

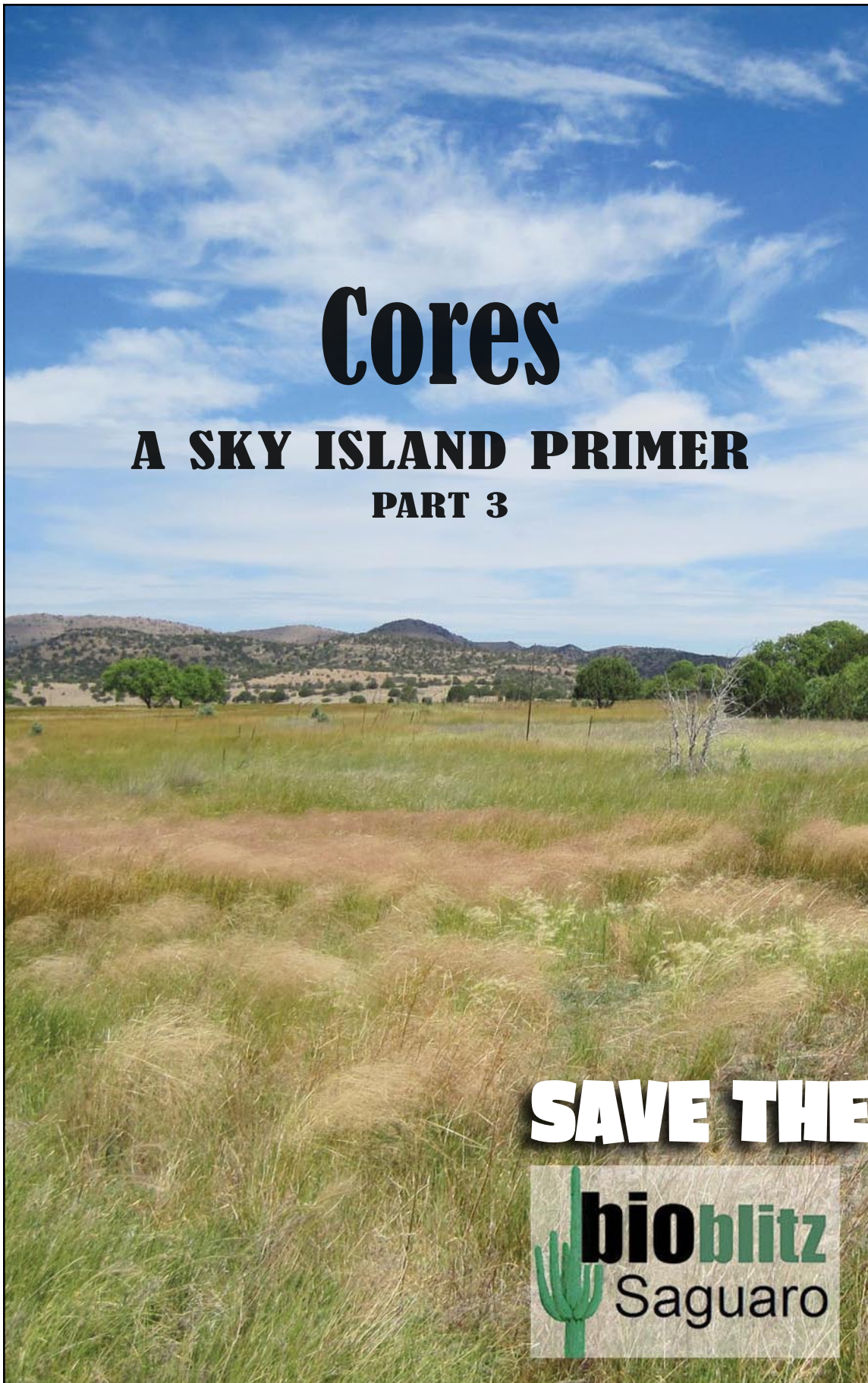


**SKY  
ISLAND  
ALLIANCE**  
Protecting our Mountain Islands  
and Desert Seas

# Restoring Connections

**Vol. 14 Issue 1 Spring 2011**

**Newsletter of Sky Island Alliance**



## Cores

### A SKY ISLAND PRIMER PART 3

**SAVE THE DATE!**



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**SAVE THE DATE!**

**National Geographic's BioBlitz 2011**  
**Saguaro National Park — October 21-22**  
This two-day celebration of biodiversity centers on a 24-hour race to count species, hosted by National Geographic, the National Park Service and groups like Sky Island Alliance. Volunteer at our booth or join an expedition team! Contact Jessica Lamberton at [jessica@skyislandalliance.org](mailto:jessica@skyislandalliance.org) for more information.



# Through the Director's Lens

by Melanie Emerson, Executive Director

When the federal government almost shut down this week, amidst an excited frenzy of planning for Sky Island Alliance's climate change adaptation workshop, Between a Rock and a Hot Place, we took pause. We were at once concerned with what the shutdown would mean for our federal partners while thinking through how and when we would reconvene the workshop. While not entirely content with the outcome of those negotiations, we were relieved that the workshop could go on as scheduled. But these events brought into focus a more poignant reality: as a small NGO, Sky Island Alliance is nimble, responsive, and efficient. Our commitment to our work is unwavering and we persevere in spite of socio-political posturing and external unknowns.

We are able to direct our efforts and resources where the greatest need exists. We are able to stay true to our mission, make quick decisions and respond to emergent issues. There is a huge benefit to being small.

We also have this flexibility because of supporters like you. We appreciate the support of, partnerships with and the varied work opportunities offered by government agencies, but strive to not be dependent on any single income source (see SIA's 2010 Annual Report online to learn more about our annual income and expenditures). The more diversified and committed our support from members, donors and volunteers, the more stable we are and therefore able to be proactive and responsive (as the circumstances dictate) to the critical issues of Sky Island conservation.

In this 20th anniversary year, when we celebrate the substantial impacts that the Sky Island

Alliance community has made, we also ask for you to assist us in broadening the and deepening our base of support — you are our most effective voice throughout the region. This could mean shifting to a recurring gift — one that provides year-round financial stability to SIA — or it could mean encouraging 10 friends to join the organization, or inviting colleagues or neighbors who are interested in conservation or new to town to the May 19th banquet, a volunteer weekend, or the Labor Day Campout. We truly appreciate your support and your efforts to engage others in the work we do. You are the backbone of maintaining and improving SIA's ability to be responsive and effective, as a small independent broker of change exclusively here in the Sky Island region.



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# It's so easy, and helps us tremendously...

**By donating just \$10 a month,  
you can turn your yearly \$35  
membership contribution into \$120.**

**Or, by donating \$50 every quarter,  
your yearly contribution would total \$200!**

**There are many different donation options  
through our giving program.**

**If you are interested, please call Acasia at  
520.624.7080 x10 or click on the DONATE  
NOW button at [www.skyislandalliance.org](http://www.skyislandalliance.org)**

El Aribabi. Courtesy Sergio Avila.

# Please join us...

Thursday, May 19, at Sky Island Alliance's  
5th Annual *Mountain Islands Desert Seas*  
Awards Banquet, as we honor the people  
who are making a difference... who *inspire* us:

Carolyn Campbell *Executive Director, Coalition for Sonoran  
Desert Protection* MIKE SEIDMAN MEMORIAL AWARD

Julia Fonseca *Environmental Planning Manager, Pima County Office of  
Sustainability and Conservation* AGENCY LEADERSHIP AWARD

Dennis Maroney *Sky Island Brand*  
BUSINESS CONSERVATION AWARD

Bill Radke *San Bernardino National Wildlife  
Refuge Manager* LAND STEWARDSHIP AWARD

Timothy Lengerich *NANCY ZIERENBERG  
SKY ISLAND ADVOCATE AWARD*

Nancy Young Wright *former Arizona State  
Representative* PUBLIC SERVICE AWARD

Enjoy a spectacular backdrop of saguaro-studded ridges  
on the edge of Saguaro National Park and the Rincons  
with panoramic views of three Sky Island ranges  
while visiting with friends new and old...

*Mingling, tequila tasting,  
and hors d'oeuvres begin at 5pm*

Followed by a buffet dinner, award presentations and  
kick-off of *Making Tracks...* come test *your* tracking skills!

*Help us celebrate 20 years of Sky Island conservation,  
10 years of wildlife tracking, and this year's dedicated awardees*

*Program and Dinner begin at 6:30pm*



Ticket price is \$50

\$375 for a table of 8, or \$450 for a table of 10

*(\$20 per ticket is tax-deductible)*

Please RSVP by May 12 online at [www.skyislandalliance.org](http://www.skyislandalliance.org)



Questions? Please contact Acasia Berry at  
520.624.7080 x10 or [aciasia@skyislandalliance.org](mailto:aciasia@skyislandalliance.org)

## The heart of the matter

by Julie St. John, Editor

If we are lucky, there are times in our lives when everything we thought we know gets stripped away. Whether the clarity lasts for a moment or for the rest of our lives, we see... what's real, what has meaning. These times, however, are not without cost.

In one of my moments of clarity, I left the stability of a career and life I'd been raised to believe in because I'd discovered what made my heart sing: working in and for the natural world. I had no idea where my path was leading, but within a year of putting one foot in front of the other I found the four women of Wildlife Damage Review and after that, there was no turning back for me. Nancy, Clarke, Lisa and Marian became family for me. My chosen family. Rod, too, as he worked for The Wildlands Project in the front room of the two-room office we shared. As Sky Island Alliance was an infant in those days, and The Wildlands Project seemed to be its meeting ground, I was there to see the organization take some of its first steps — hiring Andy Holdsworth to coordinate field work, publishing its first newsletters, poring over its first maps. Those were amazing days — full of hard work, shared goals, and immediate laughter.

I am who I am today because of those four women, and who I am today is so blessed to have been crafting *Restoring Connections* for the last 15 issues and working with the stellar crew of staff, board and volunteers of Sky Island Alliance. There has always been a shared vision among us, of protecting, restoring, and reveling in our mountain islands and desert seas; and now, even more so. Because under the leadership of Melanie Emerson I have seen the organization and the staff blossom into a maturity that is rare in the non-profit world — empowered not only to work smarter individually, but more cohesively as a whole.

I mean that. I have known my fair share of non-profit environmental groups and Sky Island Alliance's trajectory over the last few years — especially given the political and economic (not to say environmental) climates — has been nothing short of... well, I would like to say miraculous, but that doesn't seem to take into account all the hard work, smarts, and commitment behind the scenes. It has been a steady light for me — a beacon of hope, of possibility — through three personally challenging years of standing beside my parents as they left the planet and in the midst of that, losing my dear friend and WDR-mate Nancy Z to cancer. I am still in an altered state from the most recent losses, but the one take-home piece of clarity I know for sure is that I want to live the rest of my life as fully as I dare... and then some. Nancy was — and is — a very good role model for that — even in her last weeks she was still such a force of nature, an indomitable, invigorating spirit.

All year Sky Island Alliance will be celebrating the 20th anniversary of its founding as well as the 10th anniversary of its Wildlife Linkages program. We are also invigorated — both by what we have accomplished in, really, such a short amount of time, and by the work we have before us. I encourage you to join us... consider how blessed you are to live within this amazingly diverse Sky Island community and then match that with increased commitments of support including signing up to be a monthly donor, getting out for more field weekends, taking the training to become a tracking volunteer, and making tracks to one of our events when it's celebration time (this year's Awards Banquet is going to be awesome! see box to left).

It's not life that matters, it's the heart that we bring to it.  
I hope to see you soon!



# Protecting Our Mountain Islands and Desert Seas...

Sky Island Alliance's dedicated staff advance the organization's goals every day — in the field with volunteers, around the map table planning strategies, in the office, at the meeting, reaching out to Sky Island residents... you name it. If it's important to the Sky Island region, we are there. We hope you're inspired — let us know!

## Madrean Archipelago Biodiversity Assessment by Tom Van Devender

*The MABA project continues its mission to document the biodiversity of plants and animals in the Madrean Archipelago. Last fall, MABA staff, accompanying scientists, landowners, and volunteer, went on 'mini-expeditions' to the Sierra la Mariquita, Sierra Azul, and the Ciénega de Saracachi.*

In September, MABA's Tom Van Devender, Ana Lilia Reina, Chris Roll, and Jeff Sartain, and Jesús Sánchez, Curator of the Universidad de Sonora (UNISON) Herbarium, went to the Sierra la Mariquita. The Sierra la Mariquita is between Cananea and the Arizona border and, at 2460 m (8,070 ft) elevation, is one of the highest peaks in Sonora. The group stayed in the research station at the Observatorio Astrofísico "Guillermo Haro", graciously provided by astronomer Gustavo Escobedo. The plants were glorious with fields of yellow daisies. This was a "bioblitz" where the plants were surveyed completely, and images were taken of beetles, butterflies, grasshoppers, lizards, and deer. Mariquita is the Spanish name for the nine-spotted ladybird beetle, which concentrates on the mountaintop. The plant collections are part of Jesús' current project with CONABIO (the Mexican biodiversity database) to provide 6,000 plant records from the Sonoran Sky Island Region.

In October, Tom and Ana Lilia, Jesús Sánchez and David Delgado from UNISON, and Enrique Yescas, editor of *SonoraEs* magazine, went on trip to the Sierra Azul. They met Chemo (Heriberto Anselmo Aguayo-Amaya), the owner of Rancho el Salto. The ranch ranges from desert grassland to oak woodland and pine forest on the highest peak in the Sierra Azul. The trip was very productive in plant and animal observations and images for the MABA database, plant specimens for UNISON, and meeting the landowner of an important Sky Island. SIA is continuing to work with the owners to develop conservation initiatives.

In October, Tom and Ana Lilia met with biologists Martín Villa, Gonzalo Luna, and Martín Reyes of the Comisión de Ecología y Desarrollo Sustentable de Sonora (CEDES, the State of Sonora Ecology and Economic Development Agency) at Rancho Agua Fría. They are working on a proposal to the state of Sonora to establish an Área Natural Protegida (ANP, Natural Protected Area) for the Ciénega de Saracachi and Arroyo Santo Domingo. The Ciénega is a remarkable wetland in the bed of the Río Saracachi near Cucurpe. Permanent water supports lush herbs, cottonwoods, willows gallery

forest, four species of fish, pond turtles, and much more. The group surveyed plants and animals in the Ciénega and Arroyo Santo Domingo, a rocky stream canyon with a cottonwood-willow gallery forest. The flora is very diverse with unique mixtures of temperate and tropical species. In one area, rock figs, saguaros, and a bigtooth maple were growing near each other! A few huérigos (a Mexican cottonwood that resembles aspen) are present. The group met with Martín Padrés, the owner of Rancho Agua Fría, to discuss the ANP proposal. He is developing the area for ecotourism and conservation and is very supportive of conservation. He and CEDES will host the next MABA Expedition in April 2011.

In September, Tom introduced MABA at the Universidad de Sonora in Hermosillo as part of a presentation of the new book, *Diversidad Biológica de Sonora*, edited by Francisco Molina-Freaner and Tom. In November, he gave a keynote address on the "Conservation and Biodiversity of the Flora of Sonora" to the 5th Congreso Universitario de Biología, also at UNISON.

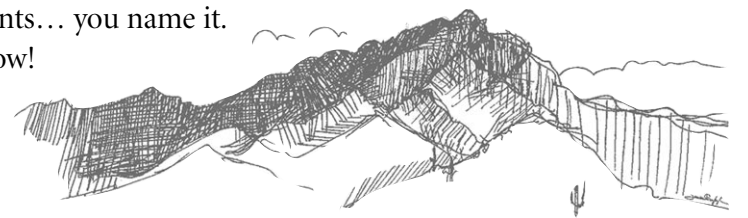
The MABA database has developed into a major resource for conservation and research in Sonora. About 4,000 records were entered into the MABA database from August-December, including observations from the Sierra La Madera expedition in August, later field trips, and other sources. In December, CONABIO provided 60,000 records of animals and plants from Sonora.

Marc Trinks left Sky Island in December. He made important contributions to the development of the MABA program, especially in database management and field trip logistics. We wish him luck in his new endeavors and adventures! We welcome Caroline Patrick who is ably filling his shoes and will join us for our April expedition to the Ciénega de Saracachi.

As always, we thank the Veolia Environment Foundation for their dedicated and generous support without which this project would not be possible.

## Conservation Policy Program by Jenny Neeley

Since last fall's newsletter, Sky Island Alliance has been making new connections... and not just in the form of wildlife corridors. In September we hosted *Climate Change Adaptation in the Arid Southwest: A Workshop for Land and Resource Managers* in order to talk about what climate change means for the region, and what we should be doing next. Sky



Island Alliance co-convened the workshop with a stellar list of partners including EcoAdapt, the Udall Foundation's U.S. Institute for Environmental Conflict Resolution, The University of Arizona's Institute of the Environment and School of Natural Resources and the Environment, the Bureau of Reclamation, the US Fish and Wildlife Service, CLIMAS, and Sonoran Joint Venture. The workshop was well-attended with diverse representation from over 40 different organizations and agencies including conservation organizations, research institutions, state, federal, county and municipal, agencies and private landowners among others. We had dynamic discussions about how the region and our collective work are vulnerable to climate change and what sorts of strategies we can start to employ.

This workshop, the first in a three-part series Sky Island Alliance is convening a part of our climate change adaptation project, was focused on building a regional network of people and organizations working on land and resource management. The workshop was a great success and we are pleased to see that the Sky Island region has a very informed and engaged land and resource management community that is committed to natural resource protection in the face of climate change. Here at Sky Island Alliance we were inspired by all of the expertise, input and thoughtful participation at the workshop and are excited to take the next step and delve into developing more focused and detailed actions for the region. Over the coming months Sky Island Alliance will be working to implement some of the import next steps identified at this first workshop and to engage our volunteers in "climate smart" projects that will improve land and resource management in the region.

We have also been busy the last couple of months responding to proposed changes to the system of roads and trails on the Coronado National Forest. Travel Management Planning continues to move forward with the Forest Service releasing a proposal for road and trail changes in the Tumacacori and Santa Rita Mountains. We have been working with the Forest Service and our conservation partners to identify ecologically harmful roads that should be closed and restored to a natural state, sensitive areas deserving protection from motorized recreation. Travel Management Planning is an opportunity for the Coronado to restore habitat connectivity and to

**Sky Island Alliance is a non-profit membership organization dedicated to the protection and restoration of the rich natural heritage of native species and habitats in the Sky Island region of the southwestern United States and northwestern Mexico. Sky Island Alliance works with volunteers, scientists, land owners, public officials and government agencies to establish protected areas, restore healthy landscapes and promote public appreciation of the region's unique biological diversity.**

protect quiet on the forest for wildlife and humans alike.

### **Wilderness Program** *by Rod Mondt*

Over the last several months, we have increased the number of signatures in support of the Land of Legends campaign to almost 2,000. Approximately 600 signatures came from a very successful campaign associated with the Bisbee "1000 Stair Climb." Jessica and Sky Island Alliance staff worked with volunteers Steven Clinkscales and Ron Serviss and — with some expert assistance from Jon Owen of Campaign for America's Wilderness — put together a very successful signature-gathering campaign around the marathon event.

Our collaborators at Campaign for America's Wilderness and Arizona Wilderness Coalition have placed signature-gathering links on their respective websites and these, along with our own weblink, have produced some 434 signatures from the online petition to date.

Congressman Grijalva's staff is continuing to work with Homeland Security to make adjustments to the current Tumacacori Highlands Wilderness proposal. We carry on with great support from the local communities and will work to move the legislation when Homeland Security makes a decision.

Jessica and Jenny also gave a total of eight presentations during the fourth quarter where they gathered signatures, rallied support for the value of wilderness and helped guide attendees to a greater understanding of the link between protected wild lands and valuable wildlife habitat.

The Wilderness Program was further supported by the integration of various Sky Island Alliance programs as well as staff. Jenny, Acasia, and Melanie stepped in to maintain and develop contacts in Cochise County, continue to build the campaign with organizational partners, and interface with Congressional offices. Jessica continued to integrate wilderness into her everyday work with Wildlife Linkages.

### **Wildlife Linkages Program** *by Jessica Lamberton*

Working with such a dedicated and talented group of staff and volunteers never ceases to be inspiring! This fall, we completed SIA's 15th Wildlife Tracking Workshop, held in New Mexico's Gila Wilderness at the Lyon's Lodge in Gila Hotsprings, and in the

Catalina Mountains of Arizona at the Triangle L Ranch. Here, we got to know eleven new people who now join the Sky Island Alliance family of wildlife trackers. One of our long-time tracking volunteers, Kathy Cooper, also joined us for the adventure and it was a pleasure to have her company and experience in the field.

We held SIA's first "Introduction to Wildlife Tracking" class in October, with much success and thirteen participants... many of whom continued on to join our Fall Workshop! A highlight for me was 13-year old volunteer Meagan Bethel's wonderful sighting of baby javelina tracks near a bed site during the tracking hike, measuring just about a centimeter long.

On Thursday, December 9th, the Pima County Regional Transportation Authority (RTA) unanimously approved funding for a project submitted by the Arizona Wildlife Linkages Workgroup (of which SIA is a part) for a Wildlife Connectivity Assessment in Pima County. This is terrific news! County by county, we hope to have these assessments completed throughout Arizona, fine detailing the work of the Arizona Wildlife Linkage Assessment published in 2006. The project should take about one year to complete, and will include GIS mapping tools for transportation planners and engineers. The data collected by Sky Island Alliance's tracking volunteers on Pima County transects — baby javelina included! — will be an important part of this process.

But there is more to look forward to in the coming year... We are working to produce a ten-year report of the tracking program as part of Sky Island Alliance's 20th Anniversary, and celebrating ten years of the Wildlife Linkages Program. The report will contain anecdotal stories and highlights of our tracking transects and volunteers and data analysis of selected study areas. Be on the lookout for it in the fall! As this project moves forward, we will also be updating our tracking database into a format that is compatible with our MABA species record database, and will tie in a webpage for volunteers to upload tracking data and photos.

We wish to thank our wonderful, steadfast volunteers, who have observed and recorded wildlife tracks on the ground for the last ten years. As we look forward to another decade of wildlife conservation, we are using past data to learn if ocelots walked among our Arizona Sky Islands long before we knew where to look, if there is a pattern

to black bears moving down from the mountains earlier in the year, and answering other questions of wildlife connectivity in the region. We honor those who were there in the beginning and are no longer with us, and those that will carry it into the future. I look forward to continuing the journey with you.

### **Landscape Restoration Program**

*by Sarah Williams & Trevor Hare*

The fall election season of 2010 prompted SIA's own campaign, VOTE FROG, to raise \$30,000 to support critical on-the-ground work to protect and restore native habitats and riparian communities throughout the Sky Island region. Thanks to the 108 contributions sent in by members, supporters and volunteers we were able to meet the goal amount, enabling us to secure matching funds for a large federal grant. This crucial piece of funding allows us to continue making strides in preserving the health of riparian systems, employing staff and hundreds of volunteers in the field to inventory and repair damaged riparian systems, control non-native, invasive aquatic species (like the menacing bullfrog!) and ensure long-term protection for the lives of native riparian critters like the Chiricahua leopard frog.

November brought watershed restoration expert Bill Zydeek to Tucson to lead a series of two, 2 day workshops held out at Las Ciénegas National Conservation Area. Working in conjunction with the Ciénega Watershed Partnership and Bureau of Land Management, the LRP helped organize this full week of hands on learning for participants from a variety of regional agencies, non-profits and graduate students working on arid lands restoration. With fifty participants we learned the basics behind the "Induced Meandering" methodologies, where you work with water's erosive forces instead of against them to repair degraded creek channels and dry arroyos. Look for more opportunities to learn about these techniques and implement them in the field in the coming months.

As the 2010 field season came to a close, LRP staff was busy writing grants and researching opportunities for restoration in 2011. Time and diligence behind the desk paid off with the notice of two large grants being awarded in late December. One grant, from the National Fish and Wildlife Foundation, will fund work to restore natural processes to degraded upland tributaries and

*continued page 19*



Madrean Archipelago Biodiversity Assessment expedition to the Sierra La Madera, August 2010. Courtesy Chip Hedgcock.

## PROTECTING THE HEART OF THE SKY ISLAND LANDSCAPE: The Importance of Maintaining the Integrity of Core Areas

by Rod Mondt, Special Designations Program Coordinator

When talk around the Sky Island Alliance office turns to cores, our conversations seldom if ever revolve around apples or recycling old batteries — we are talking about landscapes and how core areas are one of the vital components of any comprehensive land planning effort.

Conservation biologists tell us landscape cores, or core zones, comprise “an area of critically important habitat in which development and other kinds of disruptive activities are prohibited.” This constitutes the classic definition of a core as stated in Gary K. Meffe and C. Ronald Carroll’s *Principles of Conservation Biology* and barring academic arguments, this generally works for the scientifically minded. For Sky Island Alliance’s purposes however, a “core area” can include a wide range of managed landscapes as long as these areas hold to the principle that “disruptive activities are prohibited.” But what does that mean on the ground? And how does that translate into our work?

In the Sky Island Region we have over 35 different protected areas. Some are large, like the Santa Rita Wilderness, and are managed by the federal government and protected by Congressional designation. Others are small and managed by local or regional governments or private parties. In our parlance a well-managed *ciénega* like the one found at the Cloverdale Ranch can serve as a core area for riparian-dependent species like leopard frogs or Mexican gartersnakes. But while many of these smaller areas have some kind of formal protection, many are vulnerable to the whims of private ownership or political change. For this reason Sky Island Alliance works hard at the business of securing designation for what some folks call “Big W” wilderness — federal lands protected by the consent of Congress. But federal wilderness only counts on the public

lands, so along with working out the details with elected officials and the interested public, we are also motivated to acquire Memoranda of Understanding (MOUs) or written agreements between private land owners and Sky Island Alliance.

### Matrix of protection

Protecting core areas is an important part of the overall Sky Island Alliance strategy; linking these core areas is the motivation behind the Wildlife Linkages Program. While the old adage, bigger is better, certainly works for core areas, if you are not able to get big intact landscapes then you need to get as many smaller connected ones as you can. Protected linkages extend the effectiveness of core areas in maintaining viable animal populations by allowing individuals to move from one core to another. In addition, a series of smaller linked core areas is far better than a few larger areas standing as islands in a sea of heavily altered human environments. In the Sky Island region we are saddled with the reality that our landscapes are becoming increasingly altered by our presence and by what we as a society seem to think is necessary. Highways, new housing developments, power line corridors, recreation areas, all terrain vehicles and a slew of other icons of human “progress” increasingly limit our ability to advocate for large core areas. While we still move toward increasing the number of “Big W” wilderness areas where we can, if we want to maintain and enhance wildlife populations in the current landscape we are obligated concurrently to develop a series of smaller, linked, core areas.

### Cores as part of the bigger picture

Along with our focus on linkages, Sky Island Alliance has several other programs that work to support the prioritization process and the

rationale for core areas. The Wildlife Linkages Program — filled with trained wildlife trackers — helps identify areas that maintain populations of target species and provides a census of species found in specific areas. The information derived from the volunteers that monitor tracking transects and remote camera locations is invaluable in helping to define and prioritize core areas or linkages. While transect work is conducted north of the border, Sky Island’s Northern Mexico Conservation Program is busily working to set remote cameras on a number of ranches in Mexico, organize and carry out new biological expeditions and gather other information that will help to prioritize the development of an updated and larger core area complex and system of linkages in the Sky Islands for Northern Mexico.

Sky Island Alliance’s Landscape Restoration Program restores and enhances individual populations of riparian-dependent species. This effort leads to the enrichment of source populations of species protected in small and often isolated core areas. By garnering working relationships with land owners and stewards, we’ve been able to not only protect but restore and expand key core areas on both public and private lands. Road closures also help define and expand core areas by closing unauthorized roads that enter in and fragment what might otherwise be a viable addition to a core area or a vital link between two or more areas.

### How current core areas fall into the protected lands matrix

Currently there are more than 40 areas in the Sky Island region that we consider core landscapes. Most of these areas are on public lands and managed by the federal government. The Forest

*continued next page*

## Protecting the Heart of the Sky Island Landscape

*continued*

Service manages the largest number including ten Wilderness Areas and several Wilderness Study Areas (WSAs are managed as wilderness but have failed to receive the official congressional “Wilderness” blessing). The Bureau of Land Management has a number of Wilderness Areas, a couple of WSAs and several Areas of Critical Environmental Concern, as does the National Park Service and the Fish & Wildlife Service. Even the State of Arizona and county lands are added to the mix, as are a number of private ranches, and lands owned by non-governmental organizations. Mexico offers similar options but in a limited number: currently we have several working agreements one with a State university (UNISIERRA) and with private landowners where we maintain remote camera monitoring, and we are working to achieve Private Reserve designation of some of these ranches. In addition, the State of Sonora is building a new protected areas program and Sky Island Alliance is positioned to provide important information in the development of new core areas in Mexico.

At issue are numbers and size and Sky Island Alliance finds no satisfaction with the state of the local landscape. With this in mind we are promoting four new Wilderness Areas in our region. The Tumacacori Highlands west of

Nogales, Arizona has nearly 84,000 acres of potential wilderness and remains one of our priority wilderness goals. In Cochise County we are working to establish three new wilderness areas in our “Land of Legends” campaign — the Whetstone Mountains have nearly 40,000 acres of potential wilderness, the Dragoon Mountains have approximately 38,000 acres, and the Northern Chiricahua Mountains contain some 35,000 acres. These are large, important areas that will serve the needs of wildlife, hikers seeking quiet recreation, hunters seeking unroaded lands and those that want to experience Arizona as it was before housing developments, power lines, off road vehicles, freeways and Maricopa County.

Core areas are clearly the heart of any landscape management plan and the links between these areas are vital piece of overall fabric that constitutes a healthy landscape. Not only are these cores symbols of our landscape and cultural heritage, but in many cases they are poised to become steppingstones in a linked landscape that



**This surprised coati was captured on film by Paul Condon while he surveyed his Wildlife Linkages transect.**

will mitigate the ravages of climate change, allowing wildlife to move across the land north to south, east to west or from the low elevation deserts to the tops of our Sky Island mountain ranges. Wildlife need these cores. The opportunity to procreate, frolic or simply relax in relative peace plays an important role in the health, welfare and happiness of critters that demand a room with a view or simply cannot survive without open space.



**Documenting bobcat tracks on a dirt road. ©2011 Sky Island Alliance archive.**

### The start of something grand

*In the late 1990s Sky Island Alliance initiated a wildlife tracking program that would monitor the region's far-ranging predators. Andy Holdsworth, SIA's then director of field programs, engaged the help of Sue Morse and Keeping Track, Inc., to run a tracking workshop in the Blue Range for a small group of volunteers, staff and board members. With the help of wildlife biologists such as Harley Shaw, two projects emerged to test whether such monitoring was possible: the Fort Huachuca Annual Mountain Lion Track Count and a program on the Audubon Research Ranch near Sonoita. While the tracking efforts were successful, the training was low key — new volunteers were introduced to the task in the field — and documentation consisted of simple field notes and track tracings.*

*In 2001 Sky Island Alliance formalized the program, expanding its scope and creating a rigorous data collection regime and a consistent training program for new volunteers. By the Spring of 2001 we conducted our first formal tracking workshop at the Audubon Research Ranch. Ten years later, the training program has evolved, but the basics are the same. Volunteers learn wildlife tracking fundamentals and the natural history of the species being tracked, and become proficient in data collection techniques, including photographic documentation.*

*Through the years, the emergence of new technologies, such as the availability of cheaper and better digital cameras, has helped make documentation easier and more precise. But all the fancy gadgetry does not substitute for what we learned early on: that the key to the success of the tracking program lies with the volunteers. Their enthusiasm for on-the-ground conservation work and our confidence in their abilities as “citizen-scientists” is what will sustain the Wildlife Linkages Program through the next decades. Since 2001, Sky Island Alliance has held 15 tracking workshops, trained 183 citizen scientists, and has 82 active volunteers on the ground, walking transects. Yes, I am proud to have been part of something so grand.*

—Janice Przybyl, Wildlife Linkages Program Coordinator 2001–2009



Elegant trogon, blue-gray gnatcatcher, and ash-throated flycatcher. Courtesy Sky Jacobs.

## Core and Endangered Habitats of Birds in the Sky Island Region of Arizona

by Scott Wilbor, Tucson Audubon Society, Arizona Important Bird Areas Program Conservation Biologist

We all know Southeast Arizona is a great area for birds, but surprisingly *exactly* where the centers of abundance are for various avian species and species groups are not fully known. The Audubon Important Bird Areas (IBA) Program has taken its network of trained volunteers, biologist partners, and students on surveys to tackle these questions of abundance and distribution. As recently as this past winter/early spring of 2011, we have been investigating the Sky Island region grasslands, valley riparian winter refugia, upland saguaro/acacia/palo verde landscapes, and Madrean oak woodlands in order to help provide land managers with better information for habitat management and conservation. Recent finds have provided us with new information — for instance, chestnut-collared longspurs occur in many diffuse flocks, but are generally concentrated in wide grassland drainages; rare flycatchers and some orioles over-winter along the San Pedro River in wet oases; golden eagles hunt the saguaro/palo verde hillsides of the lower San Pedro River valley; and many raptors occupy their nest territories early in the spring in the Madrean oak woodlands.

Audubon's IBA Program is focused on identifying and conserving the most critical habitats for birds in Arizona. The Tucson Audubon IBA office works to conserve these “core bird habitats” in southern Arizona, while also leading a statewide avian science initiative using volunteers and professionals to inventory and monitor bird populations within our Arizona IBAs. Community engagement and land management partnerships are key to our program's strategy of science-based data collection, stewardship, and promoting our data for best habitat management decisions to conserve bird species of highest conservation concern.

### Bird Species of Concern

In the Sky Islands (including interwoven grasslands) the list of species of conservation concern is long (~45 species). A few are very well known — Mexican spotted owl, Apache goshawk, peregrine falcon, Gould's turkey, elegant trogon, magnificent hummingbird, and Montezuma quail — but also include many lesser known species such as whiskered screech-owl, elf owl, mountain pygmy-owl, Arizona woodpecker, eastern “azure” bluebird, red-faced warbler, olive warbler, and Botteri's sparrow. These are species listed as being of highest concern by one or more entities including the U.S. Fish & Wildlife Service (ESA and Birds of Conservation Concern lists), National Audubon (WatchList species), and Arizona Game & Fish Department (Species of Greatest Conservation Need), plus a few additional species the Arizona IBA Program recognizes as being of special conservation need.

### Avian Diversity

Birds as a taxonomic group are incredibly diverse (approximately 525 species in Sierra Madre Occidental). Birds have achieved this diversity because species have evolved very specific habitat associations, and even finer foraging and nesting niches within the physical structure of their habitat. When we identify core habitats for bird populations in the Sky Island region of Arizona, we are most often looking at relatively intact (non-fragmented), large, diverse landscapes, namely montane forests, low elevation riverine systems, and grasslands. Key elements in these ecosystems for supporting bird diversity are: the presence of perennial water, topographic heterogeneity, and a variety of vegetation seral types (i.e., successional stages, often from “patch” disturbance events, e.g., fires, floods, storms).

### Ecosystems and key elements that contribute to avian diversity and abundance

**Montane forests:** In the montane systems, key elements contributing to avian diversity and abundance are a mosaic of forest age stands (particularly the prevalence of old-growth forest stands), the presence of fruit-bearing trees (berries, acorns, cones), floral resources, potential tree cavity sites, springs, seeps, drainages, snags (dead trees), cliffs (escarpments), micro-climates (e.g., cooler canyons), insect and small mammal abundance, and mammalian browsers (and controlling large predators).

**Riverine Systems:** In low elevation valley riverine landscapes, key elements contributing to avian diversity and abundance are perennial water, diverse patterns of vegetation age classes of riparian trees, structural diversity of vegetation (especially vertical diversity), river morphology (broad, not entrenched) and sinuosity (high), groundwater levels (high), mesquite/thorn-scrub bosques, off-river springs, berry-producing vegetation, floral resources, seed resources, high insect abundance, and presence of fish, amphibians, reptiles, and beaver activity.

**Grasslands:** In grassland, grassland-shrub, and oak-grassland systems, key elements contributing to avian diversity and abundance are native grass species diversity and robustness, diverse topographic orientation, topographic variation, presence of drainages, presence of mature trees (e.g., oaks, cottonwoods, and tall mesquite), patterns of soil moisture, and gopher or prairie dog presence and their soil disturbance. In all these landscapes a minimum of human-induced habitat degradation/fragmentation — by invasive species, roads, development, noise, soil disturbance, over grazing — are key to allowing avian species diversity to reach its full potential, and for robust species populations.

### How might climate change affect core habitats for birds in the Sky Island region of Arizona?

**Montane forests and birds:** Climate change models (CLIMAS, UA) predict an overall drying of our Sky Island forest ecosystems and of the Southwest in general. This will mean undoubtedly the loss of some seeps and springs, and some drying of creek reaches. This will also increase the risk and vulnerability of forests to catastrophic fire events (crown-sweeping fires). Regardless of fires, we can expect slow changes in vegetation communities, especially at the higher elevations of our distinct mountain ranges. We will likely see oak, pine/oak and mixed conifer communities along the elevation gradient of montane forests shrink in their extent, and possibly disappear from some ranges. We can also expect to see an increase in chaparral, scrub oak, and grasslands moving upslope. Forest birds like owls (Mexican spotted owl, mountain pygmy-

*continued next page*



owl), nuthatches, creepers, sapsuckers, high elevation warblers (red-faced, olive), and some woodpeckers (hairy), are likely to face localized declines, and shifts northward. On the plus side we may see more southern Sierra Madrean species — flycatchers, wrens, thrushes, and hummingbirds — moving north, many of these seasonally, to find habitat suitable for occupancy.

**Low elevation Riverine systems and birds:** With drying and warming conditions we are likely to see the loss of extent of certain perennial reaches of rivers and creeks. Additionally, there is likely to be more mature riparian tree (cottonwood & willow) die-back and die-offs, off the river, notably those trees surviving on localized “perched” groundwater are likely to be lost. The pattern of increased shrub-form dominated riparian vegetation along drainages is likely to continue. More non-native grasses and reed infestations of the riparian zone are expected. Lastly, more dramatic flood events are a possibility. This scenario will increase habitat for some birds, particularly in the understory and mid canopy zone riparian habitats — e.g., vireos, yellow-breasted chats, cardinals, flycatchers, and wrens — but cause some reduced habitat for tall canopy nesting birds such as great blue herons, yellow-billed cuckoos, raptors, and tanagers. Some more southern species — possibly orioles, mockingbirds, kiskadees, wrens, and kingbirds — will find new and increased suitable habitat.

**Grasslands and birds:** With overall increased aridity across the region, we can expect some reduction in insect prey abundance and availability for spring nesting and wintering birds. There is likely going to be an increased prevalence of non-native, warm-climate-adapted grasses invading native grassland communities, particularly in those valleys with greater summer precipitation. Additionally, continued shrub encroachment will likely proceed as presently occurring, into our native grasslands. Some grassland birds may decline, for instance, the Arizona grasshopper sparrow. Good grassland management may avert declines for many bird species. We may see increases in rufous-winged, black-throated and lark sparrows, and possibly more southern species expanding north — such as seedeaters, grassquits, and buntings — into our southern Arizona grasslands when rainfall is more abundant in a given year.

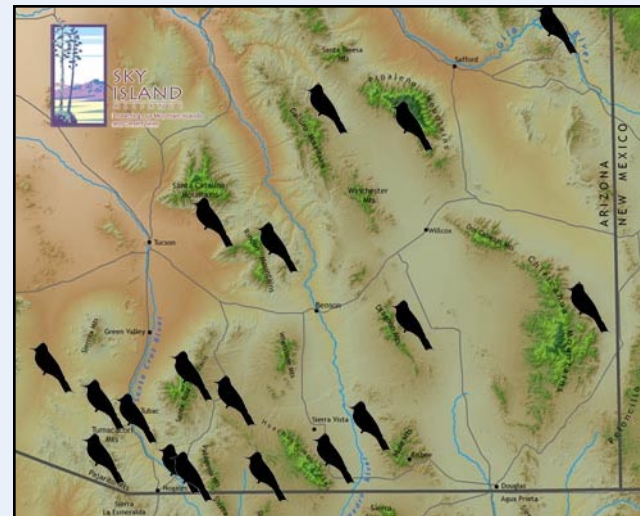
Overall bird communities are expected to continue to shift slowly. High quality localized habitat will become all the more important for certain species’ population persistence. Cooler and wetter (refugia) habitats will become very important to conserve and protect in forests. Riparian areas will need to be protected from groundwater withdrawal beyond tipping points, invasive non-native species will need to be managed and eliminated, degradation from past human activities (grazing, agriculture, and mining) reversed, and broad riparian corridors protected. Grasslands will need to be managed and kept un-fragmented (periodic burns are a highly beneficial ecological process, but only possible by preventing human development encroachment into our remaining grassland ecosystems).

We will of course expect to see more southern distributed species visiting and later finding nesting opportunities in our Sky Island region. Arizona’s position as a “crossroads” of biogeographic zones, great topographic diversity (elevation range), and varied moisture patterns are all key factors in the region’s high avian biodiversity. Arizona’s Sky Island region will continue to be a hotspot for species diversity. Conservation management of key avian habitat is critical to ensure this diversity can persist. With continued concerted conservation planning, management for reduced human impacts, and new adaptation strategies (e.g., elevational corridors, refugia protection), we can provide for the best conditions to support this high bird diversity and our unique regional avian populations — even under changing climate conditions and human pressures — far into the future.



## Core bird habitats

*Although our inventory of IBAs in Arizona is not quite complete, we have identified 40 IBAs and close to 50 will likely qualify through our IBA Science Committee review process. Through this process we have a beginning of an understanding of the core habitats for bird*



*populations in the “Sky Island Mountains” region in Arizona. The landscapes and watersheds listed below, which we are continuing to document, are the core habitats for birds in the Sky Island region of Arizona (and the key bird population centers of abundance for these bird groups or species):*

**Blue River Complex** (also including the San Francisco, KP, Little Blue, & Campbell Blue drainages) (an IBA): Mexican spotted owl, Northern Goshawk, Common Black-Hawk, sapsuckers, woodpeckers, nuthatches, and warblers.

**Chiricahua Mountains** (an IBA): Elegant trogon, small and medium sized owls (density and diversity), Mexican chickadee, flycatchers, vireos, jays, nuthatches, and warblers.

**Pinaleno Mountains:** Mexican spotted owl, Apache goshawk, flycatchers, vireos, jays, nuthatches, and warblers.

**San Pedro River** (2 IBAs, upper and lower): Bell’s vireo, gray hawk, Lucy’s warbler, yellow warbler, yellow-billed cuckoo, Southwestern willow flycatcher (lower reach), flycatchers, and woodpeckers.

**Huachuca Mountains** (an IBA): hummingbirds (density and diversity), flycatchers, elegant trogon, azure bluebird, woodpeckers, grassland sparrows, and tanagers.

**San Rafael Valley:** chestnut-collared longspurs (winter), raptors (winter), grassland sparrows, loggerhead shrike, and Eastern meadowlark.

**Sonoita Grasslands/Las Cienegas NCA/Audubon Research Ranch** (an IBA): raptors (winter), grassland sparrows, and Eastern meadowlark.

**Patagonia Mountains/Harshaw drainage:** small owls (diversity and density), turkeys, Arizona woodpecker, elegant trogon, jays, Montezuma quail, raptors (diversity).

**Santa Rita Mountains** (an IBA): hummingbirds (density and diversity), small owls (diversity and density),

elegant trogon, Montezuma quail, flycatchers, grassland sparrows, orioles, and tanagers.

**Sonoita Creek/Patagonia Lake** (2 IBAs): hummingbirds, yellow-billed cuckoo, gray hawk, flycatchers, gnatcatchers, wrens, warblers, grassland sparrows, and tanagers.

**Upper Santa Cruz River** (Tumacacori to Amado) (an IBA): Abert’s Towhee, Bell’s vireo, yellow-billed cuckoo, gray hawk, Lucy’s warbler, yellow warbler, flycatchers, and woodpeckers.

**Dragoon Mountains:** hummingbirds, small/medium owls (diversity and density), and grassland sparrows.

**Rincon Mountains:** hummingbirds, small owls (diversity & density), woodpeckers, flycatchers, vireos, jays, and warblers.

**Galiuro Mountains & Aravaipa Canyon system:** hummingbirds, woodpeckers, flycatchers, raptors (particularly Common Black-hawk), and owls.

**Atascosa Mountains** (Sycamore Canyon and California Gulch) (2 IBAs): small owls (diversity and density), hummingbirds, yellow-billed cuckoo, flycatchers, gnatcatchers, nightjars, warblers, buntings, and raptors.

**Arivaca Cienega/Creek/Wash** (an IBA): flycatchers, gray hawk, warblers, and tanagers.

**Altar Valley, Buenos Aires NWR:** grassland sparrows, raptors (diversity and density), and flycatchers.

**Greater Sabino/Bear-Tanque Verde Watershed** (an IBA): Abert’s towhee, Bell’s Vireo, broad-billed hummingbird, Costa’s hummingbird, Lucy’s warbler, and flycatchers.



Had environmental laws not been waived, wildlife scientists could have counseled the Department of Homeland Security about minimizing obstructions for wildlife. This vehicle barrier in the Playas Valley of New Mexico/Chihuahua could have been built in a manner that afforded passage to wildlife like bison, pronghorn and deer. But without input from the wildlife conservation community and the public at-large, the border barrier now blocks passage by most large mammals.



These bison in Janos, Chihuahua, belong to one of two herds of bison in the borderlands. Prior to 2009, the border offered no obstacle for species like bison who travel frequently across the international line between food and water resources. But since the border has been fortified, a combination of wide vehicle barriers and barbed wire has obstructed passage along much of their transboundary range.



This vehicle barrier had blocked the passage of vehicles through the Coronado National Memorial prior to wall construction in 2009. The barrier was passable by most wild species, but has since been replaced by solid wall, right into the foothills of the Huachuca Mountains.

## BISECTED

### A photo essay on our disrupted borderlands

by Krista Schlyer

The borderlands of the United States and Mexico contain some of the most biodiverse ecosystems in North America, all of which currently face the fallout from immigration policy and the U.S.-Mexico border wall.

Approximately 650 miles of border barrier have been built since 2007 using the blanket waiver of environmental and other laws that the U.S. Congress gave the Secretary of Homeland Security under the Real ID Act in 2005. The dismissal of environmental law, including the Endangered Species Act and National Environmental Policy Act, has allowed open landscapes — that provided a contiguous haven and migration pathways for countless species — to be bisected by walls and other barriers. This story continues, as members of the U.S. Congress, along with members of the Arizona state legislature, are pushing for added walls on the border.

These photos are part of an ongoing documentary photography project meant to show the incredible diversity of the borderlands, and the impact of the wall.

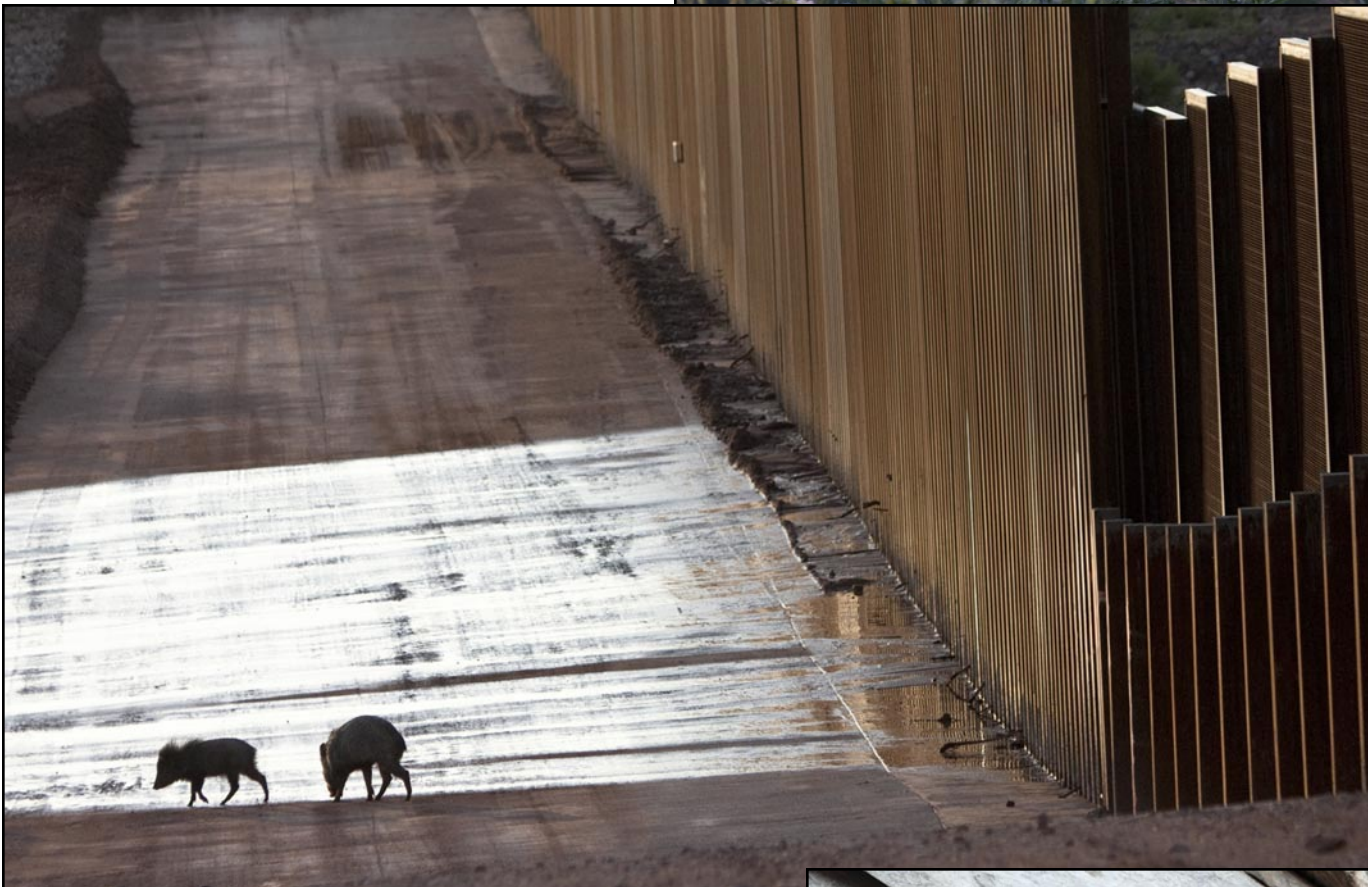
*Krista Schlyer is a conservation photographer and writer who for the past three years has documented the impact of immigration policy and the wall on borderlands ecosystems. She is currently working on a book on the borderlands. You can learn more about her work at [www.enviro-pic.org](http://www.enviro-pic.org).*



In 2009, the Department of Homeland Security replaced the vehicle barrier in Coronado National Memorial with a solid pedestrian wall, blocking passage for most terrestrial animals.



Kit fox in the Chihuahua–New Mexico border region.

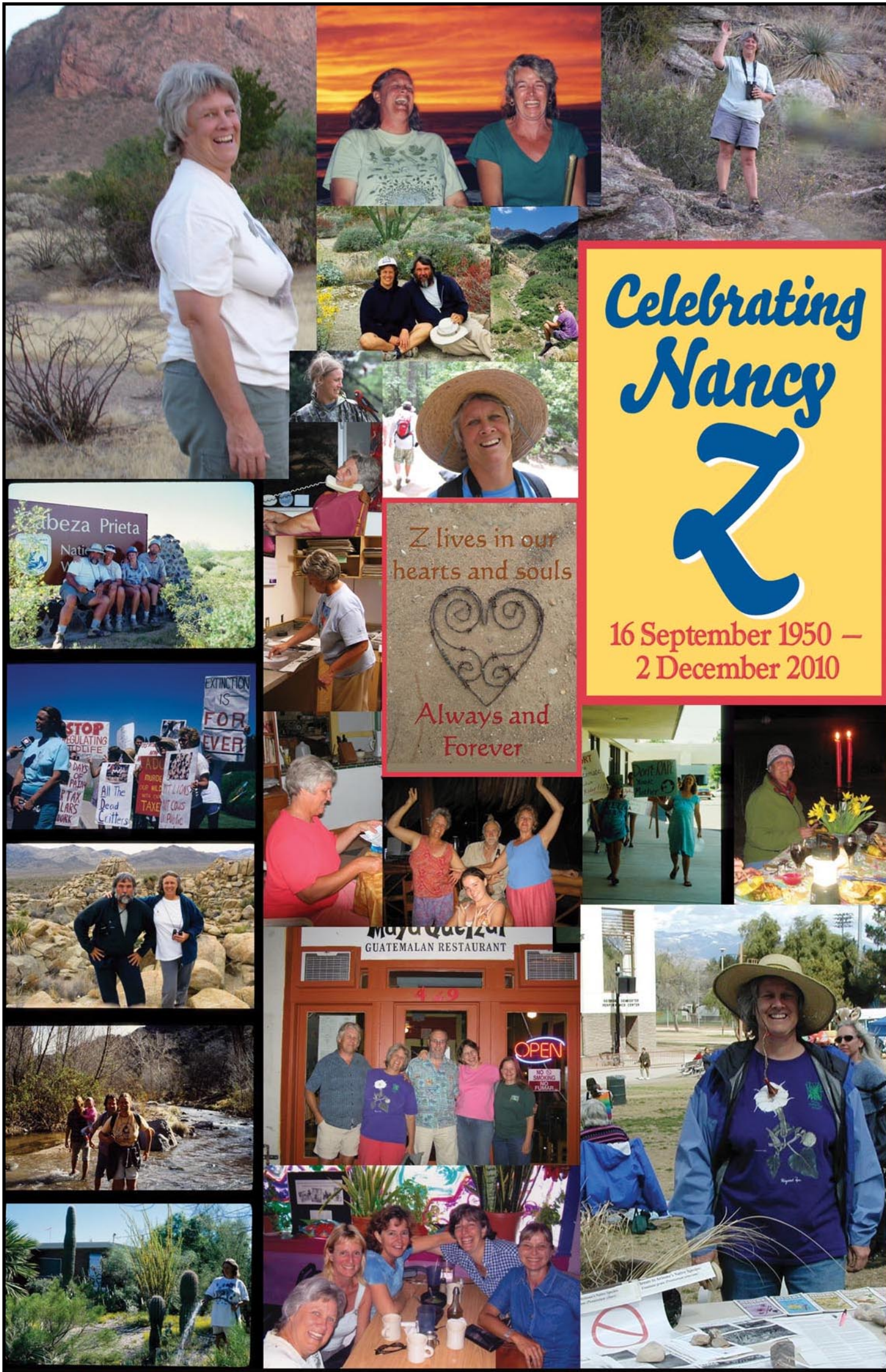


In addition to blocking mammal migration, a solid wall can block the movement of some plants by blocking the passage of their seed distributors like javelina. This wall in the San Pedro River corridor was constructed in 2009, after then-Secretary of Homeland Security, Michael Chertoff, bypassed a court injunction against wall construction. These javelina were photographed pacing along the wall shortly after the barrier was constructed.



These bighorn sheep were visiting the Tinajas Altas waterhole, a critical year-round waterhole near the border of western Arizona and Sonora. Much of this landscape is now blocked by a 15-foot steel wall, making the water hole inaccessible to species south of the border.





We — the Sky Islands, High Sierras, and southwestern deserts, the wild critters and native plants, friends and family, generations of activists, and especially Rod — lost a steadfast friend, advocate, and hero when Nancy Zierenberg died far too young at the age of 60. Uncompromising in her defense of the natural world, she believed all species had a reason to be — an ecological niche as well as rights endowed when they were born — and she was unswerving in her advocacy whether going head-to-head with government officials, getting arrested in protests, or chipping away at ludicrous bureaucratic policies. She also had a GREAT sense of humor, was an inspiring naturalist, and a steadfast friend to many. Although they broke the mold when they made Nancy, stories of her *joie de vivre* — joy in ALL life — will inspire activists and naturalists for generations to come.

*“To laugh often and love much; To win the respect of intelligent persons and the affection of children; To earn the approbation of honest citizens and endure the betrayal of false friends; To appreciate beauty; to find the best in others; To give of one’s self; To leave the world a bit better, whether by a healthy child, a garden patch or a redeemed social condition; To have played and laughed with enthusiasm and sung with exultation; To know even one life has breathed easier because you have lived... This is to have succeeded.”*

—RALPH WALDO EMERSON



**Jaguar at El Aribabi. Remote photo taken 3 November 2010. ©2010 Sky Island Alliance / El Aribabi.**

## The Wild Keeper ©2010 Kim Antieau

What if we each pledged to care for a plot of land? It could be a square foot, the footprint of the place where we live, a piece of property we own, or a park we love. We would care for these pieces, these plots, these Earthly parcels, like we would care for our fingers or our arms or our legs: We would recognize that it is all a part of us, and as the land is cared for, so are we...

Years ago, I heard that jaguars were coming back into the American Southwest. Two of them had been photographed. The hairs stood up on the back of my neck at this news. My heartbeat quickened. I began to dream of jaguars. They were always powerful, frightening, and alluring. I felt as though this cat was speaking to me, as though these jaguars meant something to me, personally, as well as to the world. I wanted to write about them. I began talking to people about jaguars.

I wanted to find people who understood about the wild.

And so I found Sergio Avila, a biologist who was working for Sky Island Alliance. One year we talked about how to protect and conserve the jaguars in the United States. One year we talked about the death of one of the jaguars after it was captured and collared. Sergio and I spoke a common language about nature. I found other people who lived on the land and understood the ways of the wild. I talked to ranchers and hunters and biologists and conservationists. Many of them were trying to save and protect their lands and their livelihoods. All of them wanted to make certain the land was viable for the wild creatures, in one way or another. They didn't all agree with one another. Some felt sad, angry, and betrayed by what happened after the collared jaguar died...

One day when Sergio and I talked about the wild world, he told me about Carlos Robles Elías, a rancher in Sonora, Mexico. He had 10,000 acres and he was dedicating it to wildlife conservation. A wild jaguar and several ocelots had been photographed on the ranch. You must speak with him, Sergio suggested; he could be the hero of the book you are writing. I felt the hair stand up on the back of my neck again, just as it had when I first learned about the jaguar.

And so one day, I was in a truck with Carlos and my husband Mario, and we were driving down windy Sonoran roads. The truck shook from a bad tire, but we drove toward El Aribabi Conservation Ranch and we talked about conservation. I scribbled in my notebook while Carlos talked, and I looked up occasionally at the landscape around us. It looked familiar. Had I been here before?

Carlos spoke passionately about conservation. He wasn't certain how he had come to his views, but he thought it had a great deal to do with his older brother who would talk to him about nature. Carlos had moved the cattle off his ranch. He wanted to do make his ranch a paradise for wildlife and show his neighbors how it worked. They were waiting to see if he would be successful at it. Could it be economically feasible?

I told Carlos in my country if someone owned 10,000 they were rich. He said he was not rich. He was struggling. He wanted to make enough money to have a normal life with his wife Martha and their three children. "I don't want a Hummer," he said. "Or anything like that. I want a normal life."

And on his piece of land, his parcel of Earth, he wanted to make a home for the Wild. He wanted to make his conservation ranch viable so that "wildlife

would have a home forever." He believed the most important thing was a massive education program, about trash, about conservation, about wildlife. Now people throw trash on the ground and don't even think about it, he said. When someone sees a snake, they think they have to kill it.

"If we educate the children about the snake," he said. "Then they won't feel they have to kill it and they will keep it alive."

He has school children come out to the ranch and play in the stream. He wants them to know what it is like to be in nature.

I nodded and wrote as he talked. It always surprises me that people need to be taught about nature, that they don't feel an innate connection with the environment. It was, I supposed, like teaching people they had a heart. They couldn't see it, but it kept them alive.

As we drove, Carlos spoke about his ranch. He had over thirty protected, threatened, and endangered species on the land, including a jaguar and several ocelots. He had over 180 bird species. He told me the jaguar came up to his land to live because it was a quiet place, a protected place.

Carlos pointed out places along the route where the land had been overgrazed. It wasn't just that too many cattle were bad for nature, he said; it was that the cowboys would kill anything. They saw something wild, and they'd shoot it, especially mountain lions.

Soon we arrived at the ranch. We went through the gate and passed by huge old cottonwood trees. They looked like old naked dancers, reaching up to the sky or off to the side to stretch. They looked like guardians, too, and I waved. I'd like to talk with them. What had they seen over the years?

Below the ranch house a stream wove its way through a copse of cottonwood trees. Or maybe it was the other way around. The cottonwood were drawn to the water. Something profound and glorious about water in the desert, always.

Carlos took us out onto the ranch. He drove slowly through a mesquite forest. Several of the mesquite trees were huge and hundreds of years old. Mesquite roots go very deep — they know how many secrets are buried in the dirt — and I wondered how far down the roots of these ancient trees went. Some of the trees were much younger and had several small trunks instead of one large one. They had come up after his grandfather had bulldozed the area 40 years earlier and planted grass for the cattle.

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El Aribabi. Courtesy Sergio Avila.

## “It is possible” *An opinion by Carlos Robles*

**Sergio Avila** asked Carlos Robles to elaborate on his feelings, hopes, dreams and realities of environmental conservation after learning of the confirmed presence of jaguars in Rancho El Aribabi. Here's what he had to say and share:

### **How does it feel to see pictures of jaguars in your ranch?**

Basically this is the confirmation for the general public that it is possible to live in harmony with wildlife. This confirms that there doesn't have to be a war between wildlife and man, just respect of their own territories.

### **What does it mean for you and your family to know that these and many other species of animals live in your property?**

For my family it means sharing our lives with all the wildlife that surrounds us, it's very satisfactory and it teaches us and society in general, to share the world. Humanity and all societies have a big commitment with the world, with nature, because we eat and live from nature.

### **What has changed for you and your family since jaguar presence was confirmed?**

These results imply a bigger commitment. The perception that it is possible, that an individual's dream permeates to family members and also to the rest of the world.

### **How are these results reflected in your personal effort and sacrifice?**

I have not seen an effective proposal in favor of conservation stemming from politicians, but instead from families and individuals. I have seen people in the world that do a lot more for conservation than the “initiatives” from the political world. This conservation initiative in El Aribabi is strongly supported by my family, which gives me energy and strength to go on.

## The Wild Keeper *continued*

We drove on the ridge tops, following the line of the hills, looking down at the grasslands. I thought for certain we would see mountain lion in these blond grasses. I could feel them all around us. This place was more wild than any African savannah. More desolate. And beautiful.

Eventually we stopped on one of the ridges to wait for Sergio, who had just arrived at the ranch house. Below us were the hilly grasslands, dotted with yucca. Around us in all directions were the ancient mountains, slouching into the earth, their jaggedness rounded off from age or experience. On many of the nearby slopes, we could see wildlife tracks going through the tall grass. Carlos pointed to a peak just beyond, where they had photographed the jaguar.

We were in jaguar country.

I loved listening to Carlos. He knew every inch of these wild lands. And they were wild lands, make no mistake about that. It was a harsh landscape filled with wild life: rattlesnakes, mountain lions, bears, bobcats, foxes, ocelots, and a least one jaguar. This wasn't the prairie where you'd take a snooze on the soft grass. This wasn't a temperate forest fairy land. This was harsh dry country. It made the hairs on the back of my neck stand up. It made my soles sweat. It was so silent and majestic; I felt my soul settle into my body and relax.

*Take a deep breath. This is the Wild. This is where you are most at home.*

And this man Carlos was protecting this wild place. He was restoring the land so that it was a good home — so that wildlife and people could thrive. People need wild places. Children need to play in wild streams. Men and women need to hear wolves howl and coyotes yip. People need to be connected to the wild. The soul's true nature is unleashed when it hears, senses, sees, dances the song of the wild.

I'm sure of it.

I knew Carlos only a few hours and I knew this: He felt the beat of the land in his heart. In his soul. Later, Carlos would say of Sergio (or Sergio would say of Carlos) that they understood each other because their common language was nature.

That is my language too.

Later Mario told me we had been on the windy road to the ranch before. That was why

it had seemed familiar to me. Several years earlier, I had felt the need to go to Mexico, to go out into the countryside, into the desert. I knew something awaited me there. I thought it was a home, a parcel of land that was calling to me. I wasn't sure. We drove down the road for a long while. We stopped the car and I stood in the middle of the road and listened to the silence. I breathed deeply and wondered what had drawn me to this place. Now all these years later I was back; only this time, I had someone who opened the gate for me, who invited me in.

Invited me to this wild place.

When Sergio arrived, we continued on the road, this time going down into the canyon. We saw a huge buck running up one ridge. The buck stopped and watched us for a time and then continued on his journey and we continued on ours. We drove to the canyon floor and stopped by two buildings in progress, one made from adobe, the other from local rocks. Carlos planned on using four energy sources for these buildings once they were completed: solar, wind, hydropower, and pedal power.

We walked past the houses, through the tall grass, and into the empty stream bed. Small leaves crunched beneath our feet. This was a dry place. The scouts had been out last summer doing restoration work in the stream. They put large rocks at various places in the stream to slow down the water that came cascading down the canyon during the rainy season. This would help prevent erosion, plus it would slow down the water long enough to help it soak into the ground and raise the water table. As we stood in the peaceful stream bed, we could feel the difference in temperature even though the creek was empty now. It was noticeably cooler. Since the scouts had done this work, the level of the water in Carlos' well had risen.

Carlos wanted to show everyone that many of these kinds of changes could be made quite simply. The scouts had done this restoration work in one day. Actions = results.

We talked about many things. Sometimes Carlos spoke in Spanish and Sergio translated. I often understood the gist of what he was saying, and always I understood the passion. He wanted his ranch to be a working model for sustainability. He wanted scientific research done here. He wanted a conservation school to be built here.

*continued next page*



## Welcome Andy!

Introducing the newest member to our team!

Originally hailing from the Midwest, Andy settled in Tucson after several years of field biology, and restoration and environmental education in the Northwoods and Mountain-West. At the University of Colorado, he directed the student advocacy and education outfit the Wilderness Study Group and volunteered with the Student Environmental Action Coalition and Rocky Mountain Peace and Justice Center. Volunteering with the Front Range Colorado-based Wildlands Restoration Volunteers was his favorite activity though, and got him excited about the potential of restoration work. Field guides and questions always close at hand, Andy's aim is to learn as much as possible about the Sky Island region and ecological restoration in this fragile landscape, to help build upon the success of the Landscape Restoration Program. In his free time you may find him playing mandolin or climbing up big rocks. He looks forward to meeting you all very soon!

## The Wild Keeper *continued*

But right now, it was difficult for him to make a living off the ranch. Something had to change. They needed to get some kind of income so they could keep the land wild, and so they could keep doing research and restoration work.

I understood this dilemma. How to live in this world and do the right work.

Why did keeping the wild wild always come down to economics? Why was so much of life like that? Some old European towns used to keep a portion of their towns and communities wild. No one owned this land. Everyone cared for this land. It was where the ancient trees grew and the wild animals lived. When the conquerors came, they always decimated these commons and cut down the ancestor trees in an effort to destroy what the community held most dear.

Who are the conquerors now? We are decimating our own commons. Is it because we can't feel the wild beating in our own hearts?

The four of us drove back to the ranch and had lunch under the portico along with several researchers from a Sonoran university. As I sat at the table eating, I wondered how Carlos could keep this land wild. I imagined desert gardens all around the ranch house — permaculture gardens. I imagined tables and chairs under the portico and

people visiting from all over and paying for the privilege of being there. I imagined trails leading from the ranch house to other places in the ranch. If gardens and trails were created near the ranch house, all kinds of workshops could happen here. Writers and artists would want to stay at the ranch house or go further out to be alone.

Or people could come who wanted to research or explore. Archaeological teams did that all the time: They charged volunteers to come and work for them. Couldn't something like that happen at the ranch?

It seemed like this place could become a sanctuary for people as well as other wildlife. A place to connect with the outer wildlife and one's own inner wild life.

Carlos was trying to keep the Wild wild. Sergio was doing that too.

That was what I tried to do, in my way. With my wild words?

Not long ago, Carlos told us, someone caught an ocelot on their land and brought it to him to put on his land. He said no. When he told us this story, I said, "That's because you don't want this to be a zoo. You want this ranch to be a kind of template so that others can do that same thing on their own land." He wasn't a zookeeper. He was a wild keeper.

He wanted to make his land wild and demonstrate how others could do that same.

Later, Mario and I wandered around the house and then went down to the stream while Carlos and Jose changed a bulging tire on the truck. I liked being on the land. I liked my soles against this earth. Mario and I watched the sunlight hit the tops of the cottonwoods as the sun began to set. It was so quiet here. I felt peace in this wild place.

Still later, Carlos drove us back to the border. We talked of many things on the drive. When he stopped to drop us off, I shook his hand and thanked him for a wonderful day. Then Mario and I got out of the truck and walked across the border to our car. We drove for an hour or so to Tucson and stopped into a restaurant for a late dinner. We ordered too much food. I ate too much. I missed the land already. I missed the easy wild day.

I had to remember that the wild was always in me. I didn't have a parcel of land to care for. I had me. I had my words. Maybe in some way, that was a help to the world. I hoped Carlos could keep his land wild, for his sake but also for the sake of the world. We will always need wild places and wild keepers.



*This article first appeared February 3, 2011, on Kim Antieau's blog — [www.kimantieau.com](http://www.kimantieau.com) — and is excerpted here with the kind permission of the author.*



## THE RICHNESS OF THE BORDERLANDS: *A Semester in Sonora*

by Michelle Jahnke and Julia Sisson. Photos courtesy the authors.

Boulders and rocks awaited us, to be pushed and pulled loose by metal pry bars, pick axes, and shovels.

A riparian restoration project was underway at a large ranch in Sonora, Mexico, where the owner had stopped raising cattle and was becoming a leading advocate in the region for conservation of natural processes. The project was meant to spread and slow water flows during the desert's monsoon rains, and create a healthier habitat for cottonwoods, toads, and other life.

As students from the Earlham Border Studies Program, we were interested in learning more about the Sonoran Desert, the Sky Islands, and other environmental, as well as political, economic, and social issues at play in the Mexico-U.S. borderlands. Border Studies is a four-month long semester program that attracts students from different colleges and universities throughout the United States. The program, originally run in El Paso and Juarez by Earlham College of Richmond, Indiana, was moved to Tucson a few years ago because of increasing violence in the El Paso/Juarez area. The seven students that came in the Fall of 2010 came from schools like Oberlin and Kenyon in Ohio, Kalamazoo in Michigan, Vassar in New York, and Earlham, and had grown up all over the United States (and different parts of the world!) from California to New York, and Brazil to Italy.

The program is designed to immerse students in the borderlands through classes that cover a variety of topics, from militarization, globalization, and migration to environmental degradation and justice, and working for social change. Students live with home-stay families in Tucson and work with various organizations like Derechos Humanos, Tierra y Libertad, Watershed Management Group, Wingspan, the Community Food Bank, and Native Seeds/SEARCH. Travel seminars in southern Arizona and northern Sonora, Mexico, are also important aspects of the program, allowing students to hear and see how the border affects people and communities on

both sides of the territorial and political boundary. As part of one of our two-week travel seminars, Sky Island Alliance gave us the great opportunity to help with the riparian restoration project on a ranch in Sonora, Mexico, move huge rocks, and learn about water flow in the desert, ecosystems and the rich diversity of Sonora. In addition to sweating it out and working our biceps in the hot sun, we learned about the environmental and human impacts of the border wall. We learned about how the Secretary of Homeland Security can override federal law in the name of "security," and "safety." We saw the confluence of cultures, histories, and biodiverse ecosystems in the borderlands. We saw how the wall tears apart the land, ecosystems, and communities that, in our opinions, should not be delimited by territorial and political boundaries.

In El Mayor, Baja California, we heard and saw how the creation of the Colorado River Delta Bioserve excludes indigenous Cucupah from their traditional fishing areas, destroying livelihoods. In Yuma, Arizona — the winter lettuce growing capital of the U.S. — we saw agribusiness at its finest and worst. The desert landscape was manipulated beyond recognition, and migrant farm labor exploited in the name of cheap food. We saw the Colorado River and how it no longer reaches the sea, heard about Glen Canyon and Hoover Dams, and the massive overpumping of groundwater in what is now the U.S. Southwest. We heard that the desalination plant outside of Yuma was running again at an exorbitant price, endangering the important Cienega de Santa Clara, a wetland stopover for many migratory birds. In Cananea, Sonora, we met with union leaders and workers who had been striking for over three years, asking for safer working conditions in the huge copper mine that is owned by the transnational corporation

Grupo Mexico. And we saw the massive open-pit mine, and discolored tailings pond that scarred the landscape.

In all of these places we saw that human and environmental issues are not separate, but are intricately connected. Social, political, economic, and environmental issues influence and build on one another. The borderlands are an amazingly rich environment — and we use 'environment' in the broadest sense of the word — connecting humans and our concept of 'nature.' More than anything, living here taught us to embrace the contradictions and complexities of this place, to keep questioning and exploring our ways of thought, and to revel in the richness of this area. We are continuing to push ourselves to understand and see the connections between the many issues we learned about — mining, fishing rights, migration of animals and peoples, overpumping of water, indigenous rights, tourism and development — and incorporate the perspectives of the different people we met with. And with this learning, with these connections, we want to share the stories of the people we met and the places we saw. When we return to other lives in different parts of the world, we will also have the stories and experiences we collected living in the borderlands, and it is these stories that we feel we must share.



*The authors are part of the Border Studies Program at Earlham College, where they spend one semester studying the U.S.–Mexico border.*

**You can be part of JAGUAR *and* OCELOT conservation efforts in the Sky Island region! Adopt a camera and support on-the-ground research & conservation.**

**INTERESTED?**

Contact Sergio Avila at [sergio@skyislandalliance.org](mailto:sergio@skyislandalliance.org).

For more information on this project, please visit

[www.skyislandalliance.org/jaguars.htm](http://www.skyislandalliance.org/jaguars.htm)



# CORES... and Cores and Cores

by Trevor Hare

What is a core?

I get asked that a lot and of course I always have an answer. But that answer varies widely across the landscape depending on where my Basin and Range brain is working that day. Some days it is in the mountains at a high-elevation spring shaded by a coniferous riot. Other days it is in the oak savannas basking in the green of an expansive cienega. And then other days it is following the torturous route of an arroyo through desert grasslands and desert scrub as it travels to its destination, one of our great rivers, past or present, the Animas, the San Simon, the San Pedro, or the Santa Cruz. The answer also depends on scale — the size of a critter and the size of its local population, the local extent of a plant's habitat and its pollination potential, the topography and how animals and plants move through it, and of course the scale of both local and landscape ecological processes, the movement of energy and genes across populations and communities.

We have been taught in the discipline of conservation biology that core areas are defined as protected areas buffered by low-intensity use areas and connected together to provide a biologically viable landscape. Sky Island Alliance put this idea into practice in the late 1990s when we developed, with the help of some of the brightest minds in the southwest, the Sky Islands Wildlands Network which laid out a vision of an interconnected landscape from the Mogollon Mountains and Rim to the north to the Sierra Madre on the south, to the Rio Grande on the east and the Baboquivari Mountains to the west. This plan and its map, really just a grand idea at the time, identified the core areas, the low-intensity use areas needed as buffers, and the corridors that link it all together. SIA has continually checked back on that map to help prioritize our work and to update it with the new information we are continually collecting out there.

One issue I have always had with the Sky Islands Wildlands Network is the scale of focus the original drafters employed when they laid it all out. These very smart individuals had I think a very furry-centric bent, and suffer from what herpetologists refer to as scale-envy, scales as in scaly skin. The cores and corridors they developed are based on our largest mammals, wolves and lions, and deer and elk, and while I do



**One species' core is another species' finger. Trevor holds a juvenile Chiricahua leopard frog. ©2011 Sky Island Alliance.**

subscribe to the notion of “umbrella species,” protecting the habitat of those critters who need large expanses of land to travel, to breed, and to live will protect the habitat of a many other animals, what about cores for Slevin's bunchgrass lizard and the Botteri's sparrow or Chiricahua leopard frogs and prairie dogs? How do we prioritize protecting core habitat for the small oak savanna and desert grasslands species that now reside in what we term low-intensity use areas? What happens when those small critters can't tolerate the low-intensity uses prescribed in the cores and corridors concept?

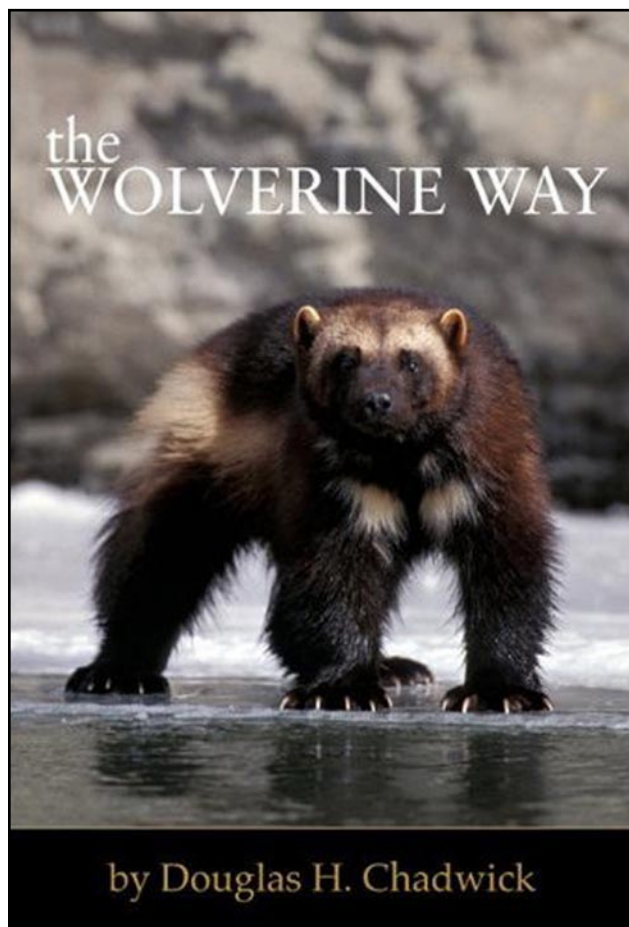
We can protect and restore grassland and savanna habitats in many ways. One of the best is through the use of wilderness designations, ensuring that impacts from roads and mineral extraction are eliminated. Wilderness designations for desert grasslands and oak savannas is only fair, they are an underrepresented vegetation community in the National Wilderness Preservation System. Some of these areas are protected by private landowners, the Forest Service and the Bureau of Land Management to a certain extent and some are even National Conservation Areas. NCAs are held to a higher standard of conservation than other public lands without wilderness designation, but still suffer from human over-use which in turn is exacerbated by ongoing climate change effects, and federal and state budgetary constraints. Another method used to protect these high-desert jewels is to buy them and eliminate negative impacts.

All three approaches are being implemented and strong partnerships exist that are promoting

protective and restorative practices, and laws and regulations to protect core habitat for frogs and fish and birds and snakes, but two things stand in the way — economic unreality and political will. It won't be until people value the “cream of creation” as Aldo Leopold called our Sky Island ecosystems — the oak savannas and immense tree-shaded wetland complexes that hosted an amazing biotic and abiotic abundance — that we can hope to recover. Just two hundred years ago, otters and Mexican gartersnakes, quail and vinegaroons, blue oaks and black walnuts, native frogs and fish, jaguars and falcons, early horticulturists and native game managers, and over eighty species of grass and thirteen species of rattlesnakes frolicked through these life-sustaining ecosystems with no air and noise pollution from ATVs, no barriers with large vehicles zooming by, no water pollution from mine tailings nor exotic and invasive species.

Until people learn how intimately we are all connected to these landscapes — the mountains and deserts, these ecosystems that provide clean water and clear air, fat white-tails and a bounty of all creation — we are doomed to failure. We can research, plan, and implement but we can't alone raise the voice of the desert to foment the restoration re-economy. The restoration of our watersheds, our foodsheds and airsheds, and even our ocelot and frogsheds depends on a commitment. A commitment to getting out there, to getting your elected officials and your public land and wildlife managers to hear.





BOOK REVIEW *by Sergio Avila*

## Douglas Chadwick's "The Wolverine Way"

The Wolverine (*Gulo gulo*), a relative of badgers and weasels, is one of the least studied carnivores of the Northern Hemisphere. Generally perceived as a fierce, untamable solitary beast, the wolverine, also known as "glutton" for its capacity to consume high amounts of food, is adapted to freezing conditions, traveling in heavy snow and crossing of high ridges. But the wolverine might not be as fierce or solitary as it was once thought. Author Douglas Chadwick, a Montana-based wildlife biologist, describes the surprising discoveries on the life of this carnivore. Working as a volunteer in a demanding scientific project in Montana's Glacier National Park just south of the U.S.-Canada International border, the author takes us on his field expeditions and observations of several wolverines — from strong, dominating males and audacious females and their offspring, to their interactions, travels and social organization.

During the length of this project, researchers implanted adult males, females and young wolverines with radio-transmitters under their skin and followed their tracks to establish the size of their territories, distance of travels and interactions with each other. The results are described as stories of individuals who traveled, hunted, gave birth or were directly seen during the eight-year long project. Some of the most outstanding results came after retrieving tracking devices and plotting information over regional maps, like in the case of Male No. 3: "*Holy \$#&@! He summited Cleveland, the park's highest peak at 10,466 feet! And he did the last 4,900 feet straight up in 90 minutes... in frickin' February.*"

Even when wolverines live far from our Sky Island region, this book highlights the importance of studying and protecting carnivores' habitat and the corridors that connect them — a concept that is fundamental in Sky Island Alliance's work. And just like our black bears, Mexican gray wolves or ocelots, "Wolverines don't need a few secure areas to survive. They need *lots* of secure areas and healthy corridors of protected land in between to link populations and the genes they carry."

Overall, the book is a good depiction of what a successful wildlife research project entails: from planning, tracking animals, implanting radio-transmitters, and then collecting their information; all happening in difficult, if not hostile weather and terrain conditions, where human skills and technologies are tested during long hikes in as much as 20 feet of snow and freezing temperatures — *that* is the wolverine way.



**SKY ISLAND ALLIANCE**  
Protecting our Mountain Islands and Desert Seas

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Join or renew here OR through our secure website:  
[www.skyislandalliance.org](http://www.skyislandalliance.org)

If you received this newsletter and it's time to renew your membership, please send in your check or renew quickly online! 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) non-profit organization.

Basic membership is only \$35, 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... **\$100** will close one mile of road... **\$500** will support one remote camera...

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## SKY ISLAND ALLIANCE WISHLIST

**Camp chairs**

**Small to large folding camp table**

**Head lamps**

**10+ megapixel digital point-and-shoot cameras**

**and for our partner CONANP, a camper** — *Sky Island Alliance is helping partner Mexican federal agency CONANP (Comision Nacional de Areas Naturales Protegidas) to find a camping trailer, RV, motorhome or steel container to host CONANP's field workers of the Ajos-Bavispe Wildlife Refuge and Sierra La Madera in the Moctezuma, Sonora area. If you have one or know of anyone who would like to donate one this could make a big difference to support field operations at this unique Reserve. As the main coordinator of natural protected areas in Mexico, CONANP conducts habitat restoration, fire management, soil and water protection and wildlife monitoring in the Reserve and neighboring lands.*

## We Need You... to Volunteer!

Sky Island Alliance formed in 1991 when a group of concerned citizens came together to protect the Sky Islands adjacent to Tucson. Wanting to ensure that future generations would have an equal opportunity to enjoy the quiet solitude of a mountain meadow and experience a landscape where native species still roamed, they worked to keep our public lands intact and wild. Today, Sky Island Alliance is still a place where people come together to protect our rich natural heritage and restore native species and habitats. New volunteers come out all the time, whether they are seasoned backpackers or have never looked at, much less know what a topographic map is.

**There are always opportunities to rejoice in / restore our Sky Islands!**  
Watch [www.skyislandalliance.org](http://www.skyislandalliance.org) for the latest schedule!

### Join our Landscape Restoration Field Weekends

**Riparian and Recreational Impact Surveys:** Volunteers gather at a base camp and are paired up with 3 to 4 other volunteers, a map, GPS unit, digital camera, and data sheets. The teams are sent out to adjacent areas to walk out a riparian area or road transect. Each team collects photo and geospatial points to document their findings. Depending on the distance to the site, volunteers drive out for the day or camp out.

**Road closures and habitat restoration weekends:** These trips are more physically demanding though there is still a wide variety of tasks to suit different skills and fitness levels. Closures include placement of barriers and signs to block roads; breaking up the road surface behind the closure to allow water to penetrate and seeds to take hold; and planting native vegetation to help bring back the ecological balance to the area and disguise the roads' existence. Eventually natural processes take over and what was once a road becomes unfragmented habitat.

Contact Sarah at 520.624.7080 x23 or [sarah@skyislandalliance.org](mailto:sarah@skyislandalliance.org)

### Adopt a Transect

**Monitoring the presence of mammal species in important intermountain corridors:** This volunteer program involves the largest commitment. After an extensive training in identification and documentation of wildlife sign, volunteers are teamed up with other trained trackers to monitor a transect (tracking route) every six weeks. **Watch [www.skyislandalliance.org](http://www.skyislandalliance.org) or join our eNews list for information on our next tracking workshops!**

Contact Jessica at 520.624.7080 x21 or [jessica@skyislandalliance.org](mailto:jessica@skyislandalliance.org)

### Promote Wilderness

**Wilderness outreach stewards** are needed for any of the following three areas: public presentations, guided hikes and tabling events. Stewards are trained volunteers whose major responsibilities are to help people in the community learn more about Sky Island Alliance and its mission, to better understand and appreciate the importance of Wilderness, and to promote Wilderness for the Tumacacori Highlands. Public presenters and tabling stewards interact with the general public as well as with specific interest groups, such as the faith community and sportsmen's groups. Wilderness hike leaders guide local area hikes and present themed talks on wilderness, sometimes in conjunction with a guest speaker. Schedule is flexible. Stewards will receive a tshirt and free Sky Island Alliance membership. Training and volunteer orientation required.

**Wilderness advocates** are needed to help collect signatures and written letters in support of the Tumacacori Highlands Wilderness bill. Letters and petitions, addressed to Arizona Senators John McCain and Jon Kyl and to your State Representative can be mailed, copied-to, or hand-delivered to Sky Island Alliance. Send your own letter of support, or help us coordinate ways to reach supporters in your community to do the same!

Contact Jessica at 520.624.7080 x21 or [jessica@skyislandalliance.org](mailto:jessica@skyislandalliance.org)

### Make a Difference

**Data entry/analysis and office needs:** The data collected in the field is compiled into a database so that Sky Island can put that hard-earned information to work.

Contact Sarah at 520.624.7080 x23 or [sarah@skyislandalliance.org](mailto:sarah@skyislandalliance.org)

## Protecting Our Mountain Islands and Desert Seas continued from page 5

creek/wetland habitats in the Cienega Creek and Las Nutrias Headwaters watersheds of the Sky Island region. Beginning this spring, SIA staff and volunteers will participate in multiple field weekends to walk roads and drainages in designated areas of the Huachuca grassland complex to inventory and assess watershed health, riparian habitat and the presence of native and non-native aquatic species.

The second grant, also funded through the National Fish and Wildlife Foundation supports continued work in the bootheel of New Mexico restoring historic natural function to Cloverdale Creek and its associated *ciénegas*. The second phase of work includes healing the degraded sections of Cloverdale Creek downstream of the completed work in the spring of last year, and reconnection of the degraded creek to its historic floodplain which in turn will feed an amazing *ciénega*.

### Northern Mexico Conservation Program

*by Sergio Avila*

The Northern Mexico Conservation Program continues to bring positive news in 2011. In the field, we collected the first five photographs of jaguars in Rancho El Aribabi: a major accomplishment for our program, set out to find and protect those "spots" on the ground where jaguars and other cats set foot and call home. This is also a success for El Aribabi — testament of an admirable land ethic and good management actions that translate into healthy habitats sustaining prey populations. But this collaborative success does not end there: ranch owner Carlos Robles is now part of the newly formed Jaguar Recovery Team, led by the U.S. Fish and Wildlife Service. We celebrate our partner's success and congratulate Carlos Robles for his continued conservation efforts!

Our outreach efforts in northern Sonora are yielding tangible, long-term results: the Comisión de Ecología y Desarrollo Sustentable de Sonora (CEDES, Sonora State environmental agency) has proposed to work more closely with SIA and support our conservation goals. Our partnership will help landowners search and decide on conservation options for private lands. As an example, Cienega de Saracachi, the destination of the upcoming MABA Expedition in April, is one of the three newly designated natural protected areas by CEDES in Sonora.

We completed Phase 1 of the Bring Back The Cats! Project: two over-flights along the international border to compile photographic evidence of the compounding effects of the border infrastructure — we thank volunteer pilot Dan Meyer, and Laura Stone of LightHawk, Inc., and Paul Condon, Charles Hedgcock and Robert Villa for their great support. We participated at the first Congreso de Ecología, at Centro de Estudios Superiores del Estado de Sonora, presenting Sierra Club's *Wild vs. Wall*, a documentary about environmental impacts of border infrastructure; similarly we promoted a presentation at Congreso de Biología at University of Sonora by Sierra Club Borderlands Campaign coordinator Dan Millis. Additionally, Sky Island Alliance submitted comments to the U.S. Fish and Wildlife Service's Ocelot Recovery Plan, based on information gathered both in Sonora and Arizona.



# order your



Sky Island Alliance's 5th Annual  
*Mountain Islands Desert Seas*  
Awards Banquet  
(see page 3 for details!)

Thursday, May 19  
5 to 9pm  
at Saguaro Buttes

Bobcat photo courtesy Doris Evans.

# tickets online!



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## Thank you Carly!

Many of us view the natural features surrounding us as works of art — the stunning vistas, bright desert wildflower blooms, or the peculiar curve of a mesquite tree. Local crafter Carly Quinn is taking a technology invented nearly 500 years ago and capturing those kinds of images in her tile work.

SIA discovered Carly's work last year and commissioned her to create the awards for our 2010 Mountain Islands Desert Seas Banquet. Her awards drew rave reviews from participants at the banquet.

The technology she uses, called Cuerda Seca, sprung up in Spain in the late 1500s. The technique involves creating a hand-drawn outline on tile in a wax resist and coloring in the exposed part of the tile with different glazes. The wax keeps the colors from running into one another and burns off during the firing while the glaze hardens to a very colorful glass surface. The tiles are fired at 1,800 degrees and the result is a completely weatherproof, fade-proof and waterproof tile will last multiple lifetimes.

The designs are derived from outdoor experiences from the Sky Island region and in her extensive travels.

**Carly donated this beautiful plaque of the Sky Island Alliance logo to us for our new offices at the History Y.**

"I draw inspiration for my art from our southwest desert and cultural surroundings," she said. "The Sonoran Desert & Dia de los Muertos are two subjects in particular that I use in my work. I also take reference pictures when traveling abroad and use them as inspiration. A great deal of my work draws from old Moroccan and Turkish Arabesque art that I have documented over the years."

Carly grew up in Prescott, Arizona, but has had no difficulty acclimating to her desert surroundings. "I have always felt a very close, deep, and spiritual connection to my natural surroundings, especially the pine forests of Northern Arizona and the Sonoran Desert of Southern Arizona," she said. "I remember hiking through the mountains as one of the best feelings in the world. I remember coming to Tucson and having an immediate connection with the desert and surrounding Sky Island region. I think Arizona is a very special place and feel that it is extremely important to do everything we can to preserve and protect its beauty."

Carly's new studio and gallery space opened in March at 403 N. Sixth Avenue in the old Tucson Produce and Meat Market building. The exposed brick walls, open ceilings, floor-to-ceiling storefront windows, and original hardwood floors give the building the same kind of warmth and authenticity as Carly's tilework. You can also view Carly's work at [www.carlyquinn designs.com](http://www.carlyquinn designs.com).

