



Arizona Wildlife News

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Issue 1: The Gift of Wildlife



Official Publication of the Arizona Wildlife Federation

Who is AWF?

Our Mission

The Arizona Wildlife Federation (AWF) is a non-profit organization dedicated to educating, inspiring, and assisting individuals to value, conserve, enhance, manage, and protect wildlife and wildlife habitat. AWF is the state affiliate of the National Wildlife Federation.

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 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, and photographs. Contact the AWF Communications Manager at (602) 320-6051 for details.

AWF celebrated 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.

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In This Issue

A Message from the Executive Director	3
Recovering an Endangered Species	4
Arizona's Pronghorn Antelope: A Conservation Partnership Success Story	8
In A Native Place	10
Arizona Pollinator Portfolio with Photos by Bruce Taubert	14
Are You Ready to Become an Outdoors-Woman?	17
Regional Roundup	18
Affiliate Spotlight: Southern Arizona Quail	
Forever and Valley of the Sun Quail Forever	23
The Mearns' Quail Project	25
You Can Support AWF	27

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Front Cover Photo Courtesy of Bruce Taubert; lesser long-nosed bat (*Leptonycteris curasuae yerbabuena*), Back Cover Photo Courtesy of Natalie Marchioni

A Message from the Executive Director

Scott Garlid, AWF Executive Director

“The gift of wildlife” is the theme of this issue of Arizona Wildlife News. At a time when 20% of our nation’s total species are considered “imperiled” and at risk of extinction, and after we’ve already lost 30% of the North American bird population since 1970, it’s about time we start thinking of wildlife as a gift, and a very fragile one at that.

The gift of wildlife is one that needs to be valued and nurtured. When we are committed and intentional about caring for the gift, it can thrive. But when we ignore it or take it for granted, it struggles – at best. The species we highlight in this issue – Sonoran pronghorn, Apache trout, and desert pollinators – are uniquely Arizonan and are absolutely dependent on our decisions and our actions in order to thrive. While it can be discouraging to look at the macro trends behind our species diversity crisis, it’s encouraging to see that we CAN and we ARE making a difference.



It is often said that the real gift is in the giving, and nowhere is this adage more true than in giving the gift of wildlife. Of course, we don’t give an actual pronghorn or trout to someone unless we’re sharing the harvest of a successful hunt or day on the water. But when we protect and restore habitat, when we advocate for conservation funding and science-based wildlife and forest management policies, and when we volunteer our time and our resources to protecting and restoring habitat, we ARE giving the gift of wildlife, and in particular, we are giving it to future generations.

Thanks to all of you who have given and are giving the gift of wildlife to the next generation. As you read this issue of AWN, I hope you’ll think of all those whose hands are giving the gift of wildlife – and by doing so are finding joy in the gift of giving!

Yours in conservation,

A handwritten signature in black ink, appearing to read "Scott Garlid". The signature is fluid and cursive, written in a professional but personal style.

Scott Garlid

Recovering an Endangered Species



A herd of Sonoran pronghorn during an aerial survey. Photo Courtesy of Miguel Grageda.

By Trica Oshant Hawkins, AWF Conservation Programs Director

The Sonoran pronghorn, a subspecies of the North American pronghorn, is remarkably adapted to living in the harsh deserts of southwestern Arizona and northwestern Sonora. This unique animal occurs nowhere else in the world! Of the three subspecies of pronghorn that occur in Arizona, the Sonoran pronghorn (*Antilocapra americana sonorensis*) has the most limited range and fewest numbers. Since 1967, it has been listed as an Endangered Species. In 2002, due to severe drought, their numbers dropped down to an alarming 21 individuals in the US. Since then, as a result of intensive recovery efforts, their numbers have climbed to over 400 animals in three herd areas in the US. This article describes the recovery program in general as well as a detailed look at a recent capture and translocation event.

What does it take to restore an endangered species? Perhaps above all, it takes collaboration! It takes the collaboration of numerous partners including government agencies, tribal nations, conservation organizations, wildlife veterinarians, university researchers, military personnel, and technicians of all kinds. According to the U.S. Fish and Wildlife Service, who, along with the Arizona Game and Fish Department (AZGFD), has overseen the Sonoran

pronghorn restoration effort, the program employs a four-pronged (pun intended) approach that includes habitat modifications, monitoring, captive breeding, and yes — partnerships.

Habitat modification for Sonoran pronghorn includes supplemental water and feeding stations, and forage enhancement plots. Supplemental water can range from temporary plastic tubs to permanent water stations with drinking troughs and 24,000-gallon storage tanks. Water is delivered by pipes from nearby wells, collected with rainwater catchments, or transported in trucks. Forage enhancement plots are created by watering a designated area with sprinklers, drip, or flood irrigation to encourage the growth of native grasses, forbs, and shrubs. Feeding stations are provided when animals are first released to a new area and when range conditions are poor, typically during the driest months of the year. Because feeding stations are usually supplied with alfalfa, they must be located near the watering stations as the high protein content of alfalfa requires water for optimal digestion.

Monitoring of Sonoran pronghorn is accomplished through radio collars, motion-activated cameras, non-invasive genetic sampling, and biennial aerial

surveys. Monitoring has allowed researchers to determine the home range of the Sonoran pronghorn (197 square miles – much larger than other species of pronghorn), better understand their habitat preferences, track births and mortalities, and identify areas for recovery actions.

The Sonoran pronghorn captive breeding program, which began in 2003 with the building of a captive breeding pen on the Cabeza Prieta National Wildlife Refuge, has evolved over time. The breeding pen was originally populated with animals from nearby wild populations in both Arizona and Sonora. As the breeding population grew, selected individuals were darted with tranquilizers at the feeding stations in the captive breeding pens, transported in vehicles, and released directly onto the range at their new sites. A second breeding pen was installed on the Kofa National Wildlife Refuge in 2007, and as the number of animals to be translocated grew, capture techniques improved and became more efficient.

The bomas (circular corral traps) were constructed in 2009 and allowed for a less stressful capture of more animals at once. After a brief stint of using helicopters to transport animals, trailers were constructed to allow for the safe transport of up to a dozen pronghorn at once. Additionally, in the areas where pronghorn are to be released, large holding pens (~40 acres) were constructed to provide “soft release” sites, which give pronghorn time to safely recover from their move and acclimatize to their new homes. After about a month, the soft-release pens are quietly deconstructed, allowing the pronghorn to freely range their new homes. They will continue to receive food and water at their release site as needed.

The final “tool” in the Sonoran pronghorn recovery program is partnerships. And sure enough, the recent capture and translocation of Sonoran pronghorn at the Cabeza Prieta National Wildlife Refuge was indeed a carefully choreographed event involving many partners. At least a dozen different agencies and organizations were represented at the event and everyone played a vital part in ensuring the safety of the 70 pronghorn that were caught, processed, and either released back into their one-mile square breeding pens or transported to their new homes

to supplement populations in the Sonoran Desert. Of those 70 individuals, 22 were transferred to new homes at one of three soft-release sites. The others were released back into their breeding pens to continue to contribute to the herd’s growth and sustainability.

A few days later at the Kofa National Wildlife Refuge, an additional 28 Sonoran pronghorn were captured and processed, nine of which were translocated to join animals from the Cabeza Prieta at one of the release sites. In all, 31 endangered Sonoran pronghorn were translocated during this year’s recovery events.

Pronghorn Capture Day

The capture day starts pre-dawn as the capture teams (scattered across the designated camp area) arise and congregate at the main tent to share a hearty breakfast (served by members of the Yuma Valley Rod and Gun Club) before caravanning to the capture site. At the capture site, the pronghorn are already inside the bomas which were prepared (with help from AWF) in October with shade cloth (to reduce visibility) and moving blankets (to pad the pen’s sides). The capture begins before sun up, while it is still cool. In whispered voices, assignments are reviewed and the three process teams go to their stations, which are prepared with a stretcher and a table with equipment and meds, all under a shade canopy. Additional tables, carefully organized with meds, collars, and other equipment are staged nearby.

The “pronghorn whisperers” then quietly move a few pronghorn from the larger bomas into the smaller capture boma. The circular bomas are constructed in tangent with doors between each boma. The aim is to get two or three animals into the smallest boma. Once the smallest boma is closed off with the three pronghorn, the animals are visually identified by the “know it all” team, who share this information with the project leader and veterinarians. Jill Bright, the project leader for AZGFD, is prepared with data cards for each individual animal, including sex, age, whether or not they will be going into a trailer for transport or will be returned to the breeding pen, what collar they will be getting, and what meds they should receive.



A young pronghorn is released back into the breeding pen after receiving a radio collar. Photo Courtesy of Vallen Kim.

Each team is then assigned one of the animals. The team vet conveys the plan to the rest of the team members which include the data takers, temperature monitors, and vet assistants. This all happens quickly and quietly, so as to reduce stress on the animals.

The capture teams, consisting of “muggers,” “netters,” and “wall flowers” prepare to enter the boma. The door is opened just long enough to allow the capture team to quickly shuffle inside; wall flowers encourage the animals away from the walls, netters corral animals toward the muggers who literally pick up the animals, holding and carrying them as indicated by the safety protocol, being sure to keep the animals’ hooves well above the ground. Again, this all happens in under a minute, after which the boma door is again opened. Depending on how each individual animal is to be processed, the pronghorn are either carried on stretchers to the correct station or are quickly processed in the boma. Those who are to be returned to the breeding pen are ear-tagged if necessary, given assigned meds, and blood and fecal samples are taken. They are then gently released back into the breeding pen. Throughout the entire process, the animal’s temperature is carefully monitored.

During processing, the target body temperature of pronghorn antelope ranges from 101°-104° F. When an animal’s temperature goes above 104°F, it’s an indication that they are under stress and it becomes imperative to cool them down. This is done by slowly pouring cool water over the animal. This indeed works as the water baths proved to either

lower their body temperature or at least hold it steady. In preparation for this, full buckets of water are on standby at each station and small pits were dug under each stretcher to capture the water running off the animals. Again, the efficiency of the teams helps assure quick processing of each animal, which also reduces stress. Most animals are moved through the process in around 5 minutes. The pronghorn that are moved to a new home are transported in the trailers and released that same day.

This is the third year that AWF has participated in the Sonoran pronghorn recovery project. For the past three years, we have involved our Volunteers for Wildlife in either building the bomas or releasing the pronghorn from their holding pens at the release sites. Additionally, AWF volunteers have participated in fence removal projects in areas where these pronghorn are released, which helps them travel through the landscape of their new home without risk of entanglement.

To date, since 2006, a total of 459 Sonoran pronghorn from the captive breeding pens have been released into the wild. With a survival rate of 69.7%, their population has been slowly but steadily growing. The AWF, along with our affiliates the Arizona Antelope Foundation and Yuma Valley Rod and Gun Club, is honored to work alongside the many partners in the recovery of this endangered species.

You can join us in the recovery effort directly as an AWF Volunteer for Wildlife or support the project with a donation at azwildlife.org/donate



An aerial view of the Cabeza Prieta captive breeding pen and typical Sonoran pronghorn habitat. Photo Courtesy of USFWS.



Jill Bright, Project Manager for AZGFD, reviews capture protocols with the process teams. Photo Courtesy of Trica Oshant Hawkins.



The capture team, consisting of the netters, wall flowers, and muggers prepare to enter the boma. Photo Courtesy of Trica Oshant Hawkins.



Teams quickly process pronghorn in the boma. Photo Courtesy of Vallen Kim.



Pronghorn are carefully carried on special stretchers. Photo Courtesy of Vallen Kim.



AWF Volunteer, Lizbeth Perez, monitors the pronghorn's temperature. Photo Courtesy of Vallen Kim.



Pronghorn are blindfolded, receive oxygen, and are cooled with water to reduce stress. Photo Courtesy of Trica Oshant Hawkins.



Careful recording of data is paramount. Photo Courtesy of Trica Oshant Hawkins.

Arizona's Pronghorn Antelope: A Conservation Partnership Success Story



A herd of pronghorn near Glen's Tucson home. Photo Courtesy of Betty Dickens.

By Glen Dickens, AWF President and Arizona Antelope Foundation Vice President

Arizona is home to three of the five subspecies of North American pronghorn (*Antilocapra americana*). Those species are *Antilocapra americana americana*, *A. a. Mexicana*, and *A.a. sonorensis*. The latter, the Sonoran pronghorn, is currently listed as an endangered species. As noted in the previous article, in addition to not being hunted, the species is currently the focus of an intense recovery effort.

Pronghorn are a uniquely North American wildlife species and evolved to occupy open spaces from grasslands to mountain steppe habitats. These habitats remained free of range fences until the 1850s when western rangelands were settled by European colonists who introduced domestic livestock and the need to begin fencing. In almost all cases, these fences were five strands of barbed wire spaced at 10-inch intervals from the ground up to 50 inches high. This effectively blocked 100% of pronghorn movements, as the lowest fence they can pass under is sixteen inches. Pronghorn evolved to use vision, speed, and distance to outwit predators and never developed the need to jump, much less jump a 50-inch high fence top.

Due to intense market hunting, as well as landscape fragmentation by range fences, roads, and railroads, populations of pronghorn were either completely extirpated or greatly reduced from the areas (now called

“herd zones”) they once occupied. A statewide survey in Arizona in 1922 found just 635 pronghorn occupying 18 herd zones.

Restoration Efforts

As early as 1924 the Arizona Game and Fish Department (AZGFD) began efforts to restore American pronghorn back to suitable habitat where they once roamed. From 1932 to 1961, the AZGFD translocated pronghorn from a source population on the Anderson Mesa (southeast of Flagstaff). This population of pronghorn was still stable and increasing and produced enough animals to restore herds in other areas without impacting this source herd. From 1965 to 2022 more aggressive translocation efforts were conducted, and the states of Arizona, Colorado, Montana, Texas, Utah, and Wyoming collectively contributed over 2,600 available pronghorn to Arizona's restoration efforts. Today Arizona's pronghorn populations number over 9,000. These herds still require active management to maintain their numbers. Arizona Wildlife Federation affiliate, the Arizona Antelope Foundation (AAF) plays a major role in that endeavor.

Genesis of the Arizona Antelope Foundation

The year 1992 would prove to be seminal when senior Arizona Desert Bighorn Sheep Society members sitting around a water project campfire asked, “What are we

doing for Arizona's pronghorn antelope?" Their answer was, "Not nearly enough!" Enter a new Arizona critter group formed in 1993 as a 501(c)(3) and named the *Arizona Antelope Foundation*. Its mission statement is: ***To actively seek to increase pronghorn populations in Arizona through habitat improvements, habitat acquisition, the translocation of animals to historic range, and public comment on activities affecting pronghorn and their habitat.*** From the beginning, the AAF was unique in that it formalized its relationship with the AZGFD by having wildlife biologists on its board. Two presidents were former AZGFD employees. Today in 2023, three of nine board members are retired wildlife biologists.

Landscape Effect & AAF Fence Modifications

The unique behavior of pronghorn (primarily going under instead of over fences) defines the fence modification work that the AAF conducts statewide in selected herd zones. The AZGFD defines three types of fence standards that can be used for pronghorn movement. In general, the bottom strand of fences should be smooth wire and be a minimum of 16 inches from the ground along highways and roadways, and 18-20 inches from the ground for internal pasture fences.

In 2010 the AAF made a programmatic decision to focus work in zones of key pronghorn and AZGFD priority habitat statewide. The goal: To complete fence projects as needed over multiple years until every fence was modified to permit resident pronghorn to utilize the entire zone unfettered by obstructing fences. AAF is currently working in the Vekol Valley, Big Lake, south of I-40, Seligman, and southeastern Arizona complexes. A recent example of successful efforts with multiple partners occurred from 2010-19 with the completion of a National Fish and Wildlife Foundation grant in the amount of \$510K with an in-kind match of \$1.231M which accomplished the following: Pronghorn habitat connectivity was improved on 191,800 acres in six herd zones through 27 fence projects, modifying 105 miles of fencing. The majority of work was accomplished by 769 volunteers who drove 185,517 miles and donated 13,270 hours of labor. Eleven grasslands projects were completed in four herd zones and restored 7,874 acres of grasslands through burning, mesquite grubbing, and spot treatments with herbicides. Thirteen water projects were completed to provide year-round water distribution and security in four herd zones. 95 pronghorn were transplanted to supplement six subpopulations resulting in an increase in those subpopulations by a minimum

of 548 animals as of August 2019, with long-term landowner/rancher relations improved on 21 separate properties.

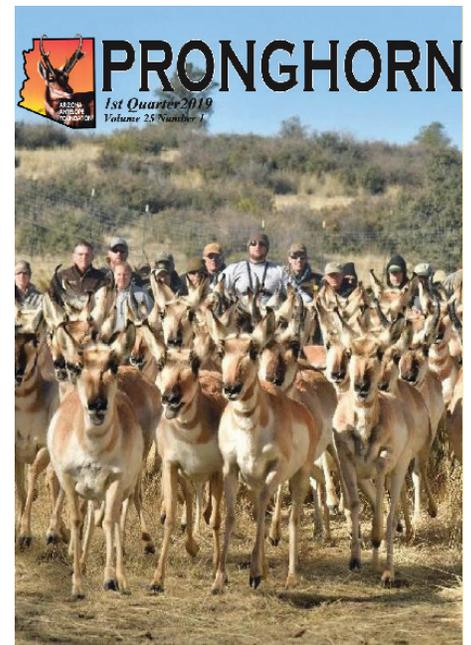
Volunteerism and the AAF

Volunteers are critical to AAF's annual habitat modification success. AAF bylaws require that a minimum of four field habitat improvement projects are conducted annually; for the past several years this number has averaged six. Projects are typically removal/replacement or modification of existing range fences to improve habitat connectivity in key pronghorn herd zones. These projects are located at trailer-friendly campsites complete with portable toilets, full-course dinners on Friday and Saturday evenings, and breakfasts on Saturday and Sunday mornings. Numbers of volunteers vary from 30 to 60 and most fence modifications can be completed on two miles of fence on a single 8 am – 5 pm Saturday workday. All required tools and gloves are provided. Volunteers are asked to pack their own Saturday field lunch. To volunteer for a project, membership is not required, but is appreciated.

Membership is available for just \$40 per year, which includes four, full-color, award-winning quarterly magazines featuring the work accomplished in the previous quarter. You are invited to join AAF as a citizen conservationist volunteer soon!

For more information about AAF: azantelope.org
For membership information: azantelope.org/Join
To view archives of previous issues: azantelope.org/Magazine

Reference: Arizona's Pronghorn Antelope, A Conservation Legacy by David E. Brown and Richard A. Ockenfels, 2007 (azantelope.org/Store)



In a Native Place



An Apache trout landed on the Little Colorado River. Photo courtesy of Daniel A. Ritz.

By Randy Schofield, Previous Director of Communications for the Southwest Trout Unlimited Region

In the Western Apache worldview, humans share the earth with birds, elk, fish, insects, plants. Water, air, rocks—all are alive. All are part of the community of life here.

The land is also full of stories. If you know the stories, say Apache elders, the land speaks to you and teaches you how to live.

I am driving with Tim Gatewood—the White Mountain Apache tribe’s longtime fisheries manager—through the cool pine forests and backcountry meadows of the Fort Apache Indian Reservation in east central Arizona. He is pointing out lakes and campsites, telling stories about things he’s seen on the land, and explaining the tribe’s mission to preserve the native Apache trout that have thrived for eons in these rugged mountains. Tim tells me that, as original inhabitants, Apache trout belong to this place and have a right to exist. “We respect all creatures,” says Tim. “We respect the water and the life that was found there in the beginning.”

“Once you destroy things, a lot of times they don’t come back,” he adds. “They’re gone forever.”

Tim knows something about loss. Later that day, driving up Log Creek road, Tim pulled the truck over to the side, and parked.

“This is where it happened,” he said. By the side of the road stood a polished headstone—incongruous in the remote forest setting. The inscription read, “Tenney Gatewood Jr., Sept. 11, 1961-Dec. 9, 1999.”

In 1999, he told me, his big brother Tenney, a tribal police officer, answered a report of a burglary and tracked the suspects to this remote spot. After a brief scuffle, one of the men wrestled away Tenney’s service revolver and shot him to death. Tenney was 38 years old.

“They say time heals all things,” Tim said, slowly, his voice thick. He put on his sunglasses. “But it doesn’t. There are some things you never get over.”



The distinctive “mask mark” in the eye of a genetically distinct Apache trout. Photo courtesy of Daniel A. Ritz.

After a moment, he put the truck in gear and drove on.

Around the time of his brother’s death, Tim got a job with the tribal game and fish department and focused on the things that have shaped his life purpose—his son Justin (a newborn when Tenney died), his wife, his community, and his job protecting tribal lands, waters, and wildlife.

“You have to take care of what you have,” he told me. Over the decades, the White Mountain tribe has worked to steward the incredible bounty of their land as a way to preserve their cultural identity and heritage as well as provide a sustainable future based

“How will it breathe, this earth?” Then came Black Thunder to that place, and he gave the earth veins. He whipped the earth with lightning and made water start to come out.”

—The Earth Is Set Up, Western Apache creation story

on outdoor recreation, logging, and other resource-based businesses. It’s an inspiring conservation success story. And at the heart of it is the Apache trout.

In Arizona’s frontier days, native Apache trout were plentiful in these mountain headwaters, inhabiting 800 miles of streams. The Apache trout, which is closely related to the rainbow, is perfectly adapted to the extremes of flood and drought that characterize these small streams. Apaches have medium-sized spots spread evenly on their olive body, and a creamy yellow underbelly. There is nothing like them on Earth—that’s why the reservation has become a destination for anglers from around the world.

In 1876, an advertisement in Arizona newspapers proclaimed that the Apache trout, then known as speckled mountain trout or “yellow bellies,” provided “rare sport to followers and devotees of Izaak Walton.” In 1939, one old-timer of the Fort Apache area recalled fishing the streams of the White Mountains in his youth: “I personally remember that from 1898 to 1916 the fish were so plentiful that it

was no trick for a boy to catch 100 in a few hours or 200 in a full afternoon.”

Not surprisingly, such overfishing led to serious declines in Apache trout numbers. Then, in the decades before World War II, the Bureau of Indian Affairs, without consulting the tribe, instituted exploitative ranching, farming, and timber policies that scarred the health of reservation lands and degraded waters. At the same time, to address the declining Apache trout populations, state and federal agencies implemented a wrong-headed hatchery program that emphasized populating tribal streams with non-native fish.

“People brought in browns, rainbows, brookies—these outcompeted the Apache trout and pushed them into a few head-water sanctuaries,” says Gatewood.

Apache trout populations plummeted.

By the early 1950s, Apache trout were in serious trouble—the last remaining pure-strain populations isolated in a handful of streams on Mount Baldy, the sacred mountain that overlooks the Fort Apache Reservation. They populated fewer than 30 stream miles. They were on the brink. In 1955, they closed fishing on Mount Baldy headwater streams that contained pure-strain Apache trout.

Then something remarkable happened. The White Mountain tribe realized that their cultural heritage and identity was at stake. Decades before the Endangered Species Act, they moved decisively to recognize the Apache trout as deserving of special protection.

In coming years, the tribe worked to restore riparian habitat along streams and rivers damaged by overgrazing and erosion. They built and maintained barriers on native trout streams on Mount Baldy to ensure that non-native trout couldn't infiltrate these last refuge areas.

It was the beginning of a remarkable turnaround for Apache trout—and for the tribe, which began developing its own outdoor recreation program to enhance angling and hunting opportunities on the reservation and build its own tourism economy.

The tribe, working with state and federal agencies, also began a hatchery program for Apache trout that today raises millions of trout eggs that are hatched and grown into catchable-size fish; each year, about 100,000 Apache trout are stocked in lakes in May and June and weekly throughout the summer in area streams, such as the North Fork of the White River.

In 1975, the White Mountain Apache Tribe, Arizona Game and Fish Department, U.S. Fish and Wildlife Service, and U.S. Forest Service formed the Apache Trout Recovery Team, with the goal of restoring the species to historical levels and ensuring its long-term survival. The partnership includes Trout Unlimited (TU) and other private conservation groups.

Most observers say the White Mountain tribe's early and visionary action is primarily responsible for preventing the extinction of Apache trout. “The tribe's leadership was monumental for conservation of Apache trout,” says Julie Meka Carter, manager of Arizona Game and Fish's aquatic program. “Our present recovery plan relies entirely on their early protection of those relic lineages.”

Six decades later, the headwater streams, high on Mount Baldy, remain closed to fishing. In the tribal management philosophy, there is a place for recreation—and there is a place for conservation. The popularity of the stocked streams, says Tim, helps protect and ease the pressure on the Mount Baldy streams that shelter the most pure-strain and wild Apache trout. These are the ancient ones, who safeguard part of the tribe's story and identity.

While Apache trout are on the rebound, they remain—like other Southwestern natives such as Gila trout and Rio Grande cutthroats—threatened by looming pressures such as climate change,

drought, and wildfires. The massive Wallow Fire of 2011 scorched more than 500,000 acres nearby. By expanding the number of streams that harbor Apache trout—such as on the West Fork of the Black River, where a new barrier this spring opened up 14 miles of water to Apache trout reintroduction—the tribe and its partners hope to build resilience into the native trout population.

Apache leaders know that a key to preserving their homeland’s resources is tribal youth. They want young people to know not only biology and science and technical skills; they want them to know their land, and its creatures and stories.

Tim wants the land to speak to them. When Justin was younger, he often rode along while Tim patrolled the reservation backcountry.

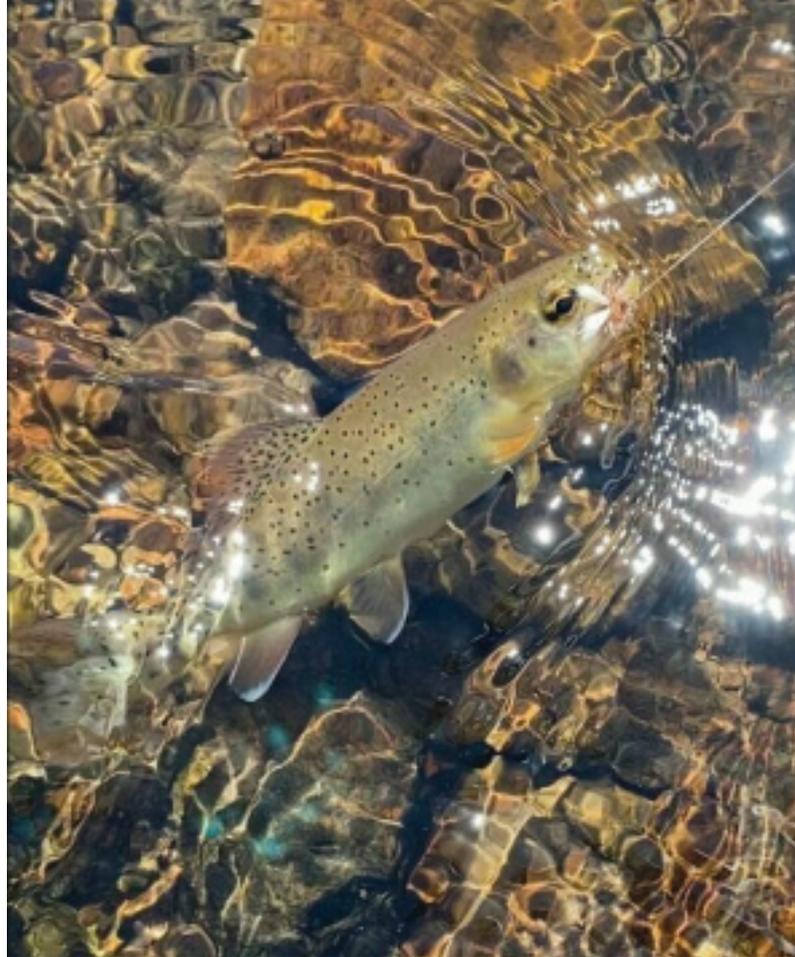
“When I took him places, I’d tell him, ‘This is your backyard,’” said Tim. “When I see something, I want him to see these places. A lot of the young people haven’t seen these different areas. A lot of the young people had never seen Cibecue Falls. They were very impressed. And you know what? A lot of parents have never seen those places. Those kids will be guides for the parents, taking them to some of these special places.”

The Fort Apache schools have begun incorporating TU’s Trout in the Classroom program to teach Apache youth about the life cycle of trout.

In recent years, with the support of the U.S. Forest Service and Southwest Tribal Fisheries Commission, the tribe started a Youth Conservation Corps summer program for Apache teenagers. This summer, eight high school students, including his son, Justin, signed up for an eight-week course to learn more about the reservation’s wildlife. They electroshocked streams and took fish surveys, helped trap and collar elk, and learned how to analyze a stream for flow and riparian health.

They also are allowed to be kids, discovering garter snakes and frogs.

Tim clearly wants Justin to follow in his footsteps. Whether or not that will happen is unclear—Justin



An Apache trout caught on the West Fork of the Black River: Photo courtesy of Daniel A. Ritz.

said “maybe” when I asked him if he wanted to work with wildlife on the reservation. He loves to draw and has other interests. Like many young Americans, he feels the pull of electronic screens and distant places.

But thanks to the summer program, he and other Apache youth also now have stories to tell about their experience on the land. Tim’s work is coming full circle.

In the reservation office, I see a t-shirt with a Rachel Carson quote: “The real wealth of the Nation lies in the resources of the earth — soil, water, forests, minerals, and wildlife.”

Up in the headwaters of Mount Baldy, the Apache trout silently swim on, hold on, secure in their place on Earth.

The land is full of stories.

For more info on TU’s work on the Apache trout and AZ in general, please contact Arizona State Lead Nathan Rees at Nathan.Rees@tu.org

Arizona Pollinator Portfolio, with Photos by Bruce Taubert



Queen butterfly (Danaus gilippus).

By Keith Ashley, AWF Development Director

Beyond the monarch or look-alike queen butterfly, which Arizona pollinators can you name and identify? Do you know which local species are threatened – and what you can do to support them? It's worth noting that butterflies and bees aren't the only creatures pollinating our plants – birds, bats, beetles, flies, wasps, and other insects are also critical. Given their small size, pollinators easily remain invisible to most of us in our everyday lives, but they are nevertheless foundational to the food chain for both humans and wildlife alike. According to the U.S. Fish and Wildlife Service, as of 2020, more than 70 species of pollinators were listed as threatened or endangered nationally.

Photography offers a special key to helping us all more easily connect with and become inspired to protect our native pollinating animals. The following portfolio of a few Arizona pollinators is a gift to AWF from accomplished wildlife photographer Bruce Taubert. With a Ph.D. in wildlife management, Bruce retired from the Arizona Game and Fish Department in 2007. He has been photographing wildlife from around the world for more than 30 years and hopes that his photos can support local, regional, and national conservation efforts.

May these beautiful images help to better connect you with Arizona's wealth of pollinating wildlife!



Diadasia diminuta is one of Arizona's 1,043 native bee species of which 511 are floral specialists. Their pollination services are tied to a particular species of plant, in this case the desert globe mallow (*Sphaeralcea ambigua*). They nest in colonies in the ground.

Bright yellow butterflies like the sleepy orange (*Abaeis nicippe*), Mexican yellow (*Eurema mexicana*), and cloudless sulphur (*Phoebis sennaa eubule*) can be difficult to differentiate, but all are easily attracted to native acacias, sennas, legumes, and milkweeds you can plant at home.



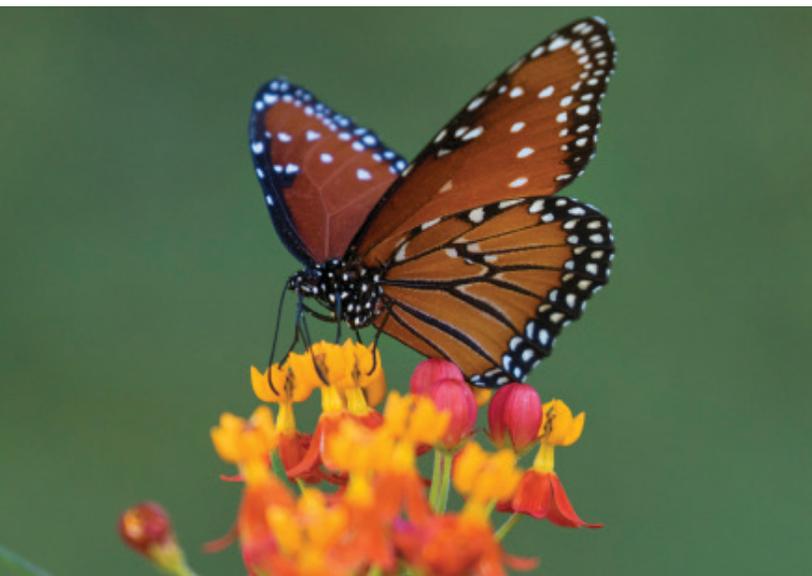
Critical to American agriculture, this non-native European honey bee (*Apis mellifera*) is visiting a saguaro cactus blossom. Honey bees can compete with native bees for resources, which presents complicated conservation questions.



The Lucifer sheartail hummingbird (*Calothorax lucifer*) is an uncommon resident of southeast Arizona from April to October. Flowering native shrubs that attract hummingbirds, such as yellowbells (*Tecoma stans*), are common in the nursery trade and require minimal water.



A close relative of the monarch, the queen butterfly (*Danaus gilippus*) feeds exclusively on plants in the milkweed family while in its larval stage. The adults can be attracted to home gardens through the nectar provided by many native and desert-adapted plants.



Centris pallida is a solitary bee (they don't live in colonies) sometimes known as the digger bee, because of its ground-nesting habit. Like nearly half of Arizona's 1,043 native bee species, the digger bee is a specialist that pollinates palo verde trees.



The rufous hummingbird (*Selasphorus rufus*) migrates as far as 3,900 miles (one way!) and requires nectar at every stop on its journey. While non-native thistles can be invasive, at least 13 species are native to Arizona and an important food source for pollinators.

The adult rustic sphinx moth (*Manduca rustica*) feeds on nectar from night blooming flowers such as this sacred datura (*Datura meteloides*).



The ecological functions, resplendent beauty, and natural history interest of our native Arizona pollinators are enormous. All the more reason to be concerned about the plummeting numbers of pollinators around the globe. Threats include loss of habitat, the proliferation of non-native and invasive plant species, drought, climate change, and pesticide use and abuse. One way you can directly and immediately address the pollinator crisis is by gardening for wildlife and creating habitats for pollinators in your own yard or community.

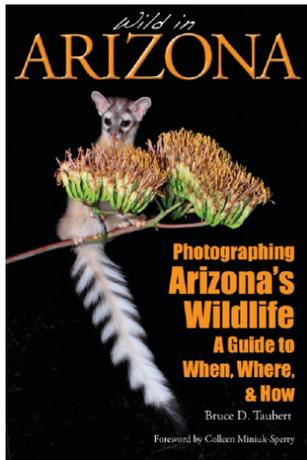
To see more of Bruce Taubert's wildlife photography, follow his instagram account @brucetaubert and check out his website: www.brucetaubert.smugmug.com.

You can find resources on gardening for wildlife on our website at: azwildlife.org/garden-for-wildlife. We will be updating these pages throughout 2024.

Bruce Taubert Photography and Arizona Pollinator Resources:

Wild in Arizona: Photographing Arizona's Wildlife, A Guide to Where, When, & How

Bruce D. Taubert

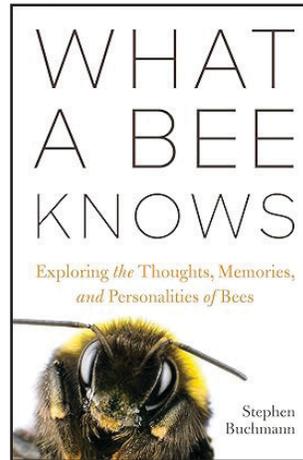


Whether you are a beginning shutterbug, a professional photographer, bird-watcher, or wildlife enthusiast, *Wild in Arizona* will help you easily find, identify, and make stunning photographs of Arizona's most fascinating birds, mammals, reptiles, insects, and more.

Available on Bruce's website: www.brucetaubert.smugmug.com

What a Bee Knows: Exploring the Thoughts, Personalities, and Memories of Bees

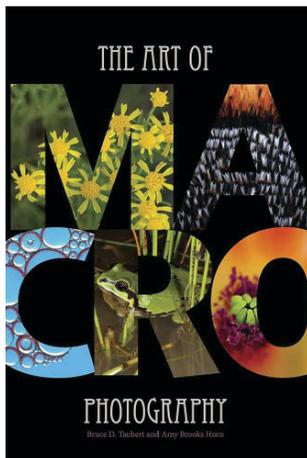
Stephen Buchmann (2023)



In *What a Bee Knows*, entomologist Stephen Buchmann explores a bee's way of seeing the world and introduces the scientists who make the journey possible. We travel into the field and to the laboratories of noted bee biologists who have spent their careers digging into the questions most of us never thought to ask. Available on Amazon.com

The Art of Macro Photography

Bruce D. Taubert, Amy Brooks Horn (2018)



There is an incredible "wow factor" when one looks at images that show small pieces of the natural world. If you enjoy viewing a bug's eyes, flower pistils and stamens, or lacy details of frost then macro photography is for you. Available on Amazon.com

Tucson Bee Collaborative:
www.tucsonbeecollaborative.com/
 With over 700 species of native bees, the Sonoran Desert Region is predicted to be home to one of the greatest diversities of bee species in the world! We need them, and in many cases, we don't even know their name. The Tucson Bee Collaborative is a partnership effort to increase awareness of Tucson's exceptional bee diversity, and to empower future scientists by engaging them in research activities.

Arizona Monarch Collaborative:
www.azmonarchcollaborative.com/
 A group of organizations and individuals whose main goal is to promote monarch butterfly conservation as well as advocating for the protection of important pollinator habitat.



Are You Ready to Become an Outdoors-Woman?



Registration Opens Soon for AWF's award winning women's outdoor skills program!

www.azwildlife.org/BOW



2024 BOW Weekends:

April 26-28 — Friendly Pines Camp, Prescott

September 6-8 — Friendly Pines Camp, Prescott

REGIONAL ROUNDUP

The 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!



Region 1 Director's Report

By Bob Vahle, Regional Director

Apache-Sitgreaves National Forest (ASNF):

1. Heber Wild Horse Territory (HWHT) - Management Plan:

The AWF continues to await the completion of a HWHT Management Plan which was originally required at the passage of the 1971 Free Roaming Wild Horse and Burro Act as previously reported. The HWHT was scheduled to be completed by the ASNF by March 2022. The AWF has been actively involved since 2017, to help the ASNF develop a management plan for the 19,000-acre HWHT near Heber-Overgaard, AZ on the Sitgreaves portion of the ASNF. To date, the Final Environmental Impact Statement (FEIS) - HWHT Management Plan has not been completed, approved, and implemented. It is hoped that if the management plan is completed and implemented it will retain the following key management provisions that were identified in the Draft Environment Assessment (DEA) - HWHT Plan issued for public comment in March 2021 and strongly supported by the AWF.

- Establish the appropriate management level of 50-104 horses to maintain a thriving natural ecological balance

- Establish population control techniques
- Identify criteria to be considered when determining whether excess wild horses are present and require removal.
- Describe methods to be used to gather and remove excess wild horses.
- Describe fertility reduction methods that may be implemented to slow herd growth rates and reduce the number of excess animals that must be removed over time.
- Establish an adaptive management strategy that identifies potential management actions based on monitoring results

As a result of not completing a HWHT Management Plan, the ASNF has been totally restricted by a federal court injunction from removing any unauthorized "feral horses" on the Sitgreaves portion of the ASNF since 2005. The injunction (sanctioned by horse advocates) prohibits the ASNF from removing unauthorized feral horses from the forest. At the time of the injunction, there were some 300-400 feral horses adversely impacting forest vegetation, water resources, and wildlife habitats.



Unauthorized "feral horses" within 1-2 miles of the Pinetop-Lakes Country Club, Pinetop Country Club, and Pinetop-Lakes Residential Area in the Apache-Sitgreaves National Forest.

Consequently, uncontrolled feral horse populations on the Sitgreaves portion of the ASNF have expanded and are now residing in close proximity to communities such as Pinetop-Lakeside, Arizona. Currently, a band of 20 feral horses in Pinetop-Lakeside is causing damage to residential areas and country clubs (e.g., grazing and hoof damage to golf greens/fairways, and residential yards). In addition, the area occupied by this feral horse population is used heavily by the public for hiking and mountain biking where potential negative interactions with feral horses could become a public safety concern. These nuisance horses are of concern to the community, and impacts will continue to occur until the feral horse populations are controlled and removed.

The ASNF "Schedule of Proposed Actions" currently indicates that the completion of the HWHT Management Plan and Decision will be completed in December 2023 and Implemented in January 2024. The AWF hopes that these actions will finally be completed and implemented.

2. Population Removal of "Feral Horses" on the Alpine RD and Springerville RD:

As previously reported, the AWF will continue to strongly support the ASNF in its proactive actions to contract for the humane capture and removal of unauthorized livestock and "feral horses" on the Apache portion of the ASNF. To date, there have

been approximately 500 feral horses removed from the Alpine and Springerville Ranger Districts. These horses are considered "trespass/unauthorized livestock" and are not protected as "wild horses" under the provisions of the 1971 Free Roaming Wild Horse and Burro Act. The feral horse population (which is increasing and can double its population every 5 years if not managed) must be removed from federal public lands particularly when they are causing significant natural resource damage to vegetation, soils, water, and habitats for native wildlife species.

The ASNF issued six temporary area closure orders for gathering unauthorized livestock (i.e., both feral horses and cattle) during the gathering operations. The purpose of the area closure orders was to protect public health and safety during operations to gather unauthorized/unbranded livestock in the described areas and time periods. For more detailed information on the ASNF actions to remove feral horse populations in these areas and maps of the closure areas please visit the ASNF website at: www.fs.usda.gov/detail/asnf/landmanagement

3. 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

Region 1 Director's Report, Cont'd.

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 considering the significant increase each year of the sales and the use of Off Highway Vehicles (OHVs) on the ASNF.

The ASNF has now reported in their "Schedule of Proposed Actions" that the completion of the Final

EIS and Decision for the PMTMP will be issued to the public in March 2024, with the expected implementation to begin in April 2024. Until the plan is implemented, the potential misuse of OHV vehicles by the public (i.e., illegally driving cross country off designated roads/trails; and violating signed closure areas that restrict OHV use) continues to increase across the ASNF causing damage to natural resources (e.g., vegetation, soils, and water health) and important wildlife habitats.

Region 5 Director's Report

By Duane Aubuchon, Regional Director

Habitat Partnership Committee (HPC)

The Arizona Wildlife Federation (AWF) reviewed the applications for the 2023 Arizona Game and Fish Department HPC grant cycle. Funding for these grants comes from the auction or raffle of special tags for each of Arizona's big game species, all to implement conservation projects to benefit those species and their habitats. This year, the program included over 35 grant applications funded with nearly four million dollars. These projects included several prescribed burns, juniper mastication/removal, and forest thinning projects to restore grasslands and other landscapes, as well as improve wildlife travel corridors. Additional projects included water developments, emergency water hauling to maintain catchment supplies, and bighorn sheep surveys and disease testing. The AWF attended the funding meeting in November and provided input on the process and projects.

San Pedro Riparian Natural Conservation Area Grazing Allotments

Conservation groups have long asserted that livestock grazing is having impacts to the San Pedro Riparian Natural Conservation Area (SPRNCA) and the Bureau of Land Management (BLM) is failing to adequately protect the SPRNCA by continuing to authorize grazing on four allotments and not removing trespass cattle from the area. As reported previously, Maricopa Audubon Society and the Center



San Pedro Riparian National Conservation Area, Photo Courtesy of the Bureau of Land Management (BLM) Arizona.

for Biological Diversity appealed to stay the decision that authorized new 10-year grazing permits on the four allotments. The BLM decision would renew the grazing leases for ten years, continue to implement adaptive management, authorize construction of new fencing and livestock waters to reduce use of the riparian areas, and temporarily reduce grazing use from 1540 AUMs (animal unit months) to 770 AUMs until the allotments reach land health objectives. However, the decision acknowledges that the actions will negatively impact resources within the SPRNCA,

though they will also have multiple beneficial effects. The Court denied the Stay, because the appellants did not show that the relative harm favors a stay or that they are likely to suffer immediate and irreparable harm if a stay is not granted.

Skeleton Canyon Access

Based on a request from the New Mexico Wildlife Federation, the AWF checked in with the Arizona Game and Fish Department and the Arizona State Land Department on a proposed access route into Skeleton Canyon in the Peloncillo Mountains of the Coronado National Forest. This access route originally crossed several miles of private lands and was closed to the public over 15 years ago. New routes have been suggested since that time, with little progress occurring. The AWF expressed our support to each state agency with a planned route across state lands in Arizona. Both agencies support the access route and have initiated the process to try and move the planned route forward.

Santa Cruz County Hermosa Mine

Located on private lands in the Patagonia Mountains but impacting the Coronado National Forest through new road and transmission line construction, the Hermosa Mine project will require few state permits

from the Arizona Department of Environmental Quality. However, infrastructure will likely require federal environmental review. As such, the Federal Permitting Improvement Steering Council, an independent federal agency, published the proposed permitting timetable for South32's Hermosa Mine project. The timetable includes completion dates for all federal environmental reviews and authorizations for full project development.

Their proposed permitting timetable predicts the project will take place in three phases: the Mine Plan of Operations will be submitted and approved by December 2023; Hermosa's Environmental Impact Statement process - from notice of intent, public comment periods, and final EIS publishing - will occur over the course of 2024 and 2025; and federal authorization for full development will occur in 2026.

The Hermosa project is currently the only mine in the US that could produce two designated critical minerals – manganese and zinc – which are essential minerals to produce battery-grade manganese for electric vehicles. However, wildlife organizations anticipate impacts to forest resources and public access.

Region 6 Director's Report

By Jon Hanna, Regional Director

Tonto National Forest New Land Management Plan

On December 8, 2023, Neil Bosworth, the Forest Supervisor for the Tonto National Forest, signed the Record of Decision (ROD) for the revised Land Management Plan for the Tonto National Forest. The ROD documents the rationale for approving the revised land management plan and is consistent with the Reviewing Officer's responses to objections and instructions. These and other project documents can be found on the schedule of proposed actions webpage at: www.fs.usda.gov/project/?project=51592.

The revised land management plan describes desired conditions, objectives, standards, guidelines, and land suitability for site-specific project development and decision-making and will guide all resource management activities in the Forest.

Major actions include:

- Five recommended wilderness areas (106,204 acres, including one stand-alone area of 23,296 acres), four botanical areas (3,630 acres), four recommended research natural areas (25,707 acres), and 19 eligible Wild and Scenic River segments (188 miles).



- Increasing timber production by 15.4 million board feet; a 200% increase.
- Implementing 50,400-124,000 acres of mechanical treatments over a 10-year period (44% to 230% increase from current) and employing a combination of prescribed and naturally ignited fire to treat 175,000-649,000 acres (about 100% increase from current).

the Resolution Copper Mining Project now has a 12-page Good Neighbor Agreement (GNA) for signature and ratification for each attending individual or organization. The Superior Town Council is expected to take formal action on the agreement at a January 2024 meeting and is planning to hold a formal signing ceremony with the town, Resolution, and each signatory.

For more information about this project and the planning process, visit the Tonto National Forest website at: www.fs.usda.gov/main/tonto/landmanagement/planning



Tonto National Forest Globe Ranger District
A meeting was held in early December with Globe Ranger District range staff to discuss the management of grazing allotments. The range staff will maintain resources for wildlife after cattle are moved from allotments and are open to further meetings with AWF to discuss any concerns.

Superior Community Working Group
The Superior Community Working Group (CWG) for



Affiliate Spotlight: Southern Arizona Quail Forever and Valley of the Sun Quail Forever

In this edition of AWN, we spotlight two of our associated Affiliates, the Southern Arizona Quail Forever and Valley of the Sun Quail Forever (VOTSQF) Chapters. Both of these organizations are dedicated to the success of Arizona quail species through habitat projects, events, and public education. They are both local Arizona chapters of the National Quail Forever organization.

Southern Arizona Quail Forever (SAQF)

SAQF's mission is to sustain and improve quail and other wildlife populations with habitat improvements and other conservation efforts. They also promote the outdoors and hunting through the protection of and access to public lands. Each year, they have a variety of habitat and research projects, all improving the region's resiliency to environmental stressors.

In the last year alone, SAQF has:

- Installed a total of 230 water-harvesting erosion control structures, including 120 one-rock dams, 79 hybrid log rock structures, 23 trincheras, and 3 Zuni bowls.
- Collected and planted 15+ pounds of native seed
- Outplanted 50 quail food plants grown in the BRN Nursery
- Engaged at least 12 high school-aged youth in restoration projects
- Engaged at least 20 volunteers
- Supported jobs for 8 restoration practitioners through BRN



Additionally, SAQF holds several exciting annual events throughout the year including QuailFest, which was just held on December 3rd and had an amazing turnout of 200 people in attendance! **See more about a fascinating seed collection project worked on at QuailFest in the next article on page 25.** Want to get to know the members of SAQF better? Consider attending their banquet on February 3, 2024, at the Fairgrounds in Sonoita. They also hold a Family Day event every year in partnership with the Arizona Game and Fish Department, which will be held on March 2nd, 2024 at the Empire Ranch Airstrip Group Campsite (Register here: www.register-ed.com/events/view/199804).

www.saquailforever.com/

Valley of the Sun Quail Forever (VOTSQF)

The Valley of the Sun Quail Forever (VOTSQF) is the Phoenix chapter of the national organization, Quail Forever. VOTSQF is primarily a habitat focused organization that also engages youth and families in outdoor education. Although a chapter of the national organization Pheasants Forever/Quail Forever, other than the \$35 membership fee, every dollar that



Affiliate Spotlight, Cont'd.

VOTSQF raises in Arizona, stays in Arizona. This is a unique model for a nationally related habitat organization and resonates with members and volunteers who want to make a difference in the place where they live.



VOTSQF's activities and programs include:

- Arizona Small Game Challenge
- Free Pollinator seed packets at local Arizona Libraries
- Source for Native pollinator seeds vetted by Arizona Game and Fish and the Arizona Botanical Garden
- Water for Wildlife at Robbins Butte Wildlife Area, Arizona

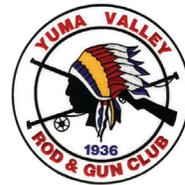
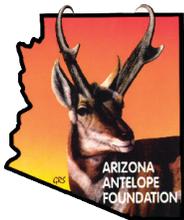


- The annual Women's Quail Hunt at Horseshoe Ranch, Arizona
- Annual open-to-the-public Quail Hunts at the Roper Lake and Roosevelt Lake areas in Arizona
- Annual rattlesnake avoidance training in Arizona
- Annual partner events at Youth Turkey, Youth Deer, and Youth Javelina Camps in Arizona

Are you interested in learning more and making a positive difference for habitat in Arizona? Visit the VOTSQF website where you can sign up for a membership and to receive their newsletter:

www.votsqf.com/

Thank You to Our Affiliates!



The Mearns' Quail Project



Mearns' Quail in Sonoita Arizona. Photo Courtesy of Mark Stromberg.

By Mark Stromberg, Adjunct Professor at the University of Arizona

Have you heard of the Mearns' Quail Project? This project's ultimate goal is to plant food plots for Mearns' quail in order to support and increase the Mearns' quail population in Arizona. Partners working on this include Tucson Audubon, Borderlands Restoration Network Native Plant Nursery, U.S. Forest Service, Arizona Sportsmen for Wildlife Conservation, and Southern Arizona Quail Forever. Hunters can help enhance the food plot plantings by providing crops from their harvested Mearns' quail. At this past year's QuailFest — an amazing event hosted by our affiliate Southern Arizona Quail Forever — hunters were encouraged to bring their crops to support this project — and they did!

Understanding the diet of a game bird reveals which parts of the landscape are critical, and for Mearns' quail — also known as Montezuma quail — among the most important foods are nodules produced on the roots of a few different plants: nutsedge, *Oxalis*, and the tepary bean.

Quail hunters, working with wildlife researchers, have played a critical role in determining the diet of Mearns' quail. This project goes a long way in improving the habitat quality of Mearns' quail, and hunters are a huge part of that.

Among species of quail, Mearns' have extraordinarily long toes, including a central toe used for digging. As such, Mearns' quail dig up most of their food. They dig many conical holes, just about as deep as they can settle into. A majority of their diet are acorns, as they are most common in the oak savannas. Acorns underground? Their neighbor, the Mexican jay, a member of the genus *Aphelocoma*, is known to bury and then later find over 5,000 acorns over the course of a year! When Emory oaks have a good crop of acorns, Mexican jays spend all day hiding acorns under leaves. Later on, Mearns' quail find some of these acorns.



Mearns' fall crop with contents. The larger brown nodules are nutsedge and the smaller, often white nodules are from Oxalis. Seeds form only a small percentage of the diet. Photo Courtesy of Mark Stromberg.



Nutsedge is an ephemeral monsoon forb, or herbaceous flowering plant, that is a dietary favorite of Mearns' quail. The root nodule is shown in the left photo and the native nutsedge is shown on the right. Photo Courtesy of Mark Stromberg.

Plants with underground nodules are important in the Mearns' diet. Most abundant in the crops of Mearns' quail are nutsedge and *Oxalis*. Nutsedge, as shown in the two photos above, grows in shady, riparian areas, with sedge-like stems, triangular in cross-section.



Native tepary bean plant and seeds grown from Mearns' quail crop contents from the Santa Rita mountains. Photo Courtesy of Mark Stromberg.



Root nodules of Oxalis, as shown in the left image. The plant's leaves resemble a four-leaf clover. Photo Courtesy of Angel Montoya.

Oxalis grows during the monsoon season in riparian, shady habitats with good soil moisture, as shown in the photo on the right.



Oxalis growing in Hog Canyon in the Santa Ritas. Photo Courtesy of Mark Stromberg.

Another important food plant for Mearns' is the native tepary bean, (*Phaseolus acutifolius*). If these plants are grazed to the ground before they

can produce root nodules, food supplies for Mearns' will be limited.

Are you interested in participating in the Mearns' Quail Project or know a hunter who might be? For a pre-paid shipping box to send quail crops to the program, contact:

Aya Picket
Tucson Audubon
Restoration Project
Manager
520-627-8120



Mearns' quail digging a feeding pit. Photo Courtesy of Mark Stromberg.

A very special thank you to the partners of this project and the hunters who have supported it through their participation!

Your Support Matters to Wildlife and Public Lands

Each dollar you give to the Arizona Wildlife Federation helps to fulfill our mission and makes you a part of the Federation family. From our engagement of volunteers in hands-on efforts to support wildlife, to our advocacy efforts with legislators in Arizona and Washington DC, we depend upon your generosity and conservation spirit.

There are many ways to join our mission:

BECOME A MONTHLY DONOR – monthly gifts create a reliable and predictable source of income for our efforts.

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

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

MAKE A ONE-TIME DONATION – did you know that you can give in honor or in memory of someone important in your life?

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Or contact our Development Director to discuss giving options.

Keith Ashley | keith@azwildlife.org | 520-488-2981



Photo Courtesy of Collin Goode

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