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ARIZONA WILDLIFE NEWS

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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.

**Front cover:
Becoming an Outdoors-Woman instructor Jeff Sorensen escorts a rappelling 102 student at Watson Lake
Photo by Susan Zinn**

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

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President's Corner

By Brad Powell



National Monuments are in the news these days. A proposal to designate 1.7 million acres near the Grand Canyon as a National Monument continues to be a hot topic in Arizona. The President just proclaimed new National Monuments in Maine and offshore in

Hawaii. These actions were taken utilizing his authority under the Antiquities Act. One thing is clear while there are many opinions about these new National Monuments there is a lot of misinformation being spread by both supporters and detractors.

The Board of the Arizona Wildlife Federation (AWF) has decided to step into this fray and see if we can help develop a more favorable outcome on the lands near the Grand Canyon. Before I detail our position and the work we have been doing I want to provide a little background information on National Monuments and the use of the Antiquities Act.

Currently there are 125 National Monuments in the US, spread across 31 States. A national monument is land or an historic area that has been given permanent protection by Congress or by the president through the use of the Antiquities Act. Congress has the power to declare national monuments, and has done so 40 times. Congress has also re-designated 32 national monuments as national parks. This includes Grand Canyon National Park.

The Antiquities Act has been the subject of much debate. Established in 1906 by Theodore Roosevelt, it gives the President the authority to permanently protect special natural, historical and cultural areas as national monuments. The Act has been used by 16 presidents — from Theodore Roosevelt to Barack Obama — to designate national monuments. Only three presidents did not use the Act: Richard Nixon, Ronald Reagan and George H.W. Bush.

As I mentioned previously the current debate in Arizona is about a proposed National Monument near the Grand Canyon. While most of the AWF leadership thinks that the current management structure is working well and a National Monument is not needed, we recognize that there are many citizens in Arizona and around the US that feel differently and are working hard with the Presidents staff to create this National Monument. The AWF working with the Arizona Antelope Association, the Arizona Chapter of the Wild Turkey Federation, the Arizona Council of Trout Unlimited, the Coconino Sportsmen and the Yuma Valley Rod and Gun Club developed an alternative to the current Monument proposal that is focused on sustaining the 20 year uranium mining withdrawal that was put in place by Secretary Salazar 4 years ago. Below is an excerpt of the letter we sent to the President and his key staff.

While we remain concerned about the proposed Grand Canyon Watershed National Monument, we believe that if a Monument is to be designated that an alternative proposal should be considered, one based on a shared belief that the 20-year mineral withdrawal implemented by Secretary Salazar in 2012 should become permanent. The revised boundary of this alternative includes the lands that are included in the Salazar mineral withdrawal. The proposed boundary modification removes the North Kaibab Ranger District, which was withdrawn from mineral entry by Theodore Roosevelt's 1906 declaration of the Grand Canyon Game Preserve. This mineral exclusion was upheld in 1973 and 1980, when the courts found that the 1906 proclamation provided against incompatible uses, specifically uranium mining for lands within the Preserve. The North Kaibab has recently completed new management plans, developed with significant public input, that resulted in reduced open roads, strengthened off-highway vehicle regulations, restrictions on big game retrieval, protection of old growth trees and increased protection for cultural sites. In addition, the North Kaibab is the focal point of sportsmen concerns over deer habitat and forest health management concerns.

If you proceed with a national monument designation, we urge you to conduct a public meeting here in Arizona and consider a boundary modification to the Grijalva proposal that removes the North Kaibab Ranger District from the proposal. We also strongly believe that any monument proposal, especially this one, should assure the following concepts are included in the proclamation:

Clearly stipulate that management authority over fish and wildlife populations will be retained by state fish and wildlife agencies.

Bureau of Land Management and U.S. Forest Service lands will remain under the authority of a multiple-use focused land management agency.

Reasonable public access must be retained to enable continued hunting and fishing opportunities.

Access for wildlife habitat improvement projects will be maintained.

If a federal advisory committee is utilized it should be balanced with fair representation from area user groups including sportsmen.

The historical and cultural significance of hunting should be acknowledged.

We followed up this letter with a trip to Washington DC to meet with key leaders in the Department of Agriculture and the Council on Environmental Quality to discuss our new proposal. We also had a meeting with Congressman Grijalva at his request. We expect that this proposal will not be resolved until after the election but the AWF with the help of some other sportsmen groups is engaged and working to find the best solution we can.

REGIONAL ROUNDUP

Region II - Tom Mackin
Regional Director



May 23 & 24 – With another volunteer we “moved” water from storage to drinkers on the Pat Springs Pipeline (PSP) in GMU7E

May 25 – Attended the 4FRI Stakeholder group meeting in Show Low where we received an update on planned handling of the preponderance of small diameter trees as well as other topics regarding 4FRI in general

May 27 – Chaired the monthly meeting of the Northern Arizona Shooting Foundation (NASF)

May 28 – Participated in a work day with Friends of the Northern Arizona Forests (FoNAF) where we constructed a new enclosure to house 300 aspen seedlings that will be planted in late July to rejuvenate a current aspen grove that has suffered from disease, drought and heavy wildlife and livestock browsing

May 31 – Visited a recent restoration site adjacent to Flagstaff with representatives from 4FRI stakeholder group and State Forester Jeff Whiney in response to comments by CBD that the work was not done appropriately and the outcome not healthy. We could not find any issues supporting the CBD comments.

June 1 – Participated in a NWF Sportsmen’s Caucus conference call that included a discussion on proposed changes to the Pittman Robertson Act

June 3-7 – Traveled to the North Kaibab Ranger District for a 5 day volunteer work project to repair 15 Forest Service wildlife drinkers that have fallen into disrepair over the years. With 6 other volunteers working 10 hour days we completed all 15 of these key sources of water for wildlife

June 10 – Met with 3 other 4FRI stakeholders to discuss plans for an implementation working group for the 1st EIS of 4FRI

June 10 – Spoke with a staff member from the Intermountain West Joint Venture group regarding a recent grant to support our plans for restoration of an important wetland south east of Flagstaff

June 11-12 – Participated in a volunteer work weekend on the Mogollon Rim District in GMU5A working on aspen protection fences, thinning of small conifers encroaching on an ephemeral stream, planting of Bebb’s willows in rebuilt enclosures and rip rap work in several stream channels to reduce head cutting during high flow activity

June 13 – Met with several individuals from the Verde Valley to discuss ideas for Watchable Wildlife activities there.

June 14 – Returned to the PSP and continued to relocate water from storage to drinkers

June 16 – Hauled 2,000 gallons of water to a AZGFD water development in GMU7E that had gone dry and was receiving heavy

usage from pronghorn, elk and mule deer
June 16 – Hauled 1,000 gallons of water to a location SE of Winona where the AZGFD will be conducting dove banding activities starting July 1

June 18 – With 6 other FoNAF volunteers we made repairs to a large aspen protection enclosure south of Mormon Lake where several snags had damaged the enclosure fence.

June 19 – Led tours at the Arboretum in Flagstaff discussing ponderosa pines, forest health, aspen, history of the Arboretum, water conservation and planning gardens to take advantage of natural sunlight and soil conditions

June 20 – With another volunteer we continued work on the PSP moving water from storage to various drinkers for wildlife

June 21 – With another volunteer we traveled to GMU9 near the GCNP and worked on three wildlife trick tanks

June 22 – Attended the monthly 4FRI stakeholder meeting we discussed the upcoming Rim Country EIS

June 23 – With another volunteer we returned to the Tusayan area to work on 6 drinkers on the Tusayan wildlife water pipeline, using reclaimed water for the Tusayan water treatment plant

June 24 – With 8 volunteers from FoNAF and several Forest Service employees we

built approximately 200' of log worm fence to reduce access into meadow areas south of Mormon Lake. These meadows had a large infestation of invasive leafy spurge and keeping vehicles out of the meadows is one part of the process to rid these areas of this invasive

June 24 – Attended the monthly Board meeting for the Northern Arizona Shooting Range Foundation

June 25 – Served as Range Safety Officer at the Northern Arizona Shooting range

June 26 – Led a hike at the Nature Conservancy Hart Prairie Preserve, discussing various topics including the San Francisco peaks, Bebb's willows, forest thinning, historic grazing practices and other items

June 27 – With another volunteer we returned to work on additional water distribution to wildlife water drinkers on the Tusayan water pipeline

June 30 - With another volunteer we ran water to several more wildlife drinkers N.E. of Flagstaff in GMU7E

July 2-4 – With another volunteer we assisted the AZGFD with trapping and banding doves for harvest data

July 5 - With another volunteer we drove to GMU9 and moved water on the Tusayan recycled water pipeline

July 7 – Met with Kellie Tharp of AZGFD to discuss current Hunter Ed program

July 8 – Assisted with the Annual Plant Sale fundraiser at the Arboretum

July 9 – With approximately 10 other FoNAF volunteers we built a new aspen enclosure along Hwy 180 in preparation for planting over 300 seedlings to replace a dead grove of aspens

July 13 – With another volunteer we moved water on the Pat Springs Pipeline

July 14 - With a AZGFD Wildlife Manager we moved water on the Pat Springs Pipeline

July 15 - – With approximately 10 other FoNAF volunteers we built a new log worm fence adjacent to Sheep Springs in GMU6A to discourage off road driving in important meadows and wetlands

July 16 – Attended the AZGFD State Habitat Partnership Committee meeting where we were told that there will be over \$2,000,000 available for this year's grant proposals, monies raised by the auction of Special Tags, tag application fees and other similar sources

July 18 – Met with Coconino County Supervisor Art Babbott to discuss various land management issues in central Coconino County

July 24 – Led a nature hike at TNC Hart Prairie Preserve

July 26 – Assisted with hauling 1,000 gallons of water to 1 of 3 new aspen planting sights along Hwy. 180 to restore this once aspen scenic passage through the Coconino N. F.

July 27 – Continued with watering efforts, another 1,000 gallons of water at a second site.

July 28 – Completed watering efforts with a third load of water to the third site, watering a total for all three days of over 900 new aspen seedlings as part of a project funded by Friends of Northern Arizona Forests(FoNAF) and the national Forest Foundation, utilizing a young planting crew from the American Conservation Experience, A.C.E.

July 29 – Checked wildlife waters on the north side of the San Francisco Peaks, identifying those that need more rain or hauled water

July 30 – Traveled to GMU 9 adjacent to the GCNP and removed some used excess corrugated metal for repurposing at an Arizona Elk Society project in GMU 23

July 31 – Volunteered with the FS and FoNAF at the Humphreys Summit Trailhead conducting Preventative Search and Rescue activities to minimize injuries, illness or other difficulties hikers may encounter on the strenuous trail

August 1 – Attended a strategic planning session with the Arizona Watchable Wildlife Experience, AWWE, developing a long range plan for sustained funding, partner group involvement and problem solving

August 2 – With another volunteer, we unloaded over 400 cases of clay targets at the Northern Arizona Shooting Range in preparation for several upcoming Trap and Sporting Clay events

August 3 – Attended a joint meeting of the Grand Canyon Chapter of Trout Unlimited and the Northern Arizona Flycasters where we were treated to a presentation by State TU representatives on upcoming activities

August 4 – Attended a hike to a local Spring adjacent to the Museum of Northern Arizona where we received a presentation regarding the history and importance of this and other Springs to our local area.

August 5 – Attended a portion of the AGFD Commission meeting in Flagstaff

August 5 – With another FoNAF volunteer we made repairs to an aspen enclosure that had been damaged and potentially

allowed access by livestock or elk

August 6 – With 9 other FoNAF volunteers we drove to the Mogollon Rim Ranger District and made repairs or modifications to 4 aspen/wetland meadow enclosures that had sustained damage from falling trees

August 7 – Led two tours at the Arboretum for visitors, discussing the history of the Arboretum, the importance of ponderosa pines and aspen, and other topics including water conservation and the importance of pollinators

August 8 – Returned to GMU 9 to make repairs to a wildlife water catchment that was not functioning

August 9 – Returned to GMU 9 and completed repairs to wildlife water development by installing a new drinker

August 12 – With another FoNAF volunteer we made repairs to an enclosure around Hoxworth Spring in GMU6A that had been damaged probably by a bear as no other signs of human or ungulates was present

August 13 – With 9 other FoNAF volunteers we joined the Arizona Antelope Foundation and various FS and AZGFD staff to work on improving range fences in GMU7E to improve pronghorn travel corridors

August 14 – Volunteered as Range Safety Officer at the Northern Arizona Shooting Range

August 15 – With another volunteer we started moving water through the Pat Springs Pipeline in GMU7E to provide water for wildlife in numerous drinkers over 200 square miles

August 16 – With another volunteer we traveled to GMU9 south of the GCNP and made repairs to two wildlife water developments

August 17-18 – Once again traveled to the Pat Springs Pipeline and continued to move water to various drinkers and storage units

August 19 – With 9 other FoNAF volunteers we accompanied a Forest Service silviculturists to the site of a new aspen enclosure. FS crews had dropped several conifers that were going to interfere with the aspen growth so we limbed those, bucked the boles into manageable size for firewood and removed them and the limbs from what would be the inside of the enclosure, We installed 40 10' T-posts and we'll return in a few days and install the two panels of 48" field fence that will make the 8' protective fence.

Region IV - Valerie Morrill Regional Director



Summer is a time when life slows down a bit in Region IV. There's still fishing at the right time of day (which for most of us is more like night). However, lots of us desert rats – myself included - take any opportunity offered to get a break from the heat and head uphill to cooler climates. With that all said, it helps to explain why my Region IV report this time

around is a little slim on action, but in exchange I'll include a bittersweet tale of caution.

First the list of actions:

I represented Region IV at the AZ Wildlife Federation annual meeting at Sipe White Mountain Wildlife Area in northeastern Arizona. Throughout the time period, I participated in email and telephonic actions serving as the Region IV Director.

I participated in a review of the draft Arizona Becoming an Outdoors Woman (BOW) mission statement and strategic plan. I am an instructor at the BOW workshop in September.

I received notification that a second Yuma school, George Washington Carver Elementary School, will join Desert View Middle and High School as recipients of General Motors (GM) Eco-Green National Wildlife Federation (NWF) Partnership seed grants within the Eco-School initiative. NWF is the U.S. administrator of Eco-Schools – “an internationally acclaimed program that provides a framework to help educators integrate sustainability principles throughout their schools and curriculum.” Please see <http://www.nwf.org/Eco-Schools-USA.aspx> for more information.

I've been asked to join the effort to revamp our local Habitat Partnership Committee by the Yuma Valley Rod and Gun Club working with AZ Game and Fish Region IV. This is a welcome development for benefit of wildlife projects in our area.

And now the cautionary tale:

I am a former federal natural resources manager, 28 years of which included wildlife management responsibilities in the southwest. Through that experience and the briefings that we on the AWF Board receive, I am more than aware of the hazards of vehicle/wildlife collisions. There are numerous studies and projects underway in AZ and other states to address the problem, but judging from the ever-present roadkill, it continues to be an everyday tragedy. AAA reports that in a recent 10-year period,

there were over 2000 human fatalities and untold loss to injury and property damage, as well as the loss of wildlife.

Given my awareness, I am vigilant on the open road. I don't exceed the speed limit (well, most of the time!). I watch the road ahead and on the roadside; I pay attention to the ebb and flow of wildlife warning signs and deterrents such as wildlife exclusion fencing. My vigilance is even more attuned during what I like to call the witching hours of evening, night and early morning.

On my vacation in Colorado this summer, these precautions prevented collisions with sheep herds and horses on open range, marmot and moose in the mountains, and deer just about everywhere. But all of these measures were unsuccessful in preventing my hitting a bear. I was driving 65 mph – the speed limit – on a very busy westbound freeway into the late afternoon sun. This particular stretch of highway was a narrow canyon with south to north features of cliff, river, concrete barrier, eastbound interstate, concrete barrier, westbound interstate, concrete barrier and cliff. There was no fencing, though about a 100 yards ahead wildlife deterrent fencing began again. I was almost clear and ready to relax a bit, when out of the left lane popped a full grown bear into the grill of my nearly new pickup truck. This bear had managed to climb over barriers and dodge 3 lanes of traffic before we collided. He (I apologize, but I am just certain he was a he) had just evaded a small sedan passing me on the left. This I believe may have been a blessing, because if they had hit, it's likely that the smaller car at its higher speed would have lost control and the situation could have easily escalated into a multi-car collision, as busy as the road was. Instead my truck took the force of the blow right smack head-on, absorbing the shock without any loss of control. Oddly, it felt like the truck 'embraced' the bear, preventing it from rolling over the hood or under the wheels. More blessings. When I came to a stop, the bear rolled forward, leaped up over the last concrete barrier and ran up that last cliff. Of course I have no way of knowing, but I can't banish the thought of one more blessing - that he made it, sore and ticked off, but - hopefully - he made it.

So for me, I'm blessed. No human fatalities or injuries. I have an amazing pickup that performs miracles. I ended up having to extend my time in cool country, so what's body to do? Go fishing!

As far as the cautionary tale, my obvious message is it's dangerous out there on our highways, whether you are driving in the urban jungle or God's country. Clearly more 'wildlife proof' fencing and other deterrents are needed. Also, all of us can employ the good habits offered in this notice from AAA. But based on my incident, these aren't enough. Our high velocity driving in wildlife country of speeds in excess of 70, 75, 80 mph exacerbate the hazards. Slow down. Give wildlife a 'brake'. It'll be a blessing.

Region V - Glen Dickens Regional Director, VP of Conservation



The Region 5 Director/VP of Conservation representing the Arizona Antelope Foundation on August 7 and 8 went to Washington DC with AWF President Brad Powell, Jim Walker (Trout Unlimited) and Chris Mitchell (Yuma Valley Rod and Gun Club) to discuss our concerns with the current proposed Grand Canyon National Monument and outline a better alternative (dropping the North Kaibab Ranger District) should the Monument proposal move forward. The meetings with the Undersecretary for Resources and Environment, Dept. of Agriculture and Managing Director of the Council on Environmental Quality went well. It is highly likely that this Monument will be approved in some form as the current Executive branch finishes its 8 year term.

The Region 5 Director/VP of Conservation attended and participated in the AWF's annual meeting held at Sipes Ranch near Springerville on June 4 and 5. It was a productive work session attended by nearly every Board member. Everyone enjoyed the cooler temps and the excellent catered Saturday night dinner. Our business meeting focused largely on updating our current Strategic Plan and assigning board members to various implementation teams.

The Region 5 Director/VP of Conservation along with AWF President Brad Powell attended a June 22nd Yuma Rod and Gun Club board meeting and outlined the benefits to affiliating with the AWF and the NWF. We also discussed their participation in our planned trip to Washington DC to lobby on behalf of the North Kaibab Ranger District being withdrawn from the proposed Grand Canyon Monument. Later in the month, we received the good news that they would both affiliate with us once again and be a part of the Monument delegation.

Santa Catalina Bighorn Sheep Reintroduction Project

Briefing

The following is a summary of bighorn sheep reintroduction activities on the Coronado National Forest from June 23 through July 24, 2016.

Research Notes

Over the last two weeks, Research Branch biologists recorded visual observations of 11 groups of bighorn sheep in the Santa

Catalina Mountains. Of these 11 groups, three contained at least one lamb. One group contained two juvenile ewes, and two groups contained one juvenile ewe. Additionally, juvenile rams were observed in three groups, and six groups contained at least one uncollared adult ewe from the 2013 release. Many of the groups are now comprised of both rams and ewes. During this reporting period, rams were observed displaying rutting behavior including lip-curling and pursuit of females. Rams were also showing antagonistic behavior toward one another.

Mortalities

There were no known mortalities of collared sheep during this reporting period. The last known mortality was on May 21, 2016.

Current Population Status

As of July 27, 2016, 36 collared sheep are known to be alive. There could be as many as 45 uncollared sheep in this population as well, bringing the total potential population to 81 bighorn sheep. Uncollared bighorn sheep include those released without collars, those from the 2013 release whose collars have dropped off, and those born in the Santa Catalina Mountains.

Rosemont Mine/Coronado National Forest

On July 27th the Regional Army Corps of Engineers officials recommended their agency not issue permits for a controversial Arizona copper mine overlapping the territory roamed by America's only known jaguar.

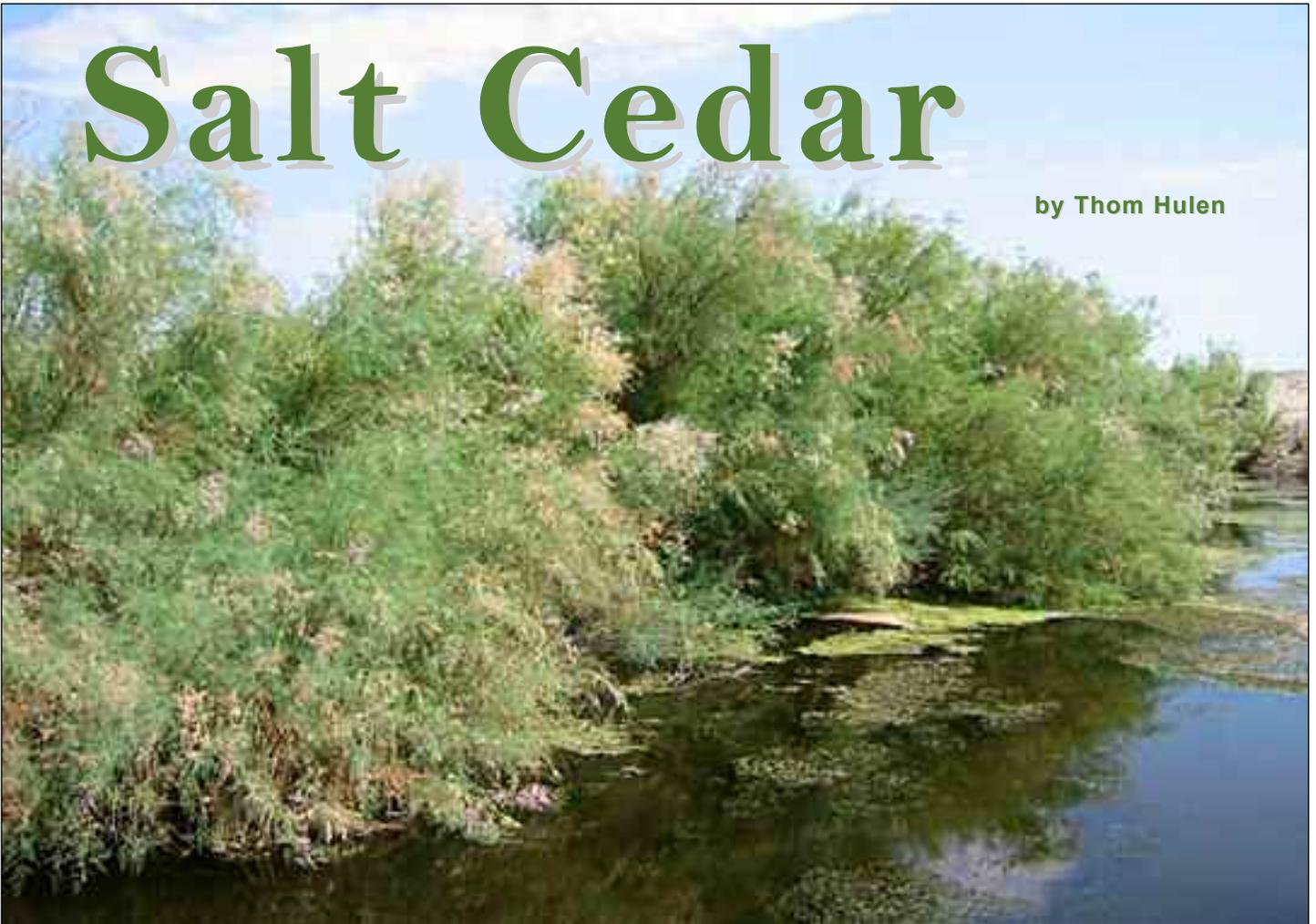
The Army Corps' Los Angeles District, which oversees Arizona, sent a recommendation to South Pacific Division headquarters in San Francisco about dredge-and-fill operations at the proposed Rosemont mine near Tucson, Ariz. Army Corps procedure dictates that recommendations be sent up the chain of command if they advise rejecting permit applications.

While the Army Corps does not discuss or release such internal deliberations, districts typically send recommendations approving Clean Water Act Section 404 permits directly to U.S. EPA. That agency has a controversial veto authority and has already expressed strong concerns about the project's impact on waterways. The South Pacific Division has not yet made a final decision, which is expected in the coming months.

Hudbay Minerals Inc., however, said "a more senior-level review" was always a possibility for the project. Despite hard times financially amid the commodity downturn, the Toronto-based company remains committed to the project.

Salt Cedar

by Thom Hulén



Salt Cedar or Tamarisk *Tamarix* spp. has been in the southwest U.S. for over 100 years. Introduced into North America in the early 1820s it has spread throughout much of the U.S. by escaping cultivation and deliberate introduction for its bank stabilization capabilities and ornamental value. By the early 1900s it was being used to control erosion by stabilizing stream banks on the Colorado and Rio Grande Rivers.

Tamarisk is native to Eurasia and is found in similar habitats as those found in the SW US, hot arid climate and along streams- the same places where native cottonwood and willow trees grow.

There are two forms of salt cedar that are found in the southwest today. The shrub form, *Tamarix chinensis*, grows to about 8-16 feet in height is probably a group of various species or varieties lumped together for convenience. The other species the Athel, *Tamarix ephylla* is tree like and can attain heights of more than 50 feet. Of the two forms, the shrub form is the most pernicious.

Even though salt cedar stabilizes stream banks they often displace native species such as willow and cottonwood trees. This displacement is facilitated by stream flows created by storing water in reservoirs during the winter-spring runoff season and releasing the water during the summer when irrigation demand is highest. This is the peak period for salt cedar reproduction. Native trees favor natural runoff patterns when winter-spring runoff runs unabated in streams; this is their peak period of reproduction. This natural stream flow pattern is favorable to other native species such as fish, amphibians, birds, insects and other riparian plants.

Salt cedars, under favorable conditions, will grow in large monocultures that reduce species diversity significantly. To see and

experience this for yourself, take two hikes. One hike in a relatively undisturbed riparian area that is dominated by willow, cottonwood and mesquite trees and count how many different kinds of plants and animals, i.e. birds you encounter. Take a second hike in a riparian area dominated by salt cedar and do the same census. You will find that species diversity is much higher in the willow-cottonwood-mesquite dominant area.

To combat the lowering of species diversity caused by salt cedar many organizations and individuals believe it is necessary to remove salt cedar so that native species can be reestablished. My experience with salt cedar removal, "tammywacking" is that in riparian areas where streams with natural flow patterns and multi-year removal events salt cedar can be brought under control if native vegetation is reestablished. Reintroducing native plants and removing salt cedar for several consecutive seasons works.

Cutting salt cedar near the base of each trunk and applying an herbicide to the stump for multiple-years works best. It can take several years to kill the specimen, but this time period is also critical for the reestablishment of native the flora.

Along many rivers such as the Gila and Colorado Rivers bull dozers and other forms of heavy equipment are used to remove the salt cedar. In order to be successful replanting of native vegetation is crucial. Building an irrigation system is essential in many cases when natural flow is impeded.

In streams with reservoirs storing water for irrigation the control of salt cedar is more problematic and will necessitate ongoing maintenance of the salt cedar.

Salt cedar is not all bad for wildlife. Doves, millions, use the thick salt cedar forests among the lower Gila and Colorado Rivers for

roosting sites and some birds such as the endangered Southwestern Willow Flycatcher are known to nest in salt cedar.

Managing salt cedar can be accomplished using biological mechanisms such as introducing non-native beetles (Salt Cedar Beetle, *Diorhabda conrinululata*) that forage on salt cedar. Goats have been used with some success to manage salt cedar. Caution must be made when introducing a new species into an ecosystem because of the unintended consequences. The introduction of salt cedar has demonstrated this hazard.

Many organizations and conservationists support salt cedar removal programs to restore stream banks to original conditions. The idea of restoring to original conditions is fraught with all kinds of implications that I will not discuss in this article, but is an important concept to ponder. The anti-salt cedar people say that salt cedar uses more water than native cottonwood and willow trees, but there is not agreement on this in the scientific community. I believe the evidence is clear that salt cedar dominated systems use about the same amount of water as do native trees. Salt cedars, through leaf fall can increase the salinity of the soil if the soil is not periodically flushed with fresh water. Native plants with low salt tolerance will be excluded.

The Center for Biological Conservancy does not favor wholesale salt cedar removal. They argue that since the endangered SW Flycatchers uses it for nesting, salt cedar should be left alone. Other species of wildlife are affected because removing salt cedar foliage which would expose them to sunlight, increased temperatures and exposure to predators. Additionally they believe that introducing another species, a beetle, is too risky to justify, and ironically to have to deal with another introduction that perhaps should not have occurred is folly.

I have spent much of my career dealing with invasive species and I am definitely on the side of controlling salt cedar to protect native habitat, but only when there is the full commitment to do the job right. This is a multi-year commitment in most cases. The nature of project funding, organizational strategic plans and personnel changes is problematic.

When salt cedar is removed something needs to take its place and that is why I believe these areas should be intensively managed to make sure the reintroduction of native species is successful. Stream banks that experience high summer flows in response to irrigation demand special attention.

The reestablishment of the native vegetation needs to be done with wildlife in mind. Removing a salt cedar thicket or forest reduces the amount of roosting cover for doves and other species. Destroying and not replacing dove roosting sites is too high a price to pay to

restore many stream beds.

Ecosystem management in many, if not most cases, is really managing how people influence the ecosystem. We need irrigation for agriculture and I believe we need healthy riparian areas full of wildlife, ecosystem services and places for us to recreate and appreciate. Striking a balance between conflicting interests will always challenge us. As our population grows and our climate changes these conflicts have the potential to cause greater strife. Whatever we do today will influence our future. Let's strive to take the correct path for ourselves and the future of our planet.

There have been some attempts to use salt cedar wood for fuel and lumber to make furniture and flooring. Finished salt cedar wood is attractive, but I do not believe it has caught on. I have not seen any examples for many years.

When dove season rolls around in September I will be looking for doves and salt cedar and water will be on my mind



Salt Cedar *Tamarix* spp. Steve Dewey, Utah State University (usdainvasivespeciesinfo.gov/saltcedar)



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WHADDA' YA' KNOW (answers on page 20)

1. Arizona Wildlife Trophies is the official record book of Arizona Big Game trophies. Every five years a new edition is published as a uniquely numbered hard cover book. What year was the first Arizona Wildlife Trophies book published by the Arizona Wildlife Federation?
2. Becoming an Outdoor Woman (BOW) workshops are hands-on outdoor workshops held in a safe supportive atmosphere with patient, enthusiastic instructors. How many years has the Arizona Wildlife Federation held the BOW workshops?
3. What year was the Arizona Wildlife Federation founded?
4. The Arizona Wildlife Federation (AWF) has not always been known as the AWF. What was the first name of the AWF?
5. What is the Arizona Wildlife Federation's mission statement?

THE HEBER HORSES



by Mark Hullinger

The American wild mustang, icon of the American west. Wild and free. Recognized worldwide. Beautiful, powerful, majestic animals. Public opinion is strong and horse advocates are many. In 1971, the Wild Horse and Burro Act was put into effect. After the passage of the Act, about 20,000 acres of the Apache-Sitgreaves National Forest was established as Wild Horse Territory near the town of Heber.

My family and I have been seeing wild horses near Heber for over 40 years. In the 70's and 80's, we would occasionally spot a group of wild horses in the forest east of Black Canyon Lake. The group was always small, usually less than 10 animals. By the mid 90's this small herd seemed to have vanished. In 1974 the Forest Service produced a census. Only 7 horses were found. In a 1993 census only 2 mares were found. About a year after the 1993 census I remember seeing one buckskin colored mare while my son

and I hiked near the rim of Buckskin Canyon.

By 2000, it appeared that the wild horses near Heber were gone. Wild horses were still present in other parts of Arizona. There has been a large herd in the Gila River Basin south of Phoenix. I have witnessed wild horses along the Gila from east of Florence to west of Gila Bend for many years. The horses here are usually in groups of 10-20 but at times hundreds of these horses band together and run across the desert for miles.

There is also a substantial population of horses near the confluence of the Salt and Verde Rivers. There are more wild horse populations around the state, but these are the ones I'm most familiar with.

The horses on the Salt River have populated an area on Saguaro Lake called Butcher Jones Cove. This cove has a popular public beach and a picnic area shaded by a grove of mesquite trees. The mesquite beans, the shade, the native desert grasses and the



**Butcher Jones Cove at Saguaro Lake
Photo taken Summer 2016 by Mark Hullinger**

cool clean water of the lake are natural attractants. In reality, the piles of horse manure and the flies detract from a swim and a picnic in this scenic location. Curious horses also inundate picnics.

Outspoken wild horse advocates and public opinion have hampered the Tonto National Forest from implementing any efforts to manage this particular herd. The Bureau of Land Management in Arizona and other western states has had wild horse advocates and public opinion turn management efforts into hot debates. All of these Federal Agencies have been watching as the issues become apparent.

There are many stories to explain where the wild horses came from. Some people believe that the wild horses escaped from Coronado in 1540. Later Conquistadors are also credited with loosing or releasing horses. It's easy to surmise other sources, explorers, pioneers, ranchers, even the U. S. Cavalry lost horses over the last few centuries.

From Apache- Sitgreaves website there is a definition that

explains that a " Wild Horse is a legal status provided to unmarked and unclaimed horses and their progeny that were considered wild and free roaming on public lands at the time of passage of the Wild Free Roaming Horse and Burro Act of 1971." The Apache-Sitgreaves website directs interested parties to the Code of Federal Regulations (see 36 CFR222.60(b)(13). There is an interesting definition mentioned on this website, "Any horse introduced onto the Forest on or after December 15, 1971 by accident, negligence or willful disregard of private ownership is NOT a wild horse. Such horses are defined as unauthorized livestock (see 36 CFR262.10). Unauthorized livestock do not have the status of a wild horse under the Act."

The Heber wild horse population took an unforeseen turn in 2002 during the Rodeo-Chedeski fire. The adjacent White Mountain Apache Reservation had untold numbers of horses. When the forest fire came through, wooden fence posts burned and trees fell, knocking down miles of fence separating the reservation from the Sitgreaves National Forest. The reservation horses having much of their normal range burned moved from the reservation to the Sitgreaves in search of food and water. Domestic horses escaped or were released while the authorities evacuated people in the path of the fire. When the summer monsoon rains came the wild grasses flourished around Heber. The newly arrived horses also flourished. Many of the horses were gathered and returned to the reservation by the White Mountain Apache Tribe. Once the reservation boundary fence was repaired some horses were stranded on the Sitgreaves National forest. Dead or storm damaged trees continue to damage the boundary fence. The remoteness of this region hampers timely repairs. The boundary fence that extends from near Heber to Show Low, Arizona is over 50 miles long. Horses have many opportunities to cross this boundary in either direction. Wildlife populations must also cross this fence as they migrate during the seasons. Much of the elevation here is more than 7,000 feet above sea level. Deep winter snows push many animals to lower elevations with less snow.

Escalating feed prices has caused suspicion the some horse owners have released domestic horses that assimilated into the wild horse bands. In the last 6 months, I have personally observed one 'wild' horse with horseshoes, one 'wild' horse with one shoe, one 'wild' horse with a blue halter and one gelding. While it is not clear whether these horses were dumped or escaped their riders, it is clear that they have joined the establishing herds.



This stallion resembles the type of horses that were observed during the 1990's. These other horses have joined him over the last few years. Photo taken July 2016. Linda Dightmon



During the 2016 spring turkey hunt, I drove to a remote area at first light. I donned my backpack and loaded my shotgun ready to quietly begin the hunt. A 'wild' horse approached within ten feet. He hardly seemed wild. As I hiked into a secluded spring the horse followed close behind and along the way we were joined by 8 more horses. It was quite comical. So much for my plan of silently setting up for wild turkeys. If someone had been there to film the experience I'm sure it would have gone viral. These horses in this remote location were far from shy or elusive but quit the opposite. I wonder if they were once domestic.

During a scenic drive near Heber in August 2016, my lady and I counted 6 separate groups of horses in 12 miles. Each group consisted of about 12 horses. Each group also included at least 2

foals. One foal appeared to be less than a week old with the nub of his umbilical cord still attached. It is clear to me that these horses are successfully breeding. Of the 70 plus horses we counted in 5 hours each group appeared to have a base territory of about 2 miles. Each of these small herds territory centered around the small waterholes located along the forest road. More fresh manure piles and tracks indicated more horses that we did not see. The horse manure piles and horse tracks greatly outnumber the wild animal tracks. The native grasses in the areas frequented by the horses are munched down very short. The wild grasses in nearby areas without the horses are knee deep, this is a strong indication of heavy forage utilization. Tall grass is important for survival of fawns, elk calves, wild turkey hatchlings and other ground nesting birds. Forage utilization needs to be measured by experienced wildlife biologists to determine if there is impact on the indigenous wildlife.

In addition to horses and wildlife, ranchers lease grazing rights for livestock on public land. One local rancher had claimed to pay \$1,600 a month to graze cattle in the Heber area. The grazing fees from National Forests or BLM lands goes to the federal government. State land grazing fees goes to Arizona schools.

When the Wild Horse and Burro Act was signed into effect in 1971, the area around Heber had a dozen wild horses. It's easy to see that there are hundreds now. The original wild horse territory near Heber is about 20,000 acres. In the 2015 aerial survey, 15 adult horses and 1 foal were counted in the Wild Horse Territory. However, there were an additional 201 horses counted in adjacent areas.

Besides the 3-way competition for forage, horses, livestock and wildlife compete for limited water resources. In the early summer of 2016, about half



Mare with her foal, photo taken July 2016



"It is apparent that as the horse population expands, conflicts and impacts on natural resources are inevitable."

of the waterholes dried up. The remaining were very low. Water and forage appear to be the primary limiting factors to how many animals the land can support. While livestock and wildlife populations are monitored and managed, the horse population is multiplying. To further complicate matters the domestic horses that have escaped and joined the herds are considered unauthorized livestock. These unauthorized horses do not have the status of wild horses under the Wild Horse and Burro Act. How can anyone sort them out?

What is needed is a detailed study to gather accurate information. With this information, an intelligent plan can be made to insure the forest remains healthy. The Apache-Sitgreaves National Forest staff is already working on this study. The proposed Action Plan is expected to be ready by the end of 2017. Public scoping is expected to take place in 2018. Management implemented by 2020-21. The Government wheels turn slow, but they do turn. This amount of time

will allow biologists to study the horses, the livestock and the wildlife during all seasons of the year. The terrain has changed a great deal since the large fires. Before the fires the forest contained hundreds of thousands of acres of trees with meandering meadows and limited riparian areas. After the fires, large expanses of land were opened up, gradually allowing native grasses to grow. After 14 years the grasslands are transitioning back to the original forest. The pine trees are coming back in dense patches and many are now over 10 feet tall. Oak groves are also replacing the grasses in some areas. As trees repopulate the land available forage will decrease.

It is apparent that as the horse population expands, conflicts and impacts on natural resources are inevitable. With the increasing horse population, existing grazing leases and existing wildlife the Forest Service Biologists have quite a challenge ahead.

Editor Note...Please see the AWF website azwildlife.org for our position on wild horse and burros.



Evidence of unchecked breeding. These horses are a different herd from opposite page. Herds were about 2 miles apart on the same day.

The Rappelling Team



This is the April 2013 Rappelling 102 class. Instructors (from left to right): Kent Mosher, Brian Marshall (hanging from the rope), Shaleen Mason (with camo head scarf), Kelly Dwyer (kneeling on left), Clay Crowder (orange shirt and hat), Coleen Lancaster (sitting in center, green shirt), Susan Zinn (holding the rope), and Jeff Sorensen (in the classic black hat)

The students in the photo are Betty DeThomasis, Karyn Huschke, Laurie Publicover, Meghan Quigley, Julie Tolby, and Larisa Harding. Also to note, both Kelly and Coleen were students during this class, and became instructors in the following camp..



“Beyond the adrenaline rush and excitement in their eyes and grins, inside they have the confidence and knowledge that they can do anything.”
Jeff Sorensen

by Linda Dightmon

“On rope!” “On belay!” Twice a year, for the past 19 years, these phrases have echoed from the granite rocks on the Friendly Pines Camp property. What the heck are we doing? It is just the Rappelling 101 class. They are busy teaching trust, empowerment, having fun and oh yeah...sometimes changing lives.

When I started with BOW, I was more than a little surprised to learn that rappelling was **THE** most popular class (and still is). But, it only makes sense. Here is an outdoor activity that most will not attempt on their own. What better way to finally face that fear of heights? The payoff? Walking backwards over a cliff and then wanting to do it again! For those so inclined there is Rappelling 102, where the participant can conquer a higher cliff. BOW is about stepping beyond the comfort zone. Rappelling **IS** BOW.

The heart and soul of the rappelling program is the handsome man in the black hat. His name is Jeff Sorensen. Jeff has been with the program for 19 years.



Jeff Sorensen is a wildlife biologist with the AZ Game and Fish Dept, and this November will mark his 26th year with the Department. He completed his Bachelor of Science degree in Biology at NAU in Flagstaff, and his Masters degree in Conservation Biology at ASU's Tempe campus. Jeff started teaching at the BOW camps in 1997, and has taught numerous students how to rappel since he was a junior in high school. Jeff and his fellow instructors also teach rappelling to Game and Fish employees and volunteers. In years past, his wife--Joy Hernbrode--has also helped with BOW camp rappelling classes.

"As a volunteer instructor, one of the most rewarding aspects of the rappelling classes is helping our students overcome their fear and anxiety at the start of the class. Alongside on a second rope, we talk them down step-by-step on their first descent. When they get to the landing below and realize that they did it, the transformation is amazing. It's very empowering for them. Beyond the adrenaline rush and excitement in their eyes and grins, inside they have the confidence and knowledge that they can do anything. That is what the Becoming an Outdoors Woman Program is all about."

Brian Marshall



Kent has been with BOW for six years now. He is a native fishery biologist at Arizona Game and Fish. He helps Jeff teach the internal rappelling course at the department.

"I like watching the friends and family encouraging each other. I remember an older lady with a touch of Parkinson's disease going down the rope and then I get inspired."

Kent Mosher



Brian is a five year BOW volunteer instructor veteran. He is a general contractor, owner/operator of Briant Construction. He also helps Jeff teach Arizona Game and Fish staff the art of rappelling. His favorite teaching technique is to tell the ladies that rappelling really isn't a big deal once that first step is taken.

"It is just FUN to come out in the fresh air and show these women that they can do it! I look forward to donating my time and talent to BOW."

Kelly Dwyer



Kelly received a BOW scholarship as a single mom who wanted to gain knowledge to take her son, Jonathan, outdoors more often. After taking the rappelling courses she immediately fell in love with rappelling and pursued further opportunities to rappel in the wilderness.

This April will mark her 4th year volunteering for Arizona Wildlife Federation at the Becoming an Outdoors-Woman camps.

She has become an avid canyoneer, exploring canyons throughout AZ, UT and CO. She is also an active member of the American Canyoneering Association and has completed over 100 canyons including some of the most dangerous with staged rappels over 600 feet.

As for her son, Jonathan, he joins her on many, many canyons. He has completed over 30 canyons throughout AZ and UT, including rappelling into the Grand Canyon and either hiking out or rafting out.

"BOW has had an unbelievable and unexpected impact in our lives. I am forever grateful for the opportunity of that scholarship. I love giving back and teaching others how to rappel and canyoneer. Hoping to inspire them to spend more time outdoors with their families. Jon is now 18 and is hoping to volunteer in April 2017!"

"I would never be a canyoneer today if it wasn't for BOW!"



Kelly and Jonathan

Austin Smith



September 2016 was Austin's first BOW experience. He works for Arizona Game and Fish as a wildlife specialist. He was impressed with the program and especially how the women encourage each other and that women of all physical abilities were represented.

"Friendly Pines Camp brings back some special memories for me. I attended Diabetic Camp when I was a kid. And it still looks the same!"

Jim Diamond



September 2016 was Jim's first workshop. He and Jeff are long time friends. They have been rappelling since high school some thirty years ago. He likes being outside and enjoys the challenge of teaching rappelling.

"What is really fun for me is when I walk beside them for their first descent. It takes me back to the first time I did it and I get that rush all over again."

Susan Zinn



Susan is a manager in the Restorations department at Lifelock. She has a Bachelor's of Interdisciplinary Studies degree from Arizona State University. She is a single mom to one beautiful daughter, who also now rappels.

Susan first came to BOW as a student in 2008. She was going through some challenges in her life and was looking for some inspiration. She heard about BOW through a friend who had seen a news report about it. She signed up for every class that scared or challenged her. Rappelling was one of them. She loved the feeling of rappelling so much. The experience that BOW brought to Susan changed her. "BOW helped me overcome the fears I had carried my entire life."

Susan signed up for BOW the following year and once again took rappelling. She was hooked and loved the instructors and the atmosphere at BOW camp. Joy, one of the rappelling instructors asked Susan if she wanted to train to become an instructor. Susan jumped at the opportunity. Susan has been a volunteer instructor for 7 years with Arizona Game and Fish at BOW camp.

"I volunteer at BOW because of how much BOW changed my life. I love helping women overcome their fears. Helping someone believe in themselves enough to know that they can succeed, is what keeps me coming back every year. These women take the chance to trust me enough to face their fears and walk backward with me over a cliff. I am humbled and inspired by their vulnerability. They inspire me to keep going every day. When I think about the experiences I have had with each one of my students, I overcome my own obstacles each day. They inspire me.

Shaleen Mason

Shaleen has always loved the outdoors. When her friend, Susan Zinn, explained how BOW enhances the outdoor experience as well as teaches how to be the epitome of an outdoors woman. Well, Shaleen had to try it. She took the rappelling courses and came back to BOW and took them again and again. Finally, she became an instructor!

"When I first took the rappelling class, I was definitely afraid to trust. It was difficult to trust the words of my instructors telling me their diligence and the equipment would keep me safe while walking off of a cliff. But this experience helped me to see that unexpected things are worth trusting for amazing experiences."

"I love the atmosphere and the willingness of all of the ladies to push themselves to new experiences. I enjoy helping them face their fears and ultimately reach those goals."

"Rappelling and BOW camp has also helped me push my kids to experience adventure where we wouldn't normally seek it out. Both city kids, they have started to enjoy the adventure of outdoors more often. I'm grateful that BOW has given me the perspective to help make that a possibility for them."



Over the past 19 years the volunteer rappelling instructors have donated around 5700 man hours and have taught approximately 1250 women how to step backwards off of a cliff. Over one third of all BOW participants in every workshop sign up for at least one rappelling class.

When they do, these women learn teamwork, discover new strengths and some will conquer old fears. Rappelling is literally everything we try to do in a workshop...all in one activity.

The Sept 2016 Rappelling 102 class at Watson Lake



Historical Tales

Reproduced by Ryna Rock from Arizona Wildlife Sportsman, November 1949

Getting the Range

by Max Layton, AGPA President

We who have an interest in proper game management and in securing a wise overall usage of our resources frequently hear and use the following terms—"balance of nature", "sustaining yield", and "conservation". Wondering how many of us have given much thought to the meaning of these common terms, your writer is going into a short discussion of each of them.

The Great Creator in formulating this planet of ours prepared to keep the forces of nature under control (in balance) by pitting one against the other in conflict. As an example: As plants grew and increased the insects, rodents, game and other plant eating animals multiplied to live on the plant life. The birds then increased in numbers because they had plentiful insect food. The predators, coyotes, wolves, lions, bobcats, etc. multiplied because the game, etc., supplied them with food. Disease and other factors helped to keep the predators in check. Each species had its source of food supply and its enemies. Nature thus kept itself in balance so that no species, animal or plant materially damaged or destroyed the other.

Man then came into the picture with his civilization. He stumped the forests. He turned the flat and rolling grass lands into farms and cities. Thus he crowded the wild things back into the untillable lands. He herded his flocks and herds of domestic stock into the deserts and mountains competing with the game for feed. Now, annually, he goes into the field several hundred thousand strong to prey upon the remaining game with guns. Where now is "Nature's balance"? It ceased to exist when civilized man took over. The predator no longer has a place. Game cannot exist against the predation of animals and poaching and legitimate hunting of man. Consequently the predators MUST go.

Some of our natural resources are renewable, others are not. The minerals of course are not renewable. When they are mined out and used up man must discover suitable substitutes or his civilization suffers the dreaded consequences.

Thus it behooves us to conserve to the utmost our available supply. Our plant and animal life is renewable, provided they are properly managed. A renewable resource is one which we can use, reproduce and used again. The term "sustaining yield" has reference to the management of resources to the point of efficiency that they will be reproduced or replaced at 100 percent of their use. So long as we operate and manage our agriculture, forests and wildlife on sustaining yield we shall have as much as we have today. But we have not in the past operated on such a basis and as a result much of our land today is not near as productive as it was a generation ago. If we are to maintain our economy and our present high American standard of living, we must so manage our renewable resources so as to maintain more than a sustaining yield. We must as nearly as possible repair the damage done in the past and increase the productivity of our basic resources—soil and water—so as to increase their yield in order maintain on the American standard our ever increasing population.

Next that very commonly used word "conservation". What is it? The foregoing portion of this column has been written concerning it. Dr. Ira B. Judd of Arizona State College, Tempe, aptly defined "conservation" as the "The greatest use for the greatest number for the longest time". That is it. Whether it apply to a copper mine, a reservoir of irrigation water, an acre of farm land, a pine forest or a section of grass land, so utilize and manage that basic resource as to supply the needs and demand of the greatest number of people for the longest time. Those that are renewable, keep on a sustaining yield or better.

Our school systems have long taught the sciences necessary to the diverting of the products of the basic resources to human use. Little has been taught in the proper managing and constant maintenance of these basic resources. The AGPS has long advocated the introduction of conservation education into our public schools. We believe in it. We have long

talked of it. We have passed resolutions at several of our conventions advocating it. But nothing concrete was accomplished by us, simply because we did not have "the know-how"—we had no working tool to place in the teachers' hands. Now, the Conservation Workshop at Arizona State College, Tempe made up of lay students, directed by Dr. Judd and co-ordinated by Dan Gish of the Game and Fish Department, has written a teacher's reference text on

conservation problems in Arizona. This text is for use in teaching conservation along with other courses in all of the elementary grades. Now we have that teachers' working tool. Your President urges every AGPA in the state to exert the maximum effort in placing this text in the hands of every elementary teacher in Arizona, and making certain that it is used to the greatest possible extent.

Tom Kimball Talks...*An Editorial*

by the Arizona Game and Fish Director

Arizona Wildlife Sportsman, November 1949

Consciously or unconsciously the wildlife administrator is thinking in terms of youth at all times. Or perhaps I should say that he is working towards preservation of the American heritage for future generations of Americans.

One of the most disturbing sights to me, having been raised in Arizona, with a background of knowing and seeing wild things in their natural state all of my life, the delightfully eager attitude of city reared children at the zoo. Few humans are not stirred by the sight of wild creatures, but the comparison between caged animals and those to whom freedom is the essence of life is an insurmountable gap.

Colonization of this continent commenced essentially in the early 1600's, and the rate of progress since that time has been rapid and more or less complete. The status of our wild animals and birds has been in a continual state of evolution ever since, as the buffalo, the deer, the quail and other creatures have been pushed out of their natural homes to see others that are compatible, or have gradually become extirpated completely.

It is on this premise that wildlife administrators base their actions—that our wildlife is being pushed about by the processes of civilization, and must be granted some measures of aid to survive. This generation stands at a definite crossroad in this chapter of American history. To those who are close to the issue it appears that we and our fathers have an obligation to those who will come after us. It is our duty to them that the excesses or the thoughtlessness of this and past generations be corrected. It is no longer possible to accomplish this task on a guess-work basis, and the time is long past when commercial enterprise can assume first consideration in wildlife issues. Rather, if Johnny Q. Public, Jr., is to hunt and fish, in some small ratio to what his fathers did, the welfare of the wildlife itself must be the first consideration. and all other considerations must be secondary.

To those of us in wildlife work, the issue is a very personal thing. Quite frequently we lose our perspective to the extent that we think in no other terms than the welfare of our birds

and animals. And, when this attitude is carefully scrutinized, it can't be too far wrong. If our wildlife resources are taken care of as they should be, the hunter, the fisherman and the aesthete will be the beneficiaries. The multiple and complex issues and problems focusing upon our office and our personnel could easily become confusing should we take our eye "off the ball", and permit ourselves to indulge in either personalities or selfish desires or attempt to take the heat off ourselves by trying to satisfy everyone's whims and ideas.

There has been a continual program in Arizona of establishing and maintaining our wildlife administration agency on a scientific, businesslike and non-political basis. Continuity of program and policy is an absolute necessity if the purposes are to be achieved. As a purely personal opinion, I would say that much of this program is being achieved. What does seem to be lacking is a widespread public consciousness and sympathy with the real issues and problems. The bright light in this picture comes from a comparatively few adults and a wealth of youngsters.

I and others in the field have heard the "Conservation Education" used many times. Paying lip service, unfortunately, will not do the job. Those who are REALLY DOING SOMETHING other than talking are the ones who have gained a knowledge that something must be done and what to do. Each of them realizes that no revolutionary accomplishments are going to be made overnight. Children in our school systems, in youth groups, and individually are learning about wildlife and the other natural resources. Scouting organizations and summer camp groups are studying and learning about the soils, waters, forests and wildlife. They are beginning to think in terms of conservation and are forming the nucleus of a new generation and a new way of thought. With this new generation will come an era of conservation and a new way of American life. Except for a few, the present generation has formed a people, far too many of whom have taken far too much for granted far too long.

Camp Cook

By Ryna Rock



Salmon Potato Campfire Bake

4 medium red potatoes, washed and sliced thin
 1 c smoked salmon, flaked (or use 1-1/2 c cooked, flaked salmon)
 3 Tbsp flour
 1 (10-3/4 -oz) can cream of mushroom soup (or cream of celery soup)
 Salt and Pepper to taste
 1 medium onion, chopped (or 3 green onions, chopped)
 1/2 c water
 1 c grated cheese (your choice)

Place half of the potatoes in lightly greased Dutch oven (or line Dutch oven with aluminum foil, shiny side in, for easy clean-up). Sprinkle with half of flour, salt and pepper. Cover with half of flaked salmon and onion. Repeat layers of potatoes, flour, spices, salmon and onion. In bowl, combine soup and water, stirring until smooth. Pour over top of mixture. Do not stir. Sprinkle with cheese. Cover. Pile hot coals around sides and on top of kettle and cook for 40-45 minutes, or until potatoes are done (thinner potato slices cook faster). If you want, add celery, asparagus, or peas to this. Can also be made with smoked ham instead of salmon. Makes 4 large servings.

Oven size	Number of briquettes	
	Top	Bottom
10-inch	10 to 12	8 to 10
12-inch	12 to 14	10 to 12
14-inch	14 to 16	12 to 14
16-inch	16 to 18	14 to 16

Grilled Squash

1 medium zucchini squash
 Salt and pepper
 2 small yellow squash
 Garlic powder
 Butter

Wash and cut squash in long spears. Place in center of a piece of aluminum foil big enough to roll shut around the squash. Sprinkle salt, pepper, and garlic powder. Cut 2-3 slices of butter and place on top of squash. Roll foil shut in the center and then on the ends. Place on grill or on hot coals in your campfire and cook for 10-15 minutes, or till tender.

Easy Open Fire Cake Dessert

2 c flour
 1 egg
 1/4 c sugar
 1/2 c water
 1 tsp baking powder
 3 fresh apples, chopped very small
 1/2 tsp cinnamon

Mix flour, sugar, cinnamon, and baking powder together. Add egg and water. Place mixture in hand-greased Dutch oven. Add apples over top of mix. Cover and place to side of coals. Keep turning oven slowly to bake evenly.

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Answers

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- 21
- 1923
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- AWF is a non-profit organization dedicated to educating, inspiring, and assisting individuals and organizations to value, conserve, enhance, manage, and protect wildlife and wildlife habitat.

Averting a Fish and Wildlife Conservation Crisis

By Johnny Morris and Collin O'Mara

America has a proud history of bringing wildlife back from the brink. A century ago, prized game species like elk, geese, wood ducks, pronghorns, black bears, and striped bass were at extreme risk—now they are thriving.

Today we face a new conservation crisis as emerging diseases, invasive species, and extreme weather threaten wildlife at a scale inconceivable just a few decades ago. Thousands of species of birds, mammals, fish, frogs, turtles, butterflies, and plants are slipping through the cracks.

All Americans benefit from healthy fish and wildlife populations, but currently 80 percent of the funding for our state wildlife agencies comes from just one small slice of the population—hunters and anglers. Sportspeople have long willingly supported wildlife conservation efforts by paying federal excise taxes on shooting, hunting, and fishing gear, as well as the necessary licenses, permits and stamps.

This model of funding conservation has been successful for decades, but it has reached its limits. But far too often, there is not enough money to help imperiled wildlife that are not hunted or fished. In many cases, there is very limited funding until a species is in so much trouble that it is officially listed under the federal Endangered Species Act, a bill that was originally intended to be something of an “emergency room” measure.

Waiting until a species is in danger of extinction is hardly ideal. Taking action more proactively would be good for wildlife, good for businesses and good for taxpayers. Healthy lands and waters create billions of dollars in economic value. For example, more people work in America’s outdoor recreation industry than in the world of finance and insurance. Additionally, natural landscapes filter our drinking water, protect communities from storms, and improve our mental and physical well-being.

In 2014, the Association of Fish and Wildlife Agencies convened a Blue Ribbon Panel on Sustaining America’s Diverse Fish and

Wildlife Resources to come up with an innovative way to increase investments in wildlife conservation. Two dozen leaders in various fields—from CEOs to scientists—met to recommend a new funding approach to help avert the coming fish and wildlife crisis. The panel considered a range of options—including user fees, new excise taxes, and voluntary contributions—but these potential funding sources were either politically untenable or would not have raised resources to match the scale of the challenge.

Following the panel’s final recommendation, this month, a bill was introduced in Congress called the Recovering America’s Wildlife Act (HR 5650) that would send as much as \$1.3 billion annually from existing energy and mineral leases on federal lands and waters to the Wildlife Conservation and Restoration Program. This funding will allow us to conserve the thousands of species at greatest risk. It will also help protect the interests of hunters and anglers by making sure the existing funding streams will be used for recovering game species, as they were intended.

We have a responsibility to pass on healthy fish and wildlife populations to future generations. As Theodore Roosevelt once said, “The nation behaves well if it treats the natural resources as assets, which it must turn over to the next generation increased, and not impaired in value.”

Proactive, sustained investments like the one outlined by the Recovering America’s Wildlife Act will help us live up to President Roosevelt’s vision. Allowing state fish and wildlife agencies to step in earlier rather than later will also create new jobs and ensure regulatory certainty for many businesses. Congress should swiftly pass this bill so we can write the next chapter in the history of American conservation and ensure that our children and future generations inherit the full diversity of our nation’s fish and wildlife.

Johnny Morris is the founder of Bass Pro Shops and leading conservationist. Collin O'Mara is president and CEO of the National Wildlife Federation.

Make your voice heard at the Arizona Legislature

by Ben Alteneder, AWF Legislative Liaison

A quick guide to registering your support or opposition on bills at the Capitol

Significant technological changes at our state capitol have enabled the public to quickly login online and express their support or opposition to legislation as it moves through the process in Phoenix. The Legislature’s website (azleg.gov) provides a great opportunity for the average citizen to make their opinions known to policymakers on any bill being heard before a committee.

By visiting the legislature’s website you can now access a “request to speak” option. The Request to Speak in Committee system replaces sign in slips used by those wishing to testify in Senate and/or House committees. Committee chairpersons will have electronic access to listings of everyone signed up to speak and will know in advance who is for or against a particular bill. The great thing is you don’t have to be there in person to voice your opinion. Simply select that you don’t wish to speak and your opinion will still be registered in the system.

In most circumstances to create your login, you must visit the Legislature in person and create an account on a kiosk located in the House or Senate. However, AWF visits the legislature often and we will gladly create an account for you if you follow these simple steps!

Send your First and Last Name and email address to: Ben Alteneder – AWF legislative liaison at balteneder@azwildlife.org

Once you have been e-mailed your account information, login, change your password and update your profile to include your voter ID so your elected policymakers know you are an Arizona voter in their district!

You are ready to voice your support or opposition to any bill!

Remember unless you are a registered lobbyist representing an organization, client or company you must only represent yourself when supporting or opposing bills.

Welcome New Members

Heather Alvin	Phoenix	Sylvia Labrado	Cave Creek
Mike Ambroziak	Phoenix	Tony Lepore	Kingman
Erinn Bennar	Glendale	Pam Lester	Payson
Jeanette Bitterolf	Fountain Hills	Rita Looby	Prescott Valley
Nicole Brannon	Tempe	Terry Lopeman	Mesa
Lisa Bustos	Avondale	Toni Lopez	Mesa
Ruth Butler	Surprise	Chris MacDonald	Mesa
Deb Buck	Scottsdale	Robin Markman	Tempe
Jennifer Chaidez	Goodyear	Audrey Martinez	Superior
Kim Choppi	Mesa	Briana Mata	Tucson
Aaron Clare	Peoria	Joe Molinda	Gilbert
DeeDee Clor	Mesa	Taryn Moore	Phoenix
Pamila Cooper	Carefree	Kenneth Morgan	Phoenix
Cathy Crawford	Prescott	Penny Murphy	Phoenix
Ann-Marie Crookham	Scottsdale	Richard Nealon	Tempe
Brad Culp	Scottsdale	Sue Nunez	Lake Havasu
Karen DuFresne	Rimrock	Marlen Nunez	Phoenix
Ashley DuFresne	San Tan Valley	Angela Osterman	Phoenix
Amy Echols	Peoria	Katherine Polmanteer	Phoenix
Eric Estes	Peoria	Sarah Reed	Phoenix
Kaila Forster	Tucson	Michelle Reed	San Tan Valley
Shawna Galaviz	Phoenix	Kent Rodrick	Scottsdale
Francine Garrigus	Scottsdale	Robin Rosenberg	Mesa
Geoff Gephart	Chandler	Sherry Schramm +	Mesa
Lynn Giddens	Prescott	Chris Smith	Chandler
Andrew Goettl	Phoenix	Deborah Spalding	
Sara Goodnick	Fort McDowell	Deborah Staudacher	Lakeside
Emmy Greth	Phoenix	Mike Turner	Santan Valley
Stacey Haaker	Glendale	Nollie Ulmer	Mesa
Brittany Hall	Phoenix	Dawn Ungersmo	Payson
Nanette Healey	Prescott	Ange Winemiller	Prescott Valley
Ana Hernandez	Avondale	Aundrea Young	Gilbert
Sylvia Hill	Prescott	Stephanie Zimmerman	Phoenix
Jim & Karen Janecke	Apache Junction		
Darrell Joel	Phoenix	Out of State Members	
Lilian Linda Johnson	Payson	Holly Mitcel	Coronado, CA
Andrea Kretemann	Phoenix		

INSTRUCTOR YEARS OF SERVICE

20 years (Founders)

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Mark Hullinger

15 years

Linda Dightmon
Don Greene
Kathy Greene
Russ Gunderson
Brian Mazoyer
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 Talby
Andree Tarby
Sarah Yeager
Donna Walkuski

Five years

Susan Baldwin
Stacy Boone
Clay Crowder
Jean Groen
Amy Horns
Triska Hoover
Bill Larson
Brian Marshal
Mike Matthews
Cliff Saylor
Danette Schepers
Stan Schepers
Connie Sullivan
Susan Zinn

Letter to the editor:

Re: Summer 2016 Issue

Dear Ms. Dightmon:

Congratulations on yet another superb issue. Mr. Powell's Presedent's Corner is certainly timely and very much on point. While I now reside in Colorado, often referred to as the Pot Paradise of the Nation, I admire and respect AWF's stand on states taking back Federal Public Lands. Today, it seems that such courage to stand up for what is the public good is and endangered species.

While my hunting and fishing days in Arizona are now fond memories, in reading this issue, old friendships come to mind. Russ Gunderson, Nancy Lewis, Don Farmer, Rick Erman, Ace Peterson and John Bauermeister are just a few of the good people who helped shape AWF a number of decades ago.

Best wishes and keep up the good fight.

Very truly yours,
John W. Nelson

BOW 2017 Dates

January 20-22

April 21-23

September 8-10

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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.

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