

BOSQUE WATCH

JULY 2018

Volume 25, Number 3, July 2018. Editors: Lynn Deming & Deb Caldwell. Graphic Design: Michaela Mabry. **Bosque Watch** is published quarterly by the *Friends of the Bosque del Apache National Wildlife Refuge, Inc.*, P.O. Box 340, San Antonio, NM 87832. 575-838-2120 Execdirector@friendsofbosquedelapache.org; www.friendsofbosquedelapache.org



MANAGING WATER SCARCITY



Dry Riverbed of the Rio Grande, 2018

Water is the most critical resource at Bosque del Apache NWR, and this year it is in short supply due to the second lowest snowpack on record. In March, when the irrigation season started in the valley, the Rio Grande started to go dry on the refuge, and currently nearly twenty miles of river are dry. Predictions are that the river could dry all the way to Albuquerque by the end of July. This will be a hard year to manage the refuge with water in such short supply, but we have taken steps to prepare for times like these.

One of the steps we took last year was to stop cooperative farming on the refuge and do it ourselves. This has allowed us to reduce the number of farmed acres from over 1,100 to about 330. This means less

demand for water for crops and more flexibility to put water on wetland units instead. By controlling the farming and our wetland program, we can better coordinate our needs and put water where the need is greatest.

Another step, taken over the last few years, is the heavy investment in Langemann gates to control our water supply as it flows through the refuge. The Friends have been instrumental in helping with this effort. Langemann gates are designed to have water flow over the gate rather than under it. This allows us to manage water levels and irrigation demand more efficiently and reduces water waste.

Although not as obvious a water-saving measure as reducing our irrigation needs, an additional step is actively removing invasive salt cedar from the river floodplain. Over the past two years, as part of the recovery efforts from the San Pasqual wildfire that burned on the refuge in July 2016, we have removed more than 800 acres of salt cedar along the Rio Grande. Replacing salt cedar with native vegetation reduces the amount of water needed to maintain vegetation and reduces demand on the irrigation system. Since the refuge began salt cedar removal, over 4,000 acres of thick salt cedar have been replaced with native vegetation. Based on our studies, this has resulted in a water savings of about 6,000 acre feet a year.

While we are aggressively finding ways to reduce our water usage at the refuge, everyone within the Rio Grande basin can take important steps to help. Installing high efficiency appliances and plumbing fixtures, such as low-flow showerheads and faucets, and implementing other conservation methods can very effectively reduce water usage. Replacing a 4 gpm showerhead with a 2 gpm low-flow showerhead will save 5-6,000 gallons of water a year. Replacing a urinal with a waterless model results in an average saving of 35,000 gallons per year. Installing solar power and using energy-efficient lighting, such as LEDs, are also great ways to save water. The average house in the USA uses about 10,932 kwh of electricity a year. If that power is produced by a coal-fired power plant, that means each household is using about 120,000 to 300,000 gallons of water per year. Solar and wind power use almost no water. These are just a few examples of how each of us can reduce our water use, help save this precious resource, and have a positive impact on Bosque del Apache.



Flooded Riverbed of the Rio Grande, 2017

As we anxiously await the summer monsoon rains to get relief from the drought, the refuge is still fulfilling its mission as a great place for wildlife. Summer migrants are nesting on the refuge, and you can see turkey and deer in abundance along the tour loops. Come visit your National Wildlife Refuge.



Mule deer on the refuge by Birgit Davidson

-- Kevin Cobble, Refuge Manager

AGRICULTURE PROGRAM UPDATE: BIG CHANGES!



You may have noticed some big changes along the north auto tour loop this past year. In 2017, Bosque del Apache National Wildlife Refuge decided to dissolve the cooperative farming program in favor of conducting all agriculture operations with refuge staff.

Refuge managers have reduced the farmed units from 1,100 to 330 acres. In turn, this has opened up more land for habitat needs and increased water allotted to wetlands during the summer. Doing the farm work in-house also makes

crop rotation between fields easier, which leads to better soil health. Units that are no longer in crop production will become expansive pollinator areas, new moist soil units, or native bosque habitat.

Managers plan to keep some corn fields near the tour loop for bird viewing while planting other fields in closed areas to allow birds rest and refuge from disturbance. For 2018, you can expect the extended north tour loop to be open for the fall/winter season. However, this will likely be the last year because the crop rotation schedule places corn along the north tour loop again in 2019.

In addition to the 110 acres of non-GMO conventional corn, you will see some small grain fields. These units are seeded in a variety of grain (winter/spring wheat or triticale). Sixty acres were planted in the spring to provide nutritious mature grains



for the over-wintering birds. Some units may be planted in the fall for green winter browse, which provides tiny, young, green shoots that are high in protein.

The refuge staff will continue to mow corn on a schedule set by refuge biologists based on weather patterns and bird use. Agricultural crops supplement the waterfowl and cranes' natural diet, found in the wetlands, and reduce their unwanted feeding on local private landowners' crops.



THE BIRDS OF SUMMER



July. Who birds the refuge in July? Even the White-faced Ibis are gone.

July is actually the beginning of the fall migration as the shorebirds return, first the adults and then the juveniles, who are born with the migration route etched into their bodies—unlike the cranes and snow geese who learn the route from their parents. A few shorebird species breed on the refuge, Killdeer and Spotted Sandpiper, but most travel to the far north where days are long and insects are abundant. Adults are heading south as soon as the young can feed on their own, six weeks after arriving. Look for Wilson's Phalarope, a small shorebird that spins around in the water to stir up food. It will be followed in August by the small peeps—Western, Least, and Baird's Sandpipers and the larger Long-billed Dowitcher and Greater Yellowlegs.



Wilson's Phalarope by S. Myers

July is also the time when the brightly colored neotropical songbirds are abundant—orioles, tanagers, warblers, and flycatchers—although not all are colorful this time of year. The young of the year look more like the drab



Bullock's Oriole by P. White

females and few are singing. Even the ducks have molted into a drab brown plumage and are flightless while their new primary feathers grow. But lots of young birds are around; it just takes patience to identify them. And there are egrets—the long-legged, long-necked Great Egret, the smaller shaggy headed Snowy Egret with the “golden slippers,” and the smaller round-headed Cattle Egret with an orange crown. Great Blue Herons, Green Herons, and Black-crowned Night Herons all roost on the refuge and some nest and raise young here. Dawn and dusk are great times to sit at the end of Bosque Road and watch the egrets and herons at their roost site.

August brings large numbers of hummingbirds as they leave their summer nesting grounds high in the Rockies on the way to winter in the tropics. Every feeder port will be full as the Rufous and Broad-tailed join the local nesting Black-chinned Hummingbird.

By September, ducks start returning to the refuge, although many will still be in their drab summer plumage with the males looking like the females. Some of the first to arrive are the male Northern Pintails, followed by Mallards and Northern Shovelers, the big three species of the winter season. This is a good time to learn the ducks by shape and call and sort out the females.



Cattle Egret by S. Myers

One of the biggest challenges is to separate Blue-winged Teal and Cinnamon Teal females, but it can be done—the Blue-winged female has a dark line through her eye, which the Cinnamon female lacks. The adult male Cinnamon always has a red eye, even when he looks like the female, which he does until December. The teals—Cinnamon, Blue-winged, and Green-winged—are easily told from the Pintails, Mallards, and Shovelers by their small size, the Green-winged Teal being the smallest.



Green winged teal by S. Myers

September, the fall counterpart to May, also brings an influx of smaller migrants, such as warblers, sparrows, and the return of huge flocks of swallows. If there is a good crop of sunflowers on the refuge, they will be full of these small birds feasting on the seeds, along with goldfinches and Lazuli and Indigo Buntings. Local breeders, such as orioles, grosbeaks, tanagers, Vermilion Flycatcher and Yellow-breasted Chat, will be departing, taking their color and their constant singing with them. They will be replaced soon enough by the honking of geese, the quaking and whistling of ducks, and the trumpeting of the Sandhill Cranes.



Osprey by C. Sandell

Late summer/early fall is a time of transition from the abundance of breeding and young birds to the overwhelming numbers of fall migrants and wintering ducks, geese, and cranes. White-faced Ibis and American White Pelicans will pass through on their way south, along with Osprey and other raptors.

There is always something to see and marvel over at Bosque del Apache NWR, no matter the season.

So, who birds the refuge in July? Maybe this summer, you will! Come see what a different season looks like at your national wildlife refuge.

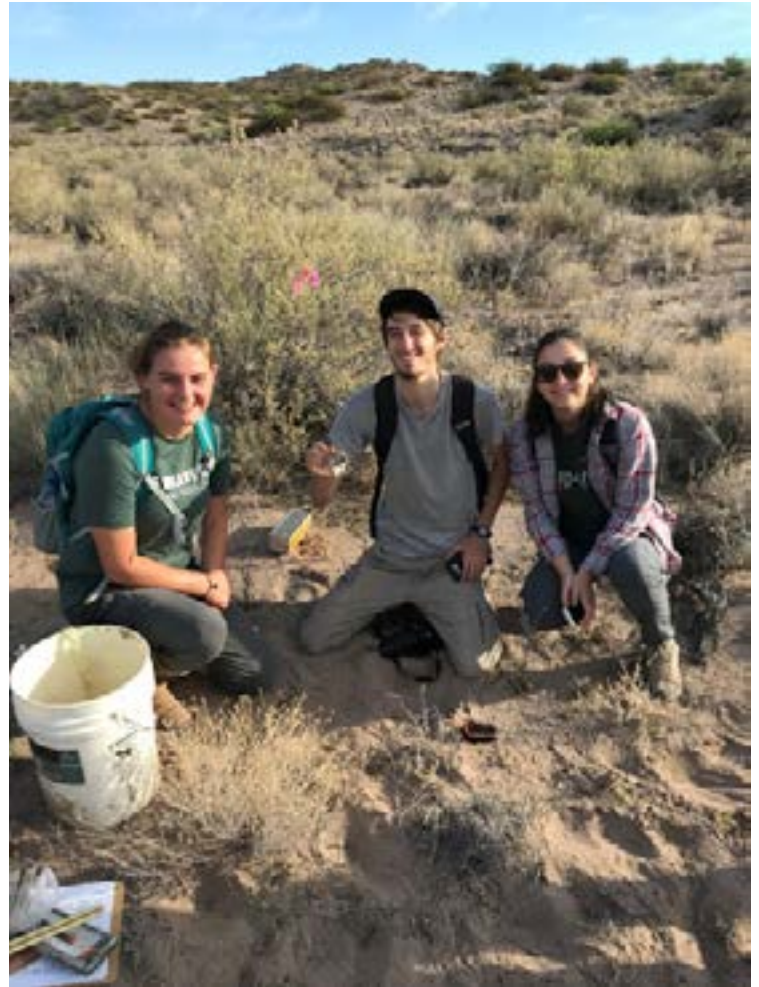
-- Cathie Sandell, USFWS Volunteer

WELCOME SUMMER INTERNS



Another summer has arrived! The Southwestern willow flycatchers have started making their nests in the coyote willow trees, the New Mexico meadow jumping mice have begun emerging from hibernation, and monarch butterflies are flying in the air. Many exciting things are happening at Bosque del Apache, and the biology team always needs help managing all its projects.. Thanks to Friends of Bosque del Apache, once again, we were able to hire three interns to work with us for the summer.

This summer we have Madelyn Hill from Houston, Texas; Gabriela Giacomangeli from Arlington, Virginia; and Nathan Hooven from Lindenhurst, Illinois. None of them had ever been to New Mexico and all made the trip to Bosque del Apache for this internship. Madelyn attends Texas Tech University and is majoring in wildlife biology. Gabriela graduated this spring from Old Dominion University, where she majored in biology and minored in conservation leadership. Nathan attends Southern Illinois University and is majoring in wildlife biology. We are lucky to have them here, and we have an exciting summer planned that includes lots of projects, surveys, and monitoring.



L to R: Madelyn Hill, Nathan Hooven, Gabriela Giacomangeli

The interns will be participating in several ongoing projects: monitoring the New Mexico meadow jumping mouse; continuing the mark-recapture study of the monarch butterfly; conducting surveys of the Southwestern willow flycatcher and the yellow-billed cuckoo; putting a list together of all the small mammals that utilize the habitat on the canyon trail; planting milkweed for the monarch butterflies on the refuge; and various other projects. They will assist biology with data entry, as well as maintain trails on the refuge and learn about the various jobs within the US Fish and Wildlife Service.

The biology program benefits tremendously every summer from having interns who are able to assist the biologists and complete the various surveys that are going on. They not only benefit the refuge, they gain experience that will help them develop into well-rounded biologists who may one day work for the US Fish and Wildlife Service.

They have bright futures ahead of them, and Bosque del Apache is excited to have them!

-- Megan Goyette, Staff Biologist

WHAT'S NEW AT OUR NATURE STORE?



Friends of Bosque del Apache Nature Store is always freshening its appearance and merchandise, and summer is no exception. While summer can be hot, it's a time to explore different birds and wildlife and to bring your kids to the Visitor Center and Nature Store for a fun and educational experience.

The Nature Store's goal this year is to increase our focus on children and provide more books, toys, and tools to interest and educate kids about science, wildlife, and the environment. We have expanded our children's section, adding more bilingual storybooks, outdoor activity guides, educational toys, and



Jr. Ranger merchandise. Another contribution to children's environmental education is just outside the Nature Store in the lobby: Friends purchased a fish tank, and the refuge has stocked it with native fish and provided accompanying educational placards!

In addition to environmental education materials and top-of-the-line wildlife guides for children and for all ages and levels of interest, the Nature Store carries a wide variety of high-quality and appealing items. Check out the exciting art and jewelry from local artists, the nice selection of birdfeeders and backyard birdfeeding guides, and the wall of colorful T-shirts.

Also, we now have in stock the book which we highlighted in the January edition of Bosque Watch – *Plant Stories of the Chihuahuan Desert* by Tom Hyden. Tom is donating all profits from this book to the Friends to help the refuge. During the hot days of summer, you can find peace (and shade!) in and around the Visitor Center and Desert Arboretum, while you enjoy watching other summer visitors, such as orioles, tanagers, grosbeaks, and hummingbirds.



Black-chinned Hummingbird by T. Thomson

During the summer

months of June, July, and August, the refuge remains open every day, from one hour before sunrise to one hour after sunset. In summer, the Visitor Center and Nature Store are closed on Tuesdays and Wednesdays; however, both are open the other days of the week from 8:00 a.m.–4:00 p.m. Come on down to Bosque del Apache and the Visitor Center and discover Nature Store merchandise that will enhance your visit and your environmental education here and at home!

REMEMBERING LYNNE BRADEN



Chicago native Lynne Braden photographed nature and wildlife since she was a teen. While she studied photography in college and briefly ran a portrait photography business, she kept her love of nature photography purely a hobby. In 2013, she retired early from a corporate software career to become a full-time RVer and to focus on her twin passions—nature photography and volunteering at National Parks and Wildlife Refuges. Her first volunteer gig in 2015 with US Fish & Wildlife Service (USFWS) remained her “happy place” and favorite—Bosque del Apache. She loved the sights and sounds of the magnificent sandhill cranes, and she felt connected to volunteers, staff, and friends here.

Lynne captured many stunning photos of sandhill cranes in the early morning hours of winter mornings while she was a USFWS volunteer at Bosque del Apache. One of her photos will grace the cover of this year’s Festival catalogue. She photographed wildlife and landscapes with her

Canon system, until she switched to her much lighter mirrorless system—a Panasonic that she purchased at the 30th annual Festival.



Cranes in Winter by Lynne Braden

Late in 2016, Lynne discovered that she had terminal cancer. She continued to travel, including making two return trips to this refuge. In her blog (<http://winniewiews.blogspot.com>) she wrote, "I wish I could live another few decades to share all the lessons I've learned these past few years of leading a purpose-driven life. We can discover true fulfillment by emptying ourselves of pettiness, shallowness, and worthless physical possessions in exchange for a deeper connection to our fellow humans/animals, our Earth, God, and the amazing reward of giving in all the ways that we can."



In 2017, Lynne made a legacy gift to Friends of Bosque del Apache for upgrading the refuge's volunteer center. In the letter that came with that gift, Lynne wrote, "The volunteers and staff in this community, united by our common love of Bosque del Apache, are the people I am confident will continue to care for this special refuge for decades to come. I know you will use my financial gift wisely and perhaps will continue to think of me from time to time well after I've left this Earth."

In her final months, Lynne worked on a book, *Natural Wonders*, filled with her thoughts and stunning photographs. On May 16, 2018, Lynne died peacefully in her sleep, at the age of 56. Her courage and her passion for life, friends, family, travel, sandhill cranes, and all of nature can be carried on by all of us.

- Deb Caldwell, Executive Director, Friends of Bosque del Apache

Blooming Cholla in the Desert Arboretum

SAVE THE DATES

August 11: Hummingbird Banding

September 15: Annual Meeting

**November 14-17: 31st Annual
Festival of the Cranes**

**December 7: 3rd Annual Holiday
Open House**

For more info visit
www.friendsofbosquedelapache.org

HIDDEN GEMS AND NATURAL WONDERS



Blooming Cholla in the Desert Arboretum

Bosque del Apache truly is full of hidden gems and natural wonders. In times when the problems of our earth seem too much to bear, I take a break from my work and look or step outside to watch birds or admire flowers, and in those moments all seems right with the world.

Working on the refuge, I see natural wonders every day—from gorgeous landscapes to all kinds of wildlife. I'm blessed with a large window in my office, and I look at the stunning Desert Arboretum every time I turn my head. We have feeders and water containers around the garden in different seasons to support our feathered, scaled, and furry friends, as well as to enhance the Desert Arboretum so that people visiting this easiest trail on the refuge can see fauna as well as flora. Some days, the Desert Arboretum attracts so many photographers, I can barely navigate the sidewalk outside the back door of the Friends House. For too many years, the Desert Arboretum was a hidden gem, known and appreciated by only a lucky few. Now, it has evolved into a natural wonder, visited and loved by many.

Hidden gems and natural wonders apply to people too. Friends of Bosque del Apache turns Twenty-Five this year, and we could not have survived and done so much for the refuge without hidden gems like YOU! Sharing your talents and resources has made a big difference. We have gems who edit this newsletter; plant and maintain the Desert Arboretum; and volunteer their time and energy at Festival of the Cranes, including donating books or handmade quilts for sale or helping us organize our Wildlife Zone or Festival banners. Some of you gems have advocated on issues important to the refuge, such as SunZia mitigation, or helped us with IT problems. Others of you have sent us lovely photos you took or videos you created. Some of you make our events more fun by sharing your musical talents.



Western Tanager on Havard's Agave by P. Hicks



Matt Mitchell with his Falcon by S. Whitener



Desert Cottontail by T. Thomson

And your financial gifts, no matter how small or large, have made a big difference, too. Legacy gifts or large donations have helped us upgrade the Volunteer Lounge; install Lange-mann Gates, solar panels, and steel bridges; bring busloads of kids to the refuge on field trips; and add square footage to the Visitor Center or acreage to the refuge. Memberships and smaller gifts add up, and they have helped us with these large projects or with maintaining on-going projects. So, I invite you gems to continue making a difference with your gifts—run for the board, keep your membership active, volunteer. Friends can survive for twenty-five more years and beyond only with hidden gems letting us see what natural wonders they can be!



Sierra Club's Rio Grande Chapter - Bus Scholarship trip

-- Deb Caldwell, Executive Director, Friends of Bosque del Apache

WONDERING ABOUT FRIENDS ECHELON SOCIETY?



Snow geese migrating in an echelon by D. Policansky

In the natural world, the V-formation, or echelon, in which migrating birds fly allows them to draft behind one another, conserving energy as they accomplish the monumental task of traveling from one end of the continent to the other. Similarly, the Friends' Echelon Society is a group of folks who have banded with us over the years in supporting the many important goals of the refuge: they are our most esteemed members and donors!

The Echelon Society comprises all Golden Eagle members, those who have made a planned gift (e.g., have designated the Friends as a beneficiary in a will)

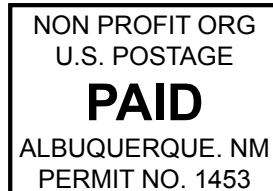
all persons who joined the Friends as Lifetime Members prior to 2017, and all donors who have given a gift of \$1,000 or more in the current year.

Members of the Echelon Society receive extended privileges, which may include benefits such as the following:

- an annual special meal with Refuge and/or Friends staff
- exclusive refuge tours, as approved by the Refuge Manager
- exclusive eco-travel opportunities, special gifts, and the like

Call the Friends at (575) 838-2120 to learn more about - or become a member of - the Echelon Society today!

--Trisha Sanchez, Friends Membership Care Manager



e-mail: Execdirector@friendsofbosquedelapache.org
www.friendsofbosquedelapache.org

PO Box 340
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YOUR STORY MATTERS!

*For more information on sharing your story
about Bosque del Apache with decision
makers, please contact the Friends at
Execdirector@friendsofbosquedelapache.org*

PRESIDENT DONALD J. TRUMP

The White House, Washington D.C.
202/456-1111 President@WhiteHouse.gov

US Fish & Wildlife Regional Director

500 Gold Avenue SW
Albuquerque, NM 87102
505/346-2545

Hon. Ryan Zinke

Secretary of the Interior
18th & C Streets NW, Rm. 6151
Washington D.C. 20240
202/208-7351

NEW MEXICO SENATORS

Hon. Martin Heinrich

US Senate, Washington D.C. 20510
202/224-5521
website: heinrich.senate.gov

Hon. Tom Udall

US Senate, Washington D.C. 20510
202/224-6621
website: tomudall.senate.gov

NEW MEXICO REPRESENTATIVES

Hon. Michelle Lujan Grisham

House of Representatives
Washington D.C. 20515 202/225-6316
website: lujangrisham.house.gov

Hon. Ben Ray Lujan, Jr.

House of Representatives
Washington D.C. 20515
202/225-6190

website: lujan.house.gov

Hon. Steve Pearce

House of Representatives
Washington D.C. 20515 202/225-2365
website: pearce.house.gov

FRIENDS OF THE BOSQUE DEL APACHE MEMBERSHIP APPLICATION

Name _____

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Street _____ City _____ State _____ Zip _____

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☐ I also want to donate ___ \$25 ___ \$50 ___ \$100 ___ Other

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Exp. Date _____ Sec. Code _____

Signature _____

☐ Please contact me about planned giving.

2018 Membership Levels:

- ☐ Snow Goose (Individual) \$25
- ☐ Northern Harrier (Family) \$50
- ☐ Sandhill Crane \$120
- ☐ Peregrine Falcon \$250
- ☐ Golden Eagle \$1000
- ☐ Business Sponsor \$350
- ☐ Corporate Sponsor \$500

Join or donate online at www.friendsofbosquedelapache.org

or send your contribution to:

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PO Box 340

San Antonio, NM 87832