Peck Canyon, Tumacacori Highlands roadless area; powerline proposed to bisect this roadless area

INSIDE: Tumacacori Highlands: threats and opportunities
plus... ♦ After the fire ♦ Fall outings & ♦ Sky Island events
Sky Island Alliance

Protecting Our Mountain Islands & Desert Seas

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Sky Island Alliance is a non-profit membership organization dedicated to restoring and protecting the unique diversity of the Sky Islands of Southwestern Arizona, Southwestern New Mexico, and Northern Mexico.

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Newsletter
Gita Bodner and Dug Schoellkopf, editors

Table of Contents

Eratum: Yes, we goofed. Last issue’s cover shot was labeled as Appleton Whittell Research Ranch. In fact, it was taken nearby on Fort Huachuca. Both sites have active prescribed fire programs.

Looking for SIA newsletter submissions: Send us your poetry, your words of wisdom, your art! We want to keep this newsletter filled with inspirational, informative material, and we'd like your help! Do you write poetry? Draw, sketch, paint, or photograph? Like to address regional conservation issues? Review books or websites? A anything that relates to the Sky Islands region is fair game! You can respond to items in our recent newsletter, comment on your experiences as a volunteer or conference-goer, etc. Also, let us know if you’d like to be a regular contributor, e.g. with a column each issue. The deadline for our next newsletter is October 10, 2003. Mailed submissions after that date may be saved for subsequent issues. Please email submissions to newsletter@skyislandalliance.org, or mail them to Sky Island Alliance at: Gita, P.O. Box 41165, Tucson, AZ 85717. Resolution of digital images should be at least 300 dpi if possible, but we can work with some lower resolution images. T hose are our restaurant reviews? T hank’s because no one sent us any! C’mon, folks, you know there are some great eats out there. Give your favorite small town restaurant a boost by letting us promote it!
What were they thinking?

You ever get that feeling? You know the one I’m talking about, the one that makes you scratch your head in puzzlement and tear out your hair. Well, I’ve been struck by that feeling a lot lately—so much so that I’m becoming a sorehead. What has gotten my dander up is the proposal to widen a road in the Tumacacori Mountains, which would allow access to some of the most remote and fragile parts of the national forest.

I’ve been a wilderness advocate for over 20 years, and I’ve seen many proposals come and go. Some have been well-intentioned but poorly conceived, while others have been outright destructive. But none have bothered me as much as this one.

The road in question is part of the Old Pinto Road, which runs through the heart of the Tumacacori Mountains. This is a place where wildlife thrives, where the air is clean, and where the stars shine bright at night. It’s a place where we can find peace and quiet, and where we can reconnect with nature.

Now, imagine if this road were widened. What would happen? Here are just a few possibilities:

- Cars and trucks would replace horses and mules, destroying the peace and quiet of the area.
- Noise pollution would increase, disturbing the wildlife.
- Traffic accidents would become more common, risking the safety of visitors.
- The natural beauty of the area would be degraded, making it less appealing to tourists.

And that’s just the beginning. There are many other potential impacts that could arise from this proposal. That’s why I’m speaking out against it.

I hope you’ll join me in this fight to protect the Tumacacori Mountains. Together, we can make a difference and ensure that this place remains wild and pristine for generations to come.
Monumental Threat to Sky Island Wildlands:

by Matt Skroch, SIA Field Program Director

On August 27, 2003, the D department of Energy released Tucson Electric Power’s (TEP) proposal to build a 140-foot tall powerline through one of Arizona’s most spectacular landscapes. TEP’s preferred route would run 30 miles through the heart of the Tumacacori, Atascosa, and Pajarito Mountains. Referred to as the Tumacacori Highlands, this assemblage of mountains contains the largest unprotected roadless area in southern Arizona.

The powerline—a towering series of 12 transmission wires and over 400 support structures—would continue into Mexico to a proposed power plant at Santa Ana, Sonora. Energy would then be sold and sold to the United States and Mexico, with a small amount of power reserved as back-up electricity for Santa Cruz County.

The Trojan Horse: In 1999, Santa Cruz County experienced several hours of blackouts. The Arizona Corporation Commission (ACC) responded by issuing a mandate that the local power company began plans to construct a 115 kilovolt (KV) powerline down Santa Cruz Valley to comply with this mandate. This line would ensure sufficient power for decades to come.

TEP saw opportunity. With deregulation trends providing companies with more flexibility and leniency on power transfer, rates, and production, M exico was seen as the mother lode for both power markets and production. TEP and its parent company Unisource announced plans for a smaller powerline. Heading down existing utility corridors. This would offer much easier access for maintenance and future use and would reduce construction costs.

The route comes within 1/4 mile of the existing Pajarita W lderness Area and Gooding Research Natural Area, and a stretch of Sycamore Canyon, which is eligible for wild and scenic river status.

Powerline corridors are notorious for channeling spread of invasive weeds, disrupting wildlife movement, and providing access to illegal off-road drivers and smugglers.

Subjective changes wrought by this project are perhaps just as relevant. N ortherners would see the unfiltered views from Ruby Road or the quiet haven of upper Picc Canyon. A place that has not seen the influence of the electricity industry.

Who supports this proposal? Citizens and politicians are rallying against the proposed route today. Residents of Santa Cruz County and southern Pima County recognize the loss of purpose and need for such a huge powerline. The Santa Cruz County Board of Supervisors asked only for a 115 KV line the Nogales City Council and M ayor are actively fighting the proposal. Congresional Representatives Raul Grijalva won’t support it, and land managers see it as a huge burden. County citizen’s electrical rates are going through the roof. The Tohono O’odham Nation, Gila River Indian Community, and Salt River Indian Community, and Pasqua Yaqui Tribe have all registered objections to this large powerline, with especially strong cultural objections to the Western and Crossover routes. Why’s the real benefit? We still haven’t found it. The only folks who now support this current proposal are the politicians of Sahuarita, where the powerline would originate, and the Arizona Corporation Commission, which approved the Western R route before reviewing any biological or cultural analyses.

Alternatives and What You Can Do: There are better ways to solve Santa Cruz County’s power needs. The most obvious option is to run a smaller powerline down existing utility corridors. This would better reflect local needs and have less impact on visual, economic, environmental, and property concerns in the county. A smaller powerline is cheaper, easier to build, shorter, less noticeable, and less dangerous. Existing utility corridors are already impacted, offering little opportunity to minimize construction impacts. Please take the time to write both the D OE and the Forest Service by Oct 14th. Talking points are shown below. The citizen-produced website www.stopthewesternroute.blogspot.com also provides more information on the proposal, and more arguments against the Western and Crossover routes.
TEP plans massive powerline through cherished roadless area

A profound loss

by Ellen Kurtz, Arivaca Junction, AZ

My husband and I feel so lucky to have had the good fortune to live here at the base of the Tumacacoris for nearly 30 years. We feel a deep kinship to the land and feel that it now more than ever needs a protector. Land is not just a commodity, something to be leveled and built upon or crossed by wires. The land has a very real life quality to it, and to simply rush in with development of any kind without thought for the ramifications is foolhardy and irresponsible.

The quiet remoteness where we hike or ride our horses, where we can enjoy the truly awesome beauty of the mountains, coming upon a hidden waterhole, deciphering the tracks around it— all of this is a blessing to us. But that all could change.

Now that the draft EIS for Tucson Electric Power’s proposed transmission line has been published and distributed by DOE we can see in black and white the environmental impacts that all of us who know and love this area were aware of even before the formal documentation was done. Many environmental questions are still not answered and there are many other equally important questions about the effect upon the historic, cultural, aesthetic and personal life which require serious consideration.

Regardless of which route is taken by these 345kV transmission lines there will be huge impacts. Those unfortunate enough to live on the route will see their homes devalued or condemned. Even if the owners were to receive “fair market value” they would be uprooted from their chosen homes where they have not only invested their money and hard work but also their hearts.

Those people living west of Green Valley and east of the Sierrita Mountains near the community of M C G e.e Ranch would be the most affected and vulnerable because all proposed routes go across their property. There are already a number of power lines occupying the utility corridor in this area. Though the existing lines are not of as high voltage the cumulative effect could have a definite impact on health, physical and mental, as well as on the general aesthetics of the area. More and more studies are documenting the negative effects of electro-magnetic fields (EMF’s) on the whole environment.

The “self-withering” poles that are proposed for this route are ugly. There is an example of one (a small one) along I-19 at the E I Tiro Road overpass. It looks like nothing so much as a massive old recycled piece of rusting iron. Depending upon the route selected, there will be from 373 to 431 of these 140 foot high poles marching south across the land compromising the beauty of wide open space that lies between the Sierritas to the north, crossing the Arivaca Road and then continuing south with a backdrop of the beautiful cliffs of the Tumacacoris and Atascosas in the Coronado National Forest.

The new information (draft EIS) shows four miles of these poles placed right on the scenic Ruby Road in the forest, crossing Sycamore Canyon. Sycamore is not only one of the unique biological areas of the world but a place where one can recharge mentally and spiritually and have fun—all at the same time!

Our bottom line

by Marshall Magruder, Amado, AZ

Our own Tumacacori Mountains, west of the Santa Cruz Valley, have remained remote and relatively peaceful for eons. Tucson Electric Power’s proposed 345 kV double-circuit line along and through these mountains could change this tranquility. It would be, perhaps, a good time to review events leading up to this juncture.

In 1999, the Arizona Corporation Commission (ACC) Arizona’s branch of government responsibility for siting transmission lines, determined that Nogales, Arizona and parts of the Santa Cruz Valley served by Citizens Utilities needed a second source of electric power to improve reliability. Either a smaller line—a redundant, 115kV 60-foot on telephone poles (H-frame)—or a small, back-up power station, would suffice.

Beginning in December of 1998, the Public Service Company (P N M) of New Mexico presents a series of proposals for high-voltage transmission lines to run between the Palo Verde Nuclear Generating Station and Santa Ana, Mexico, sixty miles south of the border. Trading electric power across a US border, requires a “Presidential Permit” from the Department of Energy (DOE). An Environmental Impact Statement (EIS) is required by the DOE if significant damage to the environment, may result from a project. Public hearings, considering the twelve proposed routes, were held by P N M in locations that would be affected. P N M met with extreme opposition at most meetings.

Tucson Electric Power then decided they too would like to be in on this possible, financial opportunity. They likely considered as a “local” utility with political connections, there would be little or no opposition. TEP applied for a Presidential Permit in August 2000 and, later, applied for the required state permit. TEP’s “preferred route” enters the Tumacacori section of the Coronado National Forest to the north heading south to Bear Canyon, skirt Sycamore Canyon, past Peña Blanca Lake to the natural gas line easement and south to the border.

Several of the routes proposed, involve penetration of isolated and wild areas. New roads would be required to carry the, on-average, 145-foot tall towers and to install the twelve conducting wires for the double circuit, 345 kV (500 Watts of energy) lines.

The smaller 115kV line would probably cost ratepayers (those who pay for these “improvements”) between $20 and $25 million, while the huge 345 kV line would cost ratepayers over $85 million. Since the lattice and monopole towers required for the 345 kV line are so large and ugly, keeping them away from public view is a major “public relations” play. These utilities seem to think out-of-sight is the solution to everything. The last jaguar sitting in the US was in the affected area less than two years ago.

M any other endangered species live in this area. Most certainly, people prefer to visit their National Forests and not see power lines.

Why are the electric utility companies so persistent? Both TEP and PNM see the “renting” of space on their electric lines as a way to make huge profits.

The Santa Cruz County Board of Supervisors approved and recommended the smaller 115 kV line. Another group is seeking to build a new generation plant fired by natural gas, which avoids new power lines in the Coronado National Forest. Finally, there are no known customers in Mexico, nor will there be until a very-unlikely amendment to the M exican Constitution is passed by the M exican Congress. According to the M exican Constitution as it is, purchasing power from a foreign and private utility is illegal.

The entire area from Sahuarita south to the M exican border is regarded as culturally sensitive by the Tohono O’ O h o’o nation, because it contains many significant cultural sites including traditional cultural places, archaeological sites, sacred sites, religious sites, plant collection areas for basket materials and medicine and burial sites. From a letter sent by the Tohono O’ O h o’o nation to the Arizona Corporation Commission dated 12/12/2001, O’ O h o’o nation American Indian groups including the A k-Chin Indian Community, Gila River Indian Community, Salt River Pima-M aricopa I ndian Community, the H opi Tribe, the Mescalero Apache Tribe and the Pascua Yaqui tribe concur.

This beautiful land would be forever intruded upon by the gigantic poles and lines with their crackling transmission noises which increase as the lines age. The feelings of remoteness and tranquility of the untrammelled out doors would be gone. Forever.

To me, it would be a profound loss of one of the most beautiful, soul recharging areas in Arizona— if not the world.

Why should Santa Cruz County ratepayers pay $85 million for a backup 345 kV TEP powerline when a $50 million local power station or $18-21 million for a second 115 kV (backup) line are far cheaper with less environmental impacts? This is our real “bottom line.”

Fall 2003

Sky Island Alliance
Arivaca Cienega: a True Desert Oasis

by Sally Gall, assistant manager, Buenos Aires National Wildlife Refuge

T he Arivaca Cienega became part of the Buenos Aires National Wildlife Refuge in 1989, providing protection for this very unique, highly threatened wetland habitat in southern Arizona. The protection of this land is an effort to preserve the existing surface water stream to enhance the habitat for the benefit of fish, wildlife, and recreational use.

The Arivaca Cienega is found near the small community of Arivaca, AZ, in the semi-desert grasslands about 11 miles north of the Mexican border. The name Arivaca comes from the Pima words ari baca, or “small springs,” referring to the seven springs that feed the Cienega and Arivaca Creek. Cienegas provide key hydrologic functions such as water storage, ground water recharge, sediment deposition, stream meandering and organic nutrient uptake. The Arivaca Cienega (“aewedned waters”) contains a perennial stream and is a delightful mix of seasonally wet marshland and meadow, large cottonwoods, and hackberry and mesquite groves.

The overflow from the Cienega forms Arivaca Creek and flows down into the Altar Valley. The Refuge has also acquired land along Arivaca Creek and now protects a large part of the stream, which is lined with magnificent 100-foot-tall cottonwood trees. The addition of Arivaca Creek and the Cienega to the Refuge helps save our precious riparian, or wetland, habitats for the benefit of plants, animals, and people.

Surface water flow is one of the key elements sustaining Arivaca riparian and cienega habitats. These habitats are critical to many wildlife and fish species in southern Arizona. The Cienega is often used by migrating neotropical birds, migrating dove species, waterfowl, shorebirds, raptors, and resident birds such as quail. More than 300 bird species have been documented on the Refuge. Yearly bird surveys conducted by Refuge personnel document trends in the avian population and indicate that the riparian and cienega habitats provide needed cover, water and food for almost all avian species found in the area. The ponded water found in the cienega provides year-round open water necessary for waterfowl. Loss of such habitat would result in declines in populations for those avian species that occupy high foliage density of these vegetation types. Other wildlife species are highly dependent on this area for water and cover.

The riparian corridors provide cover and access to other upland habitat for many mammal species such as deer, javelinas, mountain lions, coyotes, and rabbits. Other animals such as bats, rodents and amphibians often reside in these habitats.

Early 75 percent of the wildlife in Arizona depends on either wetland or riparian habitat during their lives.

The Arivaca Cienega is open to the public year-round for hiking and bird watching. Refuge personnel maintain the trails by mowing and branch trimming to keep the one-and-a-half mile trail boardwalk accessible. Tables and restrooms, due to arrive in November 2003, will make the trailhead a nice place to picnic before or after a hike. Arivaca Cienega Bird Walks are led by Audubon Society members every Saturday morning, November through April. Meet at the trailhead at 7 a.m., one quarter mile east of Arivaca. No reservations are needed, and the event is free of charge.

A viewing deck with spotting scopes is found along the trail for viewers to watch the various water birds in the nearby pond. Currently, cattails have invaded the area and have choked out the pond so viewing the water is difficult. Refuge fire personnel conduct prescribed burns every few years to reduce the cattails and minimize the threat of fire to nearby homes. Controlling the cattails has become a difficult task, however, as fire seems to stimulate growth. Refuge managers are currently working on ways to reduce the cattail invasion to allow for more open water for bird watching and wildlife.

For more information on the Cienega or the Buenos Aires National Wildlife Refuge, please call (520) 823-4251 x116, or visit www.fws.gov.

Sky Island Science

Tarahumara Frogs Return

by Trevor Hare, SIA Conservation Biologist

The Tarahumara frog (Rana tarahumarae) once ranged from the Sierra Madre Occidental in Mexico into the Santa Rita and Atascosa-Pajarito M mountains of southernmost Arizona.

The last Tarahumara frog in Arizona was spotted in 1983 in the Santa Rita M mountains. The populations in the Atascosa-Pajarito M mountains disappeared in the mid-1970s. Disease (chytrid fungi, Batrachochytrium dendrobatidis), climate change (floodling, severe drought, colder winter), introduced predators (bullfrogs, non-native fish), and pollution (acid rain, heavy metal poisoning) are all potential causes of the extirpation in the US and continuing impacts in Mexico.

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In 1992 the Tarahumara Frog Conservation Team was formed to promote the recovery of the frog. Members include representatives from research institutions, state and federal wildlife management and land management agencies, and interested members of the public. A conservation program for the Tarahumara frog has been developed by the Conservation Team that calls for the reintroduction of the frog back into at least two of its historic localities in Arizona. The team has identified Big Casa Blanca Canyon in the Santa Rita M mountains and Sycamore Canyon in the Pajarito M mountains as the two best prospective reintroduction sites.

Reintroductions are authorized by the Arizona Game and Fish Department in their 1987 Procedures for Nongame Wildlife and Endangered Species Reestablishment Projects. The Conservation Team and the Department are currently working their way through this process and will be seeking approval from the Game and Fish Commission to reintroduce the frog in 2003. To facilitate the reintroduction Tarahumara frog eggs were collected at the closest known population to historic localities in Arizona. The Sierra de la Madre, Sonora, in May 2000, and were transferred to the Fish and Wildlife Service for rearing. An additional collection and reintroductions will be needed to establish viable populations.

Compiled from A Z Game and Fish Department and U S Fish and Wildlife Service reports, with special thanks to Stephen Hale.

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Compiled from A Z Game and Fish Department and U S Fish and Wildlife Service reports, with special thanks to Stephen Hale.
Canyon Perspective

By Maggie M. Illovitch, Arivaca AZ

This is the place of my heart where I come to heal, to celebrate, to appreciate. Sycamore Canyon is more than the sum of its rocks, water, wildlife and flora. It fills the empty places in my soul: a by-product of “civilized” living. A day of listening to the cascading call of the Canyon Wren reverberating off the red rock canyon walls, lazing under a willow tree chomping on carrot sticks while considering a delicate wildflower is about all I need to get me back in tune with the rest of the planet, for a while.

I have come to this quiet garden in the desert for the past 30 years. Echoes of past visits and the promise of its enduring beauty greet me as I round each bend in the meandering stream. Reassuringly the canyon never changes yet is never the same. Also, no matter how often I return, I have a different perspective with which to appreciate it and new eyes to see what I missed before.

The lower canyon begins just off the serpentine, dirt, one lane Ruby Road and runs to the international boundary with Mexico. While all around may be dangerous territory, Sycamore is always a safe, protected place. No mule trains with illegal cargos venture this way. The tumble of rocks and water-filled pools carved of solid stone block their way to northern destinations. It is a designated wildlife and plant research area; no hunting, no motor homes, no ATVs, and no ghetto blasters. A lone, I feel safe—at home.

Sycamore runs, in its own way, north to south so that even on the hottest summer day there is shade to be found within its steep rock walls. Or, at high noon, cool respite can be had under the many large, steep rock walls. Or, at high noon, cool respite can be had under the many large, steep rock walls. A handful of morning sun can be had under the many large, steep rock walls. A handful of morning sun can be had under the many large, steep rock walls. A handful of morning sun can be had under the many large, steep rock walls.

A short hike into the old parking area and I spot the huge oak tree where years ago, my children were very young, we had been scrambling over the water-strewn rocks of this side canyon and I let the kids go on ahead. (My children were noisy and I wanted some peace.) I sat quietly by a small pool in the shade of a twisted, stunted oak tree. In that shade, grey-velvet textured, bright green moss clinging to stones moistened by the seep water trickling over them. I could still hear the kids, but barely. Relaxing, contemplating nature's application of various shades of green, I caught movement out of the comer of my eye. I froze. A band of coati had come with their young for a sip of water. I must have blended into the surroundings like a homely girl at the prom, because they didn't notice me just a few feet away. I couldn't call to my children to share the experience nor could I reach for my camera.

Today insects rule the canyon. Butterflies in a bright parade wobble on the light breeze. Bright orange dragonflies with transparent wings hover over the water showing their aerodynamic prowess despite being engaged in double-decked co-mingling. I watch for a convention of ladybugs; a few years back I came upon thousands of them meeting on the shady side of a large boulder. I scooped up a handful to join in their party and was welcomed by their using my body as a playground. In my hair, under my shirt and over my face they skittered until they bored of me and flew back to the congregation.

This time my visit is with a heavier heart. Sycamore Canyon, a large part of my life and my history, with my hopes for its future untroubled by the advances of “civilization,” are now threatened.

Note from Maggie:

I’ve talked to no one who wants this line of power running through our N. Arizonan Forestlands. Especially through lands so far unmarrred by visual pollution other than a twisting dirt road. A no one impacted by the line will benefit. To my knowledge the only beneficiaries will be the power company’s stockholders.

The stated cause is to provide reliable power to Nogales and to get the area on the national power grid.

Via Fierite and on F riday from 1 to 3pm and 5 to 7pm in Nogales at the Santa Cruz County Courthouse on Congress Drive.

Write letters to DOE and to the Forest Service by October 14th. See page four for addresses and talking points. If after you have all the information you need, you do not feel comfortable composing a comment to send in response, please feel free to contact The Connection Office and an English major (or a reasonable facsimile thereof) will be made available to help you.

Echos of past visits and the promise of its enduring beauty greet me as I round each bend.
**After the fires**

by Bob VanDoven

It's the middle of June and somewhere near the top of the Santa Catalina Mountains a tiny flame crackles to life amid a crowd of lanky young conifers and heaps of dry duff. Conditions are perfect, or terrible. Thermometers in the valley register 102 degrees and humidity is down in the teens. Five years of drought and a stiff breeze out of the southwest usher the new fire across the forest floor and eventually into the crowns; by the time firefighters arrive on foot and begin scuffing lines around the blaze it's too late. They retreat in less than an hour.

A Lockheed P-2V drops a load of retardant on the flames and returns two more times to do the same before the day is through, but the fire shrugs it off. This one has been waiting for decades, a lamp on the horizon just barely visible through the clutter of dead wood and dog-hair thickets. Progression maps published by the Forest Service tell the story best. On day 1 the burn barely covers Marshall Peak, by day two it has quintupled in size and then, day three, it rushes north into the little town of Summerhaven, rummaging through the flammable and the fireproof, consuming what it can with the organic lust of a creature that has stalked the woods for half a billion years. It comes up hard against the northern boundary of last year's Bullock Fire, then begins a slow curl to the west and south, wrapping around its own aftermath day after day, week after week until its flaming pseudopods begin to descend the rocky slopes above Tucson. At night people gather at the end of Sabino Canyon Road and watch the show from lawn chairs. When the blaze is finally brought under control a month later it has come nearly full circle, reduced to snuffling through the lovegrass and hardy succulents at the southern boundary of the Bullock fire. There really is not much left to burn.

Today the streets of Summerhaven seem wider for lack of cabins, and the pines of four months ago are sluicing down the canyons like so much dishwater. When we look at the way Americans have dealt with wildland fire over the past 50 years or so a regrettable pattern emerges. Prior to a blaze we plan, we theorize, sometimes we cut trees or start prescribed burns, other times we just resign ourselves to hope. Then comes the inevitable—a spark off an exhaust pipe, a bolt of lightning—and suddenly there's a fire threatening to sweep away a cabin, maybe even a town, but almost always a thicket of rationalizations and mistakes. Next comes the cleanup. But the Aspen fire took out more than just trees and cottages, it left a smoldering gap in the collective psyche of all those who treasure the Catalinas. There were things we loved up there, things we left behind. We've come to the fourth stage in the pattern and we're dealing with more than the tangible products of combustion, we're dealing with uncertainty and loss and the kind of blame that seems to come spinning back like a boomerang no matter who we aim it at. It will be decades before the gap grows over, and in the meantime a single question echoes across that once-forested space: “What hat now?” At least part of the answer lies next door.

All but overlooked in the news, the Helen's 2 fire started barely 20 miles away in the Rincon unit of Saguaro National Park on the same day as the Aspen Fire. It burned through the same plant communities—ponderosa, mixed conifer, oak savannah—and with similar intensity. “We had trees torching out,” said Kathy Schon, Fire Ecologist for the National Park Service. “Some days we weren't able to control it the way we would have liked.” Yet for all their ferocity both fires exhibited something of a mosaic pattern, touching approximately half of the acreage within their reach with what the agencies consider low severity. Look much further, though, and the resemblance begins to fade. The Helen's 2 fire was sparked by lightning while the Aspen fire was human-caused, not that origins are really important; ignition is ignition and if it's one thing we've learned after a string of record-breaking fires it's that forests will burn, period. The Helen's 2 fire did not get nearly as much attention as her sibling next door although at one time there were nearly 700 firefighters trying to keep her in check. But the most dramatic difference between the two blazes is this: even with fewer personnel on the ground and fewer choppers in the air the Helen's 2 fire only reached 3,500 acres, barely four percent of the size of the Aspen fire. The reasons for this are complex, but one can't help thinking that two fires so closely allied by geography and timing yet so different in magnitude might have something to teach us, both about what we've done wrong and what we've done right.

Some have argued that natural conditions favored the Aspen fire while at the same time working against the Helen's 2. The wind from the southwest pushed the Aspen fire through Summerhaven and up the thickly forested slopes of radio Ridge but helped the Helen's 2 toward rocky terrain. Pines in the Catalinas were infested with bark beetles and many were standing dead and dry when the fire began but the Rincon Mountains, owing to the trademark isolation that makes the Sky Islands unique, do not yet have a bark beetle problem. But these claims are not enough to explain the disparity between the two fires, and they miss the one extant condition that truly helped keep the Helen's fire in check, namely the existence of past burns.

A glance at a fire history map of the Rincons is instructive: Old blazes, both prescribed and natural, surround the area. Although much of the Aspen fire took place in areas that had not burned since the 1993 Smokey Fire, the Helen's 2 fire was fueled by a mosaic of burns from the 1992 Tumamoc Fire and the 1961 Mount Lemmon Fire. “We had trees torching out,” said Kathy Schon, Fire Ecologist for the National Park Service. “Some days we weren't able to control it the way we would have liked.” Yet for all their ferocity both fires exhibited something of a mosaic pattern, touching approximately half of the acreage within their reach with what the agencies consider low severity. Look much further, though, and the resemblance begins to fade. The Helen's 2 fire was sparked by lightning while the Aspen fire was human-caused, not that origins are really important; ignition is ignition and if it's one thing we've learned after a string of record-breaking fires it's that forests will burn, period. The Helen's 2 fire did not get nearly as much attention as her sibling next door although at one time there were nearly 700 firefighters trying to keep her in check. But the most dramatic difference between the two blazes is this: even with fewer personnel on the ground and fewer choppers in the air the Helen's 2 fire only reached 3,500 acres, barely four percent of the size of the Aspen fire. The reasons for this are complex, but one can't help thinking that two fires so closely allied by geography and timing yet so different in magnitude might have something to teach us, both about what we've done wrong and what we've done right.

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A glance at a fire history map of the Rincons is instructive: Old blazes, both prescribed and natural, surround the Helen’s 2 like amoebas, essentially hemming it in on the west, south, and southeast sides. When the Helen’s 2 fire reached the edges of these historic burns it had no choice but to drop from the crowns to the forest floor where grasses and brush had begun to grow. Like an old yellow lab it simply pawed around the bushes, badly hurt but harmless. The Park Service has a long history of letting fires burn where possible and using prescribed fire when necessary. In fact, much of the acreage taken by the...
Prior to the Helen’s 2 fire the Park Service had wanted to treat these areas with a combination of thinning and prescribed burning, but federal law prohibits this type of disturbance to spotted owl habitat. Now, in an unfortunate twist of fate the very habitat protected under the law has been all but destroyed, in truth because of the exclusion of fire.

Lest one think that fighting fire with fire is an easy prescription for forest health we ought to consider the differences between Saguaro National Park, where burning has served the ecosystem well, and places like the Catalinas, which have indeed suffered from the lack of flame. To begin, the risk to private property and the continuous presence of human beings in the Catalinas makes it hard to simply let fires burn and slows the planning and implementation of prescribed fire. In a recent interview Bill Hart, Fuels Specialist with the Santa Catalina Ranger district, pointed to the meticulous and site-specific planning that must be done by the Forest Service. “The Park Service has almost no interior prep to do, it’s mostly line prep, whereas we (the Forest Service) have a tremendous amount of work to do on the ground before a prescribed burn can be completed.” So while it’s no secret that fire suppression in the Catalinas contributed to the severity and extent of the Aspen Fire, balancing the equation was and will remain problematic. That said, it should be noted that the Forest Service continues to take an especially fervent approach to fighting fire, extinguishing over 99 percent of all blazes, some of which might better be managed than snuffed as a matter of course.

The same evidence that argues for the benefits of fire and a wider return of this primeval force to public lands speaks strongly in favor of protection for those communities on the wildland/urban interface. Fires are inevitable and the only question is what they will burn. Think of it this way—if a defensible space had been cleared around every structure in the Catalinas, if yards had been raked free of duff and debris, if no one had piled their firewood next to their propane tank, if no building had been lost, would we have mourned the way we did? “We can’t fireproof the mountains,” asserts Kathy Schon. Indeed, there is good data showing that ponderosa pine forests historically withstood low to moderate intensity fires every two to 10 years.

Yet for all the necessary advantages of fire, its presence (or absence) still amounts to management decisions. “We need landscape-scale projects,” says Schon. Bill Hart agrees, but there is conflict over how much humans will be required to do and how much fire can do on its own. Park Service data seems to suggest that burning, even in dense forests with heavy fuel loads, will leave enough of the big trees and follow a mosaic pattern allowing recovery and an eventual return to lower intensity burns. But the ultra-high fuel loads on many national forests call to question the wisdom of such a let-burn policy, at least in some situations. Still, for all the differences between various chunks of public land, the Rincões stand as an impressive example of fire and forests coexisting the way they should. Over time, a landscape that endures multiple fires can build resistance to the kind of conflagrations that have swept across Arizona and much of the west. Where necessary, we can treat areas to prevent crown fires and we can see fire restored to our public lands for their benefit. Someday we may look at flames on the horizon with wonder and gratitude rather than fear. For anyone who doubts these assertions, a return to the Catalinas offers a kernel of hope.

The Aspen vista point is near the end of the Catalina Highway, perched between the aftermath of two devastating fires. To the east, ranks of standing matchsticks crowd the steep slopes that descend to the San Pedro River. The Bullock Fire burned hot here, playing the topography and leapfrogging from tree to tree, pre-drying the thick forest upslope as it moved. To the west, the Aspen Fire came charging through after consuming more than 300 homes and businesses. Looking for hope here seems like a fool’s errand but in the fall of 2001 humans were at work in the forest to the northeast, thinning young trees and cutting low branches, protecting 170 acres just below the Mt. Lemmon Fire station. It’s down there still, a tiny raft of green floating on a sea of ash. The Bullock Fire burned right up to this treated area and then dropped out of the crowns when it reached the edge. In a similar fashion the Aspen fire was unable to consume those 170 acres as it had so many others. What we value we can save. It will take time, much capital, intelligent decisions, and the participation of those who live and play in the woods, not just those who manage them.
Sky Island Science

Fabulous Fireflies

by Joe Cicero

Fireflies, in Arizona?? Most residents would glare in disbelief if told that fireflies actually occur in our state. They may be reminded of fond experiences back east where the night sky is filled with flashing insects, but have never seen nor heard of such displays here in the west. Fact is, there are twenty or so different species confirmed in Arizona, and they can be sorted into three behavioral groups.

The first group consists of three species, perhaps more, that fly and flash at night in fiercely competitive mating protocols like their eastern counterparts. The second group consists of six or so species that fly during the day and either have no lights, or, when lights are present, they are faint light or those radium-painted notches on the wrist-watches we used to wear. These lights have no known function. The third group consists of nocturnal species whose females are brightly luminous but cannot fly. Their males have faint lights too, and don’t use them for mating signals. Instead, they have huge, dragonfly-like eyes for spotting the female glow as they fly through the night sky in search of a mate.

Sky Island Alliance’s conservation efforts targeted this southwest section of the H uachuc M ountains during June of this year. In one trip to Scotia Canyon, just east of Parker Canyon Lake, we were blessed to see representatives of all three of these firefly groups. The canyon is richly decked with a full gradient from ponderosa/chihuahua pine-silverleaf oak woodland, through the pinyon-oak belt and down to the mesquite-flat. Early residents of Sunnyside installed several large ponds to retain spring water in the upper region of the canyon, and these are slowly leaking to the creek below them. This perennial water supports a lush streamside flora with lots of snails, on which larvae of the aerial flashing firefly Bicellonych a w. wickershamorum feeds.

Bicellonych a is a genus of about 30 species throughout central and southern M exico. This one species somehow made it up to the Sky Islands, and back in 1982, I named it after the Wickershams, then residents of H uachuc C ity, who let me study the mating behavior in their backyard. B. wickershamorum performs a “flash-answer” routine where males advertise by flashing once every 5 or so seconds as they fly. Females wait in the grass until a male flies overhead and performs to her liking. She blinks back at the male who captures her attention, and he then bolts down to her as fast as he can, hopefully before any collateral males see the exchange and try to interlope. This basic flash-answer protocol is highly modifiable depending on the terrain and ambient light intensity the males have to work in. They scale the height and speed of their search path to optimize their chances of finding a female. They vary the intensity of their lights, the time of evening they emerge, and the duration of their search, all of which depend on ecological, ergonomic and genetic factors we barely comprehend. Our second most common member of this group, Photinus knulli, deserves mention, but has not yet been reported in Scotia Canyon. It is the only known lekking firefly in the N ew W orld. Gathering together in congregations (leks), males synchronize their flashes as part of an extremely complex mate-location strategy. A huge population occurred at P eña B lanca C anyon of the P ajarito M ountains that somehow got wiped out many years ago, and is just now coming back. An occasional male can be seen at Sycamore Canyon, 20 miles west of P eña B lanca, and these probably represent strays from a larger, undiscovered population with an epicenter deeper in the range. The species has also recently been reported in the Tucson M ountains and at the W est B ranch of the S anta C ruz R iver. There’s a night-flying/flashin g c lick beetle too, that is known from some of the H uachuc M ountains canyons, as well as those of the Pajaritos.

The second group can be seen anytime during the day flitting about on vegetation and flying through the air in slow, straight-line paths. Entomologists theorize that their ancestors flew and flashed at night like those of the first group, but intense competition moved the whole mate-acquisition prerequisite out of the night and into the day, and from luminous signal recognition to pheromone recognition. Sycamore Canyon holds 3 of these species, all of which can be seen on any same day during the early summer.

The third group is my favorite. They perform a “glow-find” mating protocol, where the male flies through the night in search of a spark in the grass. In the first group, males take most of the risk during sex-location. But in this group, females expose themselves by glowing as a beacon for any males that may be overhead. Females are flightless because they quit metamorphosis earlier than their males; earlier, in fact, than the onset of wing growth. This condition is called neoteny. Any of these species occur in the Pajaritos-Atascosa-Tumacacori M ountains and also but they are very, very hard to find because of the sedentary habit of the female.

Luminous insects are a fertile ground for discovery. Distributions are poorly recorded for even common species. A lot of behaviors are completely unstudied. A new genus just turned up in California’s south-eastern desert, and Sonora is profuse with species, almost all of which are undescribed. So much left to discover!

Arizona Conservation Alliance Summit

by Lyn Wilson, Arizona League of Conservation Voters, and A casia Berry, Sky Island Alliance

Representatives from 55 Arizona conservation groups convened on the San Carlos Apache Reservation in August to map out a common strategy for the upcoming year. The Arizona League of Conservation Voters (AZLC V) brought together groups working on a wide range of environmental issues facing Arizona residents, bonding the conservation community of the state into a unified powerful voice.

People working on state land reform shared tables with those working to improve indoor air quality. Those doing on-the-ground restoration met with folks keeping tabs on the state legislature.

Focusing on action, working groups met on topics of air quality, energy, growth management, environmental justice and border issues, funding, and wildlife habitat and resource protection. Each group identified priorities the larger Arizona conservation community could accomplish and developed a plan to do just that. We expect to see lots of great work coming from this gathering!

Presentations were inspiring. San Carlos Apache Tribal Councilman Wendsler Nosie gave a moving welcome address that noted the auspiciousness of the conservation groups convening at the A pa che reservation. Longtime political activist and grassroots organizer D ebbie Lopez and AZLC V Executive Director S tephanie Sklar spoke of the large overlap in candidates chosen by pro-conservation voters and by Latino voters. We were all moved to strengthen our ties and consolidate our collective voting powers. U S Representative Raul Grijalva received a standing ovation as he lent hope for something good to come out of D . C .

This was the second Conservation Alliance Summit called by AZLC V. Individually conservation groups have been making huge strides in guaranteeing the future health of our state. Thank you to the League for having the vision and determination to bring us all together! I only can we make a difference in the upcoming elections and conservation in Arizona.

Sky Island Alliance is pleased to be a part of the Arizona Conservation Alliance. This year’s participants left the Summit energized by the potential for achieving conservation success through continued collaboration. By working together, we can build and strengthen the conservation community in Arizona and become more effective at protecting our land, air, water, and quality of life. It is our goal to create a culture of trust and cooperation between the diverse organizations, citizens, and interest groups that care about Arizona’s future. With the help and dedication of the many members of the Arizona Conservation Alliance, it seems we are on the road to achieving that goal.

As part of the environmental justice and border issues session, it was exciting to work with progressive and dedicated people who really “get it.” These issues, particularly border policy and talk of constructing additional walls, affect not just the human beings along our borders but the wildlife that use--
Next time you travel the Interstate-19 corridor between Tubac and Tucson let your eyes trace an “as the raven flies” route from the Tumacacori Mountains on the west to the Santa Rita range on the eastern edge of your view. It’s approximately a 15-mile straight line from the proposed Tumacacori Wilderness to the existing Mt. Wrightson Wilderness in the core of the Santa Rita’s.

Now lower your eyes and imagine that same route on the ground. Pretend you are a young male mountain lion. You’ve just spent your youth with “mom” and “sis,” primarily in the Pajarito Wilderness, with occasional hunting excursions into the surrounding mountain ranges, perhaps the Atrasosas. But now “mom” is not too keen on your hanging around anymore, so it’s time to strike out on your own, establish your own home base, and maybe even find a mate. But where to go? There’s definitely strong signs of another male around “mom”’s home. It may be your dad, but he definitely does not want to compete for you for food or mates. Best to say “adieu” and head out.

Moving north, you pad along the familiar canyons and ridges of the Atrasosas Mountains. W ith “mom” you often encountered the scent and even watched groups of humans hiking, hunting, and sightseeing. “Mom” taught you to be cautious and leery of these two-legged critters, so you stay clear.

One morning, you settle down on a rock ledge overlooking a small canyon. Soon you hear some noisy critters headed up canyon. You look down and see three of those upright creatures. They seem to be excited and are pointing to where you just walked. They follow the tracks you made in the dusty canyon bottom until the tracks disappear amidst a scattering of rocks. What are they doing now? They yak and point and poke at your tracks. You wish they’d go away so you could nap. You especially hope they don’t look up and catch you in your hiding spot. Sounds from their activity drone on and you doze. When you wake up, all that is left is their stale smell.

“M om” taught you to be cautious and leery of these two-legged critters, so you stay clear.

You wander further north and explore the Tumacacori Mountains. Hmmm. “M om” taught you to hunt deer and javelina. There’s plenty here, and water too. M aybe this can be your new home. But, uh-uh, what’s that? U ndar an oak tree, you spy a scraped-up pile of leaves. You cautiously sniff. Ewwww. That’s “dad’s” scent! And what’s that over there? A pile of scat, and it’s fresh too. You must still be in “dad’s” territory; he’s obviously left his calling card. Better high-tail it outta here or he’ll kick your butt.

With renewed haste, you scurry up Sardina Peak. At the top, with the setting sun warming your back, you check out the view and your options. Across the valley floor, a large mountain range glows red in the evening light. The Santa Ritas are beautiful with the sun highlighting the sheer cliffs of E lephant Head. J ust the place for a young mountain lion to call home. But how do you get from here to there? You look south, from where you just came, and notice drainages flowing out of the Tumacacori’s. N ero, Rock Corral, and other canyons all look easily navigable down to the valley floor. You really don’t want to backtrack, so you look northward at Chivas, Toros, and Sopori W ashes. D own on the valley floor there is a thin ribbon of bright green cottonwood trees. A river flows through it, offering a respite for resting and refueling on the journey. A drainage on the other side of the river leads to a large canyon—Cottonwood—providing access to your new dwellings. Seems easy enough. The coolness of the night entices you to start the journey down the mountain and across the valley below.

How easy will the journey be? Back in your vehicle, with your human eyes you can see that the landscape is more than a combination of geology and vegetation. As he edges closer to the valley the mountain lion will encounter more and more obstacles to his passage. He already scouted over one major dirt road—R uby Road. Skirted campsites and cattle tanks. D own in the valley it will be an obstacle course of utility rights of ways, ranch buildings, fences, stores, ranchettes, golf courses, paved roads, with all the subsequent occupants including sub-urbanites, barking dogs, stray cats, and motorized vehicles from ATV’s to semi-trucks. Attempting to get safely and unnoticed to theother side, the lion will try his darnedest to avoid any contact. M aybe he’ll keep to the drainages. But what about the four lane high-speed highway your vehicle glides over at 75 mph? W hat are the lion’s chances of successfully crossing all four lanes? O r are there big culverts and high bridges he can pass through or under?

These are the questions our W ildlife M onitoring Program attempts to address. W e mobilize volunteers to collect data in areas we identified as possible wildlife corridors that are at risk from expanding development. O ne of these regions is the stretch of land between the Tumacacoris and the Santa Ritas. Ten trained “grassroots naturalists” are now collecting data on wildlife presence along their “adopted” transects in drainages and canyons on both sides of Interstate 19.

M aybe it was volunteers J any Brun, D yna Chin, and W ade Goyetche who disturbed our mountain lion’s nap. W hat were those crazy humans doing, anyway? They were documenting the lion’s tracks by photographing, measuring, taking GPS readings for location, and determining direction of travel. They most certainly wondered where the mountain lion went. O ur volunteers also document the territorial markings left by mountain lions and bobcats. W ith swipes of their hind feet, male mountain lions mound dirt, pine needles, or other organic litter and then spray the mound with urine. J ust like the calling card left by the lion’s “dad.” B obcats also mark by scraping, however these are notably smaller than mountain lion scats. S cat- fecal matter deposited by mountain lions is also collected as evidence.

In addition to the three volunteers mentioned above, N ic B riley and B irdie Stabel, L aural C larkie, C arolyn M cC allister, J udith M usick, and B ill and E llen K urtz also venture out every six weeks. M ost of the project’s volunteers work and live in the immediate area—four are T ubac residents and two live near Sopori W ash. F our volunteers come down from Tucson and other outlying areas. N ot only do the volunteers search for signs left by mountain lion and bobcat, but also by black bear, coyote, and jaguar.

Sky Island Alliance is collaborating with Arizona’s Department of Transportation to investigate wildlife movement under I-19. Soon, a series of remote cameras will be installed in culverts and under bridges. (See sidebar to W ildN ews! in last summer’s R eturning C onnections.) T he information gathered from these remote cameras will supplement the track data collected by our volunteers. S upported by these data, Sky Island Alliance is in dialogue with numerous stakeholders and officials about preventing obstruction to wildlife movement through major drainages in the Santa Cruz River Valley.

Now when you travel the I-19 corridor between Tubac and Tucson, gaze at the landscape and reflect on the work Sky Island Alliance does to protect our mountain islands and desert seas—especially our current efforts for wilderness designation in the Tumacacori Highlands. Contemplate the profusion of wildlife living in the large protected core areas of the mountain islands. S peculate about the corridors through the desert seas that enable wildlife movement between those cores. A nd consider joining Sky Island Alliance’s awesome volunteers and supporters whose tireless efforts ensure that mountain lions, jaguars, and other critters can continue to live in the Sky Islands and travel the desert seas.
Road Rattlings

by Trevor H are, SIA Conservation Biologist

W olves and bears, leopard frogs and A pache trout, G ila mon-
sters and Sonoran whipsnakes, tree frogs and rattlesnakes,
trogons and gray hawks; these are a few of my favorite things. 
These are also what we have encountered out there doing road
and wilderness surveys this summer.

We, of course, have also seen way too many roads, way too many degraded ripar-
ian areas, and way too many campsites. Some of those camps were definitely M exican Na-
tional's waypoints on their trip north look-
ring for a better life. We also stumbled across a
camp in the B urro M ountains that was full of
the trash from O rental and M iddle E ast-
ern food products, European cigarettes, and
bus tickets from Los Angeles. The worst we
have seen though was caused by that scourge
of all wildlands—the Y ahoo. O n the A pache
F orest overlooking the B lack R iver, we found a
camp that looked like it was attacked by a
B oy Scout troop gone insane. Trash every-
where, toilet paper and beer cans, egg shells
and banana peels, and the worst was the trees
around the campsite. They had been attacked
with abandon. Some had been hacked down,
and others were barely standing. The attack
on the trees must have happened over the
course of a couple days as more than 20 trees
had been damaged. I was a sad sight, which
I had hoped to never see in this day and age.

We are the friends and protectors of these
wonderful wild places, we do not and can
not understand what these people were
thinking, but once again I have to lament the
fact that I wasn't there in time to stop the
destruction. But back out we will go, and
while I hope I never have to witness some-
thing like this, I secretly harbor a wish I
would. W hat would I do in that case? Calmly
explain that what they are doing is wrong
and illegal? Y ell at them and put myself be-
tween them and the object of the their bent
destruction? O r would I follow them home,
pee on their flower garden? Chop down their
landscaping? B ust out their windows? M aybe
all of the above!

Enough with the ranting and raving, it's
time to get back out there! We had won-
derful trips into A ravaipa C anyon W ild-
erness, the B urro M ountains in N ew M exico,
and into the B lue R ange and B lack R iver
area since my last column. W e were in the
Chiricahuah M ountains over L abor D ay
weekend to look at the boundary of the ex-
isting wilderness and to document some
roads just north of it. This fall we will of course
continue to visit some of our beautiful
areas in the Sky I sland region. T he
T umacacori M ountains will be the setting
in September to kick off the Sky I sland A-
lance push for W ilderness in the area and
to finish off the road surveys. In the begin-
ning of October we will return to one of
our favorite places, the southern P ejicillo M oun-
tains, to do road, riparian area, and
biological surveys to support our push for
permanent protection for the area. In the
middle of October the B urro M ountains will
be the scene of another joint trip with the
New M exico W ilderness Alliance and the
U pper G ila W atershed A lliance, where we
always have way too much fun! W e also hope
to have two or three road closure weekends
this fall, so stay tuned!

In the new year we will visit A ravaipa
C anyon, T urtle M ountain, the D os Cabeza
M ountains, the S anta R ita M ountains, the
H uachucuca M ountain and the S an R afael
V alley, the B lue P rimitive R ange, the
P ejicillo M ountain, the western P ajarito
M ountains and the C anelo H ills. S o stay
tuned, stay fit, stay informed, stay active, and
stay happy!

The T umacacori Highlands
dominated from back cover

greater T umacacori H ighlands region
highest of all areas studied in terms of
available wild prey, but decided that con-
ditions surrounding this wild core area
were too uncertain to merit bringing
wolves back here yet. The abundance of
deer and javelina continues to attract
other predators, from stealthy mountain
lions and the occasional jaguar to the
numerous human hunters who stalk this
area each fall.

Plant diversity in these mountains is
at least as noteworthy. The chiltepin ( C apsic um a nnu m  v a r. 
glabriusculum), wild ancestor of most
chiles we now cultivate, reaches unusu-
lly high densities here. T he F orest S ervice
dedicated a special Z oological area to protect the
chiltepin, and to honor the wild plant's
contribution to our crop diversity and
culinary traditions. A nd much is left
unknown. B otanists remark that this
pair of Santa Cruz C ounty is the place
to go if you have fantasies of discover-
ing plant species unknown to science;
three new species have been found near
here in the last decade.

The roadless area's only major hiking
trail runs from the southern boundary
near R uby R oad up A tascosa P eak, pass-
ing a fire lookout once manned by
champion of-the-wild E d A bbey him-
self. B ecause of the large size of this unit,
opportunities to escape the sights and
sounds of civilization abound. S cramble
up any of the numerous peaks, look
west, and your sweat and scratches will
be rewarded by unobstructed natural views
for hundreds of miles. B ut look east, and
you may glimpse beyond a far ridge the
sprawling valley settlements whose contin-
ued expansions make clear the need to de-
fend remaining wild places.

T urned and rebuilt over the fol-

dowing of October we will return to one of
the Sky Island region. The
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The roadless area's only major hiking
trail runs from the southern boundary
near R uby R oad up A tascosa P eak, pass-
ing a fire lookout once manned by
champion of-the-wild E d A bbey him-
self. B ecause of the large size of this unit,
opportunities to escape the sights and
sounds of civilization abound. S cramble
up any of the numerous peaks, look
west, and your sweat and scratches will
be rewarded by unobstructed natural views
for hundreds of miles. B ut look east, and
you may glimpse beyond a far ridge the
sprawling valley settlements whose contin-
ued expansions make clear the need to de-
fend remaining wild places.

T urned and rebuilt over the fol-

dowing of October we will return to one of
the Sky Island region. The
T umacacori M ountains will be the setting
in September to kick off the Sky I sland A-
lance push for W ilderness in the area and
to finish off the road surveys. In the begin-
ning of October we will return to one of
our favorite places, the southern P ejicillo M oun-
tains, to do road, riparian area, and
biological surveys to support our push for
permanent protection for the area. In the
middle of October the B urro M ountains will
be the scene of another joint trip with the
New M exico W ilderness Alliance and the
U pper G ila W atershed A lliance, where we
always have way too much fun! W e also hope
to have two or three road closure weekends
this fall, so stay tuned!

In the new year we will visit A ravaipa
C anyon, T urtle M ountain, the D os Cabeza
M ountains, the S anta R ita M ountains, the
H uachucuca M ountain and the S an R afael
V alley, the B lue P rimitive R ange, the
P ejicillo M ountain, the western P ajarito
M ountains and the C anelo H ills. S o stay
tuned, stay fit, stay informed, stay active, and
stay happy!

The T umacacori Highlands
dominated from back cover
el norte

the creature stirred in spring
sniffing the air, catching a hint
of something familiar come over
a long distance. the creature,
young and without obligations,
moved north through desert washes
and over mountain passes, moving
swift and sure, pads soft on the
baked Earth, finding water by smell,
by genetic memory; traveling mostly
at night, when its dappled hide was
almost invisible in the light of the moon;
avoiding people. heading to el norte.
swimming across a river, capturing
small meals here and there; for miles
and miles and miles the creature strode,
heading for a place ancestors called home.
mountains. a sacred peak. prey. and
water. the young animal brought down
a deer and fed, and slept, awaking to
the sound of hounds; gliding swiftly up
the slopes of harsh desert mountains,
hiding, until, one day, it was gone.
there was a jaguar in the Baboquivaris
a few years ago. seen. photographed.
and now it is gone. no one knows, or
no one tells. but the jaguar is gone.

— Albert Vetere Lannon
Michael Logan Chronicles Destruction of the Santa Cruz River

by Dennis Pepe, owner of Green Fire Bookshop, Tucson, AZ

At one time or another I’m sure we’ve all tried to imagine how Tucson looked in the past with the multitude of changes throughout its history. Sure, we can kind of picture the early settlements down by the base of Sentinel Peak (“A” Mountain), and we can try to imagine the Santa Cruz as a flowing stream with possible beaver dams and lush banks lined with towering cottonwood and sycamore trees, but with the absence of a photographic history, our imaginations are left to our own devices. In The Lessening Stream: An Environmental History of the Santa Cruz River, Michael Logan gives our imaginations a major boost in understanding the history of the Santa Cruz River and its many changes throughout the years.

In the hierarchy of rivers, the Santa Cruz does not place very high, especially when compared to its neighbor, the once mighty Colorado. For perhaps a half-million years the Santa Cruz meandered 205 miles from its headwaters in the Canelo Hills of southern Arizona to its terminus at the Gila River just south of Phoenix. Its route takes it south across the international border with Mexico until it elbows north again, crossing the border near Nogales, Arizona, and running along the eastern flank of the Tumacacori Mountains before passing through Tucson and continuing north to the Gila River. In the late 1800s the Santa Cruz River Valley attracted many settlers with its prospects for good grazing and fertile soil along its banks. Even with the threat of violent Apache raids, the allure of the river was too much for the homesteaders to pass up. There is no exact date of when the Santa Cruz actually lost its above surface flow. Through a combination of natural change to the watershed and human influence on the river, the above surface flow just gradually disappeared into the sand.

The Santa Cruz still flows. Barring major geologic change in the region, the river will continue on. Sure, it may look sad now with its dry dusty bed and polluted, sporadic running water, but it will survive. Just as the Colorado will one day run free again, the Santa Cruz will continue on. The Lessening Stream: An Environmental History of the Santa Cruz River reminds us that because water has been, and will remain, a major focus of human activity in the desert, we desperately need a more complete understanding of its place in our lives.

Sky Island Alliance co-sponsors four-day conference; calls for papers

Biodiversity and Management of the Madrean Archipelago II: Connecting Mountain Islands and Desert Seas
May 11-15, 2004 at the Doubletree Hotel in Tucson, Arizona

Call for papers: Abstracts due November 15, 2003

Sky Island Alliance is co-sponsoring a major conference on biodiversity and management of our Sky Island region. Mark your calendars, and send in abstracts for papers!

In 1994, the landmark conference “Biodiversity and Management of the Madrean Archipelago” was the first major gathering to focus on the unique features and needs of our region. This conference raised a huge amount of interest in the Sky Island Region (formally referred to as the Madrean Archipelago), bringing together land managers, academic scientists, naturalists, and members of the general public to increase appreciation and understanding of the region. A lot has happened in the last 10 years, and it’s time to meet again! (Connecting Mountain Islands and Desert Seas is a two conferences in one; it includes the 5th Conference on Research and Resource Management in Southwestern Deserts.)

At this event, 15-minute talks will fill four concurrent sessions on four of the five conference days. Two separate poster sessions will take place on two days of the conference. Short abstracts for talks and posters will appear in the conference program. Feature-length papers for both talks and posters are due at the time of the conference and will be published following the conference and distributed to attendees. The USDA Forest Service Rocky Mountain Research Station (Southwest Borderlands Ecosystem Research Project) is making a major contribution to this conference by both funding and publishing the proceedings.

Our all-star lineup of features, speakers, and topics includes Jullio Betancourt speaking on climate change; Leonard DeBano and Peter Ffolliott, Madrean Archipelago 1994-2004; David Goodrich, San Pedro River watershed; D. Iana H. Adley, comparative land use history; A. N. Lynch, insects as agents of change in the Sky Islands; Paul M. Arln, biogeography and deep history; Gary N. Abian, cultural and natural history; and Tom Swetnam, fire history and climate cycles.

For more information on the conference, including conference program (as it develops), instructions to authors on abstracts and paper submissions, costs, scholarships, and accommodations, go to www.skyislandalliance.org and click on Biodiversity and Management of the Madrean Archipelago II: Connecting Mountain Islands and Desert Seas.
Fiesta de las Islas—Celebrating the Sky Islands
Saturday, November 22, 3:00 p.m.-late...

Celebrating the music, dancing, food and drink from the Sky Islands ecoregion!

Location: The Wilson Courtyard, (outdoors) 405 N. Wilson, On the corner of 7th St. and Wilson Ave. 2 blocks west of Tucson Blvd.

A benefit for the Sky Island Alliance. Admission: $10 for entry, Sonoran cuisine and a trip with the Sky Island Alliance, $5 for SIA members. Children under 12 FREE. Many thanks and we’ll see you soon! Sky Island Alliance - Protecting our mountain islands and desert seas. Thank you for your support! For more information, 520-624-7080, www.skyislandalliance.org or events@skyislandalliance.org

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SIA Fall 2003 Field Schedule

Please contact the Sky Island Alliance office at 520.624.7080 or trevor@skyislandalliance.org if you are interested in attending any of the following events.

- **October 03 – 06. Roads, Riparian Areas, and Biological Surveys.** Peloncillo Moutains and San Bernardino Valley. The Peloncillos are the only Sky Island Mountain range that stretches from Mexico to the Gila River! We will be doing a variety of work both in the mountains and down in the valley. 4.0 hours from Tucson.
- **October 17 – 20. Join New Mexico Wilderness Alliance and Sky Island Alliance Trip to the Burro Mountains.** Help us finish the roads surveys of the Burro’s, a gorgeous mountain range just south and west of Silver City. 3.0 hours from Tucson.
- **October 25. Volunteer and Supporter Appreciation Day. On the Tanque Verde Wash.** Join the Sky Island Alliance staff and board as we cook, brew, and sing for our supporters! Food, drinks, live entertainment will be provided. Camp on-site is available. Easter edge of Tucson.

**November 07 – 09. Road Closure and Restoration Project.** Get your hands dirty and play a direct role in improving the ecological health of your public lands! Contact Matt at matt@skyislandalliance.org for more info.

**November 22. Fiesta de Las Islas benefit.** Join Sky Island Alliance as we celebrate the “Islands” and raise money for our outstanding programs. Food, live bands, drink, fun, and frivolity! At the Wilson House in Tucson. Watch our website for details!

**December 05 – 07. Turtle Mountain Roads Inventory.** Join the Sky Island Alliance in one of the most gorgeous areas of central Arizona. Birds galore! Flowing Water! Great Wilderness potential! Threatened by mining and ORV use. We will be looking at the wild northern boundary. 3.0 hours from Tucson.

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**Sky Island Alliance invites you to:**

**Winter in the Desert!**

A benefit gathering to celebrate good friends and wild places! **December 13th, 2003. 2 p.m.**

In the Old YUMCA courtyard, north entrance.

You are cordially invited to an afternoon, holiday reception, art show and silent auction. We will be serving wine and hors d’oeuvres. Meet Bob Van Deren, and see the Sky Islands through his eyes. He has donated a special selection of his works for a silent auction to benefit the Sky Island Alliance. This will be Van Deren’s premier show in Tucson. We will host local musicians for your entertainment.

Thank you for your support.

David Hodges, Executive Director

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**Join Us**

**Sky Island Alliance**

If you received this newsletter and it’s time to renew your membership, please send in your check! If you are reading a friend’s newsletter, consider joining us! We rely on members for our basic operations. Contributions are tax-deductible; we are a 501(c)3 organization. Basic membership is only $25, but if you add a little to that, here’s a sampling of what your dollars can do:

- **$50** will help us survey 30 miles of roads.
- **$75** will sponsor volunteer training workshops.
- **$100** will close one mile of road.

Your Name__________________________

Address____________________________

City________________________State____Zip_________

Phone__________________________E-Mail_____________________

**Sky Island Alliance**

P.O. 41165

Tucson, AZ 85717

Thank you!
The Tumacacori Highlands

The Tumacacori Highlands are celebrated for their spectacular lichen-drenched cliffs, undulating hills of grass and Madrean oaks, and sharp-cut canyon streams. The mix of subtropical and northern plants and animals that typifies all our Madrean Sky Islands is skewed here toward the tropical. B all moss—a relative of pineapples—hangs from tree branches climbed by coatamundi and ringtail cats. Just two years ago, remote cameras snapped the fleeting form of a jaguar in an isolated part of this region. Indeed, these mountains host more than 50 sensitive species— one of the highest concentrations of rare and imperiled plants and animals in the Southwest, including several species that exist nowhere else in the U.S.

The Tumacacori Highlands—a complex of small ranges known as Tumacacori, Atascosa, and Pajarito Mountains—sit on the western edge of the Sky Island bioregion. The mountains are northern extensions of a continuous chain of mid-elevation uplands that connect to other Sky Island ranges in M exico, making them a natural movement corridor for wildlife. It is also the largest unprotected National Forest roadless area in Arizona. Wilderness designation will defend the area against both current and future threats, protecting its rich natural history and allowing the communities of southeast Arizona to appreciate this landscape in its truly wild character for generations to come.

Rising from 3,500 to 6,400 feet in elevation, its grassy hills are shadowed by towering cliffs and cut by canyons that hide astonishing flashes of waterside greenery. Rolling hills pour runoff back into internal drainages, leaving hidden pools and springs amidst the parched-looking cliffs. Surely water in such a place is as ephemeral as a mirage, yet these streams harbor native fishes. The range’s endangered Sonora chub is found nowhere else in the United States. What rain makes it past the fish’s plunge pools soon washes east into the Santa Cruz River, or south into Mexico. This southern range barely reaches high enough for pines, but deep drainages pull down higher, colder air than the daytime heat portends.

The Tumacacori Highlands borrow many of their fascinating species from the subtropics to the south. Yellow-billed cuckoos, elegant trogons, M exican vine snakes, Sonora chubs, and gray hawks may be sighted on any given day. Animals with broader distributions in the U.S. also find this area particularly valuable. The Ghost Ranch lineage of M exican wolves, one of three lineages used to establish today’s lobo population, was sired by a male wolf caught in the Tumacacoris in 1959. M ore recently, AZ Game and F ish’s assessment for M exican grey wolf reintroduction ranked the

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