

THE ARIZONA WILDLIFER

2024 Issue 3

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Summer Edition

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The President's Message



AZTWS Chapter President Chris Carrillo

I hope this finds all of you well and that you all are enjoying the summer. I am sure those of you in the higher country are truly enjoying the summer months. As summer moves forward and temperatures rise, those of us in the Valley of the Sun are looking forward to winter and cooler weather. Many of us love summer, and it beckons us to the great outdoors. I look forward to spending time up north to escape the summer heat. I especially look forward to the monsoon season. This year's early arrival of monsoon season combined with our current heat wave can cause wild-fire conditions to be prime from the low deserts to the high country. As such, if you are planning to spend

time out recreating or are conducting field work, please be careful as you enjoy your time outdoors.

The Arizona Chapter of The Wildlife Society (AZTWS) annual Techniques Workshop was held on April 20, 2024. Unfortunately, I was unable to attend this year. It was reported the workshop was well attended, and I recommend it to all students and new professionals. As always, Holly Hicks, President-Elect, did a great job organizing this event and ensuring that it ran smoothly. If you have not attended this workshop or you know a person who could benefit from attending, please keep an eye out for the 2025 workshop announcement.

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Presidents Message cont...

I want to remind everyone that it is not too early to start thinking about who you may want to nominate for a 2025 AZTWS award. There are lots of deserving individuals who do great work for Arizona wildlife. Please look at the AZTWS website at <https://aztws.com> to look at the [award descriptions](#) and [past winners](#). Nominations can be sent to Awards Chair Holly Hicks at hhicks@azgfd.gov.

The AZTWS is still looking for several committee chair volunteers. Current chair vacancies include Continuing Education and Conservation Affairs Committee chairs (see below). Please consider nominating yourself or a colleague for a chair position. Feel free to ask any board member or reach out to me if you have questions about positions and duties. I look forward to hearing from you.

I hope you enjoy the articles in this issue of the newsletter. If you have an interesting article or exciting project to write about, please consider submitting those to our Newsletter Editor, Tiffany Sprague (aztwseditor@gmail.com). Suggestions for improvement on any aspect of the Arizona Chapter of The Wildlife Society—or ideas for engaging our members—are always welcome; feel free to send me your comments at Chris.D.Carrillo@usda.gov.

Sincerely,
Chris Carrillo

Submit an award nomination! We encourage you to nominate deserving individuals for future awards. You can learn more about our awards and past winners at <https://aztws.com/past-award-winners>. Submit nominations at any time to Awards Committee Chair [Holly Hicks](#).

Get Involved with AZTWS!

AZTWS has open vacancies for Chair Committee positions. Join us and make a difference in your Arizona wildlife community. The following positions are available:



1. *Continuing Education Chair* — This position is responsible for working with a committee to review applications for the Continuing Education Fund and grant awards. The purpose of the fund is to provide career enhancement opportunities for Chapter members.
2. *Conservation Affairs Chair* — This position includes review of regulatory, planning, environmental, and other issues related to wildlife and their habitat in Arizona. Duties include soliciting, recommending, and preparation of materials related to conservation issues.

Please contact us at aztws@gmail.com to inquire.

Regional News

Southwest Section Tracks

By **Kathy Granillo**,
TWS Southwest Section Representative



Southwest Section Representative
Kathy Granillo with a wolf pup.

Here we are, half-way through the year already. And here we are in the hottest season of the year. If you spend time outdoors, I hope you are finding ways to stay cool, including hydrating frequently, seeking shade, and taking breaks. I am often amazed at how wildlife deal with the sun and the heat, especially when I'm in desert and grassland environments. I've just completed three Breeding Bird Survey (BBS) routes in New Mexico grasslands, which is why these types of environments are on my mind. As I started writing this article, I thought I would focus on Council activities (we just had our budget meeting for FY25, for example) and encouraging attendance at the Annual Conference (Baltimore, Maryland, October 19–23), but fencing is consuming my thoughts.

Each BBS route consists of 50 survey points spaced a half mile apart; hence the route is 24.5 miles long. Two of the routes are in northeastern New Mexico, in prime pronghorn country. My routes are on public roads, which have fencing that runs on either side of the right-of-way (ROW). I often encounter pronghorn in the ROW (which is ungrazed and usually has more forage than the surrounding grazed lands, especially in drought years). I also often see them struggle to find ways to get under the ROW fences as they try to move away from my vehicle or other vehicles.



Pronghorn leg in right-of-way fence.
Credit: Kathy Granillo

Every year as I drive through this part of New Mexico, I see dead pronghorn that were killed in a collision with a vehicle. This year, I came across a disturbing sight; it was a pronghorn leg caught up in a barbed wire fence. This got me thinking about fencing along our roadways and the various policies of our state highway departments, as well as fencing policies of other state and federal agencies.

Fencing is a barrier to many species of wildlife, not just pronghorn. We all know fences can be problematic for elk and deer, but did you know that barbed wire fences kill raptors, waterfowl, and other birds? It can also be tough to negotiate for medium-sized mammals such as javelina.

Having worked in the National Wildlife Refuge System for 30 years, I am quite familiar with refuge policies for fencing. These policies call for wildlife-compatible fencing when fencing is deemed necessary. Barbed wire fences must be four-strand at the most, with a smooth bottom wire, and there are height requirements for the bottom wire and the overall fence height. But these policies only apply to National Wildlife Refuges. For

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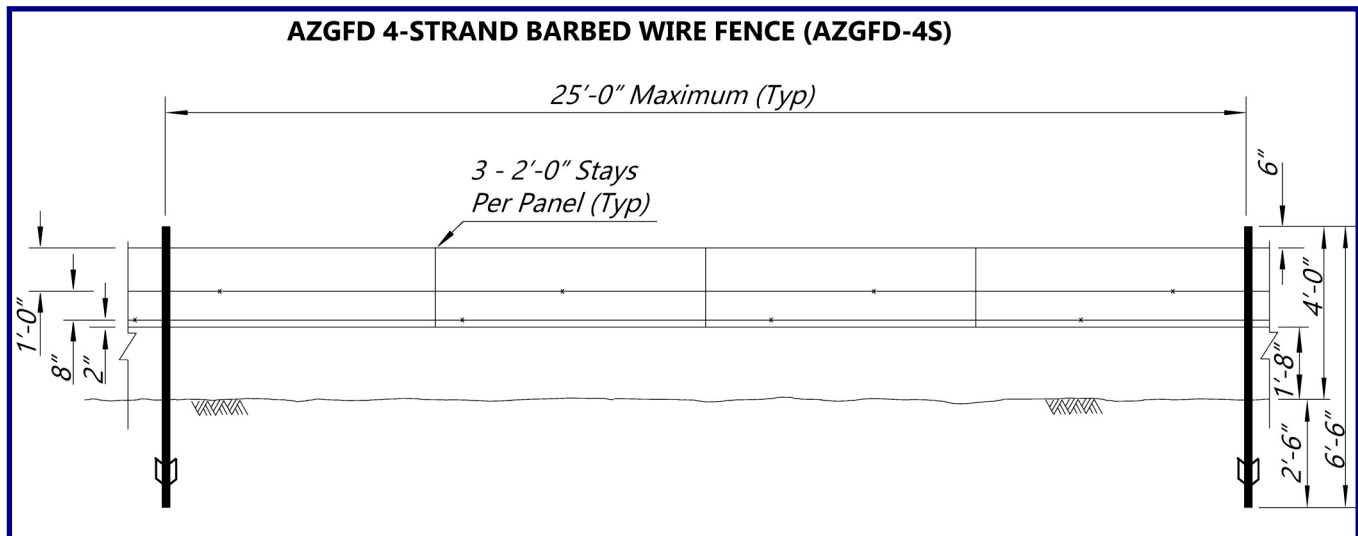
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U.S. Forest Service lands and Bureau of Land Management lands, the fencing guidelines are similar to National Wildlife Refuges: four strands of wire, with the bottom wire smooth. However, both agencies allow for discretion at the site level and often defer fencing design to the Allotment Management Plan. This leads to a wide variety of fencing styles on the landscape, many of which are not wildlife-compatible.

Having worked in the Southwest for more than 30 years, I also know that both the New Mexico Department of Fish and Game and the Arizona Game and Fish Department have wildlife-compatible fencing guidelines.

[Arizona Game and Fish Department fencing guidelines](#) state the following:

“In most cases, ROW fencing should be designed to be permeable to wildlife. The typical ROW fence is composed of four strands of wire. To be permeable for deer and elk, the Department recommends the top and bottom wires should be barbless and the middle two barbed. The Department’s recommended maximum height is 42 inches, and the bottom should be smooth wire 18 to 20 inches off the ground to allow pronghorn and deer fawns to go under. (Note: Arizona Department of Transportation standard fencing (Std. C-12.10) has a 16” bottom wire and the top wire is barbed. Any fencing on ADOT right-of-way should conform to ADOT standards.) Anything less than 16 inches off the ground becomes a significant barrier to the passage of pronghorn. The top wire should be at least 12 inches above the second wire to minimize chances of deer or elk becoming entangled when they jump the fence.”



Arizona Game and Fish Department design specifications for wildlife-compatible ROW fencing.

The [ADOT standard](#) indicates “the distance from the bottom wire to the ground for barbed wire game fence is 16 inches \pm 4 inches,” potentially providing some leeway. However, ADOT is reluctant to increase the height above 16 inches due to livestock and vehicle safety considerations.

A dive into Arizona State law reveals the law about stray livestock and fencing conflicts with these guidelines. In [Arizona A.R.S. §3-1426](#) it says “at least four barbed wires of the usual type tightly stretched and secured to the posts and spaced so that the top wire is 50 inches above the ground and the other wires at intervals below the top wire of 12, 22, and 32 inches.”

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Covert

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Appropriately designed right-of-way fencing—with a smooth bottom wire 18–20 inches from the ground surface—is an essential piece of the wildlife connectivity equation. Credit: Scott Sprague (top); AZGFD Region 1 (bottom)

It seems that even within a state, the policies and guidelines about fencing can (and often do) conflict with one another. Perhaps one day there will be an effort to create one standard? There is also some debate about Federal policies versus State policies. A 1991 opinion of the Interior Department Solicitor's Office indicates that federal mandates to protect wildlife on federal lands may take precedence over state requirements for fencing of highways.

As I drive through Arizona and New Mexico and look at the ROW fencing, I see primarily five-strand barbed wire fences. It seems there is wiggle room to make ROW fencing wildlife compatible. Why don't I see more four-strand fences built in a wildlife-compatible design?

In researching this topic, I ran across an [informative presentation](#) from the University of Montana and the National Wildlife Federation. This presentation highlights the issues and the various regulations and guidelines and offers suggestions for improving the policies, how to get involved in planning, and encouragement

for partnering and advocacy to help change the policies for the good of wildlife. I urge you all to check it out (it's a short read) and to think about how you could have some influence on helping to move the needle on wildlife-compatible fencing.

I welcome your thoughts on this or any other topic. My email is KGBirder55@gmail.com.

Sincerely,
Kathy



THE WILDLIFE SOCIETY
Leaders in Wildlife Science, Management and Conservation

Student Voice

AZTWS Techniques Workshop: A Transformative Experience

By Blue Martin, Arizona State University

My experience at the Arizona Chapter of The Wildlife Society (AZTWS) 2024 Techniques Workshop was nothing short of transformative. As an aspiring wildlife biologist, I was thrilled to discover this workshop dedicated to techniques in the field. Upon arriving at the Ben Avery Shooting Range, I immediately felt a profound sense of belonging. The volunteers who organized the event greeted me warmly and directed me to the registration area, where friendly faces welcomed me and provided an overview of the day's events. Cheyenne Herzog-Lowrance, the Heritage Program Data Manager at the Arizona Game and Fish Department (AZGFD), noticed me looking around and welcomed me with open arms. She ensured I knew where I was going, set me up with my group number, and handed me my name tag. I was bubbling with excitement, attending an event perfectly tailored to my interests and career goals.

I soon started mingling with others in my group, engaging in conversations to see if they had similar interests or career paths. Almost everyone I spoke with was involved in conservation biology, which was incredibly refreshing; it felt wonderful to relate to students navigating the same academic journey. Once everyone had arrived, I distinctly remember Holly Hicks, the Small Mammal Project Coordinator for the AZGFD, confidently standing on one of the tables under the ramada at Biscuit Tank at the Ben Avery Shooting Facility in Phoenix. She gathered the group together and detailed the schedule for the day, outlining all the locations, times, and activities each class would undertake. A schedule was handed to me, which I kept for reference throughout the day.



Students testing out their telemetry skills.
Credit: Holly Hicks

The classes, led by professionals in wildlife biology or closely related fields, were profoundly engaging. First on the schedule was a class on VHF radio telemetry, led by powerhouse biologist couple Scott and Tiffany Sprague. Alongside them was Tim Bradley, who works with desert tortoises for AZGFD, and several other volunteers, including Bill Davenport, a wildlife biologist focused on connectivity in wildlife ranges. They explained how radio telemetry works and how biologists use it to collect data, track and locate tagged animals, and make wildlife management decisions. I had always heard of this technology but had never engaged with it firsthand, especially in such a setting where it was so applicable to my field of interest. I remember feeling exhilarated and proud to operate that equipment. I was in another world when locating the trackers our instructors had strategically laid out—a world filled with wonder and excitement, eager to master this new skill in my biologist toolkit. Radio telemetry made me feel like a “real” field biologist conducting actual fieldwork. I loved every second of it.

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Before I knew it, my time was up, and I had to move on to my next course: wilderness survival, taught by the supremely charismatic and approachable Jeff Sorensen, the Invertebrate Wildlife Program Manager for the Terrestrial Wildlife Branch of AZGFD. Jeff's class was immensely informative, covering an area that often gets overlooked when venturing into the great outdoors. He quite literally laid everything out on the table regarding essential items for wilderness survival. He had dozens of items for everyone to inspect, going through nearly every one and explaining its significance in a survival situation. His class was not just a survival pack show-and-tell but also featured a presentation printed on poster boards about what to do in emergency situations. After the presentation, we transitioned into a few activities. First, we learned how to use signaling mirrors to gain the attention of an aircraft in a stranded situation. Then, we learned how to construct a shade cover using commonly found materials like a tarp and paracord. After dismantling our makeshift shelters, it was time to move on to the next class. Jeff's class revealed a crucial reminder for those looking to pursue a career in this field: safety must remain the number one priority.

Next was possibly the most crucial class of the day: the lunch break. I knew this would be my chance to talk to professionals in the wildlife field, an essential step in pursuing a career in wildlife. I seized this opportunity, opting to sit next to many of the volunteers running and teaching the workshop rather than those in my group. During this lunch break, many of my burning questions about wildlife biology were answered. I gained invaluable insight into what the average day looks like for a wildlife professional, the technology and software used to analyze and interpret data, and general advice for someone in my position looking to enter the field.



Brit Oleson taught a variety of capture and handling techniques. Credit: Holly Hicks



Knowing how to construct a lean-to shelter is an essential survival skill. Credit: Blue Martin

After an informative lunch, it was time for the capture techniques class, taught by the enthusiastic Wildlife Manager Brit Oleson. She had countless stories of her encounters in wildlife management, each with a distinct comedic tone, that kept everyone engaged and interested. Brit showed us many different traps and their purposes, from DIY traps for catching lizards to various types of cage traps used for small mammals and birds. The highlight of the day was undoubtedly the demonstration of the live bear trap. It's not every day you can say you crawled into a live bear trap (once all the safety measures were up, of course) and made your way out. Brit, aside from her demonstrations, taught us a lot about the different positions in this field. She has had the chance to

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work with people of many different titles and on many different projects across Arizona, which offered a unique perspective on the many different routes one could take while pursuing a career in wildlife. Overall, Brit's course on capture techniques was unforgettable and very helpful.

Next was one of the most exciting courses, one on net gunning/darting taught by the daring Wildlife Manager Jesse Baker. Jesse has been certified for a specialized skill: to put it plainly, he hangs out of the side of a helicopter and captures moving animals with a giant net gun. His course focused on what it's like on a capture day, the equipment associated with shooting these guns from helicopters, and how this work supports the conservation of species throughout the state. The next part of the course was learning how to use the net and dart guns. The net gun was quite the process to shoot and reload. Jesse did it effortlessly, ensuring everyone in the group got a proper turn. I will never forget the way the net expands and opens out perfectly, almost as if it were self-aware and stretching itself open. Overall, this class solidified how diverse the careers in wildlife biology can be.



Before practicing the technique, students learned about net gunning and darting safety and process from Jesse Baker. Credit: Holly Hicks

The final class for me that day was the GPS course, bringing me full circle, taught by Cheyenne and Holly, who were involved with my very first experience of the day and now the last. The GPS course was useful because it's easy to forget how much we rely on our phones for navigation. In a situation with no cell service for the navigation we are used to, knowing how to use a GPS is key to not getting lost. This class also hit close to home, as I am currently studying for a certification in GIS from Arizona State University. Cheyenne explained to the group about coordinate systems, false easting, and false northing; all familiar vocabulary I recognized and understood in the field from my prior experience with GIS. Holly and Cheyenne taught us how to find, operate, and enter coordinates into the units to locate positions. They also demonstrated the use of a GPS unit to create and maintain a well-established transect when working in the field. Overall, I learned how important this essential piece of equipment is in this career and, most importantly, got exposure to working with the equipment directly.

The schedule included a dinner break, a herp walk, and bat mistnetting, which I was told has an art to setting up. Unfortunately, I could not stay for these classes, so I thanked everyone I had met along the way for being there and for their guidance and expertise. On my way out, I was handed a junior depu-

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It's a trap! Students got to test out what it's like to be inside this bear trap, but they learned that the Techniques Workshop itself is a fun, learning experience—not a trap!
Credit: Blue Martin

ty sticker from Brit—like the ones police officers give to children. Just one last hilarious jab from Brit as I left the Ben Avery Shooting Facility.

In summary, the workshop was an absolutely incredible experience. I had the unique opportunity to work directly with professionals in wildlife biology, gaining firsthand knowledge of the wide range of opportunities available within the various programs and projects at the AZGFD. From learning to use the techniques and equipment employed by wildlife biologists to conserve and protect species, to the advice I received from seasoned experts, this day was instrumental for a student like me, and I cannot express enough gratitude to the organizers and instructors who made this workshop possible. It is events like these that not only equip us with essential skills but also ignite and sustain our passion for wildlife conservation. This workshop has truly kept my dreams, and the dreams of many others, alive and thriving.

**Join us at the
2025 Techniques Workshop!**

Help plan and/or participate in next year's event! If you have ideas on courses, are interested in being an instructor, would like to assist with planning, or know of any people/groups who would like to attend, please reach out to Holly Hicks at hhicks@azgfd.gov.

Continuing Education Grants

AZTWS offers \$1,500 annually in [Continuing Education Grants](#) to its members (including professionals, graduate and undergraduate students) to support education and career development opportunities (conferences, workshops, trainings, etc.). Grant requests should not exceed \$500 per application and only one grant is awarded per person, per year. Grants are limited to current Chapter members only; membership dues are \$6/year. Join or renew [here](#).

Applications can be submitted at any time and will be reviewed quarterly by the Continuing Education Committee. Applicants will be notified within 30 days of the Committee's review. The Committee evaluates applications based on your explanation of how the activity will enhance your career development, your financial need, your efforts to obtain supplemental funding, and your involvement in Chapter activities. AZTWS encourages applicants from under-represented individuals and groups.

APPLY NOW



AZTWS News & Resources

The [Arizona Chapter of The Wildlife Society](#) is dedicated to promoting sound management and conservation of Arizona's wildlife resources and strives to be the preeminent resource for Arizona's community of scientists, managers, educators, students, technicians, planners, and others working to manage and conserve wildlife and habitats in the state. To help you keep up with AZTWS's resources, opportunities, and happenings, we hope that you find the following hotlinks useful:

- **Members** gain access to numerous opportunities; if you are not yet a member, sign up [here](#). Annual dues are only \$6!
- **AZTWS's Web Store** is live! Show your support by gifting cool AZTWS swag to others (or splurging for yourself). Proceeds support AZTWS resources, including conference events and our Continuing Education Grant. [Shop now!](#) [You can also support AZTWS's mission by [donating](#) discretely or in monthly recurrences.]
- Support others and help increase representation in Arizona's natural resource fields by **gifting a AZTWS membership** (1-year) – [details here](#).
- Looking for that older issue of *The Arizona Wildlifer*? **All issues** are freely accessible [here!](#)
- Our parent society, TWS, emphasizes important resources for **[diversity, equity, and inclusion](#)** throughout the wildlife profession. AZTWS also strives to uphold these values.
- Want to get more involved with your Chapter? Check out the information available on our [Facebook](#), [X \(Twitter\)](#), and [website](#) for opportunities.
- AZTWS has vacancies for several Committee Chair positions. See [page 2](#) for details.
- Have questions for us? Contact us [here](#).



Arizona is home to abundant water birds, including these western grebes. Credit: Scott Sprague
