

Bitter Lake News

Summer 2022

Earth Day 2022 by Sue Briney

The Friends celebrated Earth Day on Saturday, April 23, 2022, by gathering on the Butterfly Trail to clean up, plant and, of course, socialize! It was our first real get together since the pandemic put the stranglehold on our activities back in March 2020. And it was a great day! Aside from the pleasure of reconnecting with old friends, lots of work was accomplished thanks



to an outstanding turnout. We had 37 volunteers, ranging in age from three to 91 years! Our youngest helpers included three children of mom, Laura Roebuck: Penelope, Maverick and Lewis, and four of mom, Heather Heath: Isaac, Zoe, Judah and Noah. Those youngsters worked hard loading and rolling countless wheelbarrows full of tumbleweed and brush. Our oldest participant was Bill Briney, a Friends member for twenty-

some years. Thanks to these new and old volunteers and to all the Friends, local residents and members of the Roswell Home Garden Club who came out on a perfect morning, we have a renewed path and fresh plantings of native wildflowers, cacti, sumac and black cherry added to our Butterfly Trail.

A Friends project for many years, the Butterfly Trail has progressed from a tiny path of wildflowers to include a pond, an extensive irrigation system (thanks largely to Friends member, Don Weld) and a trail that now leads from the Visitors Center parking lot to the Nature Mural at the biology building, and from the pond down the stairs to the Dragonfly Overlook and back up the stairs to the Visitors Center. It represents a native ecosystem that welcomes more songbirds and butterflies than ever before, displayed for all to see at the Roswell Home Garden Club's welcoming garden at the entrance to the Visitors Center. Not ten minutes after some native penstemon were planted, hummingbirds were seen feeding on the flowers' nectar-- a rare sighting at the refuge!



Please come out and enjoy the fruits of our labors and walk the Butterfly Trail. It is more lovely and welcoming than ever!

Barking Frogs at Bitter Lake National Wildlife Refuge by Sue Briney

Barking what? Frogs. Specifically, the eastern barking frog, or *Craugastor augusti*. These unique amphibians are found in just a few places in Texas, Arizona and New Mexico. In our state, they are limited to regions around Carlsbad, near the Organ Mountains close to Las Cruces and on our own Bitter Lake NWR, where they have been observed most recently.

What do they look like? They're pretty large—about 2 ½ to 3 ¾ inches long. *Augusti* looks a bit like a toad without the bumps. The adult frog is greenish to brown with dark splotches. It has a chunky body, broad head and short, stocky legs with long slender toes for climbing and getting in and out of rock crevices and burrows. It has a distinctive skin fold across the back of its head and a disc-shaped fold across its belly.



Barking frog by J.C. Boothe

Why the bark? It's the call of the male frog looking for a mate. It happens on late spring and summer nights during, or for a few nights after a good rain. It really does sound like a distant dog barking, but you can tell the difference by the timing. A calling frog will bark every 2 to 3 seconds. When there are several, it can sound like an out-of-sync chorus. When you can get closer, it sounds like “waauk.”

So, what besides the “bark,” makes them unique? As amphibians, you would expect our frogs to live near water where they lay eggs that then hatch as tadpoles. Not so. Barking frogs live in dry and rocky desert scrub or creosote flats with soils friendly to burrowing or with limestone or gypsum outcroppings having hospitable crevices. They must wait for rain to mate as the eggs are laid in small collections of water in rocks and crevices or down in moist burrows. Amazingly, our barkers skip the tadpole stage and hatch out as miniature adults. Their reproduction is termed “explosive” because their mating is confined to these rainfall events between May and August. You can see how our current drought would impact their population and make monitoring their reproductive success more urgent.

Can you find them on a casual drive around the refuge? Unlikely, as they are very secretive and elusive creatures, spending most of their time sheltering during the day. And as noted above, their habitat is not near the water units of the refuge or along the tour route, but up on the creosote flats. (However, our keenly observant biology tech, J.C. Boothe, caught sight of one last summer on the tour route after dusk.) All officially recorded sightings have been well after dark, and the refuge is indeed a very dark place, especially with cloud cover hiding even the moon.

The study of barking frogs at Bitter Lake NWR is a long one, going back at least 20 years. In 2001, Biologist Marcia Radke shared the results of her 4-year study at BLNWR with the New Mexico Department of Game and Fish (NMDGF). Implemented while she resided on the refuge in the late 1990s with her husband Bill, the refuge manager at the time, her study was incredibly detailed, thorough, and a fascinating read. The most recent was a one-year study covering the populations in Roswell, Carlsbad and Las Cruces completed by a team of biologists from University of New Mexico and shared with the NMDGF in November 2015. Since that time, barking frogs in southeast New Mexico have been monitored by volunteers who answered a call by Leland Pierce, herpetologist for the NMDGF in an article for the Spring 2017 issue of “New Mexico Wildlife.” His call for “citizen scientists” was answered locally by Cate Erbaugh, a member of the Friends of Bitter Lake. Her interest in native wildlife and her natural sense of adventure teamed up to lead Cate to give nighttime observation of (or listening for) our elusive frogs a try. She was assisted by Jeff Beauchamp, refuge biologist at the time.

Surveying the frogs requires following set protocols for observation and documentation established by Dr. Pierce. Nighttime tours around the refuge see an entirely different perspective of its ecosystem. Nocturnal creatures abound, including owls, fox, nighthawks, lots of amphibians and, of course, snakes. Happily, frogs were found and recorded that spring in 2017. The following year, I joined Cate in the adventure. We listened both at the refuge and at Bottomless Lakes State Park. We enjoyed some success at Bitter Lake,

but not so at Bottomless. In 2019 I joined biology intern, Taylor Bennett, and toured the refuge on the requisite “dark and (post) stormy nights” listening for frogs. After long nighttime forays in little-explored areas of the refuge, we finally settled on a route that consistently yielded resident barkers. We documented GPS quadrants, time, temperature, wind speed, cloud cover and number of frogs heard. We recorded calls (on my cell phone) and repeated the process at each stop on the survey. I then sent the resulting data to Dr. Pierce for verification. We repeated the process after several rainfall events over that summer. In 2020, of course, the pandemic ended almost all volunteer activity on the refuge.



Biological technician J.C. Boothe

Until now! Now, two years later, we have a whole new beginning at Bitter Lake National Wildlife Refuge: new leadership, new biology staff, and a refreshed interest in our resident barking frog population. Thanks to the support and encouragement of refuge manager, Lindsey Landowski, I have passed the survey baton to biological technician, J.C. Boothe. He will lead the survey effort this year, doubtless with a higher level of scientific method of observation and documentation than I could ever manage, which will provide Dr. Pierce with more and better data for the ongoing statewide monitoring effort.

Come Dragonfly Festival time, I hope to have some interesting facts about our resident barking frog population to present to you in the next newsletter. However, like lots of New Mexicans (farmers, ranchers, gardeners), our frogs’ success will depend on ...you guessed it...rain!

Sources:

Radke, M. F. (2001), Final Report: Ecology of the Barking Frog (*Eleutherodactylus augusti*) at Bitter Lake National Wildlife Refuge, New Mexico.

Ryan, M. J., Latella, I. M., Giermakowski, J. T., & Snell, H. (2015), Final Report: Status of Barking Frog (*Craugastor augusti*) in New Mexico.

Pierce, Leland, “Opportunity for citizens to aid in conservation,” *New Mexico Wildlife*, Spring 2017, p 28.



Future conservationists on Butterfly Trail from the Earth Day festivities.

Volunteers are Vital by Lindsey Landowski

Volunteers are a part of successful refuge program; from manning the Front Desk to help answer phones, greet visitors, helping with the Friends Nature Shop sales, light clerical work and helping with Dragonfly Festival planning; to helping with maintenance duties such as watering the native flowers and trees on the Butterfly Trail, around the Visitor Center and by the RV hook-ups, weedeating and light maintenance, to putting up signs, small construction projects, picking up garbage along the auto tour route and opening gates for the fall waterfowl season; and helping out with the Christmas Bird Count or Big Day to name a few.

During the fall and winter season of 2021/2022, the refuge hosted 2 RV couples; Phil and Vicki from Minnesota, and Doug and Sheila from New Hampshire. This is the third year Phil and Vicki returned to Bitter Lake and have helped patrol the auto tour to refill brochure boxes, and helped provide photos of wildlife for the refuge, picked up garbage, helped man the Visitor Center and Nature Shop 3 days of the week when it re-opened under COVID guidelines, helped with Dragonfly Festival planning and execution, watering duties, light cleaning, small painting projects, and helped install the new Bitter Lake entrance sign and new benches on the Oxbow Trail.



RV volunteers Vicki and Phil near one of the refuge sinkholes



RV volunteers Sheila and Doug with refuge maintenance worker Rick Ozbun on completed Pájaro Bird Blind Trail

This is the second time Doug and Sheila have volunteered with Bitter Lake NWR. They helped with maintenance duties and worked hard to re-open the Pájaro Blind with refuge maintenance worker, Rick Ozbun. They worked to install a beautiful accessible ramp leading to the bird blind, installed 2 new spotting scopes around the auto tour and blind, rehabilitated the Pájaro footbridge with recycled material, and moved a lot of rocks to line the walking path to the ramp. In addition, they completed painting projects, trail maintenance, weedwhipping, concrete work, moist soil work, and rehabilitated the Hunter Marsh Oxbow kiosk by installing a new roof and making the way for a new bulletin board.

Now that both of their seasons are coming to a wrap, we truly appreciate their assistance and kindness in helping the refuge and the public. We are forever indebted to all of our volunteers for graciously helping us out no matter how large or small the request is. We would not be able to be successful without their help or your help.

Do you like working outside or looking to help for a few hours indoors or outdoors? Do you like working with kids or youth groups or leading groups? We are looking for people to help water our flowers and trees along the Butterfly Trail and around the Visitor Center this summer, or helping with the Front Desk, or helping with environmental education programs or leading guided tours. The refuge is also looking for more RV volunteers to assist with short to long term stays. Covered RV pads with full hook-ups and separate laundry and bathroom facilities are provided in exchange for volunteering at the refuge. Please contact Steve Alvarez at 575-244-6256 for more information or to help volunteer around the refuge.

PRESIDENT'S CORNER by Meredith Hildreth

The Pecos Valley is abloom with springtime. Pronghorn now graze on the Refuge due to replacing seven miles of fence with pronghorn-friendly fencing! Watch for Monarchs and other butterflies dancing along the Butterfly Trail thanks to the volunteers who spruced up the trail on April 23. New signage is springing up on the refuge Auto Tour. Be sure to visit the Pájaro bird blind that has a brand-new ADA ramp, new exhibits, and a new spotting scope. Special thanks to the Refuge's RV volunteers Doug and Sheila who dedicated their efforts to the Bird Blind project.

Jana Burch has stocked the Nature Store with beautiful t-shirts, jewelry, books, and more. Proceeds from the Nature Store provide funds to support the Refuge's conservation, education, and outreach objectives. The Nature Store's Summer hours are 9 AM to 4 PM Mondays through Fridays. Be sure to renew your annual membership at the Nature Store, mail or online. Invite your friends and family to become members, too. You can now call the Refuge and Nature Store at the new phone number 575-244-6256.

The Summer General Meeting is scheduled for Saturday, June 11 starting at noon with a potluck lunch. Meat will be provided, bring sides or dessert. The membership will elect board members. After the meeting there will be a tour of the Butterfly Trail. Volunteer opportunities abound. Contact Barbara Scheer at 575-420-2581 if you would like to discuss volunteer opportunities. The Dragonfly Festival Committee is planning this year's Dragonfly Festival to be held on Saturday, September 10. Volunteers and sponsors are definitely needed and welcome to help with this event. Thank you to the Friends Board, community, and visitors for their continued support of the Refuge.

The mission of the Friends of Bitter Lake NWR is to uphold the refuge's creation and stewardship of quality wildlife habitat: the refuge's environmental, educational, and scientific projects: projects and programs to increase the public's understanding and enjoyment of the refuge: and the mission of the National Wildlife Refuge system.



Volunteers helping with planting and clean-up on Butterfly Trail on Saturday, April 23, 2022.

Upcoming Dates

Friends Summer General Meeting Potluck Saturday, June 11, 2022 at 12:00 p.m. held at Bitter Lake NWR Visitor Center. Meat will be provided, bring a side dish or dessert to share!

2022 Dragonfly Festival – September 9-11 with the main events on Saturday, September 10, 2022. Schedule of events will be available on the refuge website this summer at <https://www.fws.gov/refuge/bitter-lake>. More information will be available in the fall newsletter. Open to all ages!

2022 CRANES & COCOA Saturday, November 26, 2022 from 3:30 p.m. to dusk Join Friends of Bitter Lake and refuge staff to learn more about cranes over some cocoa or hot cider and cookies. Take a guided tour on the refuge to look through staffed spotting scopes. Open to all ages!

Friends of Bitter Lake National Wildlife Refuge



Membership Form

- Individual Family
 Student Business

Date: _____

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____

Cell Phone: _____

Mail to:
 Friends of Bitter Lake NWR
 4200 E. Pine Lodge Rd.
 Roswell, NM 88201

Friends of Bitter Lake National Wildlife Refuge
 Membership Form Instructions



Just two easy steps to join:

1. Complete the form on the left side of the sheet and mail it with your dues to the Refuge.
2. Complete the Membership Card below and keep it for your records.

*Membership includes 10% discount at
 Nature Store

(Fold Here)



Friends of Bitter Lake
 Membership Card

www.friendsofbitterlake.org
 (575) 244-6256

Name: _____

Date: _____

*Membership expires 1 year from above date.

Friends of Bitter Lake NWR
4200 East Pine Lodge Road
Roswell, NM 88201