



the Cactus Wren-dition



VOLUME LXXV NO. 2

SUMMER—2022

Buffelgrass



and the Cattle Industry that
Caused this Catastrophic Invasion

pp. 18-20

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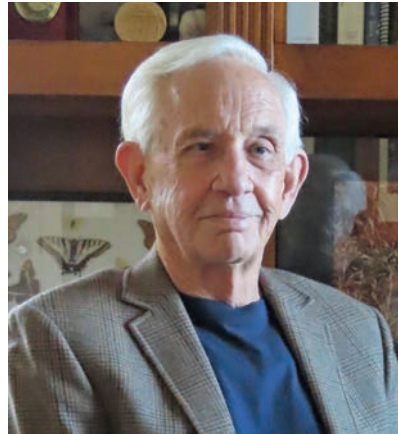
On the Cover

Aftermath of the buffelgrass fueled Mercer Fire in the Santa Catalinas, August 2019. Photo by Kim Franklin (insets)

Dry buffelgrass with characteristic zigzag rachis. Photo by Frank Staub

Incinerated desert tortoise, Ballentine Trail, Bush Fire, 2020. Photo by Laurie Nessel

PRESIDENT'S MESSAGE



Charles Babbitt

I wish to congratulate Emily Thomas, the newly elected president of the Maricopa Audubon Society. Emily has done a great job serving as our field trip chairwoman and I am sure she will do an equally great job in her new role as president.

Maricopa Audubon Society (MAS) activities tend to slow down over the summer months but our officers and committee chairs still have plenty to do this summer planning next fall and winter's field trips, education programs and speakers for our monthly meetings. Conservation, of course, continues to be a major focus.

The last few months have seen an amazing amount of important work done by Robin Silver involving legal efforts to protect riparian areas around the state from damage done by trespassing cattle and horses. I hope our members read the front-page story in the *Arizona Republic* on April 13 about MAS joining in a Notice Of Intent to sue the Coronado National Forest for failure to protect endangered, riparian species **Yellow-billed Cuckoo**, **Sonora Chub**, **Chiricahua Leopard Frog** and **Northern Mexican Garter Snake**. Recently MAS joined in a federal court motion to intervene in a lawsuit brought by the New Mexico Cattle Growers' Association to delist the **Southwestern Willow Flycatcher**. MAS played a major role in getting this subspecies listed and critical habitat designated in the 1990's.

Our summers - which seem to get hotter each year - often discourage people from going birding. But don't forget the middle of summer can be one of the best times to go birding in the desert - especially shorebirding. Beginning in late June, shorebirders may see returning Great Basin breeding species like **Willet**, **Wilson's Phalarope**, **Long-billed Curlew** and water birds like **Black** and **Caspian Terns**. They are followed in July and August by an array of migrating adult and juvenile arctic breeding shorebirds whose peak passage culminates in early September. Try Gilbert Water Ranch, Glendale Recharge Ponds or Lake Cochise in southern Arizona to look for these long-distance migrants. Monsoon season in mid-summer is also time to watch for Gulf of California post-breeding dispersal species such as **Brown Pelican**, **Reddish Egret**, **Little Blue** and **Tricolored Heron**, **Roseate Spoonbill** and even a very rare **Magnificent Frigatebird**.

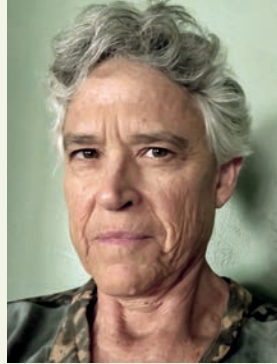
MAS is an all-volunteer organization. We are always looking for volunteers and there are many ways you can help. Our editor welcomes articles about nature, conservation, book reviews and field trip reports for our chapter newsletter, the *Cactus Wren•dition*. You might also volunteer to lead a field trip, get involved in our various education programs, serve on a nominating committee, participate in the Big Sit or serve on our board of directors. We want to bring back the Bird-a-thon next spring. It should be lots of fun but will take a good deal of planning and volunteer participation.

We are hopeful that this fall we can resume our regular, in-person monthly meetings. Have a good summer and we will see you in September. 🐦

LETTER FROM THE EDITOR

by Laurie Nessel

Summer... when many Sonoran Desert inhabitants shelter indoors. But if you're one of them, you could miss a fascinating season, as attested to by Charles Babbitt on local shorebirding, by Tom Gatz' In the Garden column reminding us of the Desert Botanical Garden Summer Flashlight Tours, and by three desert field trips, including my own desert tortoise quest. Summer offers great rewards for venturing a field, before the cool weather causes people to emerge and reptiles, amphibians, and arthropods to retreat.



The effects of cattle in the desert are explored in articles by Brian K. Sullivan, Vicki Hire and Kathe Anderson. The topic could fill a library but is elegantly condensed into a single sentence by Lynn Jacobs to the right of this column.

Our poet laureate David Chorlton muses about the meaning of life while observing his yard in *The Early Birds*.

If you read the back page, you'll notice a number of vacancies on the board. If you want to help Maricopa Audubon Society continue to be the vital organization it is, please consider joining our board.

ANNOUNCEMENTS

Birding Classes

MAS is pleased to participate in the 2022 Maricopa County Reads, an online summer reading program provided by the Maricopa County Library District to all county public libraries. MAS is offering two programs - Birds of Prey and Birds of Phoenix and Maricopa County. To attend, please register directly with the library that offers the desired program. Space is limited so act fast! Expect to leave with newfound knowledge and perhaps a raffle prize or two. Phoenix Public Library (602) 262-4636.

Date	Time	Program	Location
6/11	12pm-2pm	Birds of Prey	Desert Sage
6/13	11am-1pm	Birds of Prey	South Mountain
6/25	2pm-3:15pm	Birds of Phoenix	Desert Broom
7/9	11am-12:15pm	Birds of Phoenix	Chandler Sunset
7/16	2pm-4pm	Birds of Prey	Mesquite

2022 AZFO 15th Annual Meeting in Safford



23-25 September
Eastern Arizona College's Discovery Park Campus

Youth scholarships available. Please visit Arizona Field Ornithologists online for details.

COMMITTEES/SUPPORT

Bookstore

Sochetra Ly
503 860-0370

Poet Laureate

David Chorlton
480 705-3227

www.maricopaaudubon.org

"ending public lands ranching is the simplest way to do the most good."

- Lynn Jacobs, *Waste of the West*

An Investment in the Future

Bequests are an important source of support for the Maricopa Audubon Society. Your chapter has dedicated itself to the protection of the natural world through public education and advocacy for the wiser use and preservation of our land, water, air and other irreplaceable natural resources.

You can invest in the future of our natural world by making a bequest in your will to the Maricopa Audubon Society. Talk to your attorney for more information on how this can be accomplished.



Support Maricopa Audubon when you shop at **Fry's Community Rewards Program**. Register your Fry's VIP card and select Maricopa Audubon #WW583 as your non-profit organization at no cost to you. Visit Fry's Community Rewards online. www.frysfood.com/topic/newcommunity-rewards-program

Sign up for the e-newsletter!



To subscribe, email:
laurienessel@gmail.com

Note: We do not use the email list for anything other than the described purpose.

MARICOPA AUDUBON SOCIETY'S 26TH ANNUAL HERB FIBEL BIG SIT! FUNDRAISER

Sunday, 9 October 2022

Granite Reef Recreation Site
Tonto NF pass required

To Participate:

There are a limited number of volunteer slots. Registration is required, email **Kathe Anderson** at kathe.coot@cox.net, by 30 September, 2022. Details will follow. Participants can donate on site. New option this year: Arrive 6 a.m. for **Owling!** Official sit is 8 a.m - 9:30 a.m

To Donate:

Donate a set amount, or per species seen. Donations accepted through 15 November. Donate online (visit "Events - Big Sit!") or write a check payable to "Maricopa Audubon Society" (please write "Big Sit!" in the memo line) and mail to:

MAS Treasurer Vicki Hire
PO Box 603
Chandler, AZ 85244

The Big Sit! is open to birders of all levels. It is ideal for those who are mobility challenged. The goal is to see as many species as possible (40 is average here) from a single location while supporting a worthy cause. Money raised this year will benefit the MAS Youth Scholarship Fund.

Bonus for Non-Members!!!

Donate \$25 or more to the Big Sit! and receive a one-year membership to MAS. Please visit "Events - Big Sit!" on our website for details.

NEW NATIONAL AUDUBON SOCIETY STUDENT CHAPTER

by **Hebah Mohamed**



Hebah Mohamed

In 2016, Midwestern University's (MWU) College of Veterinary Medicine (CVM) students inaugurated a Wildlife, Exotic, Zoo, Avian, & Aquatic Medicine (WEZAAM) Club to provide educational and networking opportunities in these specialties. There are 80 active veterinary student members ranging from 22 to 35 years of age, with varied educational backgrounds, originating from the US and abroad.

The club offers field trips, community service initiatives, and practical experiences such as avian postmortem wet labs. Presentations have included rabbit spay and neuter wet labs and conservation medicine. The club is also a student chapter of The Wildlife Disease Association (WDA), which provides wildlife health and conservation opportunities. The WEZAAM Club recently became a student chapter of National Audubon Society through the Audubon on Campus Program. This milestone will provide more opportunities in avian conservation, health, education, and community outreach.

The WEZAAM Club hopes to collaborate with local Audubon chapters. We are enthusiastic about the new chapter's potential

for avian conservation and biodiversity preservation on our campus, in the community, and throughout the state. Our current goals include offering campus bird walks and erecting a Sonoran Desert pollination station. Our chapter is mentored by MWU CVM assistant professor Dr. Alexandra Goe, and MWU CVM associate professor and Maricopa Audubon Society Education Chair Dr. Jason Struthers.

Hebah Mohamed, CVM 2023, is the past WEZAAM Club Avian Chair at Midwestern University.



2022 WEZAAM Officers (bottom right) Kaily Myers, Mia Felix, Amanda Sinclair, Autumn Glaze. (top right) Madison Hunker, Kirsti Dunckel, Kendall Lewis, Jessica Randall, Stephanie Tan, faculty mentor Jason Struthers

MEETINGS . . .

Please check our website before the September meeting to be sure we are still conducting hybrid meetings. Please follow current CDC guidelines in person.

MAS holds meetings (membership is not required) on the first Tuesday of the month from September through May. All but the May meeting is at Papago Buttes Church of the Brethren, 2450 N. 64th Street, Scottsdale (north of Oak Street on the westside, between Thomas and McDowell roads). If southbound, turn right from 64th Street, 1/2 mile south of Thomas. If northbound, turn left (west) at Oak Street, 1/2 mile north of McDowell, and then right at the Elks Lodge. Continue past the lodge and turn right into the church parking lot. Look for the "Audubon" signs. Meeting starts at 7:30 p.m., come at 7 p.m. to socialize and browse the book table. Pre-meeting dinners are held at 6 p.m. at Saigon Bowl, 8213 E. Roosevelt Street, Scottsdale. Join us for a delicious meal, meet our guest speaker and say "howdy" to other birders. Meals average \$12.



Northern x Tropical Parula hybrid

Jacob Bagley

My Experience at Rio Diablo Birding Camp

September 6

Jacob will recount the spectacular places and biodiversity he experienced at Rio Diablo Birding Camp, touring the Big Bend area last year from the high-elevation Chisos and Davis Mountains, to the winding gorges of Seminole Canyon, to the banks of the Rio Grande River.

Jacob Bagley is a sophomore at Shadow Mountain High School where he takes honors and AP classes. He is involved in the Digital Academy of Advanced Placement Scholars, Veterans Heritage Project, and the National Honor Society. He has been birding since April 2020. What started as a quarantine hobby quickly became his number one passion. Jacob enjoys chasing a rarity as much as birding his local patch. Birding has enabled Jacob to establish many great friendships, expand his network, and explore the natural beauty of Arizona and beyond. He is excited to lead his first birding tour in Southeast Arizona, one of his favorite birding regions. You can read his article on page 12 of this issue.

FIELD TRIPS

by Mark Horlings

- Please follow current **CDC Guidelines**. Participation in field trips comes with risk of exposure to infectious diseases. If you have any symptoms of illness or have been exposed to COVID-19, stay home. Please wear face masks (N-95).
- For Tonto **National Forests Day Use Passes** visit USDA Tonto Pass.
- If you **carpool**, please cover driver's gas-recommended 10 cents/mile per rider.
- The ABA has adopted principles of birding ethics. Check them online or ask your field trip leader
- **Wear** neutral colors and sturdy walking shoes.
- **Bring** binoculars, sunscreen, sunglasses, hat, and water.
- **Registration** required unless otherwise noted. Search Maricopa Audubon Ticketleap or follow the links on the MAS Field Trips webpage. To cancel a reservation, contact the leader (see Ticketleap) or Field Trip Chair Mark Horlings 602 505-3455 | markholings@yahoo.com



Citrine forktail. Photo by Pierre Deviche

Dragonflies of Queen Valley and Oak Flat

Saturday, June 11

Pierre Deviche, ASU's School of Life Sciences professor, Odonate expert, and creator of azdragonfly.org will be your guide on this Odonata field trip to nearby Queen Valley and Oak Flat. Meet 8:30 a.m. to carpool from the Gilbert Water Ranch Library (SE of Guadalupe & Greenfield) in front of

the main entrance. Bring close-focus binoculars, plenty of water, hat, sun protection, snacks. Start: 8:30 a.m., return early afternoon Limit: 10 Difficulty: 2 (easy walking but high temperatures) **Leader: Pierre Deviche** To register, please visit Maricopa Audubon Ticketleap

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Mingus Mountain

Tuesday, June 14

To register, please visit Maricopa Audubon Ticketleap



© Jim Burns

Yellow-breasted Chat. Photo by Jim Burns

Hassayampa River Preserve

Wednesday, June 22

Hassayampa River Preserve is a well-known birding hotspot in northwest Maricopa County with excellent riparian habitat, perhaps best known as the most reliable location for breeding Gray Hawks north of Tucson. Other breeding riparian specialties we hope to encounter are Yellow-billed Cuckoo, Red-shouldered Hawk, Willow Flycatcher, Tropical Kingbird, Bell's Vireo, Yellow-breasted Chat, Summer Tanager, and Blue Grosbeak. Birding will consist of walking flat trails and watching hummingbird feeders in the entrance garden. I moved to Phoenix a year ago and I'm excited to be leading my first field trip with MAS!

Meet: Surprise Towne Center parking lot (just west of US 60)

at 6:15 a.m. End: 11:00 a.m.

Start: 6:15 a.m.— 11:00 a.m.

Limit: 10

Difficulty: 2

Leader: Torin Waters

To register, please visit Maricopa Audubon Ticketleap

Christopher Creek

Thursday, July 7

Leader: Kathe Anderson

To register, please visit Maricopa Audubon Ticketleap



Stilt Sandpiper (left) and Dunlin
Photo by Jeff Ritz

Glendale Recharge Ponds

Thursday, September 8

Arizona can be a challenging place for finding shorebirds, but the Glendale Recharge Ponds, particularly in early fall, is one of the top places in the state for observing migrant shorebird diversity. While the ponds aren't glamorous or pristine, they are well known for attracting rarities. We may also see raptors such as Burrowing Owl, Bald Eagle, Osprey, and Peregrine Falcon. There is no shade. Be prepared for full sun exposure. Bring a scope if you have one.

Start:

Limit: 10

Difficulty: 2

Leader: Torin Waters

To register, please visit Maricopa Audubon Ticketleap



© Jim Burns

Desert Tortoise. Photo by Jim Burns

Stewart Mountain Desert Tortoise Quest

Saturday, September 10

Hardy souls willing to trek in the early morning heat and humidity of September with a slight chance of finding a desert tortoise can join leader Laurie Nessel as we traverse steep, rocky hillsides searching for tortoises that emerge during the monsoon season. We will discuss the behavior, life cycle, and status of this keystone species. Bring snacks, sun protection, hat, sturdy hiking shoes, a high power flashlight or mirror and plenty of water. Carpooling TBD.

Start: 5:30 a.m. - 11ish

Limit: None

Difficulty: 4 (steep, rocky terrain, hot, humid weather).

Leader: Laurie Nessel

To register, please visit Maricopa Audubon Ticketleap

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Find MAS
on Facebook

facebook.com/MaricopaAudubonSociety



OAK FLAT FIELD TRIP REPORT

by Bob McCormick

19 March 2022

We began our trip by wandering through the giant oaks and high desert surrounding the campground, a good place to see our first bird, a **Vermilion Flycatcher**. We had good looks at a **Bridled Titmouse** that posed atop an oak tree. Heading east up the old road produced a pair of **Woodhouse's Scrub-Jays** and good looks at **Verdins** and **Ruby-crowned Kinglets**. Back through the grasslands, we found several species of sparrows including **Vesper Sparrows**. Much of this area had burned recently and has not yet recovered. Some big trees were damaged but most look to be pulling through. We then took Magma Mine Road to FR 315, then down to Hackberry Creek and through the hoodoos towards



Vermilion Flycatcher. Photo by Bob McCormick

Devil's Canyon Trailhead. A surprising amount of water was along the road. We saw a **Spotted Towhee** and fleeting glimpses of our target bird- the **Black-chinned Sparrow**. Amongst the **Turkey Vultures** was a **Zone-tailed Hawk** that caught a thermal and quickly soared to a great height.

Bob McCormick is a long-time volunteer, board member, and past President of Sonoran Audubon Society. Current projects include Yellow-billed Cuckoo surveys at the Agua Fria National Monument.



Bridled Titmouse. Photo by Bob McCormick



(Pictured left to right) Caitlin O'Hara, Diana Furman, Kathleen McCoy, Bob McCormick, Kathleen White, Emily Thomas, Margaret Dyekman, Faulene Main
Not pictured, Jelena Grbic and Ash Ponders
Photo by Ash Ponders

eBird Checklists

Oak Flat Campground - list S105179835 - Mourning Dove, Turkey Vulture, Black Phoebe, Vermilion Flycatcher, Ash-throated Flycatcher, Common Raven, Woodhouse's Scrub-Jay, Bushtit, Ruby-crowned Kinglet, Bewick's Wren, House Finch, Brewer's Sparrow, Black-throated Sparrow, Lark Sparrow, Dark-eyed Junco, White-crowned Sparrow, Vesper's Sparrow, Abert's Towhee, Spotted Towhee, Orange-crowned Warbler, Lucy's Warbler, Northern Cardinal

FR 315 - list S105179920 - Green-winged Teal, Mourning Dove, Red-tailed Hawk, Black Phoebe, Cassin's Kingbird, Plumbeous Vireo, Common Raven, Rock Wren, House Finch, Black-chinned Sparrow, Brewer's Sparrow, White-crowned Sparrow, Song Sparrow, Green-tailed Towhee, Spotted Towhee

Editors note: Oak Flat (Chí'chil Bítlagoteel and Devils (Gaan) Canyon are threatened by the Resolution Copper Mine. The mine would use 250 billion gallons of water¹ to process the ore and for dust control. Toxic tailings could bury a desert wash near Dripping Springs, southwest of Pinal Mountain. A crater two miles wide would obliterate Oak Flat. The Ninth Circuit is considering an appeal of the San Carlos Apaches' lawsuit seeking religious protection for Oak Flat. Rep. Grijalva's Save Oak Flat Act has yet to pass in Congress.

¹The Proposed Resolution Copper Mine and Arizona's Water Future, by Dr. James Wells

CONSERVATION UPDATE

by Mark Horlings



Santa Rita Foothills. Photo by RK & Tina

Victory In Rosemont Mine Case Holds Implications for all Mining on Public Lands

On May 12, 2022, the Ninth Circuit Court of Appeals affirmed a prior ruling of District Judge James Soto concerning the proposed Rosemont Mine near Tucson. Developers of the Rosemont Mine claimed National Forest land on which they found copper and other minerals. Under the General Mining Law of 1872, mining companies which locate minerals on public lands are given those lands for free and not required to pay royalties. The miners can also get free land for mill sites and other mining infrastructure. Long-standing practice has been that mining companies claim even more land on which they dump mine tailings or other wastes, again free of charge.

Judge Soto took a hard look at this practice last year in a lawsuit brought by several environmental and tribal plaintiffs. The Arizona Mining Reform Coalition, of which MAS is a member, was a plaintiff.

The lawsuit focused on almost 2500 acres of the Coronado National Forest where Rosemont planned to dump tailings. Rosemont had not shown these acres contained minerals that would qualify them for the giveaway to the mine. In fact, Judge Soto pointed out that, if this acreage did contain minerals, Rosemont would presumably want to mine it, not dump its wastes there. Nor did a tailings pile qualify as a mill site. Accordingly, Judge Soto held the 1872 Mining Law did not allow Rosemont to claim these acres.

The Ninth Circuit agreed with Judge Soto. The U.S. Fish and Wildlife Service had approved Rosemont's mining operations plan. That approval was rescinded.

The decision does not mean that the Rosemont mine has been stopped. U.S. Fish and Wildlife and Rosemont may ask

the U.S. Supreme Court for help. Even if the current ruling stands, Rosemont may find other land on which to dump its wastes. For example, MAS members know that the Resolution Copper mine planned for Oak Flat hopes to transport billions of tons of waste to State Trust Land near Skunk Creek.

Nevertheless, the decision shifts the balance toward conservation. Mining, particularly copper mining, generates enormous waste and needs land to hold that waste. Once public lands no longer serve as free dumpsites, Rosemont and other mining plans may wither.



Trespass cattle, AFNM. Photo by Steven Prager

Agua Fria National Monument: Cattle Grazing Lawsuit Expanded to Cover New Areas

In January, the Center for Biological Diversity and MAS sued the Bureau of Land Management because cattle were trampling critical habitat for threatened and endangered species in the Agua Fria National Monument. This lawsuit joined several others, mostly against the U.S. Forest Service, alleging that public agencies let ranchers ignore their obligations to maintain fences and protect critical habitat on public lands. These lawsuits take work – visits to the Monument and National Forests, and careful recording and preservation of evidence demonstrating the neglect.

In May, MAS and the Center for Biological Diversity amended their lawsuit to include four additional cattle grazing allotments in the Agua Fria National Monument in which critical habitat has been lost or damaged.

MAS Thrasher Survey

On February 1-3, MAS volunteers joined two field biologists to survey thrasher populations near the Thrasher Spot (Baseline Rd. and Salome Hwy.) west of Phoenix. Teams of three, a field biologist and two volunteers, spent the mornings



Sage Thrasher. Photo by Laurie Nessel

spread out and moving through the desert terrain to see (or often hear) the birds.

MAS members will remember that First Solar Corporation proposes to build a solar farm on 3200 acres of mostly State Trust Land that includes the Thrasher Spot. Four species of Thrashers can be found there, and Bendire's and LeConte's Thrashers nest there.

Maricopa County Planning and Zoning approved the changes in zoning necessary for the solar project to proceed last summer. First Solar emphasized plans to leave "wildlife corridors" along washes and floodplains to accommodate birds and other wildlife. This year's survey suggests that about half the Bendire's, Sage and Crissal Thrashers were found in the areas First Solar plans to leave undeveloped. However, most breeding territories LeConte's Thrashers use lie outside the proposed wildlife corridors.

Construction of the solar farm has not begun, and the February 1-3 survey revealed that thrashers still inhabit the area. All four species were seen, although the mix shifted from a similar survey MAS conducted in 2021 when Bendire's Thrashers outnumbered LeConte's six to one. This February's survey found almost the same number of both. The number of LeConte's seen this year doubled, but Bendire's sightings dropped from 46 to 18. About half of each species appeared to be paired off and nesting. Sage and Crissal Thrashers were also seen.

The 2021 and 2022 surveys will be used to furnish the "Before" data in a Before and After assessment completed after the solar farm is up and running. MAS members who want a copy of the 2022 Survey Report should contact Mark Horlings at markhorlings@yahoo.com.

The State Land Department auctioned lease rights to the State Trust Land earlier in 2022. An affiliate of First Solar submitted the winning (and only) bid. Although the final lease is still being negotiated, MAS learned that First Solar will pay \$20 million to lease the 2600 acres of State Trust Land for thirty years.

The Early Birds

By David Chorlton

Once disappeared, the Inca Doves
have found a way through a gap in time
to where the sunshine warms them
back to life early in the day, when they
watch from the fence
how hummingbirds dart
and spear seconds as they pass
with their rapier beaks.

No sooner have they shaken
stardust from their wings
the Lesser Goldfinches are hungry
and the first of them to greet the sun
arrives from night's secret vault
where all colors melt
into a black the black depression wears.
The goldfinch glides along first light's
shining balustrade, and lands
as a molten drop of hope
among those who suffered the worldly blows
that strike without warning.

The Abert's Towhee pair has risen
from the earth again. Each morning
they appear at the feeder
and never stay long. The universe
is for them too. Seed flows from the sun
and they know all the stories
about a god with wings of fire. But they
believe only that seed is seed and
gods to them are incense burning down
before they're gone forever.



BIRD BANDING AT THE HASSAYAMPA RIVER PRESERVE

by Adam C. Stein

With support from Maricopa Audubon Society, the Arizona Field Ornithologists, and a private donor, the Hassayampa Banding Station is collecting vital information on the breeding birds at the Hassayampa River Preserve. This new Monitoring Avian Productivity and Survivorship (MAPS) station joins two other MAPS banding stations statewide (Leslie Canyon NWR & Cibola NWR). The Preserve represents some of Maricopa County's most pristine examples of two critically endangered ecosystems in the Southwest - the cottonwood-willow riparian forests and mesquite bosques. These habitats along with their perennial surface water is an oasis for many of Arizona's birds. The banding station researchers are gathering statistics on breeding condition, chick survival, and overall abundance of birds - data not available by mere observation; and in the process will



Viktoriia Kalinina, Chrissy Kondrat, Alexis Stark, and Adam C. Stein. Photo by Patty Campbell



Yellow-breasted Chat. Photo by Viktoriia Kalinina



Chrissy banding Vermilion Flycatcher. Photo by Viktoriia Kalinina



Common Yellowthroat. Photo by Viktoriia Kalinina

hopefully inspire a new generation of nature stewards! Data will focus on the four species of special concern found there - **Yellow-billed Cuckoo**, **Lucy's Warbler**, **Southwestern Willow Flycatcher**, and **Bell's Vireo**, and can be compared with data from another banding station there in the early 2000's. Later this summer, the banding station will open for public viewing, giving nature-lovers and curious naturalists an opportunity to share a brief, close encounter with some of our state's most beautiful birds. Follow the progress and species being monitored at [https:// sites.google.com/view/hrp-maps/home](https://sites.google.com/view/hrp-maps/home).

Adam Stein is on the faculty at the Science and Mathematics College of Integrative Sciences and Arts, ASU Polytechnic campus.

IN THE GARDEN

SPADEFOOT: A GRATEFUL TOAD

by Tom Gatz



Couch's spadefoot, up-close and personal. Photo by Jim Rorabaugh

It was early August. A monsoon storm hit the Desert Botanical Garden the night before. As the horticulture volunteers filed past the fountain in Boppart Courtyard early that muggy morning, several heard a plaintive cry, like a lamb bleating, over and over. It echoed across the patio. Further investigation revealed a Couch's spadefoot 'toad' trapped under the metal grate at the base of the long, negative-edge fountain. Somehow, in its fervor to find a mate in that short window of time after a drenching rain, it ended up stuck, literally between a rock and a hard spot. The heavy grate was covered by a layer of river rock. We quickly assessed that this was beyond the pay grade of the average volunteer. Fortunately, Dr. Joe McAuliffe, then head of the Garden's research department, came by and sprung into action. He removed the river rock and the grate and gently lifted out the grateful spadefoot. Spadefoots are not your average toad. In fact, they are not really true toads at all; taxonomists

tell us they have characteristics of both toads and frogs, so we should just refer to them as 'spadefoots'. The spadefoots have an amazing life story. As tadpoles, two other species of spadefoots can distinguish their siblings from strangers by tasting them; they eat the strangers. However, according to a study on the plains spadefoot¹ they become less selective when really hungry. Couch's spadefoots may reemerge for another meal before hunkering back down. Some spadefoots can live for 13 years and only emerge from the mud for a few days after heavy summer rains to call, mate, lay eggs, feed and then use a hard ridge ('spade') on their hind feet to burrow back down while the ground is still moist. They can survive entombed over a year in the sun-baked hard clay soil until the next year's summer storms. The tadpoles can change to adults in just over one week if their temporary pond starts to dry up. Tadpoles of two other species are polymorphic in

behavior; meaning that some become vegetarians, others carnivores. This is likely an evolutionary adaptation that promotes their genetic lineage. Adult spadefoots can consume enough fat-rich swarming termites in one or two meals to last them an entire year. However, the young toads need to stay active day and night during their first summer to enable them to grow. I always look forward to the summer Flashlight Tours at the Garden when our volunteers help us distinguish the calls of the Couch's spadefoots, Woodhouse's toads, and American bullfrogs by the pond on the Plants and People Trail. Let's just hope they stay away from the Boppart Courtyard fountain.

¹David Pfennig et.al., Kin recognition and cannibalism in spadefoot toad tadpoles, *Animal Behaviour*, 1993.

Thanks to Jim Rorabaugh for help on this article.



Joe McAuliffe with rescued Couch's spadefoot at the Desert Botanical Garden. Photo by Joni Ward

Retired biologist Tom Gatz has been a MAS member since 1981

MY EXPERIENCE AT RIO DIABLO BIRDING CAMP

by Jacob Bagley



Sunset over the Chisos Mountains in Big Bend NP

On the morning of May 26, 2021, my Dad drove me to Phoenix Sky Harbor Airport where I boarded a plane to Dallas, Texas. After landing, I made my way to an isolated gate in the airport and two hours later I was on another plane, headed to Del Rio, Texas. Emily Grant, one of the Rio Diablo Birding Camp leaders and a Texas A&M Agrilife Extension employee, was waiting for me at baggage claim. Bryan Calk, the other leader, was in the van along with Ty, the only other camper to arrive early.

Being two days early, we were able to bird many places that we did not visit during camp including San Felipe Creek, Vega Verde Road, San Felipe Riverwalk, Lake Amistad, and Rincón Del Diablo. I got 27 lifers, including birds we would not see again like **Least** and **Forster's Tern**, **White-rumped** and **Pectoral Sandpiper**, **Northern Bobwhite**, and **Ringed**

Kingfisher! We picked up the rest of the campers at Agrilife headquarters in Del Rio on May 29 and drove straight to Big Bend National Park, arriving in the afternoon for some casual birding. The next day we set off before sunrise for Laguna Meadow to see one of the biggest target species of the whole camp - the **Colima Warbler**. We heard **Elf Owl** and my lifer **Western-screech Owl** and **Mexican Whip-poor-will**, and I also got my lifer **Black-chinned Sparrow**, and **Band-tailed Pigeon**. After a six hour, eight mile hike, we had only heard the **Colima Warbler**.

We then drove to Prude Ranch in the Davis Mountains where we met wellknown birder Bill Sain and his wife. After a delicious dinner, Krista, a wildlife biologist with Texas Parks and Wildlife, gave an amazing presentation on bats and their flight evolution. She showed pictures of many common Texas species and even held a rehabilitated pallid bat for us to see! Then we put up a mist net in hopes of catching some bats. Instead, we caught a **Lesser Nighthawk!** Bryan even got to hold it, a dream come true as nightjars are his favorite birds.

The following morning we ate delicious breakfast tacos in town, then drove farther into the Davis Mountains to Beth's house, whose feeders have attracted the only U.S. record of **Amethyst-throated Mountain-gem!** We saw many montane specialties including **Rivoli's Hummingbird**, **Painted Redstart**, and my lifer **Broad-tailed Hummingbird**. We hiked around Beth's property and saw a massive Texas Madrone, among the most unique and beautiful trees I have ever seen. We then visited Lori's house in the lowlands where we had lunch while watching her feeders. I got great looks at my lifer **Rose-breasted Grosbeak**. At Balmorhea Lake I got my lifer **Western** and **Clark's Grebe**, **Blue-winged Teal**, and **Black Tern**.

On our way to Fort Stockton we drove through a rainstorm so powerful that water got into the van. At Fort Stockton, our dinner was cooked over a fire out of a chuck wagon. Then Gabby, a Texas Parks and Wildlife biologist, gave a presentation on animal skulls and the different carnivores, herbivores, and omnivores of the region.

The next morning, we birded the riparian Devils River State Natural Area. I got my lifer **Yellow-billed Cuckoo**, **Rock Wren**, **Varied Bunting**, **Yellow-throated Warbler**, **Black-capped Vireo**, **Tropical Parula**, and perhaps the best bird of the trip, a **Northern x Tropical Parula** hybrid. We also birded Dolan Falls Preserve, where I got my lifer **Yellow-throated Vireo**. We stayed at McKenna Ranch, where we had amazing views of a pair of calling **Western-screech Owls**, perched just ten yards from us!

The following morning, we toured Seminole Canyon with archeologist Vicky. She talked about how the ancient peoples used the local flora and fauna. Vicky interpreted the rock art we saw in two caves. Farther down the canyon we saw many butterfly and dragonfly species, a **Zone-tailed**



Bryan Calk holding a Lesser Nighthawk

Hawk, and **Rock** and **Canyon Wrens**, and had lunch overlooking the Pecos River.

The following morning, our plan to drive to Dobbs Run Ranch was delayed a few hours by a sudden rainstorm. We patiently waited it out, chatting on the covered porch. Once we were at the ranch, we drove ATVs to a good spot for another big camp target - **Golden-cheeked Warbler**. Within ten minutes, we saw a beautiful male perched atop a pine, an incredible lifer for me! I was able to get decent digiscope photos. I also got my lifer **Field Sparrow**. We then birded Annandale Ranch where I got eight lifers, including a **Northern Parula**, my 300th ABA lifer! We watched birds and butterflies for a while, then pulled up to the Frio River where we skipped rocks, searched for dragonflies, and swam before heading to the Frio Bat Cave. There we watched **Cave Swallows** hunting for about an hour before the bats, mostly Mexican freetailed, began flying out of the cave. We watched in awe for over an hour as millions of bats poured out of the cave, dodging hungry **Cooper's** and **Harris' Hawks**. It was breathtaking.



Northern Parula

The next morning we birded Fort Clark Springs, where Bryan grew up and first got into birding. We saw **Green Kingfisher** and **Green Jays**, and met Bryan's mentor, Ms. Bader. Then we birded Transition Ranch, where we saw our

second **Black-capped Vireo**. After swimming in a massive pool at a park near our hotel, we returned to Fort Clark Springs accompanied by two police officers to owl a restricted area where I got incredible views of my lifer **Barred Owl**! We spent the last day of camp birding Del Rio, primarily The Duck Ponds, hoping to see the resident **Ringed Kingfisher**, but it did not show. Lucky for me, I got my lifer early on in the trip!



Ronan Nicholson, Ty Allen, Bryan Calk, and Jacob Bagley photographing bats and Cave Swallows. Photo by Noah Buchanan

lifers, many new friends, and wonderful memories of the birds and landscapes of West Texas. This would not have been possible without the generosity and kindness of the Maricopa Audubon Society, and I thank them for how much they care about young birders like me. Good birding!

Jacob Bagley is a 16 years old Boy Scout and Sophomore at Shadow Mountain High School. He began birding in April of 2020. He will be presenting at the September member meeting (see p.5) and leading a bird walk to Sweetwater Wetlands on Saturday August 13, and to Madera Canyon on Sunday August 14 for the Southeast Arizona Birding Festival.

Editor's note: the Rio Diablo Birding Camp, part of the Texas A&M AgriLife Extension Wildlife & Fisheries Service, offers birding and other nature experiences in southwest Texas for youths ages 14-18. Maricopa Audubon Society is pleased to sponsor educational opportunities such as this. We thank Vicki Hire and Jason Struthers for facilitating Jacob's adventure.



ARID-LAND GRAZING IN THE AMERICAN SOUTHWEST IS ECOLOGICALLY UNSOUND

Photographs and Text by Brian K. Sullivan

Cattle in the arid Southwest are an unnatural disaster. Cattle facilitate replacement of native grasses by invasive plants, and are not surrogates for historic herbivores. Cattle need prodigious amounts of water, and they shelter in riparian zones—jewels of the deserts and home to numerous threatened and endangered wildlife species. Many scientific studies document the negative ecological impacts cattle grazing imposes on the drylands of the western US. Sadly, all this bad press has not resulted in the removal of cattle from publicly owned arid lands. Adding insult to injury, taxpayers subsidize grazing activities. Continued grazing on public lands results from numerous factors. I will focus on one: recent arguments by ranchers and grazing advocates that cattle play a positive role in ecosystem function. They portray extractive use of public lands by ranchers as a service maximizing natural ecological processes. This new “green” labeling is self-serving and at least four factors disqualify arid-land grazing from being “green” or commensurate with historical ecological forces.

First, it presumes arid-lands are dominated by climax plant communities* that rest and rebound quickly and repeatedly between disturbances. This opinion derives from Fredrick Clements—a famous ecologist of the early 20th century—whose views continue to shape public perceptions. Clements argued that plant communities were akin to an organism exhibiting homeostasis (self-healing) in response to herbivores, an outlook that is refuted by decades of ecological fieldwork on grazed arid-lands (Garrison et al. 2016).



Over-grazed, degraded semi-desert grassland near Rye, Arizona. Note abundance of mesquite shrubs and cacti.

Most ecologists now reject most tenets of the Clementsian paradigm regarding community homeostasis. Studies show community dynamics are far less predictable (Stohlgren et al., 1999). When cattle are removed from a site for a few years, often the plant community does not return to its pregrazing state. Those that argue cattle are surrogates for wild grazers must establish that the wild grazers were equally abundant water-guzzlers. This assumption has no support in much of the arid Southwest and in southern Arizona semi-desert grasslands and deserts in particular. Cattle grazing can enhance establishment of non-native plants in Arizona grasslands, especially when coupled with frequent fires where invasive, fire-adapted species have gone to seed.

Grazing cattle in arid landscapes requires a colossal increase in available water sources: ranchers must serve as ecosystem engineers, providing 9 - 18 gallons of water per animal throughout their allotments. Desert adapted wildlife do not need artificial water sources. Tragically, these artificial water sources allow less arid-adapted invasive species such as bullfrogs and crayfish to spread, and introduce a variety of pathogens that harm threatened and endangered frogs, among other native wildlife. Those who promote grazing because ranches are hotspots for threatened and endangered species ignore that in the arid Southwest, ranches were historically sited near water - springs, seeps, rivers, etc. - biodiversity hotspots. Grazing caused the threat of extinction for native flora and fauna. More grazing cannot end that threat. The dramatic impact of cattle on these fragile aquatic systems is well documented (Belsky et al., 1999).

Second, it presumes that cattle simply replaced native ungulates who had grazed these grasslands previously. Crudely put, the lands were grazed before and need to be grazed now.

Third, it presumes that in arid ecosystems, adding water (i.e., cattle tanks) is a natural improvement, benefiting all wildlife.

Lastly, it presumes that in areas now dominated by invasive grasses and other plant species, adding cattle is a natural way to manage an altered ecosystem or even return it to its historical state.

In summary, Frederick Clements' view that arid landscapes can repeatedly recover from cattle grazing must be reconsidered. For cattle to be considered surrogates for prior ungulates, it must be established that similar grazers recently inhabited the region. Water sources cattle require should not trash the ecosystem. Although other factors (urbanization, climate change, recreation, etc.) have contributed to habitat loss and alteration, most biologists agree that cattle have done the greatest damage to the environment in the Southwest, and a new "green" veneer cannot mask this fact.

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Brian Sullivan is Adjunct Curator, Herpetological Collection, and Professor, Center for Biodiversity Outcomes and School of Mathematical and Natural Sciences, Arizona State University



Over-grazed, degraded semi-desert grassland north of Tucson. Note abundance of mesquite shrubs and cacti which, being unpalatable to cattle, thrive and displace the natural flora composition.



Heavily grazed area of Sonoran Desertscrub immediately after a fire. Invasive grasses and shrubs likely facilitated a slower, hotter fire that killed the majority of saguaro cacti in this area north of Phoenix.

Northwest NM Plains and Great Basin Grassland with cattle.

Arizona's Grassland Birds

Photographs by Matt Van Wallene from a 2015 breeding bird survey in Southeast Arizona



Grasshopper Sparrow
 This species prefer tall bunch grasses to conceal their nests.
 As little as a 10% change in wood density can impact where a bird nests.



Cassin's Sparrow
 The male's courtship display involves ascending 20 feet or more and skylarking down while singing.
 See Matt's full photo-essay *Southern Arizona Grassland Bird Survey* at HollandWest.com

KNOW YOUR MESQUITES

by Michael J. Plagens

Imagine you have spotted a small grayish bird high up in a tree, maybe a mesquite, and now you're trying to get a proper look to see the bill, the wing bars and other markings. The bird rarely keeps to one spot more than a few seconds and you're painfully craning your neck. If it turns out the tree is a non-native mesquite species the bird will soon depart for another tree, leaving you guessing. The reason for this is that kinglets, vireos and warblers all depend on bugs, caterpillars and other arthropods that feed on the foliage. Nonnative mesquites like the Chilean Mesquite are nearly devoid of bird food. Our most common native mesquite, the Velvet Mesquite, by contrast is a veritable supermarket for insectivorous birds.

Why should there be such a big difference? These species diverged tens of thousands of years ago and so did the array of phytochemicals within their tissues. In South America the mesquites are replete with bugs that have learned to deal with the specific array of chemicals. These are entirely different bug species than the ones that live on our Sonoran Desert mesquites even though to the untrained eye the bugs and the trees look the same.

Mesquites are part of the bean family and like many plants in that family the leaves are *compound*. This refers to the fact that what appears to be tiny leaves are many, many *leaflets* united to form a bigger leaf. Feathery leaves serve to keep the trees cooler during hot weather.

Now compare the compound leaves of Velvet Mesquite and Chilean Mesquite. The velvet mesquite leaves are shorter and more closely spaced along the rachises (branches of the leaf). When not old, the velvet leaves have a coating of minute hairs which even from a distance makes the whole tree appear a bit ashy or silvery. The mesquite bean pods look quite different. Velvet's are fleshier and thicker, whereas Chilean pods are flat and dry, and not edible. Once you learn to separate them by these finer characteristics, you will soon be able to tell them apart from a distance - just like practice will allow you to immediately distinguish a warbler from a vireo!

If we want our yards and urban parks to be bird friendly there must be food and shelter for them. Mesquites are a



This is a *single leaf* of Velvet Mesquite. There are two pairs of side branches, each with numerous small *leaflets*. The overall leaf size can vary on the same tree, and there may be one to three pairs of side branches, whereas the size and spacing of the leaflets remains mostly the same. Next to the leaf is a spike of many small flowers.
Photo by Michael J. Plagens



Chilean Mesquite leaf is also made up of two pairs of side branches lined with many small *leaflets*. Notice that the leaflets are more numerous on each rachis, narrower, and longer.
Photo by Michael J. Plagens



Notice the sharp thorns borne in pairs. New foliage is covered with short, velvety hairs. From a distance this gives the whole tree a silvery sheen.
Photo by Michael J. Plagens

good choice for the waterwise, so choose to plant the native species. This is the hard part. Box stores and the large commercial nurseries do not stock Velvet Mesquite in part because they are much thornier, and many customers would complain about the excess of beans and old flowers littering the ground. And, they are harder to grow commercially.

So maybe the best approach is to plant seeds! While birding a riparian area, look for ripe pods, yellowish with red speckles. Grab a couple and chew off the sweet pulp and be surprised at how nice they taste. Keep the seeds to plant at your home. The trees grow rapidly and before long become large, spreading trees! The mesquite in my front yard is more than 26' tall planted from seed 10 years ago. There are easily 100 Marine Blue butterflies in

my yard now. Plant several of the seeds in proximity and then remove all but the most vigorous one. You might need to protect the new sprouts as a variety of animals might eat them. Young velvet mesquite will grow more like a shrub with many low branches – try to leave them until the tree attains a good size. Wear good protection against thorns when pruning.

A reliable source of boxed trees would be required for us to lobby local park superintendents and HOAs to plant native instead of exotic mesquites. There are two additional native mesquite species, Honey Mesquite and Screwbean, but these are mostly very uncommon in the Sonoran Desert. If you purchase one of these other varieties, try to verify that the vendor is knowledgeable. Your yard birds certainly will notice the difference.

Read about the microcosm on a velvet mesquite catkin and its complex relationships on Margarethe Brummermann's blog *The Ant and the Caterpillar*.



Marine Blue larva and *Pseudomyrmex apache* ant on catkin.
Photo by Margarethe Brummermann

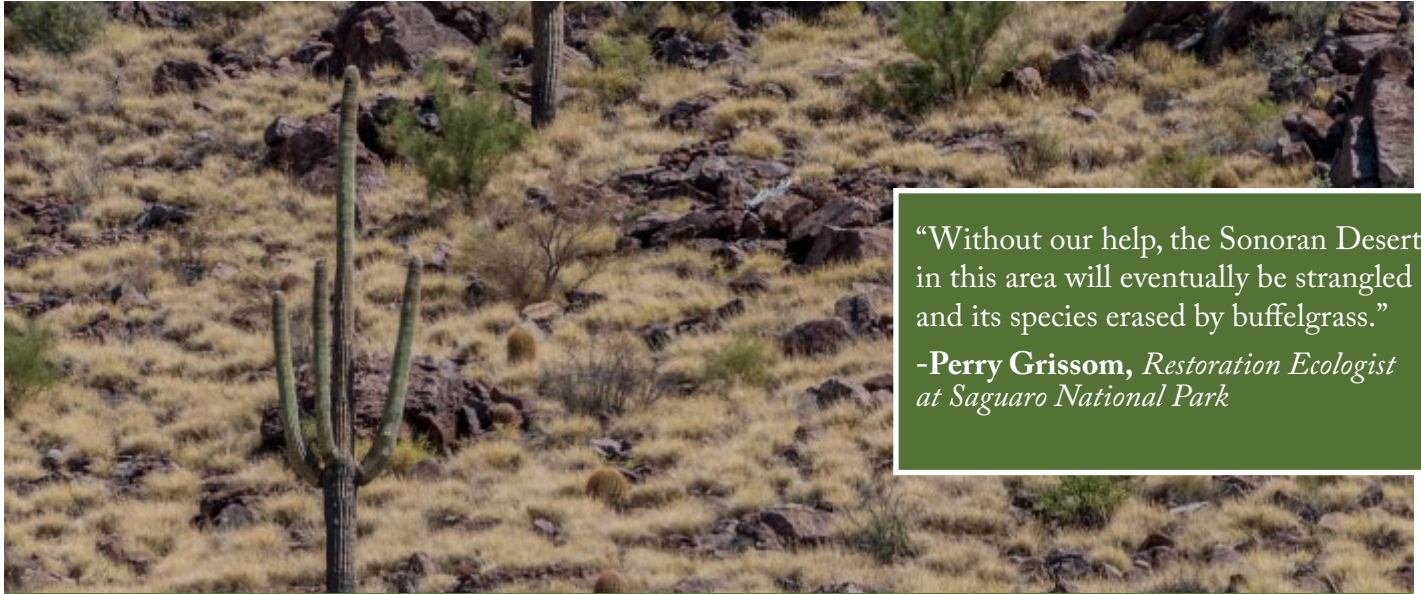


Marine Blue butterfly ovipositing on catclaw acacia.
Photo by Marceline VandeWater

Michael J. Plagens joined Audubon soon after taking ornithology in 1978 under Stephen Russell at UofA. He continues to study all facets of natural history in Arizona, Florida and Kenya. His first interest is entomology (PhD@UofFLA), and the layered relationships between all the species in our ecosystems. Visit his guide to Arizona's flora and fauna at arizonensis.org

THE INVASION OF BUFFELGRASS IN THE SONORAN DESERT

by Vicki Hire



“Without our help, the Sonoran Desert in this area will eventually be strangled and its species erased by buffelgrass.”

-Perry Grissom, *Restoration Ecologist at Saguaro National Park*

Buffelgrass consumes Panther Peak in Saguaro National Park west of Tucson.
Photo by Frank Staub



Digging buffelgrass is arduous work.
Photo by Frank Staub

Burning at temperatures up to 1,600° F, a buffelgrass *Pennisetum ciliare* fire bakes everything in its path. The Arizona Upland subdivision of the Sonoran Desert evolved without fire. Native plants and much wildlife are not adapted to and cannot survive a buffelgrass fire. Native forbs and grasses grow in patches between open spaces. Buffelgrass carpets the desert floor, filling the spaces. It resprouts vigorously after fire, and grows faster than native plants after monsoon storms, creating staggering fuel loads thousands of times greater than typical Sonoran Desert fuel loads. This positive feedback loop or grass-fire cycle increases the frequency, intensity and scope of desert wildfires that exacerbates erosion and flash flooding and transforms the desert on a landscape level into grassland.

Buffelgrass was discovered in Africa by rangeland scientists looking for grasses that could combat erosion and withstand heavy grazing. It was considered a “miracle grass” and was introduced to North and South America and many Pacific islands to enhance livestock production. By the 1930’s it was planted in Tucson to evaluate potential erosion control. In the late 1950’s, the Mexican government cleared desert scrub and planted buffelgrass to increase their cattle yield, resulting in large expanses of desert being invaded by buffelgrass throughout Sonora and Sinaloa.

In the 1980’s, buffelgrass was discovered in Organ Pipe Cactus National Monument. It was initially dismissed as primarily a roadside weed not adapted to the native desert. In 1989, buffelgrass was first observed in Saguaro National Park. By 2010, buffelgrass was estimated to cover 2,000 acres of the park and increasing at a rate of 35% per year.¹

A shrub-like plant, buffelgrass grows to 1½' tall and 3' wide. It is a drought-tolerant perennial and can spread even in dry years. Its nodal branches produce new leaves and flower spikes quickly after light rains, making it an extremely prolific seed producer below 3000' elevation. Its distinctive flower is reddish or purplish brown when seeds are young, turning tan when mature. It can spread quickly along roads and streams, and then penetrate adjoining areas through wind or animal dispersal. Even without fire, buffelgrass kills off native plants by outcompeting them for water, space, nutrients, and sunlight. The first plants to die are smaller, native grasses, wildflowers, and shrubs. Saguaros and palo verdes persist longer, but their seedlings get crowded out by buffelgrass and when mature they can succumb to fire.



Helicopters are used to control large areas of buffelgrass where it is dangerous or impractical for ground crews. Photo by Frank Staub

Perry Grissom, a Restoration Ecologist at Saguaro National Park in Tucson, has been leading the fight against buffelgrass there since 2006, along with one other full-time team member and three seasonal employees. Speaking with Grissom, I learned that buffelgrass is the most damaging invasive plant species in the park. Fountain grass is another problem, taking over major washes. Other noxious invasives include Sahara mustard, tamarisk, Malta star-thistle, and stinknet which recently began infesting the Tucson area.



Spraying herbicide manually
Photo courtesy of the National Park Service

Grissom stated that buffelgrass alone has exceeded the park's capacity to control it along with other invasives.

Their most efficient method of treating large areas is with glyphosate, either by helicopter or with backpack sprayers. Buffelgrass needs to be sprayed when it is actively growing, which is only during monsoon season. The remainder of the year, Grissom's teams must remove it manually by digging it up, which is time consuming and expensive without a cadre of hardy volunteers. The park spent about \$400,000 per year over the past ten years, with most funding coming from the National Park Service and the NPS Hazardous Fuels Reduction project.

"Buffelgrass is transforming some of our most beautiful desert vistas, which harbor some of the densest stands of saguaros in the world, into buffelgrass grasslands, drastically reducing biodiversity and increasing the frequency and intensity of fire in our region. The cost of doing nothing far exceeds the cost of taking action."

-Kim Franklin, Ph.D. Conservation Research Scientist at the Arizona-Sonoran Desert Museum

Kim Franklin, a Conservations Research Scientist at the Arizona-Sonora Desert Museum (The Desert Museum) was eager to speak out about invasive buffelgrass. Franklin told me that the Desert Museum has also long been involved in efforts to map and control invasive species in the Sonoran Desert. They were a founding member of the Southern Arizona Buffelgrass Coordination Center, which, established as a 501c3 in 2008, was dissolved in 2016. The work fell to the Desert Museum which has a four-person Sonoran Desert conservation science team working on invasive plants, native bees and ethnobotany.

The Desert Museum studied a 2017 5-acre wildfire on Sentinel Peak ("A" Mountain) in Tucson. 275 saguaros were tagged. In 2020, they found that about 50% of the saguaros were either dead or dying. The loss of other plants, such as palo verdes, was much greater.

“Saguaros are a keystone species, supporting an exceptional diversity of insects, reptiles, birds, and mammals that depend on them for food and shelter,” says Franklin. Since plants are at the bottom of the food chain, everything above them is affected. The desert tortoise is the only Sonoran Desert animal for which the impact of buffelgrass has been examined. Dense stands of buffelgrass reduce forage diversity, impede movement and threaten immolation of desert tortoises. Studies done on Texas rangeland dominated by buffelgrass found that abundance and diversity of forbs for cover, and arthropods as a food source for brooding birds, was decreased, resulting in reduced populations of Black-throated Sparrows, Northern Mockingbirds, Cassin’s and Lark Sparrows, and Northern Bobwhite (Flanders et al. 2006; Sands et al. 2009)². Any animal that depends on native plants for food or shelter suffers when buffelgrass invades.

The spread of buffelgrass rivals climate change and water scarcity as our region’s most pressing environmental issue.

-Arizona-Sonora Desert Museum

...the Arizona Invasive Species Management Plan was created by Governor’s Executive Order in 2008, but never implemented.

- Kim Franklin



Franklin says there are three things you can do to help in the effort to remove buffelgrass:

1. VOLUNTEER

Help map, remove buffelgrass, or on other tasks at buffelgrass.org or Desert Defenders-CAZCA.

2. CHANGE POLICY

Ask your federal, state, and local representatives to ban invasive species sales; and put more resources to control them.

3. DONATE

Tag your donation for buffelgrass control and education to buffelgrass.org or Desert Defenders.

How to ID buffelgrass:

Perry Grissom says the easiest way to identify buffelgrass is by its seedhead. “It has an unbranched, zig-zag stem that grows above the foliage with numerous bristle-covered seeds. Even after the seeds fall off, the stem (rachis) is characteristic. However, its appearance changes during the year from seedling, to flowering, to dormant.”

Learn all the variations and don’t confuse it with similar-looking native grasses.

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¹https://www.doi.gov/oc/heardings/111/WarOnBuffelgrass_041010

The National Park Service reported that “Our protected areas are no longer protected; over 39 million acres of land managed by the Department are infested with invasive plant species.” (US Department of the Interior, 2010)

²Flanders AA, Kuvlesky WP Jr, Ruthven DC III, Zaiglin RE, Bingham RL, Fulbright TE, Hernández F, Brennan LA (2006) Effects of invasive exotic grasses on South Texas rangeland breeding birds. *Auk* 123:171–182

Special thanks to Frank Staub for helping with this article and sharing his photographs. See more of Frank’s photos at frankstaub.com/folders/Buffelgrass-A-Horrible-Invasive.

Vicki Hire is MAS treasurer but she wears many hats. She is eager for volunteer help. If you can work with Excel, Facebook, mailings and other tasks, with flexible hours please contact her at vicki.hire@gmail.com.

COW BIRDS?

Cows and Birding by Kathe Anderson & Laurie Nessel

Unplanned encounters:

It's never good to run into cows unexpectedly, especially in sensitive habitat.

Photo by Tom Taylor

- The least alarming encounters have involved an occasional cow at Hassayampa River Preserve, now part of the Maricopa County Parks system. The Preserve, just south of Wickenburg, offers a lovely oasis of towering cottonwoods, hosting neo-tropic migrants and nesters throughout the warm months. It's a place you might see Redshouldered Hawks, and perhaps birds from the northernmost breeding population of Tropical Kingbirds. Lately, trespass cattle have become a problem, wandering onto the Preserve through unmaintained railroad fencing. Preserve volunteers warn visitors to be aware and not get startled. If left unchecked, cows will continue to trample vegetation, erode and widen the river channel, deposit dung and devour riparian saplings leading to eutrophication, algal blooms, and degraded habitat for native fishes, amphibians, birds and mammals. In Arizona, the onus is on the property owner to fence cattle out. Fences require regular maintenance to contain cattle that are attracted to shade and water. Hopefully, the trespass cattle will be evicted soon.
- One stop-in-your-tracks incident occurred in The Nature Conservancy's Patagonia-Sonoita Creek Preserve, when we rounded the corner of a densely vegetated area and confronted a longhorned bull. Cows are intimidating but generally gentle, unless protecting young calves. Bulls pose a real threat. We moved to other areas of the Preserve to look for Gray Hawks and the conspicuous Vermilion Flycatchers and kingbirds.
- An unsettling experience happened at Patagonia Lake State Park on the birding trail at the east end of the lake. It can get boggy, requiring some hopping to stay dry. The rancher and the park both lease overlapping State Trust Land so the cattle graze legally. One day, there were dozens of them on the trail, requiring a new level of expertise to pick our way through the churned mud. They were placid enough, eyeing us with benign curiosity, yet unnervingly close. One misstep could mean careening into 1,200 lbs. of cow. With our sights on Green Kingfishers and Elegant Trogons, we weren't easily deterred. We emerged unscathed, if a little muddy.

Planned encounters:

Yes, there are times when we look for cattle – feedlots and dairy farms can be bird magnets, particularly blackbirds.

- Cattle feedlots store a lot of grain and cattle dung, both of which attract birds. The dairy east of Veterans Oasis Park in Chandler was the only reliable spot to see Yellow-headed Blackbirds, Brewer's Blackbirds and Bronzed Cowbirds along with other blackbirds and a plethora of doves during mini-Big Days in the area. It has been replaced by housing.
- There's a great driving loop in Buckeye and beyond (see pp. 67-68 Birds of Phoenix and Maricopa County) that's particularly productive in winter for raptors, Sandhill Cranes, waterfowl, and songbirds. A stop at the Bill Kerr Dairy Farm on the southeast corner of Hazen Road and Wilson Avenue in Palo Verde provides the usual blackbird species. It's on the way, so worth checking for blackbirds and perhaps something more exciting.
- Cruising Santa Cruz Flats, west of Picacho between Phoenix and Tucson, where winter birding targets include Crested Caracaras, you might want to check out Caballero Dairy Farm. It boasts 136 species on eBird – so far. Bird from Curry Road, south of Harmon Road, where you'll detect ponds on the east – first by your nose, then by sight. In this unlikely, and decidedly unappetizing spot, odd shorebirds, including Baird's, Stilt and Pectoral Sandpipers, plus Ruffs (noted in October), are delightful finds.

Livestock pose a formidable problem at birding havens across the state. Public Lands grazing have imperiled 23 bird, 10 herpetofauna, 4 invertebrate, 14 mammal, and 21 fish species native to Arizona.¹

What you can do:

Support groups that hold public agencies responsible to conserve and restore habitat. Push for retiring federal grazing allotments. Reduce or eliminate beef from your diet.

¹Grazing Threatens Arizona's Wildlife, Bob Witzeman, Cactus Wren•dition, Feb. 2001

Kathe Anderson is a bird maven passionate about birds, whether leading walks, teaching classes and workshops, surveying as a citizen scientist, raising funds, or writing articles about birds and birding.

Laurie Nessel is the editor of the Cactus Wren•dition.

NATURE THROUGH THE ARTIST'S EYE: RON BIMROSE



"Nothing but blue skies...", 2021, 24 X 20", painting, drawing and collage

Ron's interest in art and natural history, specifically birds, started early. In the 3rd grade he had a teacher that noticed the students were distracted watching birds outside. Instead of closing the drapes she had them study birds. Ron still has the bird book he wrote and illustrated in that 3rd grade class.

Ron works with many media: drawing, painting, collage, printmaking and photography, often in various combinations. This mix of media also involves a mix of imagery, often contrary. The play of media and imagery allows for a rich realm of connections and associations done with poetic sensibility.

Frequently the conundrum of being both a part and apart from nature underlies the narrative in his work. It gives one pause to contemplate the plight of the birds navigating the built environment.

Ron's work has been shown locally and nationally and is in many public and private collections. Ron is particularly pleased to be in the Baseball Hall of Fame, Cooperstown, NY. Currently Ron teaches printmaking courses at the Mesa Arts Center. Locally Ron is represented by Tilt Gallery. You can see more of his work @ronbimrose on Instagram.



Crossing

2019

36" X 36"

painting, photo collage with
mixed-media and press type
on wallpaper



Cygnus

2020

40" x 36"

painting and drawing on
found etching

Maricopa Audubon Society

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MONTHLY MEETING

Please see meeting information on page 5 or maricopaaudubon.org. For questions or speaker suggestions, contact a board member.

MEMBERSHIP INFORMATION AND HOW TO RECEIVE THE CACTUS WREN • DITION

There are two distinct memberships: National Audubon Society (NAS), and Maricopa Audubon Society (MAS) Friend memberships.

If you join National Audubon Society through our Chapter, MAS will receive your first year's NAS dues to help offset The Cactus Wren•dition costs. Or you may call NAS direct at 1-844-428-3826 and ask to be assigned to MAS Chapter B00. Currently NAS members assigned to MAS receive The Cactus Wren•dition as a courtesy.

Annual membership in MAS as a Friend gives you discounts on merchandise and books at our meetings, and guarantees a print subscription to The Cactus Wren•dition. 100% of your dues goes directly to MAS and its mission.

To become a Friend of MAS sign up at our Book Table at a monthly meeting; join online at maricopaaudubon.org/join; or send your name and address, phone or email along with a check to the MAS treasurer (right). We offer student/youth memberships for \$10/year, and base memberships for \$20/year. All dues above the base fee are considered tax-deductible donation.

SUBMISSIONS

Copy for The Cactus Wren•dition must be received by January 15, April 1, July 1, and October 1. Articles not received by the deadlines may not appear in the upcoming issue. Some issues feature a theme. Feel free to enquire and take the theme into account. Editor: Laurie Nessel laurienessel@gmail.com

OPINIONS

The opinions expressed by authors in this newsletter do not necessarily reflect the policy of NAS or MAS.

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