



Friends of the San Pedro River Roundup

Fall 2013

In This Issue: President's Report... River Clean-ups... Two Christmas Bird Counts... New Board Members... Executive Director's Report... November Cuckoo Lecture... Vuvuzelas... Annual Meeting... Volunteer Recognition... National Public Lands Day... Water Sentinels Sought... Thank You, Lowes... CLF Rendezvous... Fairbank Cienegas... Calendar ... Members ... Contacts

NEWS FLASH! On November 12, the Partnership Advisory Commission of the Upper San Pedro Partnership (USPP) unanimously approved membership for Friends of the San Pedro River in the USPP. FSPR will have a seat at the table along with partners from the Nature Conservancy, the City of Sierra Vista, Cochise County, Ft. Huachuca, Audubon Arizona, and federal agencies such as BLM, USGS, USDA-ARS, and USFWS.

President's Report

By Ron Serviss

Late in October, several FSPR Board members traveled to Bend, Oregon, to attend the sixth annual Conservation Lands Foundation Conference (see article, p. 9). Every year, this event kicks off with each Friends group taking a few minutes to report on their organization's activities over the past 12 months. Some of these groups are fairly new and are working hard to get their National Conservation Land (NCL) authorized by either the US president or an act of Congress (as SPRNCA was authorized). Some are in the creation stage for their organization, with only a handful of dedicated members. Many are providing educational services for their lands by hosting a variety of activities.

When it came time for me to report on our activities, there wasn't enough time allotted for me to relate all that FSPR does. No one—not one single group—comes anywhere near us in the level and sheer numbers of educational activities. This is not to say that others aren't doing great work—they are—but we are one of the oldest Friends groups in the NCL network. Our focus for the past 25 years has been on educating the public about the wonders of this "ribbon of life" in the desert, our San Pedro River. Think about this: in 2013, we provided over 160 docent-led walks; managed two visitor center/bookstores; held three major events (Spring Festival, Fairbank Day, Wild and Scenic Film Festival); hosted the dedication of SPRNCA as an Internationally Important Birding Area and Murray Springs as a Place of National Historic Importance; created four educational videos; initiated a monthly lecture series; actively participated in BLM's scoping process for the long-overdue Resource Management Plan; redesigned several interpretive brochures and membership application form; updated our strategic plan; reorganized our operating structure to increase effectiveness; and started creating our first-ever financial and communications plans.

This is a huge volume of activity by any standard. To think that we do it with only two paid staff and a small group of truly dedicated volunteers is truly amazing and a testament to each of you that supports FSPR. Thank you for all that you do!

Two More River Clean-ups in 2013

By Ron Serviss

San Pedro work days are scheduled for Saturday, November 23 and Saturday, December 7. Both will begin at 9 am.

Better planning makes the events less challenging than they used to be. Participants will be able to stop work at a time of their choosing and return to their vehicle. Stations will be set up to drop off half-full bags, so you don't have to carry as much weight.

The clean-ups are still physical work that can require bushwhacking and climbing over fallen trees and such, but they are a wonderful way to help the River and get outside at a beautiful time of the year.

Contact me (serviss.ron@gmail.com) with any questions or concerns. I will distribute more information when we have decided which stretch of River to clean.

December 21 for Ramsey Canyon Christmas Bird Count

By Ted Mouras & Robert Weissler

This year, the Ramsey Canyon Christmas Bird Count (RCCBC) will be held on Saturday, December 21. Last year, 91 participants were divided into 17 teams in the field, plus 38 folks watched their feeders and yards. Participants counted 151 species and 12,540 individual birds.

There are 14 count (team) areas within our circle, including areas of riparian gallery forest along the San Pedro River, mesquite/semi-arid grassland, Chihuahuan desert scrub, oak savannah, pine/oak woodland, mountain riparian woodland, and montane forest. Counters also visit the EOP and suburban areas of Sierra Vista, so there is something for everyone. As always, feeder watchers make an important contribution to our count.

Please visit the Huachuca Audubon Society website at www.huachuca-audubon.org. Click on the CBC link to see a map of the count circle and check out other information on the optional breakfast and compilation dinner. This is also where you can download checklists and administrative forms. If you have not already informed us that you would like to participate, contact Ted at tedmouras@mindspring.com (phone 803-0221) or Robert at weissler@aves.org (phone 803-0794).

Appleton-Whittell Christmas Bird Count January 4

By Robert Weissler

The 8th annual Appleton-Whittell Christmas Bird Count will be held on Saturday, January 4. The count circle is centered near the Audubon Appleton-Whittell Research Ranch south of Elgin in the Sonoita Valley and includes the northwest portion of Ft Huachuca, the Babocomari Ranch, Canelo, the Mustang Mountains, and Elgin. Thirty-two people took part in last year's event, where 100 species and 3642 individual birds were recorded. I will be working with Linda Kennedy (lkennedy@audubon.org) of the Research Ranch to coordinate the parties that head into the field.

Please visit the Huachuca Audubon Society website www.huachuca-audubon.org/CBC/AWCBC.php to view the field card, maps, and party hours/miles and rare bird forms, plus a zoomable Google map of the count circle. The field card can be printed and used to record the tally of birds seen. It lists typical winter birds, most of which have been recorded during prior counts.

If you have not already contacted me, let me know (via e-mail at weissler@aves.org; 803-0794) if you plan to participate, and, if relevant, who will be joining you, and what area(s) you would like to count.



New FSPR Board members Eva Nagy and Wayne Viitanen.

New Board Members

By Ron Serviss

For the first time in several years, all nine seats on the FSPR Board of Directors are filled. In September, Eva Nagy was appointed to a long-vacant seat and Wayne Viitanen was nominated in our last election.

Éva Nagy

Éva has been an active member of the Friends for the past four years. She initially joined many of the docent walks and later began to participate in river cleanups. This past year, she offered her skills as a technical editor and assumed the role of communications coordinator (see p. x). You have probably seen her monthly flyer on upcoming events. She is currently drafting a Friends' communications plan.

Éva is originally from Baja, Hungary, where she earned an MA in English, Russian, and American Studies. She has been living in the US for 21 years, having spent most of that in Eugene and Portland, Oregon. She moved to southern Arizona four years ago to take advantage of our weather and our wonderful birding opportunities and now calls Bisbee home.

Wayne Viitanen

Wayne is the newest member of FSPR Board, having been elected in October 2013. Wayne first became involved with the Friends when he completed the cultural docent training with his wife, Donna. He later became active in our river cleanups and trail maintenance work. Recently, he participated in the Board's efforts to draft comments for the BLM's scoping process for the Resource Management Plan.

Wayne was raised in northern Wisconsin. He attended several schools in the Midwest before getting his Ph.D. in American Literature. Wayne and Donna lived in Mexico for several years, where they became birders. They now call Sierra Vista home and look forward to participating in the Friend's efforts to preserve our very special river.

We all welcome Éva and Wayne to the Board of Directors and look forward to working with them both.



Executive Director's Report: Fall 2013

By Robert Weissler

The Cochise Community Foundation awarded nearly \$3000 in grant funding for a proposal to develop a SPRNCA Trail Guide. In addition, FSPR was awarded an \$800 United Way grant to support special events such as Spring Festival that include youth-oriented activities. Meanwhile, our fundraising efforts are edging toward our \$15,000 match goal set by the Conservation Lands Foundation. Our mid-year appeal and Bicycle Big Year pledge drive together have yielded \$4000 to date, plus another \$2000 in pledges to be realized at the end of the year.

The Friends have enjoyed free office space with the BLM for many years. In August, when the BLM moved in with the US Forest Service's Sierra Vista Ranger District, the Friends also moved its office south of Sierra Vista. The new location of the BLM San Pedro Project Office is the Interagency Building at 4070 South Avenida Saracino in Hereford. It is on Highway 92 between Ramsey and Carr Canyon Roads. We now conduct our Board meetings and FSPR Lecture Series in the public meeting room there.

During the federal government shutdown, all events in the SPRNCA were cancelled and all FSPR operations and facilities there were closed. Because we operate bookstores in both San Pedro House and Fairbank Schoolhouse on BLM land, we lost revenue every day of the shutdown. We also lost donations at fee tubes at those locations and donations from our walks, hikes, and other events. In August, Southwest Wings Birding and Nature Festival took place in Sierra Vista. FSPR volunteers were active, staffing booths, leading field trips, and giving free lectures. The clean-up event for National Public Lands Day at San Pedro House on September 28 went well; participants were rewarded with pizza, T-shirts, and hats (see article, p. 8). We will celebrate the 25th anniversary of the SPRNCA designation at our annual meeting in November (see article, p. 7) and at events over the next year.

Advocacy & Outreach

The FSPR Board of Directors submitted 21 pages of scoping comments on the SPRNCA Resource Management Plan in late September. In addition, our engagement of members and volunteers resulted in a further 44 responses to BLM through our web sign-on form/e-mail submission. Both the Audubon Western Rivers Action Network and the Conservation Lands Foundation Friends Grassroots Network carried our message requesting scoping comments out to their networks, not to mention Tucson Audubon Society. We look forward to participating in the issue groups BLM will form to examine the various management alternatives suggested by the public.

Our advocacy efforts addressed special status species. Comments were submitted in July in support of proposed critical habitat for jaguars, then, in early September, on the proposed federal listing and critical habitat designation for the northern Mexican gartersnake as "threatened" under the Endangered Species Act. FSPR also submitted comments to the Cochise County Board of Supervisors during a public hearing on extending the Mexican Wolf Recovery Area to the border. The room was packed with ranchers from all corners of eastern and southern Arizona. The upshot from each rancher was not just "No" but "Hell No!" At least the meeting remained civil, if emotional, throughout.

Now that the US Fish and Wildlife Service has proposed listing the western Yellow-billed Cuckoo as "threatened," we are ramping up efforts to submit comments in support of its federal listing. This cuckoo is a signature breeding bird in its stronghold along the San Pedro River. It has a very high profile with SPRNCA visitors, so it especially important that we engage our members to comment on such a listing, particularly when a designation of critical habitat is proposed.

Representatives of FSPR attended the Arizona Friends meeting in Phoenix in late August. The presentations included two by Ken Mahoney: one on the 3-Year Arizona BLM National Conservation Lands Strategy and another on BLM and Friends: Group Liability. The meeting concluded with a roundtable discussion of issues ranging from volunteer service agreements to BLM budget constraints and priorities.

In late October, FSPR sent a portion of its Board to the Conservation Lands Foundation Friends Rendezvous in Bend, OR (see article, p. 9). This conference provided an opportunity to hone fundraising, communication, and planning skills; share successes and challenges with other Friends organizations; and hear about BLM initiatives in the coming year.

FSPR attended the Cochise County Board of Supervisor's work session on their scoping comments for the SPRNCA RMP. Also, Ron Serviss and myself were interviewed for a radio program on the Friends and the river on the KTAN Friday Report hosted by Supervisor Pat Call. Other outreach events included my presentations on FSPR during three Cochise College noon brown bag talks, which concluded with the video, "Our River: A Work in Progress."

FSPR has applied for membership in the Upper San Pedro Partnership (USPP). The USPP executive committee recommended the membership approval be taken up by the Partnership Advisory Commission at its November meeting. Having a seat at the table will provide us a voice in water conservation and mitigation issues in the upper San Pedro watershed.

Lecture Series

The FSPR Lecture Series continued with a number of natural history and cultural history talks. In July, Sarah Porter of Audubon Arizona and consultant Sarah Luna presented about Audubon's Western Rivers Action Network. They provided an overview of the aims of the network, the highest priority challenges facing western rivers and riparian habitats, and the opportunities for the network to engage in advocacy on particular issues, especially those related to the San Pedro River (e.g., the SPRNCA RMP). In August, Ed Riggs discussed the notable characters living in 1881 Tombstone. The September presentation on insects by Bob Parks shared stunning, close-up photography of common insects. The insights on their life history and behavior were fascinating! Due to the federal government shutdown, the October program with Doug Hocking was canceled and will be rescheduled for next year.

November 21 Lecture on Yellow-billed Cuckoo

The western Yellow-billed Cuckoo is an iconic, if secretive, nesting bird along the San Pedro River; in fact, it's one of the species that brings thousands of visitors every year to our area. Come hear from ecologist Shannon McNeil why the US Fish & Wildlife Service recently proposed to list this beautiful subtropical bird as threatened.

This free event will be held in the public meeting room at the Interagency Office of the BLM San Pedro Project Office, 4070 S. Avenida Saracino, Hereford (off Highway 92 between Ramsey and Carr Canyon Roads). It starts at 7 PM on Thursday, November 21.

Shannon McNeil is an avian ecologist with the Southern Sierra Research Station. She will review current knowledge about the breeding ecology, biogeography, and current status of western Yellow-billed Cuckoos, drawing substantially from her most recent work monitoring the response of cuckoos to riparian forest creation in the Southwest.



Yellow-billed Cuckoo. Photo by Bob Herrmann.

Bring Out the Vuvuzelas!*

By *Éva Nagy, Communications Coordinator*

As we quietly carry on with our mission of protecting, interpreting, and teaching about the San Pedro riparian area, we at FSPR may think that our work speaks for itself. After all, this corner of Arizona is internationally known for its variety of birds, butterflies, and history. We may assume that residents in Sierra Vista and the rest of Cochise County already know about our programs, and based on all our educational work in schools and in the field, that we reach a large portion of our youth as well.

However, attendance at our events has been moderate, local support of the river and its inhabitants has been stagnant, kids don't return with their families after a field trip. The Board of Directors realized that we needed to get louder about our events and expand our presence in the media. After all, our mission is to be the "Voice of the River"—we need to roar like the Johannesburg stadium during the 2010 FIFA World Cup!

Since our first communications meeting and appointment of a communications coordinator in early summer, we have created a distribution list for announcements that is many times larger than what the Friends ever had before. With the invaluable help of Laura Mackin, Sally Rosén, Dutch Nagle, and Jim Peterson, we not only send notice of our events to the Sierra Vista Herald and Bisbee Review, but to area newspapers in Phoenix, Tucson, Nogales, and Douglas, plus others in between.

With artist Linda Feltner's design work, we have updated our membership brochure. We have created a colorful monthly flyer to be posted at natural and cultural sites and tourism businesses throughout the area and are working on a rack card to be placed at hotels and other venues where people look for things to do. We've found new allies—such as the Arizona Native Plant Society and the Family Readiness Group of Ft Huachuca—and strengthened bonds with old friends like the Southeastern Arizona Bird Observatory and the Arizona-Sonora Desert Museum, to name just a few.

Our louder voices have been echoed by:

- enthusiastic visitors from Phoenix, who read about us in their newspaper;
- new members, who joined as an answer to our appeal;



- an invitation to blog on explorecochise.com; and
- a lineup of meetings scheduled with local government tourism representatives (Cochise County Tourism, Sierra Vista Public Affairs).

Our president and executive director have appeared on several radio talk shows, where they had the opportunity to promote the Friends and SPRNCA.

Our members, as fans of the San Pedro, have added *their* voices to the arena, writing articles; posting our monthly flyer at their workplace, church, or club; and sharing it on Facebook. Our bookstore volunteers and docents do the same whenever they greet, help, enlighten, and entertain visitors. Only the government shutdown could silence our great chorus but that was only temporary, and now we're on our way to cheer even louder for SPRNCA. Several members of the Board attended a Friends Rendezvous organized by the Conservation Lands Foundation, where workshops centered on digital communication, advocacy, and fundraising gave much food for thought.

If you haven't raised your voice for the river, this is the time! Not everyone can be a good treasurer, not everyone can be a good president or executive director.

But everyone can root for the San Pedro River:

- When you are out and about, take a photo or a video of what you see! We will post it on Facebook.
- Bring your neighbors out for a picnic.

- Invite your kids' friends to a hike.
- Attend our lectures and write a comment or article.
- Think about the one thing you can do to show that you're a fan—then do it.

Let's share this beautiful landscape with not just the world, but with people next door, too! Bring on the vuvuzelas and let's make some noise!

**Vuvuzelas (pronounced voo-voo-ZALE-us) are very loud, one-pitch plastic horns used in South Africa, introduced to the rest of the world during the 2010 FIFA World Cup.*

Annual Meeting

By Ron Serviss

FSPR held its annual membership meeting and potluck on November 3. As president, I welcomed everyone and reviewed the past year's activities. I also relayed results of the election and announced that the membership had approved the Bylaw amendments. Treasurer Renell Stewart reported on the Friends' fiscal health. Executive director Robert Weissler summarized our efforts to provide comments to BLM on the scoping process of its Resource Management Plan, Board member Tom Wood told us about establishment of a Master Naturalist Program in Cochise County, and vice president Ron Stewart described the reorganization of our organization's operating structure.

United Way's Anthony Reed gave a lively account of his activities as the new director of the Sierra Vista Chapter. He presented the first installment of a grant awarded to the Friends to support our activities.

We thank everyone who participated, with special kudos to Laura Mackin for handling the preparation and Tom Wood and Ron Stewart for their grilling expertise.

Thanks to All Our Volunteers

The end of the fiscal year is the time that FSPR tallies up all the hours that volunteers have dedicated to the organization, whether they be spent staffing at SPH or Fairbank, leading walks, or on special events. This year, the hours totaled 9712. Following is a list of the people who have given of their time, expertise, and passion during the last year. (Names followed by an asterisk are new volunteers.)

500+ Hours

Sally Rosen (822), Ron Stewart (773.75), Ron Serviss (654.5), Renell Stewart (633), Dutch Nagle (535)

200-499 Hours

Ann Hartfiel (418.5), Gary Noonan (321.8), John Broz (313.5), Mary Bonds (312), Alice Garrett* (255), Joan Spiczka (252.75), Eva Nagy (239), Jane Chambers (218), Dave Heck (210.5), Tom Clancy (207), Earl Bradshaw (201.5), Mike Foster (200)

100-199 Hours

Rowena Bradshaw (198.5), Chris Long (197), James Peterson (163.5), Virginia Bealer (150), Ted Mouras (126), Sandy Kunzer (117), Erika Wilson (116), Bette Ford (115.25), Michael White (109.5), Kathy Hill* (104)

50-99 Hours

Francie Hills (96.5), Gabrielle LaFargue (92.5), Betty Goble (90.5), Pete Sockness (90.5), Bonnie Bosworth (90), Regina Rutledge (85), Kathleen Oliver (85), Randy Sullivan* (83), Sue Leskiw (81.5), Nancy McCarrell (78), Tess Jurek (71), Mary Haynes* (61.5), Carl McCourt* (58.5) Kathy Holland, (58.5), Lori Kovash (58), Catherine Newell (55.5), Nancy Docherty (55.5)

1-49 Hours

Rick Thompson (45), Ron Beck* (32.5), Pam Sullivan* (28.5), Mary Beth Sutor (27.5), Tom Wood (23), Richard Bauer (19.5), Dwight Long (19), Daniel Moss* (18), Michael Tarachow (17.5), Merce Dostale (15), Edna Weigel (14), Mike Rosen (13.75), Dieter Kamm (13.5), Rick Romea (13.5), Elaine Emeigh (13), Judy Shepherd* (12), Tom Shepherd* (12), Robert Weissler (11), Perrie Barnes (7), Ceci Lewis (7), DeForest Lewis (7), Susan Glandon (5), Alicia Kamm* (4.5), Dottie Dominy* (4.5)



(Left) Volunteers spruce up the San Pedro House on National Public Lands Day.
(Right) Pete Sockness, trash remover extraordinaire. Photos by Ron Serviss.

National Public Lands Day

By Ron Serviss

On September 28, FSPR participated in the 20th anniversary of National Public Lands Day (NPLD). Nationally, more than 175,000 volunteers contributed over \$18 million in improvements to help restore and beautify public lands in all 50 states. We were one of 189 BLM sites that participated in the event.

Our local NPLD event focused on San Pedro House. Volunteers were divided into three groups: one worked in the gardens, removing weeds and trimming bushes; a second team helped clean and organize the interior of the visitor center; and the third did a trash pick-up along the River itself from the Highway 92 bridge past Garden Canyon Wash.

Participants received free T-shirts commemorating the day and treated to a pizza lunch. We thank everyone who took part in this very productive day.

Water Sentinel Volunteers Needed

For the past two years, the Arizona Water Sentinels, a sub-group of the Sierra Club, has been doing water quality testing at several sites along the San Pedro River. The group needs volunteers to continue the study. The duties entail traveling to one or two sites, where you measure air and water temperature, dissolved oxygen, pH level, conductivity, total dissolved solids, and *E. coli*. No special skills are required; you will receive training on how to use the instruments. If you are interested, please contact FSPR executive director Robert Weissler.



A Shout-out to Lowes

FSPR thanks Lowes and Sierra Vista store manager John Locke for their generous support of National Public Lands Day in September. The store offered a substantial discount that allowed the Friends to purchase rakes, shovels, hoes, hand tools, pick mattocks, trimmers, gardening supplies, cleaning supplies, and a week whacker for our volunteers to use to clean up the San Pedro House gardens. The tools will continue to be used by volunteers who come weekly to maintain the xeriscape gardens. The photo shows Lowes' representative Stella Burke and SPH bookstore manager Laura Mackin with some of the booty.

2013 CLF Friends Rendezvous in Bend

By Ron Stewart

Attending the 2013 Conservation Lands Foundation (CLF) Rendezvous in Oregon last month gave me the opportunity to hear about what other Friend's groups are doing, learn some new skills, and compare notes about our situation with other groups.

My take-aways from this conference included:

☛ Many groups have encountered the same issue that FSPR has: their work exceeded what could be managed by a Board of Directors alone. The universal solution is to do what we are: reorganize to create committees to which the Board delegates responsibility. This is what FSPR is implementing, and it was reassuring to learn that others have successfully followed this approach.

☛ I learned that other Friends groups are much more active in projects in their areas. This includes habitat restoration, trails, historic preservation, and other resource management tasks. In some cases, BLM funds these groups and uses them as a contractor to get things done. This is something we need to pursue. We have difficulty recruiting volunteers for physically challenging tasks; using a paid contract to do it instead might be a way to get some of these tasks done.

☛ There was much discussion about how to build and maintain good relations with BLM. It became apparent that FSPR enjoys an excellent relationship. Some of the tips for keeping it that way were 1) designate one spokesperson to handle official issues; 2) request BLM to do the same; 3) cultivate personal relationships with key agency personnel; and 4) try to ensure a good flow of information, keeping the agency apprised of what you are doing for it.

The Fairbank Ciénega: a Formerly Large Ciénega that Floods Shaped into Habitats for Cottonwoods and Other Trees

Gerald R. Noonan, PhD

"Everything changes and nothing remains still and ... you cannot step twice into the same stream." — Heraclitus

The San Pedro River and the lands near it were quite different before the 20th century than they are today (Noonan, 2013). Most portions of the river were not within an arroyo. Many areas now with extensive stands of cottonwood-dominated forest had scattered or no trees. Marshy areas that the Spaniards termed "ciénegas" occurred at many places near the river (Hendrickson and Minckley, 1984). One such ciénega was near Fairbank, at the junction of the Babocomari and San Pedro rivers.

A photograph taken around 1890 (see bottom of page) showed part of the large Fairbank Ciénega. This wetland was devoid of trees, except on the bluff where Fairbank was built. The view was southeastward. The course of the San Pedro River was almost invisible. The Babocomari River flowed sluggishly through a marshy, grass-filled area. Bahre (1991, p. 71) concluded that the visible water in the left foreground was probably the old Ramon Escude irrigation ditch and followed the north bank of the Babocomari River.

Fish were abundant near or at the Fairbank Ciénega and elsewhere in the San Pedro River (MS, 2013). Captain Cooke, the leader of the Mormon Battalion, wrote in his journal for December 11, 1846, the day that the Battalion passed through the Fairbank Ciénega (Cooke, 1849, p. 38), that *"An abundance of fine fish are caught, some that are 3 feet long; they are said to be salmon-trout."* The fish were probably Colorado pikeminnow. These fish (Stefferd et al., 2009) could attain lengths greater than 6 feet, weights over 90 pounds, and formerly occurred in the San Pedro River upstream to about Fairbank. They were extirpated from the San Pedro River by the late 19th century, possibly because of entrenchment.

Human activities may have stressed the Fairbank Ciénega and contributed to its demise by floods in the 1890s. People built a dams and diversion ditches on the San Pedro River upstream from the ciénega. For example, William C. Greene (Rose, 2013, p. 167-171) started his own ditching project in the Hereford



Babocomari River ca. 1890 near junction with San Pedro River. Showing marshy, treeless conditions (except for trees on raised area where Fairbank built—indicated by vertical arrow). Slanted arrow points to San Pedro River. G. Roskrue. (Courtesy of the Arizona Historical Society/Tucson, AHS Photo Number PC114_B2_F31_46404.)

area in 1884 and by 1886 began irrigating an estimated 140-150 acres. His dam diverted all of the water from the river during the dry season, and his irrigation ditch was approximately 2 to 2.25 miles in length. On November 18, 1892, Greene demonstrated his concern for having an adequate water supply (Sonnichsen, 1974, p. 25) by recording at Tombstone the construction of eight reservoirs on his property with ditches to serve them. The total storage capacity was 11,430 acre-feet.

Settlers and the operators of stamp mills built other dams upstream from the ciénega (Rose, 1913, many p.; Turner et al., 2003, Plate 49a, p. 138). By the late 1870s, some portions of the Upper San Pedro River were dry during part of the year. Charles Noyes, testifying in the 1889 Hill vs. Herrick lawsuit about water rights, reported on conditions at the junction of the Babocomari and San Pedro rivers in June 1877 (Rose, 2013, p. 164). He stated that the river there was then dry. The judge asked if there was not nearly always water running out of the ciénega there, except in very dry seasons. Noyes replied that sometimes there was but that it seemed to sink and that people seldom saw water running out of the ciénega.

By 1904, a dam about 2 miles above the mouth of the Babocomari River diverted all of its water (Minckley, 2009, p. 202).

In approximately the 1880s, or possibly slightly earlier, a series of unusually large floods swept along the San Pedro River and many other southwestern waterways. These floods scoured waterways and cut arroyos along the San Pedro and many other waterways. The photo shows that the ciénega survived the floods of the 1880s. However, the floods continued into the 20th century. Over several decades, the floods cut narrow arroyos that, in time, joined and became wider to form the arroyos now along the San Pedro River and many other southwestern waterways.

There have been at least six prehistoric and one historic episode of regional arroyo cutting in the southwestern United States (Waters and Haynes, 2001). At the start of each episode, many portions of waterways were shallow and not within arroyos. During normal floods, water flowed over the surrounding countryside without cutting deep channels. The banks of these waterways were marshy in some places. During each episode of regional arroyo cutting, exceptionally large floods created arroyos along most southwestern waterways. Once the exceptionally severe flooding subsided, streams began to fill in the arroyos with sediments. Over many years, most portions of southwestern waterways filled with sediments and returned to conditions similar to those before the previous arroyo cutting.

Three examples illustrate the exceptional severity of the arroyo forming floods.

The Tombstone Epitaph reported (as quoted by Martin, 1951, p. 135) on August 7, 1890 about a severe storm and flooding:

"The storm Tuesday night proved to be the most severe ever known in this part of Arizona. Reports from outside districts show the rainfall to have been enormous, and in many places the hail was terrific, destroying fruits, melons, vines and plants wherever it fell. Nearly every gulch of any size shows a watermark of from eight to twenty-five feet, and in many places bedrock that has not been exposed since the year one is now uncovered. Adobe walls and buildings melted down like sand and left only a mass of mud and debris..."

The San Pedro has ceased to be a river and is a moving sea of raging and foaming waters, carrying everything within its reach – fences, corrals, trees, orchards, gardens, and in many cases stables and farming implements. No such flood was ever known before...

It is estimated that it will be three weeks before the trains are running from Benson to Fairbank."

The second example is a severe flood in August 1894 (Dobyns, 1981, p. 141). A heavy rain in the Tombstone area on the first Sunday of August produced a 4-foot waterflow in Walnut Gulch. Floodwaters damaged Fairbank and washed out railroad tracks near Fairbank and approximately 11 miles downstream. In late August 1894, another flood washed a bridge from St. David to Benson. [See Noonan (2013) for a detailed technical review of the floods, arroyo formation, and the human impact upon arroyo formation.]

People viewed the floods as calamities. However, the six episodes of regional arroyo cutting that occurred before Anglo-American settlement in the Southwest and the seventh that occurred after such settlement were natural phenomena (with humans having an influence on the seventh episode). Without such floods, most areas along the San Pedro River would have continued to lack trees, or had only individual trees or small groups of trees at scattered locations.

The cottonwood-dominated forests did not form the extensive gallery forests now found along the San Pedro River. Cottonwoods mostly occurred as scattered groves or individual trees because of the scarcity of suitable habitats for establishment of seedlings. Cottonwood and willow seeds and seedlings require moist, bare areas of mineral soil on which to germinate and start growth (Dixon, et al., 2009; Friedman et al., 1995; Noonan, 2013; Scott et al., 1996; Stromberg, 1993; Webb et al., 2007). The formation of relatively wide arroyos provided areas within the arroyos where streams deposited sediments during floods. When successive floods occurred and scoured such sediments, they created relatively large, bare areas of mineral soil suitable for the germination of riparian trees.

Floodwaters and possibly human activities resulted in the demise of the Fairbank Ciénega by 1894. Allen (1895) quoted part of the field notes of W.W. Price, a mammalogist who, along with two other companions, visited Fairbank in 1894 from February 20-March 6 and March 10-16. Price's observations indicated that the formerly large Fairbank Ciénega was gone:

[p. 197-198 in Allen] "Fairbank...The river bottom is alluvial at this point, and many gardens and fields of alfalfa flourish. Bare hills and plains stretch down to the river on each side. A few cottonwoods and willows are found along the river."

Notes on the habitats of some of the mammals collected indicated that there were still some marshy areas along the river near Fairbank.

Further evidence about the demise of the ciénega comes from an annotated copy that Minckley (2009) published of Frederick Morton Chamberlain's 1904 survey of Arizona fishes.

Chamberlain visited the river near Fairbank on April 5, 1904 and found conditions quite different from those of a cienega,

[p. 200-202, in Minckley, 2009] "At Fairbank the channel is about 100 ft. wide and 15 ft. deep, the stream from 5 to 20 ft. wide and 1 inch to two feet deep. A dam of eight to ten feet height is placed across the river below the S.P [Southern Pacific] railroad bridge forming a pool about 400 yd. long and up to 8 ft. deep. I could not seine the pool. This dam has considerable overflow. A dam 1½ mi. above diverts the entire stream..."

Xyrauchen [= razorback sucker] is said to have formerly been abundant and was marketed in Tombstone as "buffalo," called from the hump. All large fish are thought to have been killed by the cyanide in ore processing at Charleston when the mine was abandoned. While this might be true for a time, it does not account for the absence of fish several years after the works ceased to operate."

The next two photographs (see p. 13) illustrate the changes wrought by the floodwaters and by human activity.

By the time of the 1962 photo, the river had deeply cut into the hill from which the first photograph was taken. The new camera location was approximately 100 feet northwest of the former. The dike at the left of the photograph was part of a project to divert the river into a new channel, visible at the center and approximately online with the water in the old photograph. Woody vegetation obscured the deeply incised channel of the San Pedro River. The junction of the two waterways was out of the photograph, to the left. The valley floor had dense growths of mesquite, cottonwood, and Gooding willow.

The 2008 photo provides a view looking eastward up the Babocomari River from its junction with the San Pedro River. Cottonwood trees lined much of both waterways. The eroded hill on the right illustrated the action of past floods that helped form the habitats where cottonwoods and other trees now grow. The



Fairbank area near junction Babocomari & San Pedro rivers. 1962. Stake 150. J. R. Hastings. Babocomari River channel (left side foreground). Brush & trees obscure view of San Pedro River. (Courtesy of the USGS Desert Laboratory Repeat Photography Collection).



Fairbank area. 2008. Junction Babocomari & San Pedro Rivers, looking eastward at mouth of Babocomari River. San Pedro River is in foreground. G. Noonan

Fairbank Ciénega and many other wetlands near the river had to vanish before extensive riparian forests could line the San Pedro River.

The vanishing of the Fairbank Ciénega and development of extensive cottonwood-dominated forests were natural processes. Heraclitus' observation about change was indeed correct, especially as concerns rivers.

Acknowledgments

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Events Calendar, November-January

[SPH = San Pedro House; FSH = Fairbank School House;
HAS = Huachuca Audubon Society;
SABO = Southeastern Arizona Bird Observatory]

SPH Open as Visitor Center (Daily), 9:30 AM-4:30 PM

FSH Open as a Visitor Center (Friday-Sunday),
9:30 AM-4:30 PM

Understanding the River Interpretive Walks

Every Saturday at SPH

☕ 9 AM—November 2, 9, 16, 23, 30

☕ 9 AM—December 7, 14, 21, 28

☕ 9 AM—January 4, 11, 18, 25

FSPR Bird Walks

Second Wednesday & Fourth Saturday at SPH

☕ 8 AM—November 13 (Wed); November 23 (Sat)

☕ 9 AM—December 11 (Wed); December 28 (Sat)

☕ 9 AM—January 8 (Wed); January 25 (Sat)

FSPR/HAS/SABO Bird Walks

Every Sunday at Sierra Vista Environmental
Operations Park (EOP)

☕ 8 AM—November 3, 10, 17, 24

☕ 8 AM—December 1, 8, 15, 22, 29

☕ 8 AM—January 5, 12, 19, 26

Special Events

☕ November 9 (Sat), 9 AM—Monthly hike,
Fairbank to Presidio Santa Cruz de Terrenate

☕ November 16 (Sat), 9 AM—Millville &
Petroglyphs History Walk

☕ November 21 (Thu), 7 PM—Lecture on
Yellow-Billed Cuckoo by Shannon McNeil (see
article, p. 5)

☕ December 21 (Sat), 6:30 AM—Ramsey
Canyon Christmas Bird Count (see article, p. 2)

☕ January 4 (Sat), 6:30 AM—Appleton-
Whittell Christmas Bird Count (see article, p. 2)

☕ January 11 (Sat), 9 AM—Monthly Hike,
location TBD

☕ January 18 (Sat), 9 AM—History Walk,
location TBD

Members, July-October 2013

Bob Blanchard, Dave & Cathy Bly, Bonnie
Bosworth, Kelton & Hedy Burbank*, Richard
Carlsen & Victor Acedo*, Christi & Ken Charters,
Clay & Sue Cook, Mary Anne Crismore*, Joel
Fago, Paulett Foster & Fred Baer*, Roger Funk
& Douglas Noffsinger, Ryoko Gill, Uda & Charles
Gordon, Richard Grannemann*, Sally Hammond*,
Mark Hansen, Marilyn Henley & Steve Johnson,
Jack & Marty Jackson*, Sandy & Rock Kousek,
Patrick Ledger, Tom & Sue Leskiw, DeForest,
Cecilia & Isla Lewis, Ralph Lewis & Judith
Cooper*, Larry & LuDel Livingstone*, Debbi
Madson*, Anne Morris & David Steed, Scetta
Moss*, David & Catherine Newell, Gary Noonan,
Al & Dee Puff, Brian Reid*, John Rose, Carolyn
Santucci*, Joan & Robert Spiczka*, Bob & Jane
Strain, William Swanson*, Paul & Arlene Van
Belle, Sandra West*, Robert White

* = New member

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To contact any of the above individuals, please
call the office at 520-459-2555 or send us e-mail
at fspr@sanpedroriver.org or

sanpedrohouse@sanpedroriver.org or

fsprdirector@sanpedroriver.org.

Mailing address: 4070 South Avenida Saracino,
Hereford, AZ 85615; Fax: 520-459-7334

Website: www.sanpedroriver.org

***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.***