foot tall high-voltage lines would trace an 85-mile long corridor with up to a width of 5 miles coming right through the preserve. Grassroots efforts, led by April Sall and the California Desert Coalition, formed in opposition to the proposal. BMCP was well represented on the CDC as Dave Miller, Donna Thomas, Meg Foley were founding board members. In 2010, the plan was defeated when DWP cancelled the project.

In 2011, Dee and Betty Zeller traveled to Washington, D.C. as the recipients of the Bureau of Land Management's "Making a Difference" National Volunteer Award, recognizing their

15-year tenure. The Zellers were presented the Minerva Hoyt Conservation Award by the Joshua Tree National Park Association in 2013 for their environmental stewardship and education activities.



Dee and Betty Zeller celebrate their National Volunteer Award in Washington, DC. Photo courtesy the BLM

In August, 2014, heavy rains in the San Bernardino Mountains created a debris flow that inundated portions of the preserve and brought with it five feet of mud covering part of the boardwalk and burying most of the Currie Bridge on the Desert Willow Trail.

On April 19, 2015, we lost our beloved friend Betty Zeller. She was our on-site host, along with her husband Dee, overseeing daily operations of the preserve and managing more than 50 volunteers and docents. There isn't enough room in this article to explain all of Betty's contributions to the preserve and its friends. The loss of Betty and, over the years, active volunteers Mike Smiley, CJ Miller, Barry Parkes, Bonnie Smith, and



The Currie Bridge before and after the 2014 flood. Bob Cullen and Larry Rosen cross the mud-covered bridge. Left photo courtesy of Friends of BMCP. Right photo by Margaret Hoggan.

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Behind The Scene with Jane Mootz... by Cindy VonHalle

Jane Mootz is a “natural” leader for many activities at Big Morongo Canyon. She was drawn to the world of nature as a child growing up near her home in rural Wisconsin. She explored rivers and lakes, developing an early sense of wonder. Her parents, strong outdoor enthusiasts, introduced her to binoculars and field guides at an early age. Later as an adult, she dedicated her life to family and a nursing career. After moving to Yucca Valley in 1996, BMCP became a favorite place. She excitedly signed up for Docent Training. Soon Jane was out on the trail guiding Wednesday and Saturday bird walks. For many of us, birds are learned through sight. Jane developed a keen sense of hearing, identifying short noisy bird calls as well as complicated melodious songs. One day, she heard a mysterious sound that caused her to stop in her tracks. From high in the trees, came a bubbly, unfamiliar sound. It was an unusual migrant called a indigo bunting—a truly unforgettable day in the preserve.

Sharing her knowledge and the beauty of Big Morongo keeps Jane active and

youthful. She serves as Secretary for the BMCP Friends Board (recruited many years ago) and frequently serves as the ‘recorder’ on Wednesday bird walks. Jane also takes delight in engaging young minds as an Environmental Educator.



A familiar sight— Jane Mootz and fellow bird walk leader Margaret Hoggan look skyward to identify a bird.

Photo by Cindy VonHalle

Spring and fall seasons find Jane sharing her favorite trails with family and friends. “I enjoy reminding city dwellers that the preserve is a messy place, not manicured. This place is full of homes for all kinds of animals.” Over the years, she’s seen more people discover the preserve, which is a good thing. She believes wild places are only appreciated once people have the opportunity to enjoy them. Sadly, the roar of singing tree frogs is disappearing with lower water levels. Many of the majestic cottonwood trees are dying. Fire and drought take a toll on the preserve’s natural habitats. Yet

Jane sees resiliency in nature. She has observed more and more sycamore saplings popping up. She looks forward to new discoveries each season. With her positive outlook and sense of fun, Jane truly exemplifies the spirit of volunteering.

butterfly garden area, expanding it into two separate gardens. Seeds were collected from many areas of the preserve and germinated with the help of the Living Desert and the BLM. The original garden site had, over the years, become quite shaded, and was perfect for a water feature, wetland area, and partial shade planting with nectar plants for hummingbirds. The other garden site located just south of the Nature Center is an area of full sun, thriving with native desert plants. Both gardens provide host plants and nectar plants for butterflies. Volunteers also constructed an improved bird feeder area nearby. Work is still in progress with ten new species of plant seeds awaiting germination.

The story of the preserve was honored once again as Robin Kobaly was chosen as the 2018 recipient of the Minerva Hoyt California Desert Conservation Award for her work leading to the creation of the Morongo Preserve as well as her years of conservation and education activities

Volunteer Opportunities!

A wonderful “Meet and Greet” extension to the kiosk is under construction as of this writing. Max Stein, Dave and Ann Garry are building a room for Volunteer Ambassadors to comfortably stage and interact with visitors. The project is made possible thanks to generous donations from Nate and Marlene Wilson, the Garrys, and Max Stein. Tourists better appreciate the preserve’s wonders with a personal introduction. Frequent visitors like to keep abreast of recent sightings, as well as report their own plant and wildlife observations. Austin Puglisi developed a binder of frequently asked questions (and answers!) that will be expanded as we grow the program. Our goal is to have a greeter on duty every morning Friday through Sunday, eventually expand to seven days per week.

The **Nature Center** offers similar “Meet and Greet” interactions in addition to selling merchandise. The Center is currently open Saturday 9 a.m.–1 p.m. We would like to open on Sundays to meet the popular demand for peeks at Nature Center exhibits. Last year two Nature Center Volunteers, Laura Sherrrod and Pat Pollard hosted 1,250 visitors!

School tours will hit high gear in January. **Docents** are needed to lead tours (training provided). All field trips include post-tour activities related to the themed walks. Docents who help with activities staff the Nature Center instead of walking the trails.

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History Trails, Part Four (cont. from p. 4)

other irreplaceable volunteers led the Friends to begin raising funds and seek grant funding to provide some staff presence to help Dee manage the day-to-day operations and recruit more volunteers.

In October 2015, Senator Dianne Feinstein sought public input as she prepared to ask President Obama to use the Antiquities Act to designate three new California Desert national monuments (Sand to Snow, Mojave Trails, and Castle Mountains). Secretary of the Interior Sally Jewell visited the preserve with Dee and Robin Kobaly leading her on a private tour through the preserve. President Obama signed a proclamation the following year, creating the Sand to Snow National Monument. The Big Morongo Canyon Preserve was included in the newly established 154,000 acre Sand to Snow National Monument to preserve critical wildlife corridors.

In 2017 work was started to restore the old

centered on the preservation of native desert plants. Robin received her award in a ceremony at Covington Park on May 7, 2019.

With its new national monument status, BMCP now faces challenges providing services to a growing visitor population. The last five years have seen major increases in visitors coming to Joshua Tree National Park, Death Valley National Park, Sand to Snow National Monument, and other California Desert public lands sites. Meeting the recreational needs and aspirations of a rapidly growing visitor population, adapting to the increasing pace of our changing climate, and retaining the vital natural and cultural resource values that characterize Big Morongo Canyon will likely define the next 20 years of the preserve’s story.

BIG MORONGO CANYON PRESERVE

Surviving by Degrees at Big Morongo Canyon by Joe Zarki (cont. from p. 1)

species. Birds populations of western forests show the most vulnerability while aridlands have the most birds whose populations are considered stable or of low vulnerability. Yet aridlands also have the second most bird species that are highly or moderately vulnerable to a hotter climate. Our area also faces a number of specific threats (as many as six) including drought, fire weather, spring heat waves, false springs (early seasonal warming), and urbanization. (Thankfully, we may escape the worst effects of rising sea levels.) The report also has detailed maps for each species projecting where it has lost range, where it is holding its own, and where it may be expanding.

Let's look at a few of Morongo's most typical birds to see how they are faring. Nuttall's woodpecker is shown as vulnerable to fire weather, spring heat waves, and urbanization. As a species that lives in mixed woodland environments, especially oak forests in our mountain foothills, Nuttall's woodpeckers populations can be impacted by large wildfires, especially where repeated fires delay habitat recovery or lead to permanently altered habitat. Under a 3°C climate warming scenario, Nuttall's woodpeckers are projected to lose 64% of their range.

Bushtits inhabit chaparral and scrub woodland communities from low to middle elevations in desert mountains, the Sierra Nevada, and other California mountain habitats. Their food consists of a wide variety of small insects so they may be affected by false springs that prompt flowering and insect activity in mid-winter when birds may not be nesting. Habitat changes that result in the loss of trees and taller shrubs indicate that bushtits may lose 62% of their range in the south and west while expanding to the north and east into the central Rocky Mountains.

The California thrasher, a common sight at the preserve, is not primarily a desert bird. It is at home in chaparral, dense brush, riparian thickets, and even suburban areas with suitable vegetation. It does quite well in desert areas where the vegetation is fairly dense. Consequently, it is vulnerable to habitat changes, especially those



This April 27, 1947 field camp in Little Morongo Canyon was used by Alden Miller and Robert C. Stebbins during their field studies of desert wildlife.

Photo courtesy of Univ. of California, Museum of Vertebrate Zoology

that are likely to affect desert mountains and foothills. Future desert plant communities may not host trees and shrubs that are tall enough or dense enough for the California thrasher. It is projected to lose as much as 66% of its range in a 3.0°C climate scenario with little opportunity for range expansion elsewhere.

An always welcome spring arrival, the colorful Lawrence's goldfinch shows up at the preserve as early as February, but they seldom stay into the fall season. Less common than the ubiquitous lesser goldfinch, the Lawrence's goldfinch is a bird of pine and oak woodlands, and chaparral habitats. Nesting locations are highly local, often along streamsides in dry habitats. False springs may affect

the timing of seed and insect production thus impacting nesting success. Repeated fires and loss of habitat for these handsome little finches may lead to declining populations. Lawrence's goldfinch is projected to lose 58% of its habitat mainly in the southern and eastern areas of its range while potentially gaining up to 20% of new habitat in northern California and Oregon.

Several other studies are also looking at the future prospects for desert birds under a changing climate, and so far they report equally alarming results. The famous naturalist Joseph Grinnell conducted a number of well-documented, long-term inventory and monitoring studies at many locations across California during the early decades of the 20th century. Current field research efforts are re-examining Grinnell's sites with an eye to comparing changes in habitat and avian communities.

Interestingly, one of Grinnell's sites, in Little Morongo Canyon, was used as a field camp by Alden Miller and Robert C. Stebbins during fieldwork they carried out from 1945 to 1960. Their research led to the important publication, *The Lives of Desert Animals in Joshua Tree National Monument* (UC Press, 1964).

Kelly Iknayan and Steven Beissinger of the University of California's Museum of Vertebrate Zoology studied Grinnell's Mojave Desert sites and found that, on average, these sites have lost 43% of their species, a collapse of desert bird communities to a much smaller mix of species. They found that the probability of a species occurring on one of Grinnell's Mojave Desert sites had declined for 39 of 135 breeding species. These changes suggest that many desert birds are reaching their physiological limits as they suffer increased dehydration and declining food supplies due to drought and increased heat. Among birds with the largest decreases in occupancy probability are American kestrel, prairie falcon, white-throated swift, western kingbird, violet-green swallow, and Brewer's sparrow.

Analysis of North American Breeding Bird Survey (BBS) data shows since the start of the BBS



Clockwise from upper left: American kestrel, Nuttall's woodpecker, bushtit, and Lawrence's goldfinch.

Bushtit photo by Bill Hopson. All others by Joe Zarki

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BIG MORONGO CANYON PRESERVE

Surviving by Degrees (cont. from p. 6)

program in 1968, 46% of aridland indicator species have declined in abundance. I have been involved with two of these BBS routes in the Joshua Tree National Park area for the last 20 years, and the species diversity and numbers of birds recorded along these routes does appear to be declining.

These studies and many others show us that all is not well with our desert birds, and that climate warming, increasing aridity, and habitat alteration are the likely culprits. While the inclusion of Big Morongo Canyon Preserve within the new Sand to Snow National Monument is a welcome development, an improved conservation status is no guarantee of a positive future for Morongo's birds. The resurvey of Grinnell desert sites showed that the largest declines in species occupancy occurred at Death Valley National Park, a large, mostly intact desert ecosystem that has been strictly protected since the 1930s.

Volunteer Opportunities (cont. from p.5)

Maintenance. Benches, picnic tables and signage needs repainting or repair. These tasks can be divided into short time segments. Some within feet of the parking lot and others would require short walks to paint. Board walk sweeping is a perpetually needed task now that the autumn leaves are dropping.

Contact Meg at bmcp@bigmorongo.org or 760-363-1159 (message) for more information or to volunteer for positions.



Volunteers Max Stein, Ann Garry, and Dave Garry work on the new 'Meet and Greet' kiosk addition.
Photo by Meg Foley



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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ENCLOSED MEMBERSHIP DUES:

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ADDITIONAL CONTRIBUTIONS:

- \$ 10.00
- \$ 20.00
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NEWSLETTER (WINTER, SPRING/ SUMMER, FALL ISSUES)

- EMAIL MAIL NEITHER

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.

Credit card donations can be made at www.bigmorongo.org. Donations may also be tax deductible. As a special thank you, new Friends receive a BMCP embroidered patch. Lifetime members also receive a canvas tote bag and 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
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CALENDAR

AT BMCP

DECEMBER – MARCH

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. Bird walks start at 8 a.m. and generally last about 3 hours. Bring your binoculars and spend the morning strolling the trails with knowledgeable local bird walk leaders. Meet at BMCP parking lot. Beginning birders welcome.

NATURE CENTER HOURS

The Big Morongo Canyon Preserve Natural Science Education Center will be open on Saturdays from 10 a.m. to 2 p.m. starting October 5, 2019. The Nature Center has exhibits, displays, and a natural history reading library. Volunteers are on hand to answer questions.

UPCOMING EVENTS

December 14, Morongo Valley Christmas Bird Count, 7:30 a.m. to 4:30 p.m. See p. 2 for details.

January 3, Joshua Tree National Park Christmas Bird Count. 7 a.m. to 5 p.m. Contact Joe Zarki for details and an event flyer.

January 11, Volunteer Orientation. 9:30 a.m. Meet at the kiosk for a walking orientation to learn about volunteer opportunities available at Big Morongo Canyon Preserve. Please RSVP @ bmcp@bigmorongo.org or call 760-645-5625.

February 14-17, Great Backyard Bird Count. See: <http://gbbc.birdcount.org>.

*Check www.bigmorongo.org for information
and updates on future events.*