President’s Report

By Robert Weissler

Let me start this report with some GREAT news! The Friends have received two very generous, anonymous donations totaling nearly $53,000!! One is targeted for much-needed renovations at San Pedro House. This comes on top of the many other donations that include sponsors for installation of benches, mowing equipment, and a spotting scope for bird walks. These are welcome expressions of support for our mission to protect and conserve the river and interpret its natural and cultural resources for visitors.

The Friends are tracking further barrier construction along the international border with Mexico, particularly across the San Pedro River. We have shared our concerns about erosion and barriers to wildlife passage in a letter to US Customs and Border Protection, but to date, the agency has not responded, nor has it engaged with the public in general. A number of cottonwood trees have been cut down in the vicinity of the border already in preparation for whatever construction is to come.

Since the BLM’s recently completed Resource Management Plan for the San Pedro Riparian National Conservation Area increases areas open to hunting, the Friends have engaged with BLM regarding information dissemination, procedures for handling various contingencies, and warning signs for safety zones. Hunting is not allowed at any time in the vicinity of San Pedro House down to Kingfisher Pond, nor in the vicinity of Fairbank or Terrenate structures, among others. FSPR continues to ensure good stewardship and river protection are considered in all SPRNCA management actions taken by BLM. Meanwhile, BLM plans to conclude a Memorandum of Understanding (MOU) between it and FSPR covering our interpretive events, education program and bookstore operations by the end of this year. Hopefully, we will see some progress in the coming months.

The 2019 Annual Meeting and Volunteer Recognition was held Saturday, October 26 at San Pedro House. Members and volunteers enjoyed a potluck lunch while hearing about recent news, activities, and Board election results. Bob Luce was reelected to the board. He is joined by Board newcomer Linda Stitt, who replaces Tricia Gerrodette. Welcome, Linda! And we wish to thank Tricia for her service on the Board, not to mention her unflagging advocacy for the river through thick and thin!

Volunteer and visitor statistics for the past fiscal year were also shared at the meeting. FSPR volunteers provided 7,913 total hours FY2019. Our dedicated volunteers with over 100 hours of service received gift certificates for our bookstores. Docents with the FSPR education program hosted 1,410 school children accompanied by 210 adults during field trips to the river. In total, nearly 5,000 participants joined

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interpretive walks, enjoyed community presentations, or visited the FSPR booth at outreach events. And over 20,000 folks visited our bookstores at San Pedro House or Fairbank Schoolhouse.

As spring migration approaches, we especially look forward to our regular bird walks, not to mention our river interpretive walks and history walks. See you down at the river!

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**Our Site Hosts**

*By Ron Stewart*

Pat Jacobsen is someone you should know. He is currently the site host at San Pedro House. Previously he was the site host at Fairbank. When Pat arrives, suddenly things get very tidy. Stuff that has been broken or falling apart get fixed. This is because Pat and his wife Kathleen are wonderful site hosts. A hike down to the river yesterday reveals some of Pat's handiwork. He is refurbishing a bench along the river, using lumber provided by FSPR. He has also marked hazardous areas.

The BLM recruits volunteers to serve as site hosts at both San Pedro House and Fairbank. Site hosts are responsible for general maintenance of their sites. They open and close the sites with the sun and their presence discourages vandalism. They help us by turning on heaters early in the morning so the buildings are warm when our volunteers arrive.

You will notice the travel trailers at both sites. These are the residences of the hosts. Pat and Kathleen take care of San Pedro House, while Angele Brill and Alan Nyari are the Fairbank site hosts. If you see them, give them some love!

We will be helping BLM to recognize Pat and Kathleen and Angele and Alan at a luncheon soon. Both of these couples are doing an outstanding job at their sites. Visitors notice it and we appreciate their work. These two sites never looked better.

If you see a mid-sized, middle aged gent scurrying about San Pedro House fixing stuff, pulling weeds, and generally doing good things--that's Pat!

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**Lucy’s Warbler Nest Box Project**

*By Ted Mouras*

Some of you may have noticed small wooden nest boxes located in the mesquite around San Pedro House (SPH) and along Del Valle Road. These represent a research project aimed to enhance Lucy’s Warbler breeding success in the San Pedro Riparian National Conservation Area (SPRNCA).

Lucy’s Warblers are a species of concern. Their numbers are declining within much of their breeding range. In southeastern Arizona, Lucy’s Warblers are most common in areas with numerous mesquite trees, where they tend to nest in abandoned woodpecker nest cavities and where bark has peeled away from a tree.

Tucson Audubon Society (TAS) has been experimenting with various nest box designs specifically targeted to meet Lucy’s Warbler

*Lucy’s Warbler, from Cornell Lab of Ornithology website.*

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nesting needs. Our research project adopted a design that has improved breeding success in the Tucson area. Doug Snow built our nest boxes to TAS design specifications.

In the vicinity of SPH, Lucy's Warblers are seen/heard from early March through early September and are most common in the mesquite bosque to the west and south of the building and along Del Valle Road south to Garden Wash. This is the area where we have placed the nest boxes. If they prove to be successful here, we may ask BLM to expand the project into other areas.

The proposal developed and approved by BLM calls for the installation of seven TAS-designed Lucy's Warbler nest boxes. These nest boxes will be monitored by volunteers from mid-March through the end of the breeding season (late May to early June), to determine if Lucy's Warblers are utilizing them.

Each nest box is identified by a number. Following TAS guidelines, nest boxes were mounted from 6-9 feet off the ground, at least 100 feet apart, either directly to the trunk of a mesquite tree or affixed to a large branch. Nest boxes were placed facing east or north, to reduce exposure to late afternoon sun.

Nest boxes will be inspected visually every other week from mid-March to early June, to determine if they are occupied. Records will be kept for each nest box, recording any signs of nesting activity. If nesting is noted, efforts will be made to confirm that the bird using the nest is a Lucy’s Warbler. A report of findings will be provided to BLM after the end of the breeding season.

Dave Wood, Mark Phillips, and Ron Beck will be assisting me in monitoring these nest boxes. Others wishing to participate in this project should contact me at tedmouras@mindspring.com.

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Many Hands Made Light Work at San Pedro House

By Laura Mackin

Thirty volunteers joined the Friends of the San Pedro River on Saturday, October 12, for a workday at San Pedro House. We were grateful to have the help, and strong backs, of 13 Army soldiers from C Company, 309th Military Intelligence Battalion. They were fresh out of basic training and this was their first time off the base.

We split into 6 teams and tackled several projects in the garden areas surrounding SPH. We had 17 FSPR volunteers supervise and act as team leaders for the young soldiers. The weather was beautiful and we accomplished an incredible amount of work. Thank you to everyone who came out and improved the site. Special thanks to Peter Piper Pizza for providing free pizza to all the volunteers! If you haven’t been to San Pedro House in a while, come on down, and see all the improvements.
J.B.: A San Pedro Tale

By Ron Stewart

In mid-December, the Friends received a phone call from a man in Benson. He had found a beaver sheltering in a pile of construction materials near his house east of town. Could we help?

We put him in touch with Sandy Anderson of the Gray Hawk Ranch, expert in helping wounded animals. Sandy dispatched her folks to go capture the wayward animal. This they did and brought him back to the Ranch.

After being checked over the next day, J.B. (for Junkyard Beaver) was released back into the San Pedro River where he will have a much better chance to prosper.

Why was J.B. over a mile from the river? As far as we can tell, listening to the experts, this was likely a young male. Young male beavers will wander, looking for habitat, looking for love... The other theory is that the flooding that was going on at that time might have washed him downstream.

We'll never know. What we do know is that there are other beavers in the river nearby. We also know that he seemed fat and healthy when released. At this point, the biggest risk is predation by mountain lions.

Next time you are hiking along the river, keep an eye out for a new dam. That might be J.B. making a new home.

Members-Only Walks: Charleston Cemetery

By Pam Corrado

If you haven’t ever been on a members-only walk, and the Friends have had many, I suggest you sign up for one that fits your interests and walking abilities. FSPR always gives you guidelines for partaking in such walks, from novice to the most arduous. The outings are always informative and the scenery is well worth the effort for learning and memorable picture taking.

I recently went on one of these: a wonderful hike to the Charleston Cemetery on February 8. This historic site is where the pioneers who died in Charleston were buried. Charleston and its cemetery are extremely popular due to their connection to the Earps-vs.-Clantons saga.

Where is the Charleston Cemetery, you ask? Well, I couldn't tell you, exactly. It’s so far into the desert, through washes, up gullies, and through ravines, that I would dare not venture back there again without a well-versed docent. Our docent, Richard Bauer was so knowledgeable and helpful, he made the walk feel like you actually were stepping back in time. He knew the small details of life and death in Charleston and gave you a peek into what it would have been like as an adventurous pioneer living in such a remote area in the late 1800s.

Please do not try to find Charleston or the cemetery on your own. It’s easy to get lost. About a year ago, Search and Rescue had to find and rescue a man trying to do this on his own.

It was a great walk following a route that our docent easily maneuvered us through because he knew the right washes and turnoffs to take. It took us about 2 hours to complete the 3-mile round trip. It is a relatively easy walk with a few spots over patches of grass mounds. Fourteen people and one dog.

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Hopper, who had as much fun as we did, participated. The day was beautiful, serene, and the San Pedro River looked amazing. All our winter rains helped with that and I enjoyed parts of the river that I had never seen before in my travels around SPRNCA.

I would strongly urge all our members to partake of such walks. You belong to an organization that truly gives back. Our docents don’t get paid; they do all this on their own because they love the rich culture that survives throughout our area and are so enthused and happy to share what they know. One thing to keep in mind if you sign up for a members-only walk, please understand that they are limited to small groups of folks. This allows the docent to talk and answer questions on a more intimate basis and protects these remote sites from damage. We all have a chance to pick his/her brain. So, should you need to cancel for any reason, please notify the Friends at fspr@sanpedroriver.org, so we can assign your spot to someone on the waiting list.

**National Public Lands Day**

by Carolyn Santucci

Thirty-one sixth graders, accompanied by several teachers and parents, descended on San Pedro House on September 27 for a fun morning exploring along the river and learning about campfire safety and animal adaptations. Organized by BLM park ranger Jody Barker, with assistance from BLM natural resource specialist (Recreation) Robert Walter and other BLM staff members, the event at the San Pedro House was one of thousands of similar events held across the country at national parks and national monuments.

Established in 1994 and held annually on the fourth Saturday in September, National Public Lands Day is the nation’s largest single-day volunteer effort. It celebrates the connection between people and green space in their community; inspires environmental stewardship; and encourages use of open space for education, recreation, and health benefits.

FSPR docents Brandon Lloyd, Jane Chambers, Ginny Bealer, Gabrielle LaFargue, and John Rose were on hand as students explored the river and learned about the animals inhabiting the area. Also on hand were US Forest Service ranger Zac Ribbing, several other Forest Service staff members, and a special guest, Smokey Bear, who helped the students understand the importance of campfire safety.

Our thanks to everyone who participated in this event!
Hands Across the River

By Ron Stewart

On January 26, approximately 1000 people came out to express their support for the San Pedro River. Most were there to protest construction of a wall across the river where it crosses the international boundary.

Sierra Vista residents Elizabeth Lopez and her husband Jeff Sturges, along with former FSPR Board member Tricia Gerrodette and others, were instrumental in organizing this successful event. It was supported by the Cochise County Sheriff’s Office and the Bureau of Land Management law enforcement rangers, who diverted traffic away from the bridge for the 1-hour event.

People, mostly from the area, began assembling in the early afternoon. They stretched from the east to west side of the bridge, holding signs, chanting “Protect the river. No wall!” Around 2 pm, the crowd was asked to leave the bridge and move to a small gathering spot where a number of presentations were given about the project.

This event was triggered by a fear of the unknown. The Department of Homeland Security has been mute on its plans for the river crossing. Will it be a dam? Will water and wildlife be able to pass? These details have been withheld from the public. This is still true at the time I am writing this.

The Friends share the concern of other environmental groups that a wall will restrict the movement of wildlife. Roaming jaguars and ocelots recently have moved north from refugia in Mexico into our area. It would be a shame if this were to end. But this event was focused on protecting the river. We could not agree more.

Borderlands Festival at Coronado National Memorial

by Carolyn Santucci

Saturday, October 5 was a beautiful day for the Borderlands Festival put on by our friends at Coronado National Memorial. FSPR Board member Bob Luce and I were on hand, along with many individuals from other organizations on both sides of the border working to protect the land, resources, and traditions of our special place on the planet.

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Dance groups from Sonora, Mexico, and Tucson performed traditional Mexican folk dances and Native American ceremonial dances. Mariachi music kept things lively as about 200 visitors enjoyed the entertainment and stopped by to chat with staff or volunteers from such groups as the Friends of the Huachuca Mountains, the US Forest Service, and the Borderlands Restoration Network. About 100 people, many of them children, stopped by the FSPR booth to learn more about our organization and find out about the various opportunities for recreation and exploration along the river.

Bob had the opportunity to speak with two Mexican biologists who work primarily on Los Fresnos Reserve along the San Pedro in Mexico. They have good current documentation of beaver families in several locations along the river and some of its tributaries. Here’s hoping there still are beaver along the river north of the border as well.

Thanks to Coronado National Memorial staff and volunteers for organizing this event. It was a great day!

Good News/Bad News at Murray Springs

By Pam Corrado

My husband Charlie and I donned our hiking boots, grabbed some water and a snack, and took a hike down to Murray Springs on January 18.

We encountered some good things on this impromptu adventure and, unfortunately, found some not-so-good things while we were there. Hopefully, many of you have had the experience of exploring Murray Springs using the 1/3-mile loop trail that offers 10 exhibits on life in the late Ice Age (Pleistocene) and the archaeological dig carried out by Dr. Vance Haynes in the 1960s. It’s a pretty mild hike, with well-planned benches and interpretive signs along the way to help you visualize this incredible site as it once was some 13,000 years ago.

The good news was spotting a large, magnificent Great Horned Owl in the trees above our heads along the trail. Stately, poised, and unafraid, this owl sat unfazed, overlooking his territory. Or perhaps he was taking a nap; in any case, we were able to take a photo from fairly close and he didn’t budge. A good sign we thought! What a majestic sight to see!

We met others out on the trail enjoying the beautiful day, so we let them in on the special discovery. They quickly snapped photos and marveled at the find, not expecting to see such a proud creature in broad daylight. The owl remained perched and undeterred. Such sightings are possible along the San Pedro River and within SPRNCA. Today was just another reminder that such wildness and beauty are still around for us to enjoy and to give us encouragement to continue protecting our San Pedro treasure for future generations.

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The bad news was finding a small mountain of depleted plastic water bottles, cups, and other non-biodegradable debris littered along the path parallel to the actual walking path to the site. We were able to reach most of it and scoop it up into our trash bags. This was a sad sight to see on such a beautiful day because there was a trash can no more than 20 feet away! We are forever encouraging our friends and visitors to this site, as well as other places within SPRNCA, to carry out any trash they create. And whenever you’re out for a hike, take along a trash bag, in case you have to pick up after other folks who are too thoughtless to pick up after themselves!

**Attack of the Vances!**

*By Ron Stewart*

On November 16, the Friends participated in a field trip of about 25 people to Southeastern Arizona organized by Old Pueblo Archaeology (OPA). Allen Dart of OPA reached out to us to see whether we could provide docents for the Millville and Rock Art Discovery Trail and Fairbank. The tour also visited the Lehner and Murray Springs mammoth kill sites, as well as Camp Naco.

Coming out to interpret the visits to the two mammoth kill sites were Professor Emeritus Dr. Vance Haynes and Professor Dr. Vance Holliday of the University of Arizona. Dr. Haynes led the excavation of these sites in the ’60s and ’70s. Dr. Holliday is a leading expert on Paleo-Indians such as the Clovis Culture, which hunted along the San Pedro River 13,000 years ago. It was truly a privilege to hear Dr. Haynes describe his work at the site.

Camp Naco is an historic Army post that was established in the early 1900s to watch the international border during a period of unrest in Mexico. Professor Becky Orozco of Cochise College has been instrumental in setting this site aside and leading efforts to restore it. She was there to lead a tour and discussion. I offered some comments, based on my never-completed work in the 1980s to have Camp Naco declared a National Historic Register site.

At Millville, Friends docents Richard Bauer and Gabrielle LaFargue led the group on a tour of the ruins of the two silver mills that once stood there. Allen Dart interpreted the rock art panels, with some kibitzing from me based on information I have gleaned at the site over the years.

That concluded the day. There was no time to visit Fairbank, so I did not get to give them a tour of my favorite SPRNCA ghost town. It was a great day and we were glad to have been part of it.
Iconic Birding Location in Southern Huachucas Saved

[Information from the Southeastern Arizona Bird Observatory (SABO) website]

The story of Ash Canyon Bird Sanctuary began in August of 2002, when birder, naturalist, and gardener Mary Jo Ballator invited attendees of the Southwest Wings Birding Festival to visit her garden and feeding station in hopes of seeing a rare visitor from Mexico: a Plain-capped Starthroat. When Mary Jo opened a one-unit bed and breakfast the next spring, she followed southeastern Arizona’s long tradition of hospitality to birders by welcoming day visitors as well as overnight guests to enjoy her feeding station and garden.

Over the next 16 years, her avian clientele, including the most accessible Lucifer Hummingbirds in the US, attracted thousands of birders and photographers from around the world. Mary Jo’s generous spirit, gracious hospitality, and intimate knowledge of her wild neighbors made her a beloved figure in the birding community.

When Mary Jo passed away unexpectedly in late May 2019, grief-stricken friends and admirers began asking what would become of her home and sanctuary. While her family sorted through the estate, local volunteers maintained the feeding station and garden and acted as hosts for visiting birders through the busy summer season. Just as hopes for permanent protection were fading, a private person contacted SABO, offering to donate the full asking price of the property so that it could remain a sanctuary for birds and the people who love them. With this extraordinarily generous donation from Dr Joseph Mario Molina and Therese Flynn-Molina and the blessings of Mary Jo’s family, SABO assumed ownership of the property on November 1, 2019, to be managed as a permanent sanctuary for birds, other wildlife, and the people who love them.

The site includes feeders for hummingbirds (most active March-September) and other species (year round), naturalistic water features, a pollinator garden, and a photo blind available by reservation. eBird lists 196 species for the site, including some of the Southwest’s most sought-after avian specialties.

Ash Canyon Bird Sanctuary depends on the generosity of the birding community to operate. To make a donation, visit SABO’s web site at http://sabo.org/ash-canyon-bird-sanctuary/support-acbs/. Visitors to the bird sanctuary who are not SABO members are asked to make a $10 donation.

The Ash Canyon Bird Sanctuary is located at 5255 E Spring Rd, Hereford, AZ. The sanctuary can be reached by phone at (520) 432-1388 (main) or (520) 353-6012 (direct) and is open Friday through Wednesday from dawn to dusk and Thursday from noon to dusk (closed Thursday mornings). Note: The site has limited parking for normal passenger vehicles ONLY.

South Fairbank

By Ron Stewart

South Fairbank is an area that is not well known. Friends docent Richard Bauer occasionally leads tours there, but you can visit on your own.

Fairbank itself has much to offer. The FSPR visitor center in the schoolhouse has a small museum and presents a re-creation of an early rural school. The bookstore there offers a good selection of books and gift items.

South of Fairbank is an undeveloped area that holds several historical treasures. Park in the area on the south side of the highway, traverse the fence pass-through, and walk west along the road to see them.

Next to the highway is the Little Boquillas Ranch corral. These large cattle pens once were used to gather and ship out cows via truck. In recent years, Scouts have volunteered to paint the wooden slats and posts.

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This is not just cosmetic. As with all exterior paint, it helps preserve the wood from the elements. Next to the corral is a shed that still contains the scales used to weigh cattle.

A little way west of the corrals is another historic building that contains a large boiler. This was used to heat water that was then pumped into the water tanks in trains. Pre-heating the water like this reduced the fuel required on board the train. This likely dates to the time when the Arizona and New Mexico Railroad ran nearby.

If you visit these sites, it is best to look in the open doors and not enter them. They are both full of residents: rodents, insects, and snakes. Rodent droppings may carry the Hanta virus. The floors may not be safe to walk on. Remember that any items there are protected by Federal law.

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**Hummingbird Banding**

*By Tom Wood*

“To band a bird is to hold a ticket in a great lottery,” wrote Aldo Leopold in “A Sand County Almanac.” In early October the Southeastern Arizona Bird Observatory (SABO) concluded its 24th season of banding hummingbirds on the San Pedro Riparian National Conservation Area (SPRCA). These “lottery tickets” of banded birds give us some insight into migration, longevity, site fidelity, and other aspects of these bird’s lives that are otherwise difficult to know. In addition, a long-term study like this one gives us a window on changing habitat and climate. Maintaining a study for this long would not have been possible without the constant presence of the Friends of the San Pedro River and their dedicated volunteers at San Pedro House who keep the feeders up, cleaned and filled, the grounds maintained, and the bookstore open.

Over the years of the study, we have banded over 8,000 hummingbirds on the river. The great majority (>80%) have been Black-chinned Hummingbirds, but we have recorded 11 species at the river. Some species are expanding their range: Broad-billed Hummingbirds used to be rare on the river but are now encountered regularly. Twenty percent of the birds we catch are birds we have already banded. They are the birds that tell us about site fidelity and longevity. It’s no surprise to anyone who maintains a hummingbird feeder that hummingbirds return to the same area each year to nest. Some banding sessions, in late May when the migrants have already passed through and we have only the resident

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birds on the river, almost all the birds we capture are banded. Even in migration, we have birds that we
encounter the same week in April nearly every year. This speaks to the importance of habitats like the
San Pedro. Our oldest bird to date was banded as an adult and recaptured 9 years later. At least 10 years
old, she held the longevity record for Black-chinned Hummingbird for a while. She even had a few gray
feathers the last couple of times we saw her.

Migration is a little harder to pinpoint with banding. With larger birds, even warblers, researchers now
have the technology to attach tiny transmitters to the birds to track their movements without having
to enter in Leopold’s lottery. For those with the equipment and budget, this has given them great
information on the mysteries of migration. I doubt that we will ever have transmitters small enough to
track a 3-gram hummingbird, but then, I never thought we would be carrying in our pockets a computer
we can ask directions. The current rule of thumb for hummingbird “foreign recaptures (a bird wearing
someone else’s band)” is to expect perhaps about one per 1,000 birds banded and we are running true to
form. We’ve had birds banded on the San Pedro show up in Montana, New Mexico, Ramsey Canyon, and
the Chiricahuas, and have caught birds banded in Idaho, Utah, Patagonia, Sabino Canyon, Rio Rico and
Alpine, AZ. Slowly, a picture of migration patterns is forming.

The timing of migration is a little easier to look at and the birds are definitely arriving earlier and staying
later than they did 24 years ago. We began banding the first week in April in 1995 and, for many years,
our first couple of banding session would see no birds or only one or two. In 2019, we banded over 20
birds on March 29. We may also need to extend our banding season into October to cover the southbound
migration.

I must admit our ulterior motive in beginning our study was to show the importance of the San Pedro
as a migratory corridor for hummingbirds. To make people who don't care about Willow Flycatchers,
Yellow-billed Cuckoos, and Huachuca Water Umbel have a personal connection to the river through
“their” precious hummingbirds. My favorite anecdote to this point involves a Rufous Hummingbird
banded several year ago in his southbound migration. They are usually “here today, gone tomorrow,” so
we were surprised to recapture him two weeks later. Taking his data again, we confirmed he had gone
from weighing 3 grams to 4 grams and from no visible fat to heavy fat. He had arrived at the San Pedro
with his tank on empty in a year when the red morning-glory filled the old field near San Pedro House. In
two weeks, he had filled his tank and was ready to resume his journey. The importance of these migration
corridors and refueling stops to neotropical migrants cannot be overstated.

Banding at San Pedro House also has an important educational component. We estimate over 1,000
people visit the banding each year. We’ve had visitors from Japan that planned their trip around the
banding study and people who have lived in Sierra Vista for years but had never visited the river discover
SPRNCA though our banding programs. Hopefully, they come away from the presentation with a better
understanding of hummingbirds, science and research, and the fragile river that so much life depends on.

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**Environmental Operations Park (EOP)**

*By Dutch Nagle*

The Sierra Vista Environmental Operations Park (EOP) is the largest water reclamation project in the
Upper San Pedro Sub-watershed and was designed to return cleaned effluent to underground storage
in the aquifer; thus protecting future water supplies for the environment and the people who live here.
It contains 50 acres of constructed wetlands and 30 acres of water recharge basins. The major function
of the EOP is as a sewage treatment facility, which uses no harmful chemicals and is an all-natural
process that currently recharges about 2700 acre-feet per year to our aquifer (eventual capacity 4000
af/y). Last but not least, it provides habitat for birds and other wildlife. **Note: An acre foot of water is
approximately an area 200 feet by 200 feet covered by water 1 foot deep**

When the EOP was completed in 2002, it was decided to fence it because of liability issues and the
only area open to the public was the bird-viewing platform. However, after the reeds grew up in the

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wetland ponds, it was almost impossible to see anything but the reeds. In 2003 a group consisting of
representatives of the Southeastern Arizona Bird Observatory (SABO), Huachuca Audubon Society
(HAS)***No longer in existence***, and the Friends of the San Pedro River (FSPR) met with Sierra Vista
officials and worked out an arrangement whereby trained docents from the three groups would be
allowed to take participants inside the fence and walk around the dikes on Sunday mornings. The City
required visitors to sign a liability waiver to protect it from legal responsibility and the three groups
agreed to provide responsible docents to lead the tours.

There is no need for a reservation. The tours start at the bird-viewing platform where we enter through
the locked gate and walk around the cleansing ponds. We usually are back at the parking lot in about 2
hours. Then we caravan to the Moson Road gate, where we enter and walk around the recharge basins.
This second section takes about 1 hour.

The docents who lead the tours not only help to point out and identify birds but they also give
information to our visitors about the EOP and its importance to the people of the area. Many of the
visitors have expressed gratitude to the City for allowing them the opportunity to see birds that they
would otherwise not be able to see. Many have also said they wished their home cities were as advanced
as Sierra Vista in its concern for water conservation and the environment.

In September, we completed our sixteenth year of providing docent-led tours at the EOP. All in all, it has
been a very successful program and we have taken thousands of tourists and locals around the ponds
since we started. Within the confines of the area we have seen bobcats, javelina, deer, coyotes, rabbits,
frogs, snakes, raccoons, etc. and of course, lots of birds. We have recorded 260 species of birds so far.

The treatment ponds are drained, burned, scraped, and refilled periodically, so the bird activity will vary
over time. As the seasons change, so do the species of birds. Some come to spend winter with us, some
drop in for the breeding season, some use the EOP for a little R&R before continuing their migration, and
some stay here all year. Regardless of when you visit, you will be treated to a variety of species.

During these 16 years, we have learned that there is little demand for tours in June and July, even though
we consistently see 30-50 species on each tour during these months. We have also found that we must
start the tours earlier in the warmer months because the birds are more active in early morning and also
to beat the heat.

Therefore, we start the tours at 7 am from March through October and at 8 am from November through
February. The number of participants is restricted to 10 per docent and we allow two docents per tour;
for a total of 22 people.

There is no charge for these tours but donations are accepted and will be used to further enhance the
birding experience at the EOP. We have installed picnic tables in the recharge area where we can sit in the
shade and update our bird lists (the tables are also available to EOP employees) and we also had a gate
installed on Moson Road for easier access to the recharge ponds. Come to the EOP on Sunday morning
and take a walk with us. You will be pleasantly surprised at what you will see and learn.
Federal Activities to Protect Timber on Public Lands

The federal government became concerned in 1880 about illegal timber harvesting in the Huachuca Mountains and elsewhere in southeastern Arizona (AC, 1879; ADS, 1880b,c,d). Mine owners around Mormon Canyon (now Miller Canyon) complained in early 1880 that lumberman were cutting wood on public timber lands and even entering mining claims and clearing them of timber, despite objections of mine owners. The mining claims had considerable timber, which federal law gave the miners the right to harvest. The loggers claimed they had the right to cut such timber for lumber, apparently because the mining claims had formerly been public lands. The Arizona Daily Star on January 22, 1880 explained the relevant federal law.

Citizens and bona fide residents of Arizona were, subject to regulations created by the Secretary of the Interior, entitled to “fell and remove, for building, agricultural, mining, or other domestic purposes, any trees or other timber growing or being on the public lands, said lands being mineral and not subject to entry under the existing laws of the United States, except for mineral entry...” The law permitted individuals to harvest timber for their own domestic purposes but did not authorize removal of lumber for subsequent sale. Miners who located mining claims in accordance with the law obtained title to the land and could use timber on it for mining purposes, if they did the mining work required by the law.

The federal government in March 1880 sent Colonel C.M.K. Paulison, Register in the US land office at Florence, to investigate logging around Mormon Canyon (AC, 1880; ADS, 1880a). He concluded that considerable timber had been illegally cut and was subject to confiscation if ever found. Commissioner Williamson sent a circular to the registers and receivers in land offices explaining how people who had cut government timber might avoid prosecution. Those who had cut wood before June 17, 1879 could pay 2.5 cents for each railroad tie, 50 cents per cord for cordwood, and $1 per 1000 feet board measure for logs.

People concerned about illegal wood harvesting in the Dragoons filed complaint after complaint, until no less than 30 were on hand. The federal government sent Edward Wynkoop, lumber agent, to southeastern Arizona in early March 1884 to evaluate the complaints (ACH, 1886; ADS, 1884a,b). Marshall Tidball in late March 1884 dispatched his chief deputy, J.W. Evans, to investigate the matter. The deputy talked with people who filed complaints and decided to arrest law violators. He traveled to the mountains and arrested 16 men, consisting of two or three white men, with the remaining being Mexicans. The marshal’s party was on horseback and escorted the men toward Tombstone. When the party was near the city, Evans went ahead to arrange with Sheriff Ward for the reception of the prisoners. The latter were taken to the county jail and given supper. The charge against the men was that they had cut and sold timber from government land that was non-mineral in character. The chief deputy charted a special stage to convey the prisoners to Tucson for an appearance before Commissioner Gregg.
On the morning of March 31, one of Sandy Bob’s largest stages drew up at the courthouse and the prisoners got into the stage. Just before the command was given to start, Court Commissioner Peel came up and demanded that the prisoners remain in Tombstone. He declared, “I will not have my court ignored any longer.” Marshall Evans refused to agree to the demand until the judge stated that a writ of habeas corpus was being prepared and would soon be issued. Evans then returned the prisoners to jail, and the federal officials went back to Tucson to await action by US Attorney in the matter.

On April 26, 1884, a federal grand jury indicted the former prisoners and others it felt had illegally cut timber on public lands (ADS, 1884c). Armed with a bench warrant, Evans returned to Tombstone accompanied by Deputy US Marshall Dunavan and once in Tombstone enlisted the help of an O.K. corral man named Davis. The three men then went to the Dragoons and arrested a contractor and several of his men. Evans later found several of the earlier prisoners in Tombstone and arrested them again. On April 14, the two deputies and 10 prisoners mounted a stage for Phoenix. Peel learned of the arrests and threatened Evans with another habeas corpus but desisted when shown the bench warrant. Judge Thomas Mitchell, who had arranged for the first habeas corpus, went with the prisoners to Phoenix to “see the matter through.”

The Arizona Silver Belt editorialized on April 19, 1884 that if the woodcutters were imprisoned or fined, it would prove a detriment or possibly suspend mining and milling industries (ASB, 1884a). The latter industries needed lumber for shafts, drifts, and tunnels, and required fuelwood for the boilers. The newspaper opined that a ruling of the Secretary of the Interior about the use of timber from government land for home consumption was favorable to the accused. The federal government did not claim that the timber or firewood cut by the men was sent beyond the borders of the territory, and according to the newspaper, the exporting of the lumber from the territory was required for an offense to have been committed.

The newspaper on April 26 reported that the Benson Herald had strongly denounced the arrest of the woodcutters as “illegal arrests.” The Benson Herald also reported that US Commissioner Gregg had held the men over to answer to a grand jury that did not indict them, and that the arrest had thus caused great expense and humiliation to “good, honest, hard-working men.” The federal government released the 10 or more wood choppers by late April in the Dragoon Mountains without trial and without any money in their pockets (ASB, 1884b). Local citizens supplied the men with food and aid, and despite the lack of a trial, court fees were assessed against the US.

The Arizona Daily Star reported (ADS, 1885a) on November 11, 1885 that people from the Chiricahua Mountains complained that substantial amounts of timber were being cut on government land in those mountains. The paper opined that pine timber was being cleared off the government land at such a rate that if the deprivations continued, “there will not be a stick left on that side of the mountain.” The newspaper concluded that if the claims were correct, there was “work for the US timber agents.” On November 19, 1885, the Arizona Daily Star reported (ADS, 1885b) that “Timber depredations in the Chiricahua mountains continue to be carried on extensively. Where is the US timber inspector?”

William Sparks, Commissioner of the General Land Office, on August 5, 1886 issued a circular clarifying rules for cutting and removing timber from public lands, including those in Arizona (Sparks, 1886). The circular interpreted a congressional act of June 3, 1878. Land from which timber was cut or removed had to be “of a strictly mineral character… and "not subject to entry under existing laws of the United States, except for mineral entry." Only a citizen or bona fide resident of a particular state or territory or other mineral district could cut and remove timber from mineral lands there. Timber from public lands could only be used for “building, agricultural, mining, and other domestic purposes, within the State or Territory where it grew.” The person harvesting the timber had to keep a record describing the land on which it was cut, giving the name of who did the cutting, the kind and quantity of the timber cut, and the date on which it was harvested. The seller of the timber had to obtain a written certificate under oath from the purchaser that the timber was being bought for his own use in mining or domestic purposes. No one could cut any type of tree that was less than 8 inches in diameter, and all of every tree harvested had to be profitably used and the tops and brush disposed of in a manner that would prevent the spread of forest fires.
The Commissioner of the General Land Office, T.H. Carter, on May 5, 1891 issued a circular amending 1878 rules about the cutting of timber on public lands (AWC, 1891; Carter, 1891). The new circular provided for timber harvesting by settlers on the public lands, miners, farmers, and other bona fide residents of a state, district, or territory who lacked a sufficient supply of timber on their own claims or lands for fuelwood, fencing, building purposes, or for developing the mineral and other natural resources of the lands owned or occupied by them. Those people could obtain timber from mineral lands but could not sell it or dispose of it to other persons. People or companies that wanted to cut and remove timber from public lands for the purposes of sale or traffic or to manufacture such timber into lumber had to submit a written application to the Secretary of the Interior. Sawmill owners, lumber dealers, and others who obtained timber from the public lands in violation of federal rules would be equally guilty of trespass, along with the individuals who actually cut or removed such timber and would be liable to criminal prosecution. The procurer or manufacturer of timber so cut, as well as the purchaser of such timber or its products, was liable in civil suit for the value of the timber.

The provisions that timber could only be harvested from mineral lands and that people who harvested or purchased timber illegally were liable for the value of such timber cost Ross his sawmill business and forced the Copper Queen Company to spend much money defending against lawsuits. The US government for approximately 10 years pursued civil lawsuits about their cutting of timber in the Chiricahua Mountains (ADS, 1898a,b,c; ADS, 1900; AR, 1897; AR, 1898a; AR, 1900; ASB, 1893; AWC, 1895; Bailey and Chaput, 2000a, p. 176-178, 2000b, p. 92; Lewis, 1906; TP, 1890; TE, 1898a,b). In March 1900, the federal government sent M.J. Wilson, Special Agent of the General Land Office, to Tucson to help Special Agent Helsinger suppress illegal timber cutting on public lands. The government filed the first lawsuit against Ross and the Copper Queen Consolidated Mining Company in 1890 and later successfully petitioned the court for dismissal without prejudice.

On March 6, 1895, the federal government again sued Ross and the Copper Queen Consolidated Mining Company for $183,070.50, its estimate of the value of timber alleged to have been wrongfully cut and removed from government lands in Rock Creek Canyon by the Ross Mill. The Copper Queen Company was a defendant because it had purchased most of the timber involved in the case. The lawsuit began in Tucson on November 25 of that year with more than 30 witnesses summoned to appear. A main question soon became whether or not the land where the timber was harvested was mineral land and whether
or not the harvested timber was used for mining purposes. The government concentrated on trying to prove that the land was not mineral land, while the defense said it was mineral rather than agricultural land as alleged by the government. The government also raised concerns that Ross was not a bona fide resident of the territory and therefore not authorized to cut timber on public mineral lands. After approximately two weeks of legal arguments in November 1895, the jury could not agree on a verdict, with nine voting in favor of the defendants and three finding against them.

In 1897, officials in Washington notified US Attorney Ellinwood to prepare to reopen the case in the federal court at Tucson. The notice said that the federal government would send experts from the US Geological Survey to gather information about whether the land was mineral or non-mineral. Mr. Waldemar Lindgren of the survey reached Phoenix in 1897 and left for the Chiricahua Mountains.

On May 25, 1898, the US government filed an amended complaint. US Attorney Morrison, with assistance from US Attorney Ellinwood, prosecuted the case. Two extremely competent attorneys represented the defendants, William Herring and his daughter Sarah Herring. The jury on June 8, 1898 took approximately 20 minutes to find in favor of the defendants. The federal government the very next day filed a motion for new trial, based on the contention that the jury rendered a verdict “at variance with the instructions.” Morrison gave notice in court on June 30 that he would leave on a trip the next day and would later file an appeal in the Supreme Court of the Territory of Arizona if the prosecution was not granted a new trial. Judge Davis of the District Court of the First Judicial District, Pima County, denied the motion for new trial, and the stage was set for yet another legal battle.

On March 28, 1900, the federal government appealed Davis’ decision to the Supreme Court of the Territory of Arizona. Ross had escaped another round of court battle by passing away in late 1899, and the sole defendant in the appeal was the Copper Queen Consolidated Mining Company. The territorial Supreme Court affirmed the earlier verdict in favor of the defendants. The government appealed the decision of the territorial court to the US Supreme Court and argued on April 11 and 14, 1902 that the territorial court had erred in its verdict and should be reversed (US, 1902). The US Supreme Court on May 19, 1902 affirmed the judgment of the territorial court, finally ending the federal lawsuits against the Copper Queen.

The 1902 verdict of the US Supreme Court did not resurrect the Ross sawmill, which closed in March 1894 when Ross concluded that the company could not make a profit because of the expense of defending against lawsuits (TE, 1894). None of the federal lawsuits resulted in a judgment against the defendants, but they had cost thousands of dollars to defend against, forced the closure of a successful company, and in effect fined the defendants.

Although the federal government lost its lawsuits against Ross and the Copper Queen Company, those lawsuits resulted in a significant reduction of woodcutting in the Chiricahua Mountains (Douglas, 1906). The expense of the lawsuits convinced Douglas to import lumber from Oregon. That importation also saved the company considerable money because lumber from Oregon proved to be cheaper than that from the Chiricahua Mountains.

In 1898, there still was confusion among some people about federal regulations concerning wood harvesting on public lands. The Arizona Daily Star on January 18, 1898 published an interview with US Special Agent S.J. Holsinger, who had been active in enforcing timber cutting regulations (ADS, 1898d). The special agent said that stockmen and farmers were increasingly uneasy about the “fast disappearance of the meager growth of timber” that was rapidly being consumed by mines. Section 2461 of the Revised Statutes of the United States provided that no one could cut timber on government lands, except in conjunction with improvement of homestead claims or under special permissions provided for under an act of February 13, 1893. An act of June 3, 1878 resulted in the government allowing the cutting of timber on known public mineral lands in Arizona according to rules established by the Secretary of the Interior. The land where the timber was cut had to be strictly mineral and not subject to entry except for mineral-related purposes. Only citizens of the Territory could cut or remove timber and such citizens could not sell the timber to anyone other than citizens and bona fide owners of the Territory. The person harvesting the timber had to keep a record describing the land on which it was cut, giving the name of the person who cut the timber, and the kind and quantity of the timber cut and the date on which it
was harvested. The person selling the timber must also take the written certificate under oath of the purchaser of the timber to the effect that the timber was been bought for his own use and for mining or domestic purposes. No one could cut any type of tree that was less than 8 inches in diameter and all of every tree harvested must be profitably used and the tops and brush disposed of in a manner that would prevent the spread of forest fires.

The General Land Office on March 17, 1898 promulgated regulations (US, 1898) designed to enable settlers upon public lands who did not have a sufficient supply of timber for domestic use on their own claims to harvest from public lands timber “to supply their immediate and pressing wants.” Settlers upon public lands or other residents of areas covered by the regulations could take timber free of charge from unoccupied, unreserved, non-mineral public lands and use such timber strictly on their own claims or lands. People could not sell or export from Arizona timber whose stumpage valuation was $100 or more in any given year. People who could not themselves harvest timber from public lands could hire others to do the cutting. The Secretary of the Interior could authorize sales of timber from the public lands upon receipt of petitions from people. Timber to be sold from public lands had to be examined and appraised by a designated official and could not be sold for less than the appraised value.

Federal efforts to control illegal wood harvesting continued in the 20th century. In February 1901, Special Agent S.J. Holsinger completed an investigation of a lumber camp run by the Salvationists in the Huachuca Mountains (AWJM, 1901). He concluded that the camp was disobeying federal law and ordered operation suspended. In early 1905, the federal government investigated alleged illegal timber cutting in the Huachuca Mountains and had several forest reserve rangers examine lumber tracts there (ADS, 1905a,c). W.H.B. Kent, special inspector of forest reserves, came from Washington, DC and examined forests in those mountains and elsewhere in February and March. It was expected that the federal government would soon establish a reserve in the Huachuca Mountains to look after the timber.

A congressional act of March 3, 1891 had authorized the president to establish reservations on public lands. President Theodore Roosevelt on July 30, 1902 created a reserve of 169,600 acres in the Chiricahua Mountains (Lauver, 1938, p. 43; Roosevelt, 1902). On November 6, 1906, a reserve of 314,125 acres was established in the Huachuca Mountains (BDR, 1906a; BV, 1906; Ford, 1908; Lauver, 1938, p. 44), and 69,120 acres of the Dragoon Mountains were set aside as a reserve on May 25, 1907. The initial staffing of the Huachuca reserve consisted of Ranger Selkirk and two assistants.

There was disagreement about whether laws about woodcutting on public lands extended to the harvesting of mesquite (ADS, 1895). In 1894, the territorial Supreme Court decided that cutting mesquite was legal because it was not timber, but rather regardless of its size was classified as underbrush. The ruling was never put into written form because court members disagreed on the precise wording of the decision. Federal officials differed with the territorial court's ruling that mesquite was not timber (AR, 1898b). On October 9, 1887, the Commissioner of Agriculture wrote that for Arizona “the mesquite fulfills the functions of a forest tree” and its existence as a source of fuel “is of great value.” Albert Grover of Arizola was arrested in 1894 on the charge of having harvested a large amount of mesquite. A federal grand jury refused to indict him but recommended that a civil suit be brought against Grover to recover the value of the wood. The Secretary of the Interior ruled that the US District Attorney should determine the value of the harvested mesquite. US District Attorney Ellinwood finally decided that the value was $0.75 a cord, and Grover paid that amount.

In early January 1905, Special Agent Wattson of the US Reclamation Service was in Douglas on official business after having visited the Chiricahua and Swisshelm mountains (BDR, 1905d). He had inspected several wood camps, seized much illegally cut wood, and ordered the stopping of any more woodcutting. Wattson intended to investigate other public lands to stop illegal woodcutting. In October 1905, federal agents arrested Ben Henry, a Fairbank merchant, on charges of cutting timber on government land in the Huachuca Mountains (ADS, 1905b). Henry allegedly had contracts for delivering wood to Fort Huachuca and had been responsible for the cutting of several hundred cords of wood.

Assistant forester W.A. Stuart said in a 1909 interview that whoever bought cordwood not imported from Mexico should check for a stamp showing it had been cut according to federal rules (BDR, 1909). He
asserted that 9/10 of the cordwood sold in Douglas was taken from the public domain and that little of it had the required government stamps.

The Forest Service not only tried to protect federal timber but also sometimes sold it. In February 1905, the federal government solicited sealed bids for the purchase of 2500 cords of fuelwood to be cut from dead standing and dead down timber in the Chiricahua Forest Reserve (BDR, 1905c). The area with the dead wood was on the divide between Pinery and Jhu’s canyons on the west and the Turkey Creek Canyons on the east. The dead wood to be harvested included all dead timber down to a diameter of 3 inches. All stumps had to be cut as low as possible and in no case higher than 18 inches. In the summer of 1905, the government wanted bids for the purchase of 5000 cords of wood that had been cut from dead trees in the Chiricahua Mountains (BDR, 1905b). Bids lower than $0.40 per cord would not be considered. In August 1905, the federal government again sought bids for the purchase of 4000 cords of dead standing and down timber, to be harvested at the source of Pinery Canyon and Turkey Creek (BDR, 1905a). For bids to be considered, they had to be more than $0.40 per cord.

The federal government in 1907 charged $1.25 per cord for wood harvested from the Huachuca Mountains reserve. Rangers used a stamp on the end of a hammer to mark each piece of fuelwood. In February and March 1907, the Barrowdale Brothers were bringing to Tombstone from the Huachuca Mountains large amounts of juniper cut to cordwood length, with each stick bearing a federal brand proving that it came legally from the forest reserve in the Huachuca Mountains (BDR, 1907b; TE, 1907b).

Federal efforts to control woodcutting resulted by 1902 in there being very little illegal logging in southeastern Arizona (Kellogg, 1902).

By the early 20th century, the federal government also was controlling activities that could harmfully affect forest reserves. Robert A. Rogers, Ranger in Charge of the Huachuca Forest Reserve, gave notice in early 1907 that applications for grazing permits for cattle and horses during the season of 1907 must be filed with his office at Patagonia on or before April 1, 1907 (BDR, 1907a). He promised that, upon request, full information would be provided about the grazing fees in the blank forms to be used in making applications. In the summer of 1908, the federal government restored entry rights to people who had located prospective homesteads within the Huachuca Forest Reserve (Oasis, 1908). Several people had made such locations, but the government had suspended their right to entry after the creation of the reserve. The restoration of the suspended entries would allow locators to take the steps toward final proof and patent of their lands.

Public Attitudes toward Federal Attempts to Protect Timber on Public Lands

Newspapers differed about the establishment and expansion of forest reserves. Articles about preserving forests primarily focused on the practical benefits such preservation could provide, such as shade for cattle or future fuel for people and industry.

The Arizona Weekly Citizen editorialized on April 5, 1884 that the “wholesale cutting of wood off government land is not right.”

On April 23, 1884, the Arizona Daily Star said that widespread timber harvesting would deprive livestock of necessary shade. It warned against “the wholesale destruction which is being made of the timber on government lands. The mesa tracks of southern Pima and eastern Cochise counties are being literally stripped of trees, so that shelter for stock will soon be unknown in the sections.”

The Tombstone Weekly Epitaph on June 21, 1891 approvingly published sentiments voiced by the Huachuca Sentinel about timber cutting near Fort Huachuca (TE, 1891). The latter newspaper opined that the fort commander would “undoubtedly see to it that no more beautiful groves near the post will be mutilated and ruined next year by the wood contractor. In justice to the post and reservation, not a stick of wood should be cut on the reservation as long as it can be obtained at reasonable cost outside of it. Every tree is valuable in furnishing shade and protecting the water supply. The cutting of timber on the mountainsides that feed the springs that furnish water for the post would soon deplete the supply to such an extent that the post will become uninhabited.”

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The Arizona Daily Star on April 13, 1897 stressed the importance of preserving Arizona forests (ADS, 1897). “The preservation of Arizona’s forests is of the highest importance to the farming interests of our valleys, for these forests are the natural reservoirs of the summer water supply for the streams. But the proper preservation of these forests include [sic] the harvesting of ripe timber while the young timber should be preserved for the protection of the snow and rainfall as well as for future lumbering purposes. The forestry problem is one which must be treated with practical experience in conformity to practical methods, which will result in present as well as future perpetual good to farmers and lumber men alike.”

The Arizona Republican reported on March 10, 1898 that wood dealers and other people believed a federal decision that mesquite was timber would at least double the cost of fuel and that the question of “fuel for the future should be left for future solution.” The newspaper opined that regular dealers and responsible people would obey the federal decision but that probably “hundreds of Mexican woodcutters will risk federal prosecution and continue to invade the public lands as they have always done.”

The Arizona Daily Star in a December 14, 1902 article (ADS, 1902) declared “Our mountain forests are vast reservoirs which hold the snow water reserve far into the summer and in fact will supply the streams of the valleys for months.” The newspaper on June 14, 1906 hailed the forthcoming establishment of the Huachuca Forest Reserve and stated (ADS, 1906a) “Arizona is to be congratulated on the preservation of her forests from the greedy hands of lumber dealers. The worth of these reserves to the future prosperity of the country is incalculable.” On June 22, 1906, the paper again praised the forthcoming establishment of the timber reserve and stated (ADS, 1906b) “The preservation of this forest will serve largely to maintain an even rainfall over the southern part of the territory, and will reserve to the people of the future state a most valuable timber land trace.”

The Williams News editorialized (WN, 1903) on September 12, 1903 that “People Must Stop Foresters” and that “Concerted Action Should Begin to Stop Wholesale Creation of Reserves.” The newspaper asserted that Arizona was not the only place where “forest reserves have been created which worked a hardship on the actual settlers and filled the pockets of corporations with good coin from the script received in exchange for the land.” Years ago, the government had given away much land and allowed purchase of much other at $2.50 or less per acre. The creation of forest reserves was a scheme whereby worthless land could be given back to the government in exchange for script with a face value of $5 per acre. The script could be used to obtain valuable timber lands elsewhere. Not only was land being withdrawn from entry, “but it has already reached the time when a stockman must get permission to drive his herd across the government domain. This is supposed to be a free land and a citizen should have a right to go where e’er [sic] he likes, but it seems that a few have set themselves up to stop us.” The newspaper quoted an article from the Albuquerque Journal-Democrat that complained that in New Mexico, once a forest reserve was created, “stockmen, miners, sawmill men and settlers are kicked out.” The Albuquerque newspaper complained that the government gave script to everyone settled upon any land that was within a forest reserve and that speculators bought up the script and sold it to other speculators who concentrated the script into the hands of a few people until the public domain was monopolized. The newspaper claimed that Lincoln County, New Mexico had been almost ruined by forest reserves and that dozens of settlers had been forced out of it because they found themselves surrounded by a forest reserve and could not get in or out with their livestock without permission from “some intermeddling government range rider.” The Albuquerque newspaper article concluded that a forest reserve “properly administered and confined to proper limits... might be and probably is a blessing.”

The Tombstone Prospector fretted in October 1905 about federal actions to stop fuelwood harvesting in the Dragoon Mountains (CS, 1905). Since the founding of Tombstone, there had been an abundant supply of fuelwood that Mexicans and others brought from the Dragoon Mountains. Tombstone wood merchants had problems keeping an adequate supply of fuelwood on hand because of federal activities. Several small wood dealers had gone out of business, and the newspaper worried that fuelwood scarcity in the winter would compel people to burn coal, requiring many families to dispose of wood-burning stoves and purchase coal ones.

The Bisbee Daily Review reported on April 4, 1906 that Congress might pass an act allowing settlers to take up homesteads on forest reserves where the lands were more profitable for agriculture than for forestry (BDR, 1906b). Another possible congressional action would authorize the sale of all timber
on public lands not within forest reserves at public auction for not less than the appraised value of such timber. The newspaper article noted that the Chiricahua Forest Reserve near Paradise had been increased in size several times until it included considerable land that could be used by settlers who would become desirable citizens. The article opined that allowing settlers to take up homesteads within forest reserves would remove at least part of the undesirable features attending the creation and extensions of forest reserves and make available for public settlement land that had greater value for agricultural rather than forest purposes. Despite the feelings of The Bisbee Daily Review, the federal government in early 1907 enlarged the Chiricahua Forest Reserve from 169,500 acres to approximately 249,500 acres, incorporating portions of the Chiricahuas and the Little Chiricahuas to the west and southwest and to the north, including Fort Bowie (TE, 1907a).

In an article announcing the creation of the Huachuca Mountains Reserve, The Bisbee Daily Review on December 1, 1906 reported about the establishment and anticipated staffing of the reserve and stated that the government hoped that, over time, the new trees that were growing there would replace the many trees that had been cut down (BDR, 1906a).

The Nogales-based Oasis strongly objected on December 15, 1906 to the creation of forest reserves (Oasis, 1906a,b). The creation of the reserve in the Huachuca Mountains, the establishment of the Tumacacori and the Santa Rita reserve, and various land grants, “comes pretty near wiping Santa Cruz County off from the map as far as may be concerned the use of the public domain to the people, or any portion of the people.” Federal regulations would prohibit grazing cattle on a reserve without a federal permit and payment of $0.35 per head. This fee, together with territorial and county taxes, would produce what cattlemen asserted was too great a burden. Wood could not be cut for fuel or other purposes without a permit and payment of fees. Several pumping plants used for irrigation along the Santa Cruz and Sonoita rivers, as well as many mining hoists throughout the county, used fuelwood from public domain lands. The placement of all public domain lands within the reserves would increase fuel costs, burden industries, and hamper development of important resources. City and county authorities and the board of trade should jointly protest the new reserves, so that the president would withdraw his proclamation of them.

The Arizona Republican on February 6, 1907 expressed reservations about the increasing amount of land dedicated to forest reserves (AR, 1907). The original concept of creating forest reserves was good for the protection of timber lands. “There had been a reckless laying waste of them. The watersheds were being denuded and a future generation was being left without the prospect of a timber supply. So when the work of creating the forest reserves was begun the only dissenting voices were those of the reckless slaughterers of timber and the livestock men, whose ranges were restricted and whose flocks and herds had been as destructive to the value of the forests as conservators of the water supply as the ax and saw had been. But even a good policy may be carried far beyond the bounds of reason. It may be carried to a point beyond which its benefits begin to be offset by its evils. The reserve business fell into the hands of men who became forestry mad.” The newspaper concluded that “While the preservation of the forests is always desirable, there should be taken into consideration the question whether or not sometimes in preserving them it is being done at the expense of the development of the country; whether or not it would not be better to leave room for the homes of people in this age and generation than to save timber for a future generation.”

Dr. James Douglas, head of the Copper Queen mining activities, had for the times an enlightened attitude about woodcutting. He presented a paper about the Conservation of Natural Resources during a 1910 annual meeting of the Institute of Mining Engineers (Douglas, 1910). Douglas noted that government compulsion in Europe had forced manufacturers to make improvements that lessened environmental impacts and benefited the companies by, for example, resulting in revenues from the conversion of noxious fumes into chemicals that could be sold. He recognized the harm done to the environment in early days of the Copper Queen, when it denuded the Mule Mountains of wood, declaring "As mining engineers we are sensible of the ruin which reckless lumbering involves, and we lower with regret every stick of timber that we bury underground." He stated that the company was experimenting with using iron to replace wood within its mines. However, Douglas noted that forests could be restored eventually by reforestation, but that iron-ores could not be replaced. He concluded that companies had a duty to operate with “the smallest possible waste of mineral or vegetable material.”
Environmental Impacts of Wood Cutting

Bahre and Hutchinson (1985, p. 184-186) assessed the impact of historic fuelwood cutting by recording the incident of cutting on trees along 37 transects at different places in the oak-juniper woodlands of the Dragoon, Huachuca, and Whetstone Mountains at elevations from 4800 to 6000 feet. The chosen sites were places for which there were records of historical fuelwood cutting. Impact on mesquite thickets along the San Pedro River were not analyzed because the distribution of mesquite has changed greatly in southeastern Arizona in the past 100 years, largely from factors other than fuelwood cutting. The small amount of coniferous forest in the Huachuca Mountains was not sampled because Ponderosa pine and Douglas-fir were not common fuelwoods.

It was impossible to determine the age-structure of oaks because they were too hard for incremental boring that would allow examination of rings within the wood. Most large trees had ax and saw marks on them or on their root collars. Many oaks appeared to have been repeatedly cut for many years, with few killed by such cutting, especially if they were pollarded.

The authors concluded that more oaks were probably cut than their data indicated because many of the cut stems had rotted off and cambium had grown over old wounds, hiding any signs of cutting. They felt that it was unlikely that many oaks cut a century ago would still show clear evidence of such cutting and that cutting probably only killed oaks that were at the margins of their tolerance range or under severe environmental stress. Few oaks stumps were found, probably because they decay rapidly. Moreover, several longtime residents reported that dried oaks stumps made excellent firewood and could be easily knocked from the ground with a sledgehammer. Forty-three percent of the trees in the transects showed signs of cutting, and previously cut trees had nearly three times more stems than uncut trees. Some historical evidence suggests that large oaks may now be scarcer than formerly because of past fuelwood cutting. There were no pinyon or mesquite stumps within the transects. Juniper stumps were mostly large and the top wood have been cut off all of them. Junipers rarely sprout from stumps, but pollarded junipers commonly grow new stems.

Fuelwood cutting apparently resulted in fewer large juniper trees today than formerly. While juniper still occur in the Dragoon Mountains, large ones are rare. The scarcity may be because they were cut for construction and mine timber in the 1880s and 1890s. For example, during 1886, Holmes & Thompson sold lumber from their mill at the head of Morse’s Canyon in the Chiricahua Mountains (DT, 1886a,b). They advertised the availability of 30-foot-long juniper timber. Juniper timber of that size could only be cut from large alligator junipers that are now rare in southern Arizona.

While juniper has a lower BTU content than oak or mesquite, it still makes an excellent fuel. Bahre and Hutchinson related reminiscences of Walter Lam, a Tombstone resident. He described his boyhood at the turn of the century when his family was living north of the Dragoon Mountains. There were then many juniper trees in the area, and professional woodcutters cut those trees to sell in Tombstone. Juniper wood was so full of pitch that people could light it with the match, especially if they had a few shavings. The woodcutters cleared one stand of juniper after another and even tried to cut junipers on the family ranch.
Some authors have questioned the impact of historical wood cutting on junipers because of the paucity of old juniper stumps. However, the dead stumps themselves were harvested for fuel. Bahre and Hutchinson noted that two residents from St. David who were born and raised around the turn of the century recalled accompanying their father who used horse teams to chain dead juniper stumps for fuelwood in the Dragoon and Whetstone mountains. A Tombstone resident recalled that he and his father frequently chained juniper stumps in the Dragoon Mountains until the 1920s.

Bahre and Hutchinson concluded that the heavy fuelwood cutting between 1880 and 1940 did not result in major changes in the extent of land covered by oak-juniper woodlands near Tombstone. The pollarded oaks mostly resprouted. Junipers apparently were killed only if all the top wood was removed.

**Huachuca Mountains**

Because the Huachuca Mountains had many mining claims and were within convenient freighting distance of other large mining camps, all its “good timber” was cut several years before 1902 (Kellogg, 1902). Small areas within the mountains in 1902 had stands of approximately 5000 to 10,000 trees per acre that averaged about 5 feet in height, and reforestation was proceeding well where there was not human disturbance.

Bahre (1991, p. 171) concluded that the impact of clear-cutting in the Huachuca Mountains was unknown but may have resulted in young growth stands; possibly lower biodiversity; and increased decomposition, nitrification, runoff, and erosion. The Bisbee Daily Review reported on December 1, 1906 that “Much damage has been done to the forests in the Huachuca mountains in the past and many fine trees have been cut down, but the government hopes that in the course of years this damage may be overcome by new trees that are springing up (BDR, 1906a).

**Chiricahua Mountains**

Bahre (1995, p. 41-42) examined a map of the Chiricahua Mountains made by Potter (Potter, 1902) and concluded that approximately 30% of the coniferous forests in the Chiricahua Mountains were logged by 1902. He also examined an unpublished federal report that stated there had been extensive timber cutting in Pine, Pinery, Rock, Morse, and Rucker canyons, and that the forests in Morse and Rock canyons had been destroyed by such cutting. The forester Royal Kellogg (1902) reported that all areas logged for the Ross Mill were “completely skinned.” Mixed-conifer forests, especially those dominated by Engelmann spruce, were little disturbed because they were difficult to reach. As of 1902, the reproduction from surviving bull pine was “insufficient and unsatisfactory.” The pine’s failure to reproduce well was probably due to a combination of factors that needed to be determined. Seed years did not appear to be frequent, and the years immediately before 1902 had been very dry. Damage from livestock did not appear to be a major factor because sheep were rare, and few cattle occurred in higher parts of the mountains.

**Mule Mountains**

The removal of wood from the hills around Bisbee preceded flooding of the town in 1882 (Bahre, 1991, p. 141). James Douglas commented (1910, p. 429, 496 abs.) upon the lumbering:

“In the early days at Bisbee, when we were at a distance from the railroad, we of necessity almost stripped the hills of their scanty clothing of stunted wood, for we were forced to use wood for the generation of steam. I find from one of the earliest statements that the company burnt about 4,000 cords of wood for the year. The hills from miles around were completely denuded, with the result that disastrous floods have ever since almost annually deluged and damaged the town, which is built in the troughs of two converging valleys.”

Ransome (1904, p. 17) reported that junipers and oaks of some size were formerly abundant in the Bisbee area, especially on Juniper Flat and Escabrosa Ridge. They were cut for fuelwood, and as of 1904, the remaining trees that grew on some northern hill slopes were little more than bushes. Before 1893, oak trees were standing in the streets of Bisbee, and the slopes of neighboring hills were dotted with shrubs. The introduction of the matte process in the Copper Queen smelter resulted in sulphurous fumes and the destruction of this vegetation.
The logging apparently did not remove timber from all areas of the mountains. Hamilton (1884, p. 79-80, 90-91 abs.) reported that the mountains on the south side of Bisbee were covered to their summits with a heavy growth of black and white oak, cedar, and juniper. Mearns studied the animals and plants of the mountains around Bisbee in 1892 and 1893 and wrote (1907, p. 99, 140 abs.) “The mountains are sparsely wooded with oak, red juniper, boxelder, hackberry, sycamore, walnut, and desert willow trees.” Hamilton’s description of a heavy growth of timber was probably an exaggeration because both Douglas and Mearns characterized the growth as otherwise.

**Take-Home Message**

If the federal government had not acted to protect forests in adjacent mountains, people would have clear-cut all or most of the forests in those areas. Environmental regulations are important for protecting natural habitats.

**References Cited**


### Events, March-May 2020

**San Pedro House Open as Visitor Center (Daily)**, 9:30 am-4:30 pm

**Fairbank School House Open as a Visitor Center (Friday-Sunday)**, 9:30 am-4:30 pm

**Understanding the River Interpretive Walks**
Every Saturday at SPH

- 9 am—March 7, 14, 21, 28
- 8 am—April 4, 11, 18, 25
- 8 am—May 2, 9, 16, 23, 30

**FSPR Bird Walks**
Every Wednesday & 4th Saturday at SPH

- 8 am—March 4, 11, 18, 25, 28
- 7 am—April 1, 8, 15, 22, 25, 29
- 7 am—May 6, 13, 20, 23, 27

**FSPR/SABO Bird Walks**
Every Sunday at Sierra Vista Environmental Operations Park (EOP)

- 7 am—March 1, 8, 15, 22, 29
- 7 am—April 5, 12, 19, 26
- 7 am—May 3, 10, 17, 24, 31

**History Hikes**

- Mar 7—Millville Ruins/Petroglyphs, 10 am
- Mar 14—Fairbank Historic Townsite, 1 pm
- March 21—Presidio Santa Cruz de Terrenate, 9 am
- March 28—Grand Central Mill, 9 am
- April 4—Clanton Ranch, 9 am
- April 11—Murray Springs Clovis Site, 9 am
- Apr 18—Millville Ruins/Petroglyphs, 9 am
- April 25—Fairbank Historic Townsite, 9 am

**SABO Hummingbird Banding**
Saturdays; observe from 4-6 pm at SPH

- March 28
- April 4, 11, 18, 25
- May 2, 9, 16, 23, 30 (and June 6)

### Contact List

- President—Robert Weissler
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- Treasurer—Renell Stewart
- Secretary—Sally Rosén
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*Friends of the San Pedro River (FSPR) is a nonprofit, volunteer organization dedicated to the conservation of the River and the health of its ecosystems through advocacy, educational programs, and interpretive events.*
Friends of the San Pedro River
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