ARIZONA WILDLIFE SUMMER 2018



VOLUME 60 - ISSUE 2

OFFICIAL PUBLICATION OF THE ARIZONA WILDLIFE FEDERATION - CONSERVING ARIZONA'S WILDLIFE AND HABITAT

Where's Aldo?

Uranium Mining in the Grand Canyon: Where Would Aldo Leopold Stand?
See Page 12 for our feature article by AWF's Wildlife Coordinator, Scott Garlid

ARIZONA WILDLIFE NEWS

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In This Issue

Page 3	Message from the President
Page 4	Regional Roundup
Page 7	Spotlight on Affiliates
Page 8	Conservation Corner
Page 9	Legislative Highlights
Page 11	Get Outside, Arizona
Page 12	Feature: Where's Aldo?
Page 16	BOW Happenings
Page 20	Gardening For Wildlife
Page 21	Camp Cook
Page 22	Members

AWF MISSION STATEMENT

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

The front cover is a picture of Kanab mine overlooking Kanab Creek and the Grand Canyon. Courtesy of EcoFlight

The back cover image was captured by Bailey Vidler at the Desert Botanical Gardens. Visit Bailey's website to view more images at baileyvidler.com or on Instagram @vidlercreative

Special thanks to Ryan Kreuzer for the cover design & layout.

If you have a photo you would like to submit for our cover, please contact Kimberlee at awf@azwildlife.org

ARIZONA WILDLIFE NEWS * VOLUME 60* SUMMER 2018

published by the ARIZONA WILDLIFE FEDERATION An Affiliate of the National Wildlife Federation PO Box 51510, Mesa, AZ 85208 * 480-644-0077

The official publication of the Arizona Wildlife Federation, the state affiliate of the National Wildlife Federation, Arizona Wildlife News (ISSN) is published quarterly as a service to affiliate members and Federation members. AWF is Arizona's oldest conservation organization. The editorials and commentaries in this publication do not necessarily reflect the mission or position of the Arizona Wildlife Federation. AWF is an equal opportunity provider.

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Message from the President

By Brad Powell

Summer is rapidly approaching. This year's winter brought record low levels of rain and snow to our high country. We are sure to be facing numerous closures to our public lands until the monsoon season hopefully brings us some relief. This year is shaping up to be one of those "bad fire seasons". Drought and the effects of rising temperatures are having significant effects on the State's wildlife habitats. In May we held our 95th Annual meeting! Preparing for the meeting had me thinking about all of the current political issues that are affecting our State and its wildlife (Grand Canyon mineral withdrawal, bad public land takeover bills, reduced budgets for land managing agencies). This got me to thinking about the history of our Organization and what has made it successful for many years.

This year marks the 95th anniversary of the Arizona Wildlife Federation. We started in 1923 as the Arizona Game Protection Association (AGPA). Many of us dream of the "Good Ole Days", but when it comes to our states Wildlife, Arizona's history was anything but good for them. Hunting year-round and market hunting had decimated most of Arizona's big game populations. Arizona's fisheries were in rapid decline. Merriam's elk were gone, desert bighorn sheep were reduced to a fragment of their historic populations, pronghorn antelope which were once abundant were gone from the Arizona strip and all of southern Arizona, grizzly bears and wolves were rapidly disappearing. In 1912, the year of Statehood, a State Game Warden was appointed and some fish and wildlife rules put in place. Unfortunately these rules and the Warden's staff were not effective and were highly influenced by politicians in the State. The States wildlife populations were in peril.

The AGPA was formed from the joining of numerous local Associations. The first was in Flagstaff followed by local groups in Springerville, Tucson, Payson, Globe and Prescott. The renowned ecologist, Aldo Leopold played a key role in starting these local groups and bringing them together.

On an October day in 1923, these groups got together, elected Tom McCullough as President and began a process that changed the course of wildlife management in Arizona. They faced almost insurmountable challenges at that time that they overcame with wisdom and persistence. They wrested manage-ment of wildlife away from the politicians. Beginning in 1924, they tried to repeal the current game and fish code and to estab-lish a Commission system that would have regulatory authority and an agency staffed with science trained professionals. In 1928, the AGPA had grown to 17 locals (8 in the last year).

At their annual convention they developed a voter referendum to cancel the States Game Rules. The Resolution was on the ballot in November of that year and Arizona voters passed it. At that point Arizona had no governing laws for Fish and Wildlife. The AGPA developed a new Bill that established the Game and Fish Commission (with regulatory authority) and established a Department staffed with scientifically trained personnel. That law is still the primary piece of legislation that guides the Commission and the Department.

The AGPA's original objectives were to:

-Secure proper and scientific management of our fish, wildlife and other resources for the full enjoyment of ourselves and our posterity.

-To secure a game and fish commission and department to be sufficiently staffed with competent personnel free to work without political obligation or interference. To give the commission broad regulatory powers to enable them to accomplish their purpose.

-To educate the public with the principles of sportsmanship and the need for proper resource management.

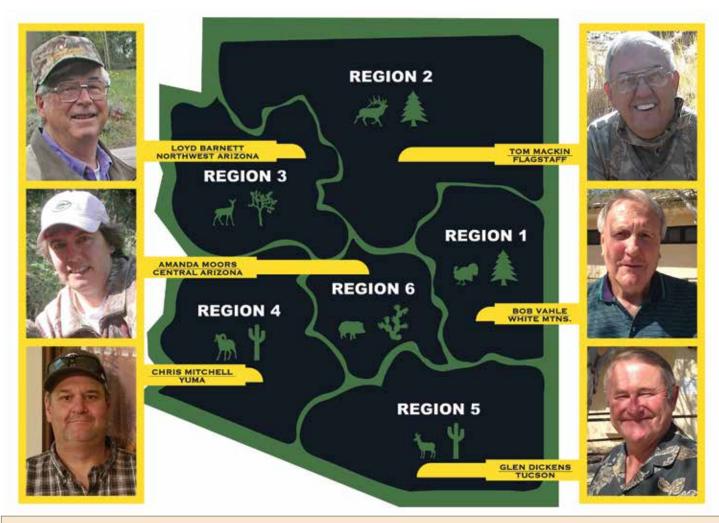
These were revolutionary ideas nearly a century ago. The science of wildlife management was just just taking root.

The initial battle was won but politicians don't give up easily. In 1930, W.P. Hunt, Arizona's first Governor, was elected again. In 1931, he asked the legislature to abolish the Commission. The AGPA again went to battle and convinced the legislature to vote down the proposal of the powerful Governor. The Governor, not accustomed to losing, was a skilled political warrior and opened a new front. He accused the Commission of illegal acts. Investigations were conducted, hearings held and ultimately the Commission was exonerated.

In 1951, the AGPA began is relationship with the National Wildlife Federation as the State affiliate. At its annual convention in 1968, the AGPA became the Arizona Wildlife Federation. This name change had been a hotly debated issue with the AGPA beginning in 1961. Ben Avery was one of the leading advocates for this change to better reflect the mission of the organization.

The AWF's history is a story of success through persistence. We continue to be driven by a goal of keeping politics out of the management of wildlife. The Commission system and Department that our organization helped create in 1924 is strong, science based and independent. We continue to be strong advocates for wise use of our natural resources. Our founding members laid a great foundation upon which we continue to build.

Regional Roundup Highlights from AWF's Regional Directors



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! In this column, we present a few of last season's activity highlights from selected regions. For their full and complete reports, visit our website at www.azwikllife.org

REGION 2

Tom Mackin, Regional Director

The Four Forest Restoration Initiative (4FRI) continues to have problems on the 1St Environmental

Impact Statement (EIS), primarily on the Coconino and Kaibab forests, where thinning activities are still significantly lower than anticipated and biomass disposal is still an issue.

Extreme drought conditions exist across most of Region 2 and following Stage 1 and Stage 2 restrictions forest wide, selective areas for complete closure were announced by mid-May. In spite of restrictions, human caused fires continue to occur almost daily and habitat acreage loss continues to grow.

Range forage and water conditions are dismal, and while



A new storage tank installed on the Pat Springs pipeline to provide additional water storage.



Members of the 4FRI Stakeholder group modifying a fence to facilitate pronghorn movement.

livestock producers are selling off stock and reducing the numbers put out on pasture, Game and Fish volunteers have been actively hauling water—thousands of gallons each month—to many trick tanks and storage facilities to alleviate wildlife water shortages across the state.

As an example of just how busy our Regional Directors are, Tom Makin spent 10 days of this past season working 4FRI issues, 6 days at NASR, 14 days on habitat improvement projects, 22 days addressing water needs through hauling or pipeline activities, 6 days on aspen protection, and 9 days of activities in support of AWF/NWF. Great work, Tom!



Heavy equipment working at T-Six Spring to fill in an old diversion ditch so spring flows return to their natural channel.

REGION 4

Chris Mitchell, Regional Director

On March 24th, the Yuma Valley Rod & Gun Club (YVRGC) hosted its annual Youth Fishing and Outdoor Clinic. This year's event was a huge success!

Five hundred and twenty (520!) kids of all ages signed up for a fun-filled day on the lake. Every child received a free t-shirt, a goodie bag, and a rod and reel combo. After a hard morning of fishing, lunch was served and enjoyed by all. Then, every child got to walk through the prize tent and pick a prize of their choice. This was an amazing event and free to the public.







On April 28th, Chris Mitchell and 11 others attended a training to become certified as AGFD volunteers. On May 11th, the new volunteers assisted the Department by hauling over 25,000 gallons of water to six different catchments in Unit 41. With the lack of rain across the region there are many more of these trips already on the schedule.



On April 13th - 15th, Regional Director, Chris Mitchell, helped with the construction of a new waterhole in Unit 42. This was a joint effort between AGFD, YVRGC, and Arizona Mule Deer (AMD). The new PVC system will hold over 12,000 gallons of much needed water for wildlife and birds in that area. Just more proof that partnerships make great things happen!

REGION 5

Glen Dickens, Regional Director

AWF's Region 5 Director, Glen Dickens, is also on the Board of Directors of the Arizona Antelope Foundation. In January, Glen (represent-

ing AAF), along with several other "critter groups" allocated around \$2.3 million dollars in Habitat Partnership Funding (HPC). These are dollars that are raised from the auction of three tags for each of Arizona's big game species. The money in Arizona. Great work, Glen! Also while wearing his AAF hat, Glen and crew of 40+ volunteers constructed a livestock-proof fence around a seasonal water tank located 16 miles northeast of Ajo. The project will benefit the area's pronghorn antelope. AAF hosts many fencing (and fence removal) projects; the pictured occurred last January.



Spotlight on Affiliates

Working together, the AWF and affiliated organizations are better able to address the various conservation concerns that we have in common. This close association allows our voices to be combined on issues and amplifies our messages, which reach local, national, and state levels.

Welcome to our Newest Affiliate: Arizona Mule Deer Organization

The Arizona Mule Deer Organization was founded on the principle of helping the mule deer in Arizona, while helping all other wildlife in doing so. Our goal is to follow our mission statement by funding as many projects as we can. The best part about our organization is that we use 100% of our funds, which we generate right here in Arizona!

We believe in the hunting heritage that we have all had throughout our lives, and we work to continue that heritage of hunting by holding youth camps each year. The youth of our state are our future! We must continue to bring them into our heritage and show them why conservation is so terribly important. We work to teach them about the North American Model and the importance of continuing to manage wildlife following that model.

Mission Statement:

The Conservation of Arizona's Mule Deer, their Habitat, and Resources

Website: www.azmuledeer.org

Facebook Page: https://www.facebook.com/Arizona-Mule-Deer-Organization-145388509483324/

Contact

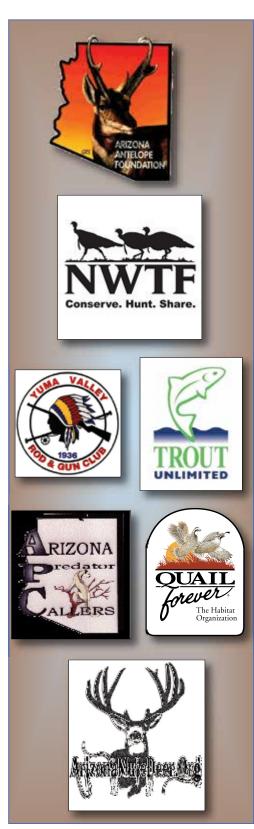
Terry Herndon, Field Director <u>terry@azmuledeer.org</u> 623-696-5579 <u>http://www.azmuledeer.org/contact/</u>







Volunteers with the Arizona Mule Deer Organization work to install wildlife waters that benefit mule deer and other wildlife.



Conservation Corner:

Notes from the National Wildlife Federation

By Lew Carpenter

Arizona Wildlife News. We'll start this column with some background about me and my role with the Arizona Wildlife Federation (AWF) and the National Wildlife Federation (NWF), the importance of the affiliation between the two organizations and, briefly, some of the priorities for NWF in the region.

I am the Director of Conservation Partnerships in the Rocky Mountain region working directly with NWF affiliates in Colorado, New Mexico, Arizona and Nebraska. I also maintain a moderate role working with NWF's Austin office on restoring Louisiana wetlands and nationalizing that effort within the hunting and angling industry.

I'm originally from Greeky, Colorado and went to college at Arizona State University. After graduating in 1991, I launched AZ Sports magazine, which focused on outdoor recreation and participatory sports. In 1995, I moved to San Diego to pursue more traditional journalism opportunities, and covered the San Diego County crime beat for a regional wire service while producing a political column for a local newspaper.

In 1998, I took the helm of Western Outdoors magazine (circ. 100,000) as its editor, while also acting as an associate editor for Western Outdoor News, a weekly hunting and fishing newspaper reaching 70,000 sportsmen per week. Western Outdoors offered me the opportunity to write about the West, and for eight years I promoted fishing and hunting from Alaska to Baia. Mexico.

I moved back to Colorado to produce three, 10-episode sportsmen's television shows on the Versus network (now part of NBC) – TRCP's Life in the Open, The Federal Experience, and The Bucks of Tecomate with Jeff Foxworthy.

My current role is to advise the affiliate board directors in CO, NM, AZ and NE on leadership cultivation, capacity building, and programmatic work (policy advice on regional and national issues) - where these groups might weigh in politically in their region to effect results. In the past I have also worked with ID, WY, and NV in that same role.

At the end of the day my job is about ensuring the long-term effectiveness of NWF and its affiliates by building strong organizations, developing and supporting effective leadership, and creating strong networks of influential people to achieve national and regional conservation victories.

Why is this important? There are 51 state and territory affiliates of NWF, and they are our first partners in the state.



Affiliates also have a unique governance role within NWF, setting policy at the national level through an annual resolutions process. They also determine who sits on the NWF board of directors. Our deep partnerships with affiliates drive conservation successes at the local level, and these organizations came together in 1936 to create NWF.

Currently, the top priorities for NWF in the region include public lands defense and access, watersheds, migration corridors, energy dominance on public lands, wildlife funding, connecting people with nature, climate change, invasive species, forest issues, wildlife diseases (like Chronic Wasting Disease), and all manner of landscape-scale, ecosystem degradation.

My hope in this column is to provide relevant updates to conservation work in the region and nationally. I have worked with AWF for the past 5 years and I am grateful to be in the company of such a strong conservation organization in Arizona.

Legislative Highlights: 2018 Session and Water

With contributions from Sarah Luna, Ben Alteneder, and Scott Garlid



AWF routinely teams with partner groups on visits with Arizona's Congressional Delegation to discuss issues critical to Arizona's public lands and wildlife. Pictured here are Jim Walker, Trout Unlimited; Sonia Perillo, Audubon Arizona; Sarah Luna, AWF BOD; U.S. Representative Kyrsten Sinema; Brad Powell, AWF BOD President; and Justin Nelson, AZ Backcountry Hunters and Anglers. The group just wrapped up a discussion on the importance of the Recovering America's Wildlife Act, continuing the moratorium on new uranium mining claims near the Grand Canyon, transferring public lands management to Arizona, and watershed protection/conservation funding.

provides a *Sportsmen's Legislative Update* which can be found on our website www.azwildlife.org. The update provides relevant information on legislation that is moving through the legislature and how it might impact wildlife, hunting, fishing and public lands. The following are highlights of the most recent legislative session.

The 2018 53rd Arizona Legislature second regular session closed and the worst public lands bill in a couple years died with it, but not without some excitement in the waning days. After letters and a meeting with the chairman of the rules committee, we thought we had HB2210 killed, but rumors of it coming back in another strike-all bill swirled right up until the final days. In the end, the bill died in Rules and we should be pleased with not only the result but knowing that letters from AWF members, testifying at the Capitol, some good guidance by our Board of Director's Legislative Liaison Ben Alteneder and Sarah Luna, and prior year's work to hold Legislators accountable for Public Lands bills had an impact. Glad we made a difference...glad it's over...looking

forward to being even better prepared to be influential in the future!

AWF also had a positive impact on the hunting and fishing regulations legislation where we testified multiple times in support of the bill (SB1253) that gives broader authority to AGFD to manage the resource without unnecessary legislative oversight. It was a great example of partnership with AGFD and the Commissioners have been very appreciative of AWF's support. The Wildfire Fuels bill (HB2203) was another one where AWF board and members played a slightly less direct, but equally important role in writing letters to keep city officials from becoming rogue forest managers and going around national forest managers and outside collaborative efforts like 4FRI. Several members also participated in the WRAN legislative day meeting coordinated by Sarah and met with multiple Arizona state legislators to talk about water issues and squeeze in a few words on public lands. All in all, a very successful legislative session if you consider where we put our effort and energy and the end

Water in the 2018 Legislature

That was the good news. While we managed to keep the dismal public lands bill from passing, the Legislature also adjourned without passing any significant—and much needed—water legislation in 2018. Omnibus bills were introduced (SB1507 and HB2512) that did not move meaningful water policy forward, provide protections for groundwater supplies, or address the fact that we are withdrawing more water than is being put back into the system. This is not good news for people - communities - birds, fish or wildlife. Of particular concern were bills included in the packages (HB2552 and SB1515) that would have forced rural counties to revisit restrictions on groundwater use undermining protections created in the Groundwater Management of Act of 1980. You can review these bills on-line at the following Internet links:

HB2512

https://apps.azleg.gov/BillStatus/GetDocumentPdf/456437

https://apps.azleg.gov/BillStatus/GetDocumentPdf/458855

HB 2553

https://apps.azleg.gov/BillStatus/GetDocumentPdf/458684

https://apps.azleg.gov/BillStatus/GetDocumentPdf/459005

Post-session Update

A series of hearings are underway, led by House and Senate Natural Resource Committee Chairs Rusty Bowers and Gail Griffin, to receive input on water management from stakeholders statewide. These will likely continue into the fall.

Additional Water News and Resources

News from the Western Rivers Action Network

AWF teams with Audubon Arizona, Trout Unlimited (TU) and other key hunter-angler affiliates to lead the Western Rivers Action Network (WRAN).

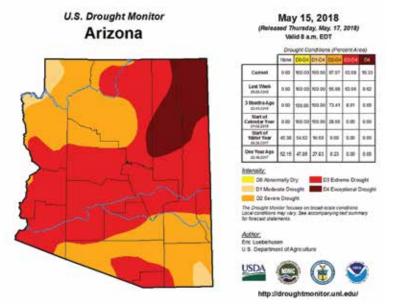
There is no good news about water levels in the Colorado River Basin. Reports of record dry years and low water levels continue.

May 9 – Bureau of Reclamation Bureau of Reclamation Projections

WASHINGTON - 2018 has brought record-low snowpack levels to many locations in the Colorado River Basin, making this the driest 19-year period on record. With the depressed snowpack and warming conditions, experts indicate that runoff from the Rocky Mountains into Lake Powell this spring will yield only 42 percent of the long-term average https://www.usbr.gov/newsroom/newsre- lease/detail.cfm?RecordID=62170

This report shows that concerns are increasing as forecast models predict a 52% chance of shortage conditions in Lake Mead beginning in 2020, with a greater than 60% likelihood of shortage thereafter. Over the past decade, the risk of declining to critical reservoir levels has approximately tripled.

wildlife...



For more news on Arizona's rivers and water, visit the Western Rivers Action Network (WRAN) Water in the News page: http://az.audubon.org/water-news-0

Again, this is not good for people, communities, birds, fish and To track the status and condition of Arizona's rivers, visit the WRAN Resources Page:

http://az.audubon.org/conservation/wran-resources

An "all-hands-on-deck" approach is critical to advance drought contingency plans and long-term management that will sustain the Colorado River and all of the wildlife that depends on it.

Arizona water agencies pledge to work together on Colorado River drought plan.

The Arizona Republic, AZ Central

Brandon Loomis, May, 2018

The Arizona Department of Water Resources and the Central Arizona Water Conservation District issued a joint statement declaring their intention to work together toward an interstate conservation agreement known as the DCP, or drought contingency plan.

https://www.azcentral.com/story/news/bcal/arizona-enviroment/2018/05/04/arizona-water-agencies-cobrado-river-drought-plan/582828002/arizona-water-agencies-cobrado-river-drought-plan/582828002/arizona-water-agencies-cobrado-river-drought-plan/582828002/arizona-water-agencies-cobrado-river-drought-plan/582828002/arizona-water-agencies-cobrado-river-drought-plan/582828002/arizona-water-agencies-cobrado-river-drought-plan/582828002/arizona-water-agencies-cobrado-river-drought-plan/582828002/arizona-water-agencies-cobrado-river-drought-plan/582828002/arizona-water-agencies-cobrado-river-drought-plan/582828002/arizona-water-agencies-cobrado-river-drought-plan/582828002/arizona-water-agencies-cobrado-river-drought-plan/582828002/arizona-water-agencies-cobrado-river-drought-plan/582828002/arizona-water-agencies-cobrado-river-drought-plan/582828002/arizona-water-agencies-cobrado-river-drought-plan/582828002/arizona-water-agencies-cobrado-river-drought-plan/582828002/arizona-water-agencies-drought-plan/582828002/arizona-water-agencies-drought-plan/582828002/arizona-water-agencies-drought-plan/582828002/arizona-water-agencies-drought-plan/582828002/arizona-water-agencies-drought-plan/582828002/arizona-water-agencies-drought-plan/582828002/arizona-water-agencies-drought-plan/582828002/arizona-water-agencies-drought-plan/582828002/arizona-water-agencies-drought-plan/582828002/arizona-water-agencies-drought-plan/582828002/arizona-water-agencies-drought-plan/582828002/arizona-water-agencies-drought-plan/582828002/arizona-water-agencies-drought-plan/582828002/arizona-water-agencies-drought-plan/582828002/arizona-water-agencies-drought-plan/582828002/arizona-water-agencies-drought-plan/5828280000/arizona-water-agencies-drought-plan/582828000/arizona-water-agencies-drought-plan/582828000/arizona-water-agencies-drought-plan/582828000/arizona-water-agencies-drought-plan/582828000/arizona-water-agencies-drought-plan/5828000/arizona-water-agencies-drought-plan/582800/arizona-water-agencies-drought-plan/5828000/arizona-water-agenci

Our View: Arizona's water fight earned it a black eye. Can we rebuild our reputation?

The Arizona Republic, AZ Central

Editorial Board, May, 2018

Arizona needs the drought contingency plan, because current agreements mandate the state is first in line for cuts. At its essence, the state vs. CAP feud is about who is the final word for Arizona on Colorado River management. It needs to be the state, because it must manage the larger picture of water in Arizona. This new and welcome agreement needs to get us to a place in which that is clear and Arizona begins to restore its reputation as a responsible player on the Colorado River.

Get Outside, Arizona

In this new section of AWF's newsletter, we feature special places around our state that exemplify our abundant natural resources. These are places where habitat is rich and wildlife is abundant. We hope these special places inspire you to get outside and experience our great outdoors!



Kartchner Caverns State Park: Voted "Best Arizona Attraction"

artchner Caverns State Park was discovered in 1974 and is host to a wide variety of unique minerals and formations. Water percolates from the surface and calcite formations continue to grow, including stalactites dripping down like icicles and giant stalagmites reaching up from the ground. Tour guides will unveil this fascinating underground landscape during a memorable 90-minute tour.

Kartchner Caverns offers several discounted rates for summer visitors. For more information about Kartchner Caverns State Park and how you can experience Arizona's Best Attraction and the Best Cave in the USA, visit AZStateParks.com/Kartchner.

Imagine your next camping trip...waking up from a good night sleep on a comfortable bed, you walk out the front door onto the porch and breathe the fresh cool morning air while the sun warms your face. As you look out at the neighboring mountainside, birds sing gleefully around you. Welcome to the camping cabin, Arizona State Parks and Trails' version of glamping!

Standard "glamping" cabin at Kartchner Caverns.

Arizona's state parks provide perfect destinations for family camping adventures without the need for an RV or tent. New cabins at Kartchner Caverns offer a comfortable stay within walking distance from the cave and the Discovery Center. Take your cave tour, explore in the Discovery Center, hike the trails and enjoy nearby attractions in Benson, Bisbee, Sierra Vista and Tombstone. Or, take a hike and enjoy the area's abundant wildlife.

The newly built cabins at Kartchner Caverns feature two rooms. Two room cabins include a queen size bed and two pairs of bunk beds. Campers supply their own linens or skeeping bags. The cabins have electricity, heat and air-conditioning. All are furnished with microwaves and a mini-refrigerator. They also have a covered porch, picnic table, grill and a fire pits. Showers and restrooms are within walking distance.

Camping cabins are also available at Roper Lake State Park in Safford, AZ, Dead Horse Ranch State Park in Cottonwood, AZ, Lyman Lake State Park near St. Johns, AZ, and Alamo Lake State Park near Wenden, AZ. More cabins will be available later this year at Lake Havasu, Lost Dutchman, and Patagonia State Parks.

Elevate your camping experience with a little comfort and less hassle. Cabins are available for your next adventure. They can be booked by calling 1-877-MY-PARKS, 7 days a week, from 8 am to 5 pm MST or at AZStateParks.com. They may also be booked online at: https://azstateparks.com/reserve/kartchner/cabins/



A myriad of wildlife roam the grounds of Kartchner Cavern's State Park, including these Coue's white-tailed deer.

Where's Aldo?

Uranium Mining Near the Grand Canyon: Where Would Aldo Leopold Stand?



"We abuse land because we see it as a commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect" Aldo Leopold

n the president's letter Brad Powell gives a brief history of the Arizona Wildlife Federation. He describes how we're founded on a belief that politics has no place in wildlife management; that policies should be built on the best known science of the time; and how a scientist and conservationist named Aldo Leopold helped shape our beginnings. Today, there is no issue where land management policy based on science rather than politics is needed more than in the debate about uranium mining in the lands around the Grand Canyon.

Aldo Leopold was intimately familiar with Northern Arizona, having written the first comprehensive management plan for the Grand Canyon when he worked for the U.S. Forest Service in the 1920s. He was not against utilizing our lands. He was a hunter, he was a farmer. he believed that man should live in harmony with the land, and that the land was to be utilized and respected. In today's parlance, Aldo would be

considered a "multi-use advocate" versus a "tree hugger." He would also listen to the best known science of today, includ-ing the economics and the environ-mental risks, and conclude that uranium mining near the Grand Canyon is a really bad idea.

With Aldo in mind, let's take a look at uranium mining around the Grand Canyon from the eyes of a pragmatic conservationist.

Uranium Mining History

Uranium first became a sought-after mineral after World War II when the U.S. and Russia were busy building and stockpiling nuclear weapons for the Cold War. In Arizona, mining began at the Orphan mine on the South Rim of the Grand Canyon in 1953. At that time, the characteristics of uranium were still being discovered, the world's first nuclear power plant was under construction, and the effects of radiation and uranium exposure were only partially understood. By the 1980s nuclear power was being touted as the future of energy and uranium mining was booming. In the late 1980s, the Palo Verde Generating Station was starting to provide Arizonans with power and thousands of uranium claims were filed in the northern part of our State. A few years later, when supply and demand fell into balance, uranium prices fell and many of those mines were abandoned.

In 2012, one million acres of land around the Grand Canyon was "withdrawn" from new uranium mining for 20 years so that the effects of that mining could be studied-a "time out" so to speak-to give scientists a chance to be sure we weren't putting the environment and the water source for 40 million Americans at risk. After a thorough public review, an overwhelming majority of Arizonans, including nine different sportsman's organizations and the Arizona Wildlife Federation, supported that withdrawal.

In the past year, however, that uranium mineral withdrawal has come

under attack by some politicians. Funding has been cut for USGS studies on uranium mining impacts in the area, and the U.S. Department of Interior has added uranium to their critical minerals list, essentially paving a path to less regulation and oversight of uranium mining operations. Just this month, the Western Caucus, chaired by Arizona's Paul Gosar, sent a letter to President Trump and Department of the Interior Secretary Ryan Zinke asking for the withdrawal to be rescinded.

Aldo Leopold would have supported the necessity of U.S. security, and he would have supported clean energy. But when the world situation changed and as new things about uranium were discovered, he would have certainly advocated for and supported the current withdrawal in order to *let science* rather than politics define the best land management policy for the region.

Economic Impact

"It's the economy stupid" might be a truism of American politics and the economic argument is the one most widely touted by those advocating for uranium mining near the Grand Canyon. But the truth is that outdoor recreation drives Northern Arizona's economy, not mining and certainly not uranium mining.

Outdoor recreation in Northern Arizona provides 18,000 jobs across a wide variety of hunting, fishing and wildlife watching businesses. By contrast, mining in the northern part of our state supports about 200 jobs and uranium mining even less. Even if we doubled or tripled the number of mining operations, the impact on Arizona jobs would pale in comparison to the impact we can have by providing people opportunities to get out and enjoy the Arizona's public lands.

Of course, jobs only paint part of the economic picture. There should be an argument that profits are made on uranium mining, taxes are paid on those profits, and *that* money is being put back into our local communities. But in this case, that economic benefit is vastly overstated.

It turns out that over 90% of uranium mining claims in the mineral withdrawal area are owned by foreign companies operating with U.S. subsidiaries. Thus, the profits are not staying here in the United States, let alone

Arizona. Further, since uranium mining is governed by the 1872 mining act, those operations pay \$0 in royalties to the benefit of local, state or the federal budgets. Again, by contrast, Grand Canyon National Park itself fuels \$680 million of economic impact on northern Arizona's local economies every year and outdoor recreation in northern Arizona contributes \$160 million in state and local taxes alone.

A pragmatic Aldo Leopold would look at the economic drivers of Northern Arizona and conclude that purely from an economic point of view, the best way to utilize the value of the public lands around the Grand Canyon is to create outdoor recreation opportunities, not mine uranium.

Uranium Mining Contamination, Clean-up, and Regulations

The uranium mining industry has an alarming track record of contamination, abandoned mines, and ineffective or no monitoring, much of which is on display in Northern Arizona. *There are over 500 abandoned uranium mines on the Navajo Nation alone*, and in 2008 the EPA and the U.S. Army Corps of Engineers found 17% of water sources around these mines had uranium levels above what was considered safe.

Unfortunately, mine clean-up is costly and often litigious. Mines that get played out or are unprofitable are often abandoned, with insolvent owners sticking U.S. taxpayers with the clean-up bill. Even well managed mines operated with legal practices require extensive clean-up as they reach the end of their useful life, but there is no assurance and little incentive for operators to be expedient or thorough with expensive clean-up operations after the asset has stopped producing.

The total bill for existing uranium mine clean-up in the U.S. is approximately three billion dollars. Two billion dollars of that has been assigned, with roughly half being paid by still-solvent mine operators and the other half being paid by the U.S. taxpayer. But there's still one billion dollars worth of clean-up that no one has taken responsibility for, and mine clean-up efforts take years.

On the South Rim of the Grand Canyon, literally walking distance from Maricopa Point, signs show pictures and tell the story of the Orphan mine which operated within the park from 1953

to 1969. The signs also describe the "success" story of the 15 million dollar clean-up that is not yet complete, and walking paths are carefully routed to keep park visitors away from the "do not enter" warning signs that surround the area where the old mine workings once stood. Less obvious is mine shaft itself, visible if you know where to look, but a thousand feet below the rim and still waiting to be cleaned up.

Today, mine operators need to include reclamation plans when they apply for a new mine. However, those companies are not required to post any kind of bond to cover future clean-up costs. Mines can be put on standby for decades with no mandated deadline for reclamation, so chances that the burden of mine clean-up falling back to the taxpayer in the future remain.

Ground water and surface water monitoring requirements for mines in the region do not reflect the complexity and uniqueness of the geology of the area nor are they sufficient to insure the watershed is protected. As an example, the Pinenut Mine was thought to be a "dry" mine and sat on standby for 20 vears from 1989 until 2009. During that time, 1,500 tons of uranium ore were stored uncovered on the site. When the company attempted to reopen the mine, they discovered almost 3 million gallons of contaminated water in the mineshaft. Since monitoring wells aren't required, where the water came from, how long it sat there, or where it may have migrated underground, is unknown.

More recently, the Canyon mine resumed drilling in 2017 under the guidelines established when it had opened in 1984. Also thought to be a "dry" mine, it soon filled with water. That contaminated water was pumped out into a settling pond and when the pond filled, the mine operator resorted to spraying the contaminated water into the air in order to evaporate it more quickly. No monitoring of surrounding groundwater or even the impact on vegetation from the uranium-laced misting operation was required.

Shockingly, even today there are no regulations requiring long-term groundwater monitoring at or around uranium mine sites and mines with established claims can continue to operate under outdated regulations.

It is doubtful that Aldo Leopold would support mining if there was no guarantee

of mine remediation and no process in place to assure both ground and surface waters were safe from contamination

Impacts on Wildlife and Habitat

The impact of uranium mining goes well beyond the footprint of the mines themselves and doesn't need to put human health at risk in order to be a serious threat to the area's wildlife. As hunters, anglers, and outdoor enthusiasts we know how fragile the ecosystem is on the Kaibab plateau. Our members and affiliate groups spend hours of their time, energy, and passion on habitat projects like fencing, water catchments, and water hauling to help keep the area's wildlife healthy. We know that water is scarce in the region, and this summer is a prime example. We know that all wildlife, from mule deer to Abert's squirrels, will drink any freestanding water to survive, and that they have no way of knowing which seeps, springs, or puddles are contaminated with uranium.

The web of seeps and springs typical to the region is not well understood, other than the fundamental truth that water flows downhill. It can travel tens and even hundreds of miles underground before resurfacing, in sometimes unexpected places. It stands to reason that if we don't know where the water is

coming from, we also don't know where it's going. This means anv contamination from within the fenced area of mine operations will eventually find its way to a place upon which the flora and fauna of the area depend. As well, any significant contamination event has the risk of impacting the watershed far beyond the boundaries of the mine operations including ultimately, the Colorado River.

In a 2010 study, the USGS reported that 15 springs and five wells near uranium mines in Grand Canyon watersheds have dissolved uranium concentrations that exceed drinking water standards. course, humans won't let other humans drink

from contaminated wells, but unfortunately the wildlife won't know the difference.

Uranium dust carried by winds and spread along haul routes also extends the area of risk far beyond the fences surrounding the mines. Most uranium ore mined in Northern Arizona is likely to be processed at the White Mesa Mill near Blanding, Utah and will travel through dozens of small communities including Williams, Flagstaff, Cameron, Tuba City, Kayenta, and Bluff. In the same USGS study, radioactive dust with more than 10 times normal radiation levels was found over 300 meters beyond the fenced portion of the Kanab North Mine Site and above normal levels of radioactive dust was found on a haul route 20 years after the mining had stopped.

Contamination isn't the only threat these mines pose to wildlife. A typical mine site is 20 to 30 acres, slightly larger than a Walmart parking lot. While Uranium mines themselves may not have a large footprint, the roads and utilities needed for these large-scale operations lead to fragmentation of habitat and erosion of stream beds near roads. The Kaibab Plateau is home to one of the most famous and studied deer herds in the world. A long history of studies of this herd using radio telemetry shows that a substantial proportion of these deer summer in the ponderosa pine and aspen forests at higher elevations near the North Rim of the Canyon and then winter in sage brush and juniper flats as far north as Utah. If this area is opened to new mining, these deer would have to migrate through and around uranium mining operations and haul routes during the time of year most critical to the reproductive capability of the herd. The pronghorn of the area are especially susceptible to habitat fragmentation as they are trepid creatures who remain in open areas and whose normal movement patterns are often hampered by fencing and artificial barriers.

Since uranium accumulates when ingested and concentrates as it moves up the food chain, the threat could actually be greatest with non-game species such as raptors including the endangered California Condor who make the Grand Canyon area their home.

Aldo Leopold believed that we should use the land with love and respect. He believed that we should also use our natural resources sustainably and with the future in mind. Uranium mining around the Grand Canyon does not meet that standard.

"A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise" Aldo Leopold

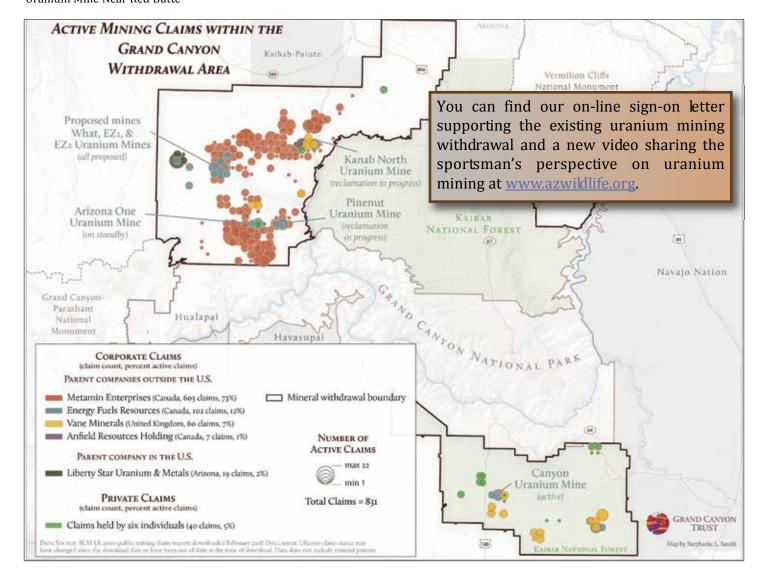


Pine Nut Uranium Mine

Uranium Mine Near Red Butte

Where's Aldo?

So where is Aldo? Where is the voice of the pragmatic conservationist when it comes to uranium mining around the Grand Canyon, or when it comes to any other issue affecting Arizona wildlife? What would Aldo say if he were around today? Aldo Leopold would almost certainly say the benefit of uranium mining near the Grand Canyon today is not worth the risk. It doesn't provide energy independence, it has limited economic impact, and it puts human health and a very fragile environment at risk. Where's Aldo? We, the pragmatic conservationists of today are Aldo. Inspired by the spirit of Aldo, we say a thoughtful, science-based, "No" to uranium mining near the Grand Canyon.



Becoming an Outdoors-Woman (BOW) Happenings

BOW Report - Fall 2017 through Spring 2018



September 2017

What a great weekend we all had at the fall BOW held at Friendly Pines Camp in Prescott. The weather was perfect, with a little rain when it was needed, and cool nights to enjoy. We had 103 enthusiastic ladies that signed up for this BOW workshop. It is their willingness to learn new things and have fun in the process that makes these workshops, well ...work! This BOW did not disappoint. Saturday night this wonderful group of women raised just over \$3,700. They were all great sports and took any little hiccups in stride.

We recognized Cliff Saylor as the MVP of the camp. He drove all around the state to round up a live goat for us. He then taught the field dressing and a butchering class with said goat. Cliff also led a beginning handgun seminar and taught a class on handgun maintenance. He also stepped in at the last minute to drive some ladies to the range. WOW! Cliff went above and beyond for a volunteer. BOW has the best volunteers on the planet!

We also recognized Kathy and Don Greene for 20 years of volunteering for BOW. Kathy attended the first ever workshop and realized immediately that the program needed better archery instruction. She and her husband Don, both avid archers, stepped in to fill the need. Twenty years later, they are still going strong at our BOW workshops.

This camp marked a red-letter day for me! On Sunday, I goofed off with the fly-fishing class on my float tube. It was a personal best when I hooked and landed one of those gigantic channel cat-fish that terrorize the Friendly Pines Pond. Yes, on the fly rod!

Bill and Joyce Larson returned to teach the crawfish trapping class. We enjoy having them back so that everyone gets a taste of the gamey little lobsters they teach us to catch. Trapping crawfish also provides a service to the habitat as we happily catch, keep, and eat this otherwise unwelcome invasive species! This is the third year that this class has been offered. Also, our very own Val Morrill, AWF board member, taught a class called Arizona Wild Foods. This is the second year for that class and it was also very well received.

January 2018

At this winter BOW camp we noticed the participant numbers dropping. We overflow at 40, and 35 is comfortable, but we ended up with 32 paid participants. As well, we worked extra hard to get there. The government shutdown ended a few days before our workshop dates which caused much heartburn among us organizers; we were scrambling for alternative locations that thankfully we didn't ultimately need. Many thanks to Karan Parsely and Mark Hullinger for scouting for us.

For this session, we added one new fishing class. We were able to take six ladies out on Saguaro Lake in three boats. It was super successful. They all caught fish and the camp was treated to some ceviche that our lady anglers made. Thanks to Jaye Kreuzer and Gerrit Draget for making that happen. Rumor is, they will be back for 2019!

We enjoyed 'Chamber of Commerce' weather the entire time, so all classes went forward with no issues. Our Saturday night fundraiser netted \$1,377 for the scholarship fund. We also had a

wonderful native presentation by Roman Orona and his family that kept the entire camp spellbound. If you are looking for an authentic modern Native American presentation, this is it!

April 2018

The April BOW workshop was held from the 13th through the 15th. There were 66 ladies and they were a great group of participants. This small but mighty group raised \$3,122 at the Saturday night fundraiser. This money helps to keep our workshops affordable and funds our scholarship program.

Two new classes were offered at this BOW including an Arizona geology class called "Name That Rock." Our friend Paul Wolterbeek from Boyce Thompson hooked us up with geologist, Rich Leveille. Rich's hands-on, fun approach had ladies excited to get out there and rock-hound. Another new class focused on

freeze-dried meals and how to do this yourself at home. There is a movement for DYI wholesome foods and we delivered. On Friday night, the Heritage Park Zoo was there with some special friends.

While we have been seeing lower numbers in registration from the last two BOW camps, we hope it is not a continuing trend. September BOWs often have a waiting list. We marketed the April workshop with all of our tricks. There was even a live shot on daytime television. You can help us get the word out! If anyone is willing to share information about upcoming BOW sessions, or knows of a woman's group that needs a speaker please let us know. Contact Kim at 480-644-0077 or at BOW@azwildlife.com

September 2018 registration is up and ready for business. Hope to see you in camp!



20 Years! Kathy's outfit? Ya had to be there..

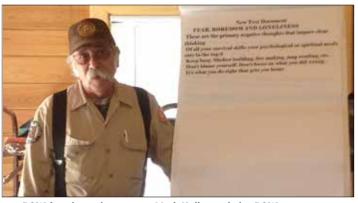


Cliff Gets Crowned





BOW participants enjoyed the new "Name That Rock" class taught by geologist, Rich Leveille.



BOW founder and instructor, Mark Hullinger, helps BOW participants overcome fears and doubts about being in the outdoors. Mark's words of wisdom: "Be positive and be prepared!"

Social Media

Want to stay in touch with AWF between newsletters? Like us on Facebook! There, you'll find regular postings about Arizona wildlife, AWF activities and events, and BOW happenings. Find us on Facebook at: Arizona Wildlife Federation and Arizona Becoming an Outdoors Woman. www.facebook.com/azwildlife

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2018/2019 BOW Dates September 7-9 **January 25-27 2019 April 12-14 2019**

Becoming an Outdoors-Woman (BOW) Happenings

Spotlight on BOW Instructor Barb Kennedy - Cowgirls Forever



by Linda Dightmon





"We're all busy, scrambling through our days ~ but it's important to make time to celebrate our lives, our family and friends, and to show gratitude for these gifts.... Your campfire or mine?" Barb Kennedy

utch oven cooking has been a popular session at the Arizona BOW since its inception. When Barb Kennedy is the instructor this class becomes a must, and for many, a do-over! It is simple; Barb Kennedy delivers. She does it with a genuine million-dollar smile, a warm personality, and authentic western attire. Even if cooking is not your forte' you will enjoy preparing and eating fresh food in the way of our pioneer ancestors; on the ground, over fire in cast iron kettles. Yep, Barb makes that fun.

Barb grew up in a large family with lots of brothers. She spent many hours in the kitchen satisfying those big appetites. This little tidbit of her life explains a lot. Barb cooks for big eaters! She loves the Sonoran desert, horses, and all aspects of western life. A love of cooking + a love of the western lifestyle = Chuck Wagon Competition. In 1998 Barb joined a crew, learned Dutch oven cooking, and the intricacies of operating a chuck wagon. Four years later with a borrowed wagon, Cowgirls Forever entered its

first competition.

According to Barb, "Cowgirls Forever started with a group of girlfriends pitchin' in to keep my love of competing in Chuckwagon cooking competitions alive. Hence, Cowgirls Forever! Where would we be without girlfriends? Thank God for the Cowgirls! We have competed in numerous cook-offs, and while winning is fun, we always enjoy the companionship of fellow chuckwagon cooks and the interest of the public wandering around camp. The aroma of fresh made bakin' powder biscuits or peach pie are among my favorites. My sister's is chile verde!"

I met Barb through a mutual friend about 15 years ago. Wow, has it really been that long? I made a phone call to her with an invitation to check out one of our workshops. She came, she saw, and she was hooked. The Arizona BOW has been blessed ever since with her skills and hard work.

We do one Dutch oven class per session for the Friendly Pines workshops. Seasoned instructors and BOW veterans know that

on Saturday afternoon around 3:30 there will be samples of yummy morsels available near the Kiva. We descend like vultures onto the little ramada. I have even been known to bribe prospective instructors and presenters with a chance to sample her cooking!

But, it is at the BOW Deluxe where Barb shines. We have been holding the Deluxe workshops for eleven years at Saguaro Lake Ranch. She has been with us from the beginning. With this smaller group (around

> 50 people), it makes sense to have the Dutch oven class prepare the evening meal for the entire camp. Enter Cowgirls Forever. They bring the kitchen and the groceries, and we supply the helpers. It is

> a win-win all around. We began by having Dutch oven meals on Friday but due to popular demand, we added another class and have Dutch oven fare on both Friday and Saturday nights. There are no

> > In 2015, AZ BOW

hosted a Coordinators Conference at Saguaro

Lake Ranch. Cowgirls

Forever was there, too.

complaints!



Cowgirl Cooking Tools

What fun to wow fellow coordinators from all across the country, including four Alaska programs. Barb served up javelina chorizo meat pies, venison meatballs, buffalo in mushroom wine gravy, and jalapeno brownies—all from Dutch ovens!

On Saturday nights at BOW, we have a mini-fundraiser. Because of the popularity of the Dutch oven classes, a basic 'kit' is offered in the silent auction. It includes a Dutch oven, a recipe book, some gloves, and a lift. Barb has added a cooking class gift certificate to our kit. The certificate holder brings the groceries and five friends to the class. They work with Barb to organize the time and place and then, it is a party! This adds lots of value to the package.

One year at BOW Deluxe, we were brainstorming over a new class. The ladies wanted the experience of field dressing a big game animal. They had been asking for years to do this, but in Arizona, it's been a problem; we just haven't had any extra deer or elk to field dress at that time of the year. Just then Barb walked up with some delicious concoction that she calls bon-bons. I asked her if she could cook a goat. With no change in expression she said, "of course!" So, I rephrased the question to, "Will you cook a goat?" Barb's same response of "of course!" led us to the next spring BOW at Friendly Pines where we offered not one, but two new classes. We field dressed, caped, and quartered a meat goat in one class. In the other class, we butchered the goat meat and made little goat sausages. We also cooked the goat meat in our Dutch oven class. At the request of the first class participant's, we even ate the testes! And you know what? It was all excellent!

Over the years I have grown to love Barb Kennedy and am proud to have her as a friend. A Cowgirl extraordinaire, she does it all. Breaking horses, driving a team, and taking friends on a carriage rides. And on top of all that, this cowgirl can cook!

https://cowgirlsforever.net/

Cowgirls Forever

Chuckwagon Cooking Old West Style Cooking Demonstrations



Dutch Oven Cooking Classes Special Events

Cooking Classes

Most Classes hold from 8 to 80 guests (we'll break the larger groups into smaller groups for more fun). Each Class prepares 5 or 6 dishes. Want live music? Additional activities like Roping or everyone's favorite, Salsa Challenge? Just call us for availability, pricing and details. Classes take about 4 hours and some seasons are busier than others, so be sure to book your class soon.

Catering

Extremely simple, healthy food - no additives, nothin' out of a box - made and served for you in true, traditional Cowgirl Style. Prior to your event, you will be asked to fill out a simple questionnaire. Meal options vary, so please call us with any questions. Cookouts are about 4 hours. Groups of 8 to 180, but we've served up to 250 on custom events. No food shopping, no prep work, no washing up - we take care of everything while you kick-back, boots up, and exhale.

Special Events

Over the years we were asked to cook for special events, weddings, wakes, fundraisers, trail rides, schools and just about everything else! We have cooked for NAMI, BOW, Arizona Wildlife Federation, Wellness Community, and Globe's centennial Celebration, to name a few. We have cooked in the middle of the desert, many backyards, the Buffalo Chip Saloon in Cave Creek, schoolyards, the streets of downtown Phoenix, parking lots and even the front lawn of the State Capitol!



Gardening for Wildlife

The Arizona Wildlife Federation is teaming with National Wildlife Federation to certify your garden as "Wildlife Habitat." With a small amount of planning and effort, you can create a wildlife habitat in your yard, on your balcony, at your school, or along roadsides! With NWF's Certified Wildlife Habitat program, folks are

encouraged to plant native shrubs, flowers, and trees that produce berries, seeds, and sap, to create an eco-friendly environment for birds and wildlife. In this section, we offer ideas and information to help you Garden for Wildlife! For more information, visit us online at: http://azwildlife.org/ht/d/sp/i/372617/pid/372617

Creating Your Wildlife Habitat

The National Wildlife Federation offers the Garden Certification Walk-through Checklist as a tool to help prepare before you certify your garden online. Certification requires elements from the following categories:

Food: Plant shrubs that flower and produce berries. Native plants provide nectar, seeds, nuts, fruits, berries, foliage, pollen and insects eaten by an exciting variety of wildlife. Plants with colorful flowers will especially attract butterflies and hummingbirds. Bird and squirrel feeders can supplement natural food sources. Leaving the seed pods on plants as long as possible helps winter wildlife.

Water: All animals need water to survive and some need it for bathing or breeding as well. Create a water bath by hollowing out the top 2 or 3 inches of a tree stump or placing pebbles or small rocks in a plant saucer, garbage can lid, or other saucer-shaped object.

Cover: Wildlife need places to find shelter from bad weather and to hide from predators. Create a rock garden or strategically place a broken flower pot or roofing tile as a "toad abode". Leave dead trees or tree branches, which often have hollows birds and wildlife can

nest or hide in, and also attract good food sources such as insects, mosses, lichens and fungi. Native plants that can withstand full sun offer butterflies a place to warm up.

Places to Raise Young: Wildlife need secure places to raise their young, such as nests for birds. Inspect your yard for nooks and crannies that you can enhance as places for bird or bunny nests. Build a bird or bat house. Leave a brush pile or plant dense shrubs to provide cover.

Sustainable Practices: How you manage your garden can have an effect on the health of the soil, air, water and habitat. These are important for the human community as well as for wildlife! Limit water use by mulching, planting native species, not overwatering, watering early and late in the day, and using drip or soak-



er hoses. Avoid use of chemicals such as pesticides. Get rid of invasive non-native plants that crowd out the natives. Use compost rather than inorganic fertilizers. Capture rainwater from the roof.

No Milkweeks, No Monarchs

By guest contributor, Andrea M. Montgomery



Growing milkweed (Asclepias angustifolia) to benefit monarch butterflies.

The Arizona native milkweed plant is an innocuous yet wild nursery home for our monarch butterflies. Milkweed, and all it offers to wildlife, can be invisible to most people until one takes a closer look to discover that the plant is a separate world all in itself. There is so much life that relies and thrives on milkweed plants including bees, wasps, beetles, and most charismatic of all, the monarch butterfly. One of the most defining characteristics of monarchs is that its entire life depends on milkweed as its primary food source; it is the only plant that monarch butterflies can consume in order to survive. Additionally, by eating milkweed, monarch caterpillars attain prophylactic survival. This means that the milkweed toxins ingested by the caterpillars do not harm them but rather, make the caterpillars toxic to animals that might try to prey on them!

Monarchs are being considered for federal listing under the Endangered Species Act. Their numbers are decreasing each year and they are imperiled during their migration. This is primarily due to loss of habitat. One to two

million acres of land are lost each year through development, agriculture, and other human activities that alter ecosystems. This impacts not only monarchs, but other pollinators as well.

"Worldwide, approximately 1,000 (species of) plants grown for food, beverages, fibers, spices, and medicines need to be pollinated by animals in order to produce the goods on which we depend."

This quote from Chad Darnell is important because if we don't mitigate our impacts on natural habitats, we will continue to lose our pollinators and the important benefits they provide.

We can help by Gardening for Wildlife! To improve the monarch's chance of survival, you can purchase Arizona milkweed seeds (Asclepias angustifolia) and plant them in your home garden or farm.

Here is a protocol for growing milkweed developed by The Desert Botanical Garden:

- 1. Fill a pot that is taller than wide with a well-draining soil mix
- 2. Create half-inch deep hole(s) in the soil
- 3. Add 2-3 seeds per hole and water thoroughly
- 4. Place the pot(s) in a warm, well-lit area. Pot(s) can be placed indoors or outdoors
- 5. Check the soil daily. Water often so the top ½ inch of soil does not dry out until seeds have germinated in about 1-2 weeks
- 6. After germination reduce watering frequency
- 7. At about 2-4 month, feel free to transplant your plants into larger pots or outside
- 8. Monitor plants for eggs and caterpillars

Six Bean Casserole

1/2 lb bacon, diced

1/2 lb spicy Italian sausage, sliced

1/2 lb pepperoni, sliced

1/2 lb kielbasa, sliced

1 1/2 c spicy barbecue sauce

1 can tomato soup

3 oz can tomato paste

1/2 c brown sugar

1 (16 oz) can pork and beans, undrained

1 (16 oz) can red kidney beans, undrained

1 (16 oz) can hot chili beans, undrained

1 (16 oz) can lima beans, drained

1 (16 oz) can black beans, drained

Fry bacon in dutch oven till barely crisp. Add remaining ingredients. Simmer over coals until thoroughly warmed and flavors are well blended, approximately 30 minutes to 1 hour.

Dutch Oven Beer Bread

3 c self-rising flour

1 can warm beer

3 Tbsp sugar

Mix all ingredients and place in a greased Dutch oven. Bake over hot coals about 1 hour. Place a few hot coals on lid so top of bread will brown.



Strawberry Shortcake

2 c flour

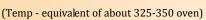
1/2 c sugar

3 tsp baking powder

1 1/2 sticks butter, softened

1 egg, beaten

1/4 to 1/2 c sugar



In a large mixing bowl, combine flour, sugar, and baking powder. Add butter and cut it into the mixture with a fork or pastry cutter. Work with it very little....leave butter in chunks. Stir in the egg (beaten) and enough water to make a sticky dough. Once again, do not over mix. Transfer the dough into a medium (10 in) Dutch oven that has been lightly dusted with flour. Bake for 30 to 45 minutes or until top is lightly browned. Wash and cut strawberries in half, and mix with sugar in bowl. Serve shortcake with strawberries on top. Also good with milk poured on top or whipped cream.

Camp Cook

By Ryna Rock

BOW INSTRUCTOR YEARS OF SERVICE

20 years

Don Farmer (Founder) Mark Hullinger (Founder) Don Greene

Kathy Greene Tice Supplee

15 years

Linda Dightmon Russ Gunderson Brian Mazover Amanda Moors Jeff Sorenson

10 years

Nicole Ansley Steve Bilovesky Roger Clark Bill Deshaw

Holly Dickinson Jan Dunkelberg Elsie Ferguson Wendell Gist Joy Hernbrode

Jarred Kaczmarek Barbara Kennedy Collen Miniuk-Sperry

Leroy Smith Marian Talon Andree Tarby Sarah Yeager Donna Walkuski

5 years

Susan Baldwin Stacy Boone Clay Crowder Kelly Dwyer Jean Groen **Amy Horns** Triska Hoover Coleen Lancaster Bill Larson Brian Marshal Mike Matthews Cliff Saylor **Danette Schepers** Stan Schepers



Connie Sullivan

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Along with other opportunities for 2018, please consider taking advantage of the new dental (with optional vision) plans, Guaranteed Senior Whole Life, Guaranteed Children's Whole Life polices and other products offered to us by our Association Group

partner at Mutual of Omaha, Art Mier.

Your Arizona Wildlife Federation membership entitles you to discounted premiums and/or enhanced benefits on a variety of our insurance products and financial services. No health question asked/no rate increase guaranteed on whole life insurance for seniors and children.

Welcome New Members

Sarah Ahraham Wickenburg Tony Attanasio Pinetop Baldwin Frances Phoenix Shawna Bauer Tucson Souzy **Biciolis** Phoenix Hanna Boehlow Carefree Prescott Valley Karina Cox Tucson Anne Dalton Davis Scottsdale Alan Glendale Dorothy DeMouy Parks **Jennifer** Duncza Alexa Erjavic Phoenix Scottsdale Michele Gates **Julie Jacobs** Flagstaff Rick Johnson Tucson Kelly Karns Mesa Leveille Mesa Rich Janice Leveille Mesa Oro Valley Zack May Juliette McCaffrey Phoenix Mariah McGrew Phoenix McIntosh Lance Tempe Menzies Ortiz Lake Havasu City Su-Lyn Janina Robertson Lake Havasu City Roggenburk Williams Diana Mona Schmidt Flagstaff Schroeder Phoenix Mary Austin Smith Phoenix Stakauskas Tucson Casev Arianna Summers Apache Junction Turley Prescott Stacy Theresa Vogt Carefree Weisel Huachuca City Kim

OUT OF STATE

Kay

DJ

Crystal Iohnson Las Vegas, NV Melinda Volger Pagosa Springs, CO Natalie Woodruff Pagosa Springs, CO

Glendale

Phoenix

Wolfkeil

Zor

Letters to the Editor

Keep your communications short and to the point. All must be signed. If you send us questions, we will seek answers and print them here. There may be times mail volume may prevent us from publishing every letter we receive, but we will do our best to print as many as possible.

Send your 'snail mail' to:

AWF Mail Pouch Arizona Wildlife Federation PO Box 51510, Mesa, AZ 85208

Send your e-mail to: editor@azwildlife.org



Please take a moment to review the list of Life Members and past Benefactors to make sure we have not missed anyone. If you want to add someone to the list or upgrade your own membership status, please use the membership form provided below.

AWF	Membe	ership Ap	plicati	on			 	
Name				<u> </u>	? \$ 1	② \$ 15 Junior (17 & under)		
Address					? 3	0 Individual	!	
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Phone Email					? 4	5 Family		
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