



# Arizona Wildlife News

[azwildlife.org](http://azwildlife.org)

Summer 2023, Volume 68

## Issue 3: Wildlife Watching *Centennial Year Edition*



Official Publication of the Arizona Wildlife Federation

# Who is AWF?

## Our Mission

Arizona Wildlife Federation is a non-profit organization dedicated to educating, inspiring, and assisting individuals to value, conserve, enhance, manage, and protect wildlife and wildlife habitat.

For a century, we have worked on behalf of Arizonans like you to advocate for science-based wildlife management, access to our state's incredible public lands, and to provide opportunities for people to experience the outdoors. We believe in science-based, Commission guided wildlife management, free of political influence. Since the founding of the organization, one of AWF's primary goals has been the establishment and maintenance of a Commission form of wildlife administration. We continue to work closely with the Arizona Game and Fish Department, Commissioners, and state decision-makers to ensure that science-based best practices are used in the management of wildlife and habitat in Arizona.

## Our Magazine

Arizona Wildlife News (AWN) is the official publication of the Arizona Wildlife Federation, the state affiliate of the National Wildlife Federation, and is published quarterly.

The Arizona Wildlife Federation welcomes stories, art, and photographic contributions! We will consider, but assume no responsibility for unsolicited proposals, manuscripts, art, photographs, and transparencies. Contact the AWF office at (602) 320-6051 for details.

AWF is celebrating our Centennial in 2023. We are the oldest conservation organization in Arizona and were instrumental in forming the state's first commission and department to manage wildlife. This year, we are reflecting on our history in Arizona and looking toward our future with hope. We welcome you — our supporters — to tell us stories of past leaders and changemakers who made the AWF what it is today.

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## Subscribe to the Arizona Wildlife News

Visit <https://azwildlife.org/AZWildlifeNewsMagazine/> to subscribe to the Arizona Wildlife News Magazine. Donors of \$30 or more each year will receive the magazine, which is released four times annually.

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## In This Issue

A Message from the Executive Director	3
Coexisting with Urban Wildlife	4
Sight Fishing for Trout	7
The Arizona Wildlife Federation Podcast	8
Charismatic Minifauna: Bird Gardening and Bug Watching	9
A Guide to Field Herping	11
Regional Roundup	15
Exciting Summer Events!	23
100 Years of AWF: Centennial Spotlight	24
Affiliate Spotlight	26
Support the Arizona Wildlife Federation	27

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Front Cover Photo Courtesy of Betty Dickens, Back Cover Courtesy of Randy Vuletich

# A Message from the Executive Director

Scott Garlid, AWF Executive Director

## Wildlife Watching – Get on the Path

I really like the recent change to our Arizona Wildlife News (AWN) magazine where we have a theme for each issue. Now, each magazine is a fresh reminder of the breadth of our Arizona Wildlife Federation (AWF) work and the important role we play in bringing people and organizations together around wildlife, wild places, and conservation.

The theme of this issue is wildlife watching, but I think the real message of the issue is captured in Richard Louv's quote from his book *Last Child in the Woods*: "We cannot protect something we do not love, we cannot love what we do not know, and we cannot know what we do not see. And touch. And hear." Seeing and touching and hearing are the first steps on a path toward the future of conservation.

"Seeing" wildlife is not the same as "watching" wildlife. You can see mule deer or elk or any number of species while driving Arizona's roads, but "watching" wildlife requires you to be in the moment and to enlist all your senses and your powers of observation. It's through "watching" wildlife in that totally immersive manner that we make a personal connection with it.

It takes time to watch wildlife in that way. As you'll see in this issue, in order to watch wildlife, you might need to crawl through the grass (p. 7); create your own backyard habitat (p. 9); or plan a desert herping excursion (p. 11). Or it might be as simple as going to a favorite outdoor spot, slowing your concept of time, and waiting for the watching to begin.

The future of conservation is far from certain. But if wildlife and wild places are going to have a chance, it's going to depend on those personal connections to wildlife, our ability to introduce more people and engage them in the wonders of the outdoors, and our willingness to work toward practical solutions that embrace both the values of outdoor experiences and the realities of modern times.

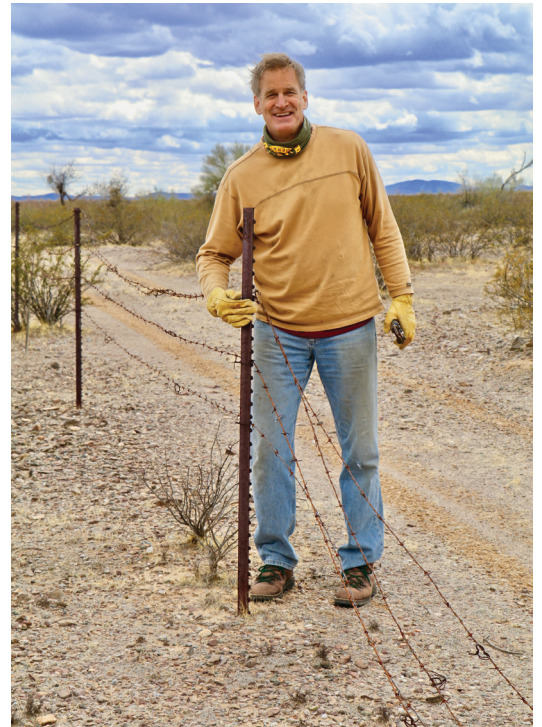
That is exactly where AWF is focused, and in this issue of the Arizona Wildlife News you'll find practical advice on coexisting with urban wildlife, appreciating birds and bugs in your backyard, and an introduction to the unique world of "herping." As always, our Regional Directors cover the bases on important issues across our state including horse and burro management, Mexican Wolf reintroduction, grazing, wildlife corridors, the conservation challenges of renewable energy, and the newly proposed Baaj Nwaavjo I'tah Kukveni Grand Canyon National Monument. Also, don't miss the spotlight on one of our newer affiliate organizations, the Friends of Northern Arizona Forests (FoNAF), and the important work they do on the ground in the northern part of our state.

If you take one thing away from this issue, I hope you take away the inspiration to set aside some time to pursue really "watching" wildlife. Think of an experience you had as a child perhaps and try to recreate that experience for a child in your life. Or just slow down, leave your phone at home, and immerse yourself in watching in your own backyard or local park. Watching, knowing, loving, protecting...now that's a path to conservation we can all embrace.

Yours in conservation,



Scott Garlid



# Coexisting with Urban Wildlife



*Bobcats often visit people's yards in search of resources like shade and water. Photo Credit: Rich Plumb*

***By Trica Oshant Hawkins, AWF Conservation Programs Director***

Have you ever encountered a javelina, coyote, bobcat, bear, or even a mountain lion in your yard or on a neighborhood walk? As a wildlife biologist and nature lover, my first thought is, “lucky you!” However, those wildlife encounters are rarely planned for and are not always a pleasure. In fact, they can be downright scary and dangerous.

As I consider my initial positive reaction to wildlife encounters, I realize it is because I have studied and understand the life histories of wildlife that I find such encounters exciting. I’m pretty sure I know how to behave when dealing with potentially dangerous wildlife and also know how to deter unwanted encounters; that knowledge helps buffer any fear I may have. I say “buffer” because I too have had moments of intense fear in wildlife encounters and I get it, we can never really predict how wildlife will behave. So it’s good to have a healthy respect for wildlife. As well, the more we know about our wild neighbors, the better prepared we are to safely coexist with them, wherever we encounter them. Arming yourself with a few key understandings about the life histories and behavior of our most common wildlife species will go a long way in giving you that curious, “healthy respect” versus downright terror of your wildlife neighbors.

One of the first things you can do is consider where you live and what wildlife species are native to your area. In Arizona’s desert regions, we share the landscape with snakes, Gila monsters, javelinas, coyotes, bobcats, owls, hawks, and yes, even mountain lions. Occasionally, we might even get a bear that has wandered down from the mountains. Up north, you can add elk, deer, bear, and in some locations wolves to your list of common species. Of all those animals, only a few are potentially dangerous, and that is entirely dependent on the situation. Check out our links at the end of this article to learn more about the animals in your area.

Next, consider where in your setting you might encounter wild animals. Remember that pretty much any neighborhood in Arizona was once native, wild habitat and originally home to a plethora of wildlife. Thus, wildlife encounters are a common occurrence in most of Arizona’s urban and rural communities. In these spaces, most encounters occur either during a walk in the neighborhood or in one’s own yard. The good news is that these are places where, for the most part, you actually have, or can create, a degree of control.

If you are planning a walk, there are things you can do in advance to prepare yourself for wildlife encounters. If



*Javelinas will feast on pumpkins given the chance. Photo Credit: Rich Plumb*

you're walking your dog, understand that your pet can be both an attractant and a repellent to wildlife. Small dogs may attract larger predators (coyotes, bobcats, or mountain lions) who see your pet as a meal. Larger dogs might appear as a threat to animals like javelinas, who are known to charge dogs in order to protect their young. The biggest deterrent we have in the face of any of these types of encounters is to instill fear in the wild animal. Wild animals cannot afford to take big risks in their encounters with humans or other animals. If they perceive a situation as risky, they will most likely leave. Therefore, your best bet is to do what you can to make it scary and risky for a wild animal to interact with you. Some things that people keep on hand to deter wildlife while walking include a large walking stick (to wave around or even fend off an animal), pepper spray, a large toy squirt gun (like a "super soaker") filled with diluted ammonia, or a loud air horn. These things work! And one of the best things about scaring (or hazing) wildlife like this, is that you condition them to be afraid of humans and the location where this occurred.

When wildlife visit us in our own yards, it is typically because they are attracted to something we're providing (either on purpose or inadvertently). Many of us purposely welcome wildlife to our living spaces by "gardening for wildlife." We create habitat with native plants and provide water to attract and support animals like native pollinators

and songbirds. However, this often leads to other animals visiting us to enjoy the habitat we've created. A bobcat might visit for a drink or to snack on one of those songbirds we're feeding. Packrats and rock squirrels might sneak in to munch on the birdseed. Javelinas might wander in for a drink or to root around our lovely plants. Herein lies a conundrum for us animal lovers: do we forgo creating wildlife habitat to deter visits from unwanted animals? We say no! What we can do is find ways to coexist with all these native species with whom we share the landscape. After all, who's invading whose space?

There are others of us who do not intentionally invite wildlife to our yards and really don't want to share our living spaces with wild animals. However, something in your space must be attracting wildlife if they are regularly showing up. It could be shade, edible plants, or even your small (also edible) pet. Coyotes are known to jump a six foot high fence to get into people's backyards... and snatch their pets for a meal. Bobcats lounge around pools, where they find shade and an easy drink. Packrats will build their middens (nests) in dark hiding places in our sheds, chew various wires or plants, and leave their droppings everywhere. Javelinas devour our jack-o-lanterns, knock over garbage bins, and dig up our landscape plants in search of grubs. For the most part, these incidents can be dealt with through a variety of tactics that include avoidance, exclusion, discouragement, and deterrence.



*A coyote roller can be installed on top of a fence to prohibit coyotes from climbing in (or pets climbing out) of your yard*

**Avoidance** - Remove what is attracting wildlife in the first place. Consider the places or situations in your yard that might attract wildlife and take appropriate action. It is illegal to feed wildlife except for wild birds or tree squirrels so be sure you're not putting out any other kind of attractive foodstuffs. Also consider places in your yard that an animal might use as shelter and find a way to make it less attractive. Consider other actions like not putting your jack-o-lanterns on low walls, and securing your trash bins. Work with your neighbors to find solutions together.

As an example, in my neighborhood, our resident javelinas all seemed to know that Monday was garbage day. If we put out our bins on Sunday night, we'd all be picking up scattered trash Monday morning. The javelinas would literally stroll down the alley and knock over everyone's bins and enjoy the pickings. We solved this problem by all agreeing to not put out our bins until the morning of garbage pick up. And voila! We have trained our javelinas to move on (there's no easy meal here) and we have not had an incident for several years now.

**Exclusion** - Install or modify existing structures to exclude wildlife. There are structures you can install to keep wildlife from entering your yard. These include "coyote rollers" (if your fence is six feet or less in height), building a higher fence, or installing electric fencing. As well, inspect your home to see if there are holes in your fence or house that allow animals to enter, and close them off!

**Discouragement and/or Deterrence** - These are things you can do or actions you can take to make your home less appealing to wildlife, and/or scare them away so

they don't want to come back. This includes olfactory repellents (such as ammonia soaked rags or urine), motion sensitive sprinklers, or other deterrents that can be located in your yard in anticipation of wildlife. If you are present when unwanted wildlife visit your yard, you can actively scare them away by spraying them with a "super soaker" squirt gun filled with diluted ammonia, or even a simple garden hose, or by blasting a loud air horn. Pepper spray will also work but requires very close proximity. These more active approaches, called hazing, can have a huge impact on changing the behavior of wildlife. They will learn that your yard is a risky, scary place and stay away.

In some cases, primarily with smaller mammals, catch and release (aka "have-a-heart") traps can be used to capture and relocate an animal to another location. It is important to understand that for many animals, this may seem like a humane solution but can simply be a death sentence. There are studies that show that many animals that are relocated die, either from not being able to find resources in the new area, or from being killed or run out by the existing wildlife residents. This is especially true for larger animals like coyotes, who have more complex social structures. According to the Arizona Game and Fish Department, if they get continued calls about a nuisance coyote in a neighborhood, they rarely relocate them, and more often than not, euthanize the animal. So, while there are a few animal "rescue or removal" organizations one can call in an emergency, this should be your last resort in most cases. Of course, we don't encourage anyone to try and capture any dangerous wildlife but rather, consider and implement the suggested discouragement and deterrence tactics first.

Arming yourself with knowledge and finding solutions that work for your particular situation can lead to a safe and peaceful coexistence with all wildlife. One of the benefits of living in our magnificent state of Arizona is all of the amazing and wonderful wildlife we share the landscape with. We think it's best that each of us be proactive and personally do everything we can to support, protect, and peacefully coexist with wildlife... even those that seem to be a nuisance. We encourage you to check out the resources we've provided in the accompanying links for more information. Good luck and happy wildlife watching!



# Sight Fishing for Trout

*By Patrick Bauman, GOAZ Member and Owner of Colter Backcountry*

Whether it's presenting a dry fly to a picky Apache in an alpine meadow, or twitching a leech in front of a cruising carp, there is something flat-out thrilling about fishing for a fish you can see. In many cases, getting yourself into a position where you can successfully attempt to sight fish is half the battle. I've found myself with leaves in my nose, hip deep in mud, and dangerously close to poking an eye out trying to find a casting lane that wouldn't spook the fish.

I've held my breath behind a hilariously small tuft of grass on the edge of a meadow stream, hoping it would provide enough cover for a clean cast. I've furiously ripped line off my reel, preparing to cast to a moving carp before it spooked.

In any of these situations, there is a serious amount of groundwork required to even get a cast-off. When you watch the fish finally take the fly and you set the hook, a moment of pure elation occurs that I'd wager is unmatched in the rest of fishing.

As rewarding as sight fishing can be, it can also drive you dangerously close to hanging up the rod for good. There are few things more frustrating than watching fish repeatedly refuse a fly.

I vividly remember an afternoon on a Mogollon Rim creek where I spent nearly an hour trying to pull a large fish out of the head of a pool in the dead of winter. Hiding behind a tree, I settled in for a protracted battle. I threw all the usual suspects, everything



## **NYMPH/NYMPHING**

The immature forms of some aquatic insects. In fishing, nymphing is the method of fishing using artificial flies that resemble nymphs.



## **BEAD-HEADED NYMPHS**

One of the categories of nymphs used in fly fishing. The bead adds weight to the nymph so you can fish deeper in the water column.



## **TIPPET**

The lightweight clear section attached to the fly and to the end of the leader (see term on the right).



## **LEECH PATTERN**

Leech fly patterns are great imitations of real-life leeches that are used in fishing. Fur or feathers are typically used in their creation.



## **CHIRONOMIDS**

Otherwise known as midges, these are a year-round staple in the diet of trout, and a very important source of food during winter.



## **LEADER**

The leader in fly fishing is a line attached at the end of your fly line that presents your fly to the fish. It helps in turning over your fly when casting.

from generalist bead-headed nymphs to very specific chironomids that I thought would be present in the water. On occasion, I'd get a serious look. More often my fly was ignored entirely. This fun game continued until my legs were completely numb.

Finally, I tied on a weightless olive leech. The cast wasn't perfect and the fly was a considerable distance outside of the fish's feeding lane. As I was about to re-cast for a better angle, the fish swam aggressively and hammered the leech. After the release, I checked my watch. It had been almost an hour. Had I not landed that fish, it would have been a sad drive home.

Sight fishing presents a fantastic learning opportunity. Like a fish-obsessed scientist, you can tweak one



West Clear Creek, Coconino National Forest

variable at a time and record the resulting outcome in real-time. Change the fly. Change the tippet size. Change the depth. Change the color. The million and one variables that make fishing fascinating can all be tested. On the handful of occasions when I've been lucky enough to sight fish for a prolonged period of time, I've learned more about fly fishing than I otherwise would over a period of months.

A successful brush with a sight fishing encounter can also instill some serious confidence in your fishing game. To this day, leech patterns are a go-to for me when the fish

are being picky, especially in the slower afternoon hours. When I tie one on, I simply expect to catch fish. As the summer heats up, and the sun illuminates the depths, here's to hoping you have some sight fishing encounters of your own.

Ditch the euro nymphing rod and break out the long leaders. Wear those polarized lenses like your life depends on it. Prepare for some brutal refusals, some challenging casts, and some moments of heart-stopping adrenaline and joy.

## The Arizona Wildlife Federation Podcast



### Arizona Wildlife Federation Podcast

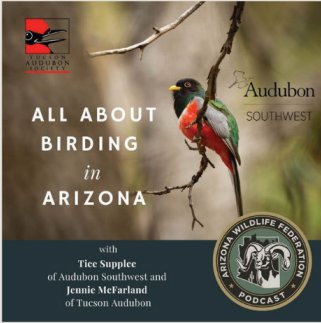
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The Arizona Wildlife Federation Podcast, with its host Michael Cravens, brings you the stories of wildlife, wild places, and those people who value them the most. From hunting and angling to birding and gardening, we'll keep you informed of issues, events, and activities from around the beautiful and diverse state of Arizona. Since 1923, Arizona Wildlife Federation has united Arizonans and decision makers around science-based solutions to conserve our state's wildlife, wildlife habitat, and public lands for generations to come.




## Did you listen to this episode?

### All About Birding in Arizona



This episode is All About Birding in AZ. No matter how you spend your time enjoying Arizona's great outdoors, including a field guide and a pair of binoculars in your pack for pursuing our diverse array of bird species is sure to add to your fun. Whether you're already a seasoned pro or you're just getting into birding, you're bound to learn something new from our expert guests Tice Supplee and Jennie MacFarland about the captivating world of bird watching.





# Charismatic Minifauna: Bird Gardening and Bug Watching



*Berries in your yard support wildlife species like this female phainopepla. Photo Credit: Amanda Moors*

**By Keith Ashley, AWF Development Director**

When you hear the term “watchable wildlife” you might think first of the “charismatic megafauna” that require most of us to travel some distance from our homes: bison, bear, bighorn sheep – or even the more compact wildlife models you can frequently train your binoculars on here in Arizona: fox, bobcat, prairie dogs. But let’s not forget the wide world of smaller critters you can spend time with every day in your very own yard or neighborhood: lizards, butterflies, beetles, birds, and bats!

Particularly intriguing about these charismatic minifauna, is that the variety of species you can encounter is astronomical, at least when compared with the big, furry animals. In addition, if you have a yard, or even just some patio or balcony space, you can influence the creatures you encounter directly—and surprisingly quickly—by providing some of the plant species they cannot resist.

Beyond the simple pleasure and entertainment we can derive from tuning into the smaller creatures that surround our homes, increasing our awareness of them and actively supporting their biological needs has become a critical element of wildlife conservation. Enormous declines in bird and pollinator populations threaten to disrupt entire ecosystems and the ecological services we depend on, from natural pest control to pollination of our food crops. It is estimated that 83% of the land in our 48 contiguous states is privately owned.<sup>1</sup> This is all land where our

choices for supporting wildlife can have a positive impact. The more we learn to know and love these littler life-forms, the more likely we are to protect and support them.

## **Bird Gardening**

While birds don’t grow from seeds, they respond wholeheartedly to the plants that do. One of the best examples of a bird magnet you can easily grow in much of Arizona is bee brush or oreganillo (*Aloysia wrightii*). This shrubby native plant blooms intermittently in spring, summer, and fall with tiny white blossoms that emit a strong, sweet scent. Lesser goldfinches love the thousands of tiny seeds produced by bee brush and will descend upon the plant in small groups, often dangling playfully from the shrub’s spindly branches. The lesser goldfinch has a bright yellow breast and either a green or a black back (depending upon sex and subspecies). Their bubbling song and peeping calls enliven yards and neighborhoods. Bee brush is also wildly popular with native bees, butterflies, wasps, and the lizards that eat these insects. I’ve even seen a roadrunner pulling off the dried-up, lower branches and carrying them off, perhaps to soften her nest.

A little bit of strategy in your planting can provide for birds in many ways. You can plant intentionally to provide seeds (for finches, sparrows, towhees), berries (for cardinals, pyrrhuloxia, tanagers, verdins), grassy nesting materials (for lots of species), and cover (for quail and

ground foragers like thrashers). Plant it and they will come, but also .... leave it alone, and they like that too! A great draw for many bird species are the tiny white or red berries of desert mistletoe (*Phoradendron californicum*). While people are prone to removing mistletoe from their trees because of its parasitic nature, leaving some clumps of it in place attracts verdins, phainopeplas, and a variety of other birds. The male phainopepla is a shiny, black, crested bird with a bright red eye. Mistletoe berries are one of the staple foods in its diet. Also known as silky flycatchers, phainopeplas are fun to watch as they make their dramatic forays up into the air catching insects while flashing their bright white wing patches.

I was surprised when a neighbor of mine cut down a beautiful condalia (*Condalia warnockii*) that was growing in his otherwise not particularly vegetated front yard. An enormous condalia in my backyard draws mockingbirds, verdins, and phainopeplas to its crops of black berries, and it's also an enormous draw for native bees and wasps. As the monsoon approaches, they circle round and round in great numbers bringing a sense of excitement and energy. Wolfberry (*Lycium* spp), greythorn (*Ziziphus obtusifolia*), and hackberry (*Celtis* spp) are all shrubby/small tree species that attract insects to their flowers and birds to their fruit. These native species are extremely drought tolerant, relatively inexpensive at native plant nurseries, and easy to grow.

### Bug Watching

Bug watching hasn't yet spawned the massive outdoor recreation industry that birdwatching has become, but there are a lot of amazing insects out there to be seen—more than a million species making up 85% of all life forms.<sup>2</sup> As you develop a greater awareness for insects, a previously unseen world of color and form emerges all around you—and especially in your yard if you are making careful choices with your plantings.

Given their showy flight and often bright colors, butterflies and moths are the insects we might consider most watchable. We can plant both nectar-producing flowers and a variety of plants that serve as larval food sources for the caterpillars that become moths and butterflies. The dark orange queen butterfly (a close relative of the monarch) is easy to draw into your yard with plantings of blue mist flower (*Eupatorium greggii*) and butterfly mist flower (*Ageratum corymbosum*). The large black and yellow giant swallowtail is drawn to citrus trees. You can plant both native and non-native pipevines (*Aristolochia* spp) to attract pipevine swallowtails. The brilliant orange fritillary can't resist passionflower (*Passiflora* spp), another plant for which there are both native and non-native species that thrive in Arizona.



*Milkweed planted specifically for wildlife can draw monarch butterflies to your yard. This male monarch is emerging from a chrysalis in Tucson.*  
Photo Credit: Trica Oshant Hawkins

Gardening for wildlife lays heavy emphasis on using native plants because they and local wildlife species have evolved together to support each other in myriad complex and critical ways. But some regionally local and even exotic plant species also provide food, nesting sites, and other benefits. Our yards and neighborhoods are already resource-rich in ways that support wildlife. Think: water, shade, food, and vegetation in general. Becoming more thoughtful and strategic about our plantings takes this to a much more sophisticated and impactful level.

The National Wildlife Federation began its habitat certification program 50 years ago, a conservation movement that has grown tremendously in importance. You can find resources regarding this program and gardening for wildlife tips on our website at: [azwildlife.org/garden-for-wildlife](http://azwildlife.org/garden-for-wildlife).

### References:

1. Tallamy, Douglas W. 2019. *Nature's Best Hope: A New Approach to Conservation that Starts in Your Yard*. Portland, OR: Timber Press, Inc.
2. Phillips, Steven J. & Patricia Wentworth Comus (editors), *A Natural History of the Sonoran Desert*, Arizona-Sonora Desert Museum Press, 2000. "A Vertebrate Looks at Arthropods," Barbara Terkanian (p. 287)

# A Guide to Field Herping



Western milk snake (*Lampropeltus triangulum*)

**By Michael Cravens, AWF Advocacy and Conservation Director**

You're probably asking "What's field herping?" In short, field herping is the act of searching for and observing amphibians and reptiles in their natural habitat. It might sound strange, but hang with me and I'll tell you all about it. First, we should get on the same page with some terminology. Herp is a collective term for amphibians and reptiles. Herpetology is the scientific study of herps, a herpetologist is a scientist who studies herps, and, finally, much like a birder or bird watcher who seeks out and watches birds, a herper or field herper seeks out and observes amphibians and reptiles.



Arizona tree frog (*Hyla wrightorum*)

You might have never heard of field herping and you might even cringe at the thought of purposefully seeking out what many would categorize as creepy crawlies that are best avoided. The truth is, field herping has grown into a pastime that takes many naturalists around the globe in pursuit of an amazingly diverse assemblage of fascinating and beautiful — that's right, I said beautiful — animals.

With all this said, you don't need to be a herpetologist and you don't need to drain your savings traveling the world to see these amazing animals. Here in Arizona, we are lucky to live in a herping destination state that boasts one of the highest diversity of reptiles and amphibians in our country! From rattlesnakes to Gila monsters and from desert tortoises to green toads, field herpers come from around the country and abroad to view our magnificent diversity of bucket list herps.

Field herping can be as simple as going for a walk along the desert wash behind your home and identifying the lizards that you see, or going for a drive on a summer evening to see if you can spot a rattlesnake crossing a quiet desert road. Follow along as I break down everything that you need to know to get started exploring the fascinating world of herps!

## **Ethics and Regulations**

Just like in hunting and angling, there are rules and regulations in place to protect this wildlife resource. While regulations are beyond the scope of this article, I highly recommend obtaining and thoroughly reading a copy of the Arizona Reptile and Amphibian Regulations pamphlet published biannually by the Arizona Game and Fish Department.

While a solid understanding of, and adherence to, the regulations is a must, the ethics around field herping go much further. One of the most exciting aspects of herping, and what sets it apart from other endeavors like birding, is the tactile aspect. Picture a young child knee-deep in a pond with one hand holding a flashlight and the other

ARIZONA  
**Reptile and Amphibian Regulations**  
2021, 2022, 2023,  
2024 & 2025





*Sonoran desert tortoise (Gopherus morafkai)*

holding a frog. These experiences are extremely valuable and can create lifelong conservationists. Does this mean that every lizard needs to be caught and handled? Of course not.

To capture, handle, and stress every herp encountered would be unethical. There are threatened and protected species and potentially dangerous species (like rattlesnakes or Gila monsters) that should never be handled under any circumstance. Still, in some cases, to temporarily capture a species to obtain a proper identification, a photograph, or to simply prolong an exciting first encounter with a new herp can be justified and done in a way that is no more than a brief inconvenience to the animal before letting it go about its business.

Ethics go beyond the animal and are also extended to its habitat. There are situations where overly excited (or simply unethical) herpers have pried apart rock outcroppings to get to an animal. Behavior like this not only destroys the habitat of the animal being pursued, but ruins it for all animals that would utilize that habitat in the future. Habitat destruction in the pursuit of an animal is never acceptable under any circumstance. There are more subtle examples of this as well. In some places, many

herps can be found by looking under rocks, logs, or other ground cover. Commonly referred to as “flipping,” this method doesn’t really refer to flipped objects but rather lifting, overturning, or just peering beneath cover objects, like rocks. When using this method, it is mandatory to always place the cover object back in its original position exactly as found. This ensures that the moisture and microecosystem beneath are preserved not only for herps but the vast array of invertebrates and microorganisms that are also utilizing the habitat.

### **Safety**

No discussion of field herping should be had without mentioning safety. With that said many readers' thoughts will automatically go to rattlesnakes and other venomous reptiles. This is justified, but only so much so. Rattlesnakes and other venomous animals are really only dangerous if touched, stepped upon, or made to feel threatened. Even then, a threatened rattlesnake behaving defensively is still no threat if kept at a safe distance. The real dangers to field herpers are the same ones that hikers, bikers, and all other outdoor recreationists face in Arizona. Heat exhaustion, navigation issues, and sprained ankles in rough terrain are only some of the obstacles you’ll encounter in Arizona’s backcountry but, with a bit of planning and preparedness,



*Desert night lizard (Xantusia vigilis)*

many problems can be avoided. Always have a plan, tell others where you're going and leave an expected return time, always carry sun protection and more water than you think you'll need, and, in the rare event of a venomous snake bite, take your cell phone and car keys as these are the only snake bite kit that has the potential to save your life.

### Equipment

One of the great things about field herping is that it's accessible to everyone. No special equipment is needed to view and enjoy herps. Still, when added to your standard kit of staples (like a water bottle, sun protection, a map, and a compass), there are a few items that can help you be successful at herping and will add to your enjoyment of these animals in the field.

1. **Field Guide:** I recommend *A Field Guide to Amphibians and Reptiles in Arizona* published by the Arizona Game and Fish Department. This guide will not only provide hours of enjoyment learning about Arizona's herps, their habits and habitats, and the ranges that you can expect to find them in, but it will also help in identifying the specimens you find.

2. **Binoculars:** While not mandatory, binoculars will aid in getting close looks at wary lizards who would otherwise not allow a herper to get close enough for proper identification.
3. **Field Notebook:** A staple in all naturalist's packs should be a field notebook. This will allow you to keep track of the species that you've seen and keep notes on behavior, weather, habitat, and other aspects of the specimen's natural history. Keeping notes like these will expedite your learning curve and add great enjoyment to your time in the field.
4. **Camera:** Most serious herpers also become amateur photographers and learn to take exceptional photos of the amphibians and reptiles that they love to pursue.
5. **A snake or field hook:** A field hook will aid in moving around brush, lifting objects to look under, safely moving a rattlesnake off of a road, and double as a hiking staff in a pinch.

### Methods

From a simple hike around a nature preserve with binoculars and a field guide to explicitly targeting hard-



*Mexican rosy boa (Lichanura trivirgata)*

to-find species by carefully timing weather patterns and reproductive habitats, studying specific habitat preferences, driving long distances, and braving remote wildernesses late at night to put yourself in the exact place and the exact time to give you the best possible chance to observe a bucket list species, there are as many methods for finding and viewing herps as there are habitats in Arizona to explore.

#### **Here are a few of the most common:**

The simplest and often most rewarding method of field herping is simply hiking through the habitat with a keen eye tuned for herps. Unfortunately, it's not always that simple. A desert hike in the mid-day heat of summer will get you no observations other than maybe a side-blotched lizard or two. On the other hand, that same hike on a summer evening with an approaching monsoon storm can produce several different species of herps. A highlight of using this method is that if you're careful, quiet, and move slowly, you will have the opportunity to observe herps behaving naturally in their natural habitat. For example, countless rattlesnakes are unknowingly passed by hikers every year in Arizona on popular trails, while they simply lie motionless and rely on their excellent camouflage to remain undetected. An understanding of the best times to find rattlesnakes on the surface, along with a trained and keen eye, will reward the studied field herper with not only a look at these amazing animals but also a glimpse into their lives.

Another method is flipping. Again, this doesn't actually refer to flipping the cover but rather carefully lifting or turning the cover to look for herps beneath before carefully replacing the object as found. This method is much more commonly utilized in eastern states and is of limited value to the southwestern field herper. Due to dry conditions,

the natural histories (lives) of herps in the southwest have evolved to take advantage of damper conditions deeper within the earth than those found under rocks and other cover objects. Still, this method can be applied successfully in specific habitats under specific conditions and therefore should be a part of a complete field herpers tactics.

Finally, one of the most productive tactics for finding herps in Arizona is referred to as road cruising, sometimes called road riding. This method is as simple as it sounds. A herper will simply drive remote desert roads on warm summer nights peering into the headlights for snakes and other wildlife either crossing the road or taking advantage of radiant heat from the pavement. While this might not sound like the most fun or adventuresome way to look for herps, a long night of driving remote desert roads can be surprisingly satisfying especially when accompanied by a passenger who shares the same passion for herps as you do.

In Arizona, we are fortunate to share our state with a largely unnoticed but incredible diversity of amphibians and reptiles found nowhere else on Earth. Don't let these remarkable animals and the beautiful places they live go overlooked and unappreciated by you. Take what you've learned here and get out there and discover, experience, and learn!

Richard Louv, Author of *Last Child in the Woods*, said,

***“We cannot protect something we do not love, we cannot love what we do not know, and we cannot know what we do not see. And touch. And hear.”***

# REGIONAL ROUNDUP

Arizona Wildlife Federation divides the state into regions in the same manner as the Arizona Game and Fish Department. This map depicts each of those regions and the members of our Board of Directors who serve as directors for each area. Our Regional Directors are busy!



**Bob Vahle**  
Region 1 Director



**Travis Woolley**  
Region 2 Director



**Loyd Barnett**  
Region 3 Director



**Pat Headington**  
Region 4 Director



**Duane Aubuchon**  
Region 5 Director



**Jon Hanna**  
Region 6 Director

## Region 1 Director's Report

*By Bob Vahle, Regional Director*



*Photo illustrating overgrazing of herbaceous ground cover by feral horses on the Tonto NF, Salt River Recreation Area.*

### **Heber Wild Horse Territory (HWHT) - Management Plan**

The AWF continues to await the completion of a HWHT Management Plan which was first required to be developed

in 1974. The AWF has been actively involved, particularly since 2017, to help the ASNF develop a management plan for the 19,000-acre HWHT near Heber - Overgaard, AZ. The HWHT Management Plan was scheduled to be

# Region 1 Director's Report, Cont'd.



*Feral horses overgrazing and trampling the streambanks of the stream/riparian area of Boggy Creek on the Apache-Sitgreaves NF, Alpine RD*



*Photo of the overgrazed stream/riparian zone of Boggy Creek and trampled streambanks by feral horses on the Apache-Sitgreaves NF, Alpine RD*

completed by the ASNF by March 2022. To date, no draft decision notice and Finding of No Significant Impacts (FONSI) has been prepared and circulated for public review. Consequently, the HWHT Management Plan has not been completed, approved, or implemented. No projected timeline for completion of these actions was available on the ASNF website.

## **Population Removal of Feral Horses Critically Needed on the Alpine RD and Springerville RD – Black River Watershed**

The AWF will continue to strongly support the ASNF in its proactive actions to contract for the humane capture and removal of feral horses on the Alpine and Springerville Ranger Districts. These horses are considered to be “trespass/unauthorized livestock” and are not protected as “wild horses” under the provisions of the 1971 Free Roaming Wild Horse and Burro Act.

It is estimated that there are now over 500 horses in the Black River Watershed within the ASNF, and they are causing significant damage to vegetation, soils, water, and habitats for native wildlife species, particularly threatened and endangered species protected under the Endangered Species Act of 1973. The ASNF continues to receive opposition by some publics that do not want to accept the fact that these feral horse populations are causing significant damage to the area’s natural resources and must be controlled and removed from federal public lands. Detailed information on the ASNF actions to remove feral horses (unauthorized livestock) can be found on the ASNF website at (<https://www.fs.usda.gov/detail/asnf/landmanagement>).

## **ASNF - Public Motorized Travel Management Plan** The Revised Draft Environmental Impact Statement

(DEIS) for the ASNF Public Motorized Travel Management Plan (PMTMP) was issued for public comment in August 2019. The AWF reviewed and provided extensive comments on the DEIS and proposed management plan. As previously reported, completion and implementation of the ASNF-PMTMP is critically needed since it is the only National Forest in the USFS system that does not have a completed and implemented motorized travel management plan.

This is particularly important considering the significant increase each year of the sales and the use of Off Highway Vehicles (OHVs) on the ASNF. The ASNF website now reports that the final Decision and Implementation of the ASNF-PMTMP is expected to be completed in July 2023.

## **Mexican Wolf Program**

The Interagency Field Team (IFT) for the Mexican Wolf recovery program reported the successful fostering of 16 genetically valuable Mexican wolf pups in the spring of 2023. The pups came from four Mexican wolf captive facilities across the country and were placed in six wild Mexican wolf dens in eastern Arizona and western New Mexico. This is the eighth year of fostering captive wolf pups into the wild populations of Mexican wolves. This brings the total number of fostered captive-born pups to 99. To date, the IFT has documented 13 litters produced by fostered wolves and has also documented that at least five offspring of fostered wolves have become breeding individuals in their own packs.

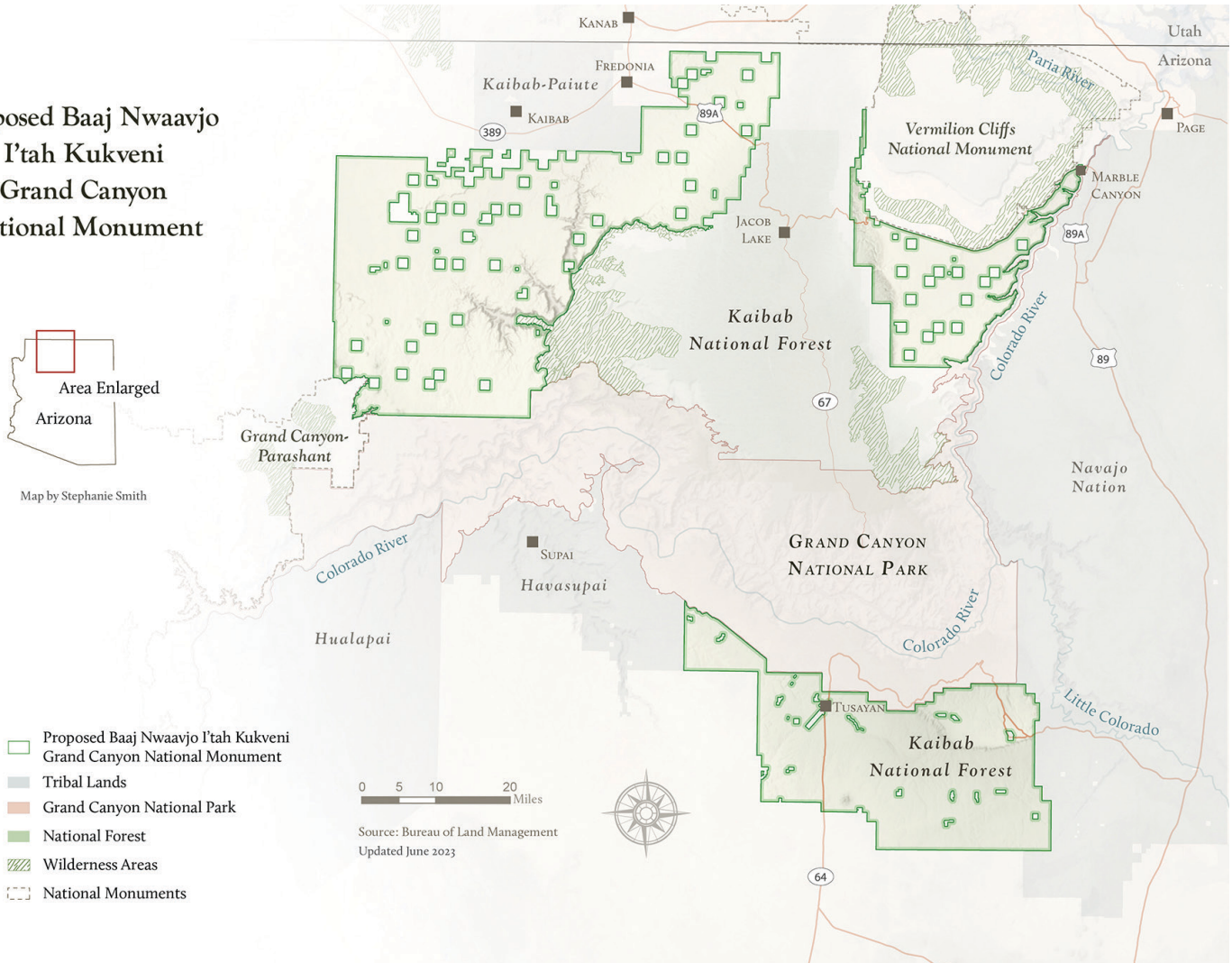
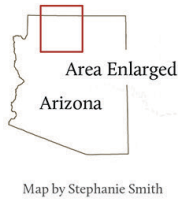
For more information on the Mexican Wolf Recovery Program, visit the Mexican wolf website ([www.fws.gov/mexican-wolf](http://www.fws.gov/mexican-wolf)) or visit the Arizona Game and Fish Department website on wolves ([www.azgfd.gov/wolf](http://www.azgfd.gov/wolf)).



# Region 2 Director's Report

By Travis Woolley, Regional Director

## Proposed Baaj Nwaavjo I'tah Kukveni Grand Canyon National Monument



Map Credit: Grand Canyon Trust

### Baaj Nwaavjo I'tah Kukveni – Proposed National Monument to protect the Grand Canyon

The Colorado River and the Grand Canyon are a deeply engraved part of Arizona and the many people who live here and those who visit to experience the vast landscape. Although Grand Canyon National Park provides much protection for this area, uranium mining activities near the Grand Canyon could still have extremely detrimental effects to the water source and the cultural resources of many local indigenous tribes who have used this area since time immemorial. Recently, 11 tribes called on the Biden Administration to designate Baaj Nwaavjo I'tah Kukveni National Monument (See map below) that would protect the springs and streams from further contamination. The name of the designation directly translates as “Baaj Nwaavjo: where tribes roam” (Havasupai) and “I'tah Kukveni: our footprints” (Hopi).

This proposed monument is supported by Representative Raul M. Grijalva and Senator Krysten Sinema, as well as the Arizona Wildlife Federation (AWF) and many environmental and recreational groups. AWF has long supported and advocated for this designation that would allocate 1.1 million acres providing continued recreational opportunities while honoring tribal rights, protecting the cultural resources it represents, while still allowing for responsible resource management.

The designation of National Monuments, through the use of the Antiquities Act, has been used by many previous Presidents and is broadly supported by the public. This designation will continue the rich history in America of furthering conservation of our public lands and provide protection for habitat of fish and wildlife populations and the river that these and many communities of people

## Region 2 Director's Report, Cont'd.

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*Lone Rock reflected in muddy waters at Wahweap Bay in Lake Powell. Photo Credit: Cody Cobb for The New York Times*

depend on. Most importantly, this designation will move us towards equity in stewardship of our lands and provide a larger voice and role to the many tribes who have long been excluded from the decisions and designations of these lands and further recognizing the strong cultural connections they have had to these lands. If you have the opportunity or will, please support this designation by writing and making your voice heard to the many political leaders in our state and beyond!

### **The Colorado River and the fate of Lake Powell**

Although not in Arizona, lake Powell and its fate will have rippling impacts down the Colorado River and throughout Arizona and other western states. The impressive winter snowfall that most of the western mountains saw may improve current lake conditions above dire, but it doesn't indicate that tough decisions and maybe even tougher consequences don't exist for the lake and potentially the river over the next several years. Since 1966 Lake Powell has been a crucial part of the Colorado basin system, and

the river itself supports over 40 million people across the west as well as 5.5 million acres of farmland. The reservoir, the largest in the western US, is currently around a quarter full and continues to creep ever closer to "dead pool", the term for the level of water so low that the dam can no longer regulate flow or produce power.

Earlier this year, when 7 western states couldn't agree to cut water use on the Colorado river, the federal government threatened forced mandates for water reduction. This resulted in the three lower basin states (California, Arizona, and Colorado) to come to a temporary solution of cutting a collective 3 million acre-feet over three years in exchange for \$1.2 billion from the federal government. This will occur until 2026 where more decisions and likely cuts will need to be made or other solutions such as modifications to the dam to operate under drought conditions which would be massively expensive.

## Region 3 Director's Report

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*By Loyd Barnett, Regional Director*

### **Burros**

As previously reported, the Bureau of Land Management (BLM) has been removing excess burros from the Black Mountain Herd Management Area in order to reach the appropriate management level of 478. Between September 2020 and June 2022, they removed 2100 animals. In

the following months they removed an additional 536, concluding in April. They also gathered and released 35 jennies after treating them with PZP fertility control as part of a multiyear study. Obviously, the number of burros had increased to at least 3,000 animals before the removals began.

## Renewable Energy

With the national emphasis on renewable energy to replace fossil fuels, the BLM is directed to provide opportunities for energy generation and transmission. In 2012 a programmatic Environmental Impact Statement was issued providing guidance for utility scale solar developments in six southwestern states (the four four-corner states plus California and Nevada). This process divided the BLM lands into three zones: 1) Exclusion zones where the developments would not be considered, 2) Special Emphasis areas identified where solar generation facilities would be welcomed, and 3) the remaining area or Variance zone where applications are considered on a case-by-case basis. In Arizona the Special Emphasis areas are primarily in the southwestern portion of the state.

According to Derek Eyesenbach, the BLM's state coordinator for the solar program, they have received 30 applications within the Variance Zone portion of the state. Applications are evaluated, including opportunities for public participation, to determine if the BLM should further consider them and go through the NEPA process, which includes opportunities for public participation. This is an ongoing process as new applications are filed. I recently attended a zoom forum for three proposals for solar generation fields (one of which also includes battery storage and is adjacent to a wind farm) on BLM lands in the Kingman area. One is located near the Colorado River south of Havasu City, the other two northwest of Kingman along and immediately east of Highway 93. Others had previously had initial public review. The Arizona Game and Fish Department actively participates in the process and provides their local expertise in the evaluations.

It is important to remember that renewable energy is not environmentally free! There are tradeoffs between the fossil fuel emissions eliminated and the environmental effects of both wind turbines and solar collector fields. In addition, large amounts of copper and other minerals are required for these developments, with copper most commonly coming from open-pit mines, which frequently have significant environmental tradeoffs. In addition, some of the rarer minerals come primarily from foreign countries.

## Verde

In late spring, the Friends of the Verde River completed the field season for their program of removing invasive species along the Verde River and its primary tributaries. A monitoring crew is programmed this summer to evaluate success of past treatments and new areas needing



*Invasive giant reed (Arundo donax)*

treatment, which would be scheduled for the next field season, from the fall through spring season. In addition to the basic four invasives – tamarisk, Russian olive, tree of heaven, and giant reed – Himalayan blackberry is being treated in Fossil Creek, especially in the area of the primary springs.

## Drought... and Relief

As we reported in June just two years ago, we have been suffering from a multi-decade drought. At that time, the majority of the region (as well as the majority of the state) was classified as in Exceptional Drought, the highest class within the five-level drought monitor. This category is described as having large fires year-round, poor vegetation green-up, dying native vegetation, and dry lakes, ponds, and streams. We said that this description was proving to be prophetically accurate, as reflected in die offs of junipers, normally considered drought tolerant, in some areas. Last summer's monsoon was above average in most of the region and the 2022-2023 winter was among the wettest on record for some reporting stations.

As a result, our drought classification has changed. As of the first week of June 2023, most of the state is totally out of short-term drought, with only a small percentage in the southwest corner and along the Colorado River being classified as Abnormally Dry, the lowest of the five levels of drought. The crops of desert wildflowers (as well as the vigorous growth of weeds in many yards) is a result of the winter and early spring moisture. In the high country, the snowpack (and water in the snowpack) was the highest in a number of years, especially in the Verde River basin, where thousands of acre-feet of water were released downstream as the reservoir capacities were exceeded early in the runoff season. Because of the large volumes exceeding the storage capacity periodically, there are tentative plans to significantly increase the capacity of Bartlett Dam.

# Region 5 Director's Report

*By Duane Aubuchon, Regional Director*

## **New Affiliate**

AWF President Glen Dickens and I traveled to Safford and met with the President of the South Eastern Arizona Sportsman Club (SEASC), Macyn Hawkins, to discuss the benefits of that organization becoming an AWF affiliate. Later, Glen and Trica Oshant Hawkins provided a presentation to their entire Board in Safford. I have been a member of the SEASC for many years and have always been proud of their accomplishments and the drive and determination their members have in getting conservation work done in that part of the state. From wildlife water development projects to hunter education classes, they just do a great job in getting things done for wildlife in Arizona. Welcome aboard!

## **SunZia Southwest Transmission Line**

The Bureau of Land Management (BLM) completed a Record of Decision for the SunZia project several years ago, but recently issued an amendment to modify the Right-of-Way application. The route selected for this 500-Kilovolt power-line, which would transport renewable energy from New Mexico through Arizona, is over 520 miles long and includes a portion north of Benson along the west side of the San Pedro River. The route with the fewest wildlife impacts, following I-10, was not selected; however, the new application has some environmental groups again questioning the potential impacts to the San Pedro River Valley. They have filed a complaint in Arizona Superior Court, calling on the Corporation Commission to withdraw the project's certificate of environmental compatibility.

## **Environmental Groups File Suit Regarding Grazing on the San Pedro River Riparian National Conservation Area (SPRNCA)**

The Center for Biological Diversity (the Center) released the results of a recent ecological survey that found widespread impacts from cattle grazing across 39 miles of the San Pedro River, Babocomari River, and St. David Cienega within the SPRNCA. These impacts were on both riparian vegetation and water quality, with documentation of over 60 cows along one eight-mile stretch. The Center and the Maricopa Audubon Society submitted a notice of intent to file suit against the BLM (the agency in charge of the conservation area) for unremedied violations of the Endangered Species Act.

By allowing livestock grazing in parts of the river preserve and failing to keep stray cattle out of areas where they are

not permitted, they claim the BLM has failed to ensure that livestock grazing does not destroy or adversely modify Critical Habitat for the Huachuca water umbel, yellow-billed cuckoo, and Northern Mexican gartersnake. The Center has notified the BLM with over 80 complaints of habitat damage and trespassing livestock in the SPRNCA. Meanwhile, the BLM finalized its decision to renew all four grazing allotments in the SPRNCA. However, on April 15th, a private landowner rounded up 79 cattle there, including 22 calves.

## **Fort Huachuca Groundwater Pumping Plan**

I previously reported that a US District Court rejected portions of an environmental plan developed by the US Military (Fort Huachuca) and approved by the US Fish and Wildlife Service (USFWS) that included groundwater pumping in the San Pedro River basin. Recently, other environmental groups appealed the federal court ruling to challenge the USFWS's granting of groundwater credits to Fort Huachuca that they claim fail to return water to the imperiled San Pedro River. On May 15th, the 9th Circuit Court of Appeals heard testimony on this case.

At the hearing, the Court was confused as to which studies the USFWS relied upon for their Biological Opinion regarding the estimate of water use by Fort Huachuca. The Court, however, did not render a decision at the hearing and did not indicate when it would. Fort Huachuca's off-post groundwater pumping is the single greatest impact on water levels in the San Pedro River. As one of the last free-flowing rivers in the desert Southwest, several endangered species occupy the San Pedro River, including southwestern willow flycatchers, yellow-billed cuckoos, and Northern Mexican gartersnakes.

## **Interstate 11**

Several environmental organizations had filed a lawsuit over the Record of Decision regarding the Interstate 11 corridor route, claiming that all the planning to date has occurred without the federal agency properly completing the legally required evaluation of impacts to public lands. The lawsuit asserted that public lands, including the Sonoran Desert and Ironwood Forest National Monuments, Saguaro National Park, and Tucson Mountain Park, were not considered public parks or recreation areas of national, state or local significance, falling within the scope of what environmental laws require the project to consider. In a new ruling, U.S. District Court Judge John Hinderaker rejected arguments by the Federal Highway Administration



(FHA) and the Arizona Department of Transportation that any legal objection is premature. The federal agency had insisted that no final decisions have been made regarding where to place the new road, but the judge said it is clear that the FHA, which makes the initial determination, already concluded that neither the Ironwood Forest or Sonoran Desert National Monuments qualified for special consideration under federal law, which would require it to study whether the highway should be placed elsewhere. He also said there was no analysis done on the ecological impacts to Saguaro National Park or Tucson Mountain Park based on the agency's conclusion that neither property was a wildlife or waterfowl refuge.

The judge said that it appears that some decisions already have been made through the formal Record of Decision and the agency seems to acknowledge that the project, and the selected alternative corridor, will move forward, notwithstanding objections from agencies following the draft and final environmental impact statements. And all that, he said, entitles those decisions to be challenged now, before there is a final decision.

## Region 6 Director's Report

*By Jon Hanna, Regional Director*

### **Resolution Copper Mine Updates**

The fight against Resolution Copper Mine is directly tied to a 2015 congressionally approved land swap, which requires an environmental impact statement (EIS) before giving land plots (including Oak Flat) to global mining giants Rio Tinto PLC and BHP Group Ltd. According to environmental impact studies, copper mining at Oak Flat

### **Rosemont/Copper World Mine**

In May, the 9th U.S. Circuit Court of Appeals vacated critical habitat designations for endangered jaguars in Arizona, siding with a subsidiary of Canada-based Hudbay Minerals Inc., which seeks to build a \$1.9 billion open-pit copper mine near Tucson. A split three-judge panel of the 9th Circuit Court partially reversed a lower court's decision that favored the USFWS, determining that the agency had not shown that areas around the proposed copper mine are essential for the jaguar's survival.

The ruling is the latest development in Hudbay's attempt over the last 16 years to develop an open-pit mine in the Santa Rita Mountains. Hudbay's Rosemont Copper Co. had appealed a 2020 Arizona district court decision that backed the 2014 designation of more than 350,000 acres in the mountains southeast of Tucson as Critical Habitat for the jaguar. This ruling, which applies to just a portion of the broader jaguar habitat in southern Arizona and New Mexico, sends the issue back to the USFWS to reconsider its analysis.

would create a crater two miles wide and up to 1,000 feet deep and would consume water equivalent to what 140,000 people would use in 40 years. The San Carlos Apache Tribe and other Tribal communities in Arizona have argued the mine will destroy culturally significant sacred sites and deplete already scarce water resources, particularly in the area known as Oak Flat.

## Region 6 Director's Report, Cont'd.

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So far, Apache Stronghold's faith-based arguments have been unsuccessful. Judges at both the district and circuit levels have ruled against the group, deciding that the land transfer would have only "incidental effects" on the Apache people. Although government officials, representatives of Resolution Copper, and Western Apache leaders have long been in contact about how to protect Oak Flat amid planned mining projects, the parties have not been able to find a solution that addresses all key concerns.

Recently the United States Geological Survey rejected a bid by members of Congress and the copper industry to add copper to the United States' Critical Minerals List. The Critical Minerals List is a federal list of non-fuel minerals deemed critical to national or economic security but vulnerable to supply chain disruptions.

Were copper to be added to the list, it could help expedite domestic mining projects, such as the Resolution Copper Mine proposed at Oak Flat. The San Carlos Apache Tribe, Earthworks, Patagonia, and the Arizona Mining Reform Coalition sent a letter to the USGS in April asking it not to list copper as a critical mineral. USGS Director David Applegate cited federal data showing that the country's reliance on imported copper actually decreased in 2022, while about a third of domestic copper consumption requirements were met through recycling. The U.S. does not rely on China, Russia, or Ukraine for copper but rather Chile, Canada, and Mexico.

In May the Biden administration paused finalizing an Environmental Impact Statement in order to meet with opposing tribes and review the Forest Service's consultation. Joan Pepin, a Department of Justice attorney

representing the Forest Service, told a federal appeals court that while she originally said in March that an EIS for the Resolution Copper mine would be produced "this spring," the agency now doesn't have a firm timeline.

### **Grazing Issues on the Tonto National Forest**

This past May, The 9th Circuit Court of Appeals ruled that the Forest Service made "serious errors" in violation of the National Environmental Policy Act (NEPA) in approving a plan to expand grazing on the Tonto National Forest's Bar X allotment—including opening pastures that had been closed to grazing for nearly 40 years, which surround the communities of Colcord and Ponderosa. The Court's decision halts grazing on the Bar X pastures that were re-opened by the Forest Service in 2019 until the agency completes a new Environmental Analysis that fixes the problems identified by the Court.

These pastures had been closed to grazing in 1979 because cattle had destroyed soil and vegetation and displaced wildlife such as deer, elk, and turkeys. After the closure, these species returned in strong numbers and the vegetation and soil began to recover. The recent ruling by a three-judge panel found that the agency violated NEPA in failing to consider a range of alternatives and impacts to residents of neighboring communities.

The panel also found that the Forest Service relied on "significant misstatements and errors" during its environmental review supporting the grazing decision, preventing the public from fully understanding and commenting on the grazing plan's impacts.



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[www.canyoncoolers.com](http://www.canyoncoolers.com)

# EXCITING UPCOMING EVENTS!



September 8-10  
Friendly Pines Camp,  
Prescott

Registration is still open for AWF's  
award winning women's outdoor  
skills program

Register here: <https://azwildlife.org/BOW>



## Arizona Watchable Wildlife Experience presents **AWWE-some Summer Series 2023!**

Join wildlife experts from AWWE for a chance to view wildlife in their natural habitats!  
All events are free. Learn more and register here: <https://www.azwatchwildlife.com/events>



### Bug Out!

Frances Short Pond,  
July 8, 2023  
10 am-12 pm



### Mushrooms on the Peaks!

Snowbowl Kachina Trailhead,  
August 23, 2023  
5:30 pm



### Wildlife Viewing and Stargazing!

Rogers Lake Natural Area  
September 23, 2023  
6-8pm

**AWF is a proud founding partner of AWWE**

# 100 Years of AWF: Centennial Spotlight

By *Trica Oshant Hawkins, AWF Conservation Programs Director*

## Centennial Spotlights

With this summer magazine edition, we are continuing our year of celebrating our 100 year anniversary: Our Centennial! Along with a series of special events and activities, we will be sharing our amazing history with you in the form of “Centennial Spotlights” – articles on the people and events that made the Arizona Wildlife Federation what it is today. We stand on the shoulders of giants and we want to share their stories and contributions with you. These are stories worth telling and people worth remembering for what they have done not only for AWF but for Arizona wildlife. As we look ahead to our next 100 years, we honor those who laid the foundation for AWF and science-based wildlife stewardship in Arizona.

We are also continuing our “Where’s Aldo?” activity, honoring Aldo Leopold, a famous conservationist who was present at AWF’s first meeting in Flagstaff, Arizona in 1923. Make sure you look through our magazine again to find where he’s hidden! If you find him, send an email with all the page numbers he’s on to our Communications Manager at [elise@azwildlife.org](mailto:elise@azwildlife.org).

## Centennial Spotlight: The North American Model

This issue of AWF focuses primarily on wildlife watching. It’s worth taking a moment to consider the fact that likely none of us would be able to go wildlife-watching, let alone hunting or fishing, without the conservation efforts that were made 100 years ago by the giants on whose shoulders we stand. Without their persistent work championing wildlife conservation — specifically wildlife management through SOUND SCIENCE — it is very likely that many of the wildlife species we value and love would not be here today.

In this Centennial Spotlight, we are recognizing the seminal model of wildlife conservation that was emerging during the same time AWF was established: the North American Model of Wildlife Conservation. Across the country and in Canada, states and provinces were embracing science and the other evolving principles of wildlife management. It was these tenets that AWF (at the time called the Arizona Game Protective Association) urged lawmakers to embrace in our state’s wildlife management. Those seven tenets (or principles) of the North American Model are the following:

- **Wildlife is a Public Trust Resource:** Natural resources and wildlife on public lands belong to everyone but are managed by government agencies to

ensure that current and future generations always have wildlife and wild places to enjoy.

- **Prohibition on Commerce of Dead Wildlife:** Commercial hunting and the sale of wildlife are prohibited to ensure the sustainability of wildlife populations. The Lacey Act prohibits trade in wildlife, fish, and plants that have been illegally taken, possessed, transported, or sold.
- **Democratic Rule of Law:** All citizens may participate in the development of wildlife laws and regulations, which are in turn enforced by state and federal agencies.
- **Opportunity for All:** Every citizen has an opportunity, under the law, to hunt and fish in the United States and Canada. This differs from many other countries.
- **Wildlife Should Only be Killed for a Legitimate Purpose:** Laws prohibit the casual killing of wildlife merely for antlers, horns, or feathers, or the wanton waste of game meat. Individuals may legally kill certain wild animals under strict guidelines for food and fur, self-defense, and property protection.
- **Scientific Management of Wildlife:** The best science available will be used as a basis for informed decision-making in wildlife management. It’s important to note that management objectives are developed to support the sustainability of species, not individual animals.
- **Wildlife is an International Resource:** Because wildlife and fish freely migrate across boundaries between states, provinces, and countries, they are considered an international resource.

## What is the North American Model?



1. Wildlife is a Public Trust Resource
2. Prohibition on Commerce of Dead Wildlife
3. Democratic Rule of Law
4. Opportunity for All
5. Wildlife Should Only be Killed for a Legitimate Purpose
6. Scientific Management of Wildlife
7. Wildlife is an International Resource





CELEBRATING

**100 YEARS**

# Affiliate Spotlight: Friends of Northern Arizona Forests (FoNAF)



We are proud to spotlight one of our amazing affiliates in this Summer edition of the AWN Magazine — **Friends of Northern Arizona Forests (FoNAF)**!

FoNAF is dedicated to assisting the Forest Service and other resource management agencies in maintaining, protecting, and restoring the natural and cultural resources and the scenic beauty of our forest lands for the enjoyment and use of present and future generations. They are a solution-oriented volunteer group that works in partnership with these agencies to assist in tasks that the agencies do not have the staff or the funds to accomplish.

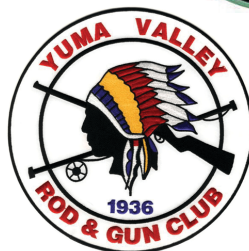
Recently FoNAF was honored by the U.S. Forest Service with the Southwest Regional “Enduring Service” Award, which is given for work with the Forest Service, and honors groups and individuals who have an ongoing commitment to the Forest Service and a history of "making a difference locally".

FoNAF's accomplishments include building log worm fences, building and maintaining aspen enclosures, cleaning up and recycling barbed wire fences, and improving fencing to enhance wildlife access and reduce the risk of injury for wildlife and livestock.

Additionally, their most recent past president, Tom Mackin, who is also a former Board President of AWF, was honored as The Arizona Daily Sun 2022 Citizen of the Year. He was honored for his outstanding leadership as FoNAF evolved to have a 300% increase in volunteer hours and especially for the 5000 volunteer hours FoNAF provided in 2022 in support of Forest Service projects.

AWF is thrilled to have FoNAF as an affiliate, and we look forward to continuing our work with them for many years to come!

Check out Friends of Northern Arizona Forests on their website: <https://friendsofnorthernarizonaforests.wildapricot.org/>



Expanding and Improving  
Arizona's Native and Wild  
Trout Fisheries



# You can support the Arizona Wildlife Federation!

As you can see from this issue of the Arizona Wildlife News, WE are here for Arizona's wildlife and wild places ... and we need YOU to be there with us.

**BECOME A MONTHLY DONOR** – one of the most significant ways you can become part of our mission is to support us with a monthly gift of any size.

**JOIN OUR LEGACY SOCIETY** – leaving a gift for AWF in your estate plans guarantees that your legacy supports wildlife far into the future.

**BECOME A LIFE MEMBER** – our 100+ life members are testimony to the dedication of our supporters, visionary donors and leaders who continue to give in many ways.

A huge welcome to our newest life members:

**Roger Joos, Tom Spalding, Annell Wilson, Glen Dickens, Art Pearce**

You can find the names of all of our life members on-line here: [azwildlife.org/legacy-society/](http://azwildlife.org/legacy-society/)

**MAKE A ONE-TIME DONATION** – did you know you can make a donation in honor or in memory of someone important in your life?

*Thank you to an anonymous donor for a recent donation in memory of Piper Preston (1954-2023). Piper had a lifetime love of fishing. During childhood, he learned to fish for flounder in Delaware and muskie in Pennsylvania. As an adult, he fell in love with fishing for rainbow trout in Arizona and Arkansas.*

**BECOME AN ANNUAL SPONSOR** – Arizona Wildlife Federation has just launched a new Annual Sponsorship Program and is happy to honor our first GOLD level sponsor: Canyon Coolers.



GIVE TODAY TO SUPPORT ARIZONA'S WILDLIFE AND WILD PLACES.  
LEARN MORE ON OUR WEBSITE: [azwildlife.org/donate](http://azwildlife.org/donate)



Or contact our Development Director to discuss giving options.  
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