



Shape the Future

Canyon Chatter

Friends of Madera Canyon

May, 2026



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On the Cover. A neonate Western Diamondback Rattlesnake. It was born just a few hours before the photo was taken. Many people believe that baby rattlesnakes are more dangerous than the adults. This idea has been around since at least the 1960s. Now a scientific study took a close look at the idea and found it is not true. See the Editor's Desk Page for more information. Photo JCM

Join Friends of Madera Canyon. Below are links to join as a new member, renew a membership or make a donation. The links will take you to a secure server to use to make an automated payment. Do you have any questions? Let us know. If you prefer to help by writing a check, please make your check payable to Friends of Madera Canyon - mail to: FOMC, Box 1203, Green Valley, Arizona, 85622-1203. [New Membership Click Here](#) OR [Renew An Old Membership](#).

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From the President

Making an Impression

“Unless everything in a man’s memory of childhood is misleading, there is a time between the ages of five and twelve which corresponds to the phase ethologists have isolated in the development of birds, when an impression lasting only a few seconds may be imprinted on the young bird for life. This is the way a bird emerging from the darkness of the egg knows itself, the mechanism of its relating to the world...Expose a child to a particular environment at his susceptible time, and he will perceive in the shapes of that environment until he dies.”

Lyman Hafen, in his introduction to “This Immense Prodigality of Color: History, Memory, and the Art of Zion National Park,” cited the observation above by Wallace Stegner. Hafen recalled a conversation with his dad, when he was a little boy and his family visited Zion. Hafen had asked, “whose place is this?”

“It’s yours,” his dad replied, “and mine, and your mom’s, and your sister’s. It belongs to every American.”

Hafen goes on to say, “These memories are safely stored in one of those special pouches you don’t open often for fear they will spill out like shiny marbles and roll away.”

Our Naturalist Doug Moore begins every session with students visiting Madera Canyon by asking them, “Who owns Madera Canyon?” Some of the students know the answer Doug seeks. “It belongs to all of us. It is land owned by the public, and we are all the public.”

As members and supporters of the Friends of Madera Canyon, we have committed ourselves to sharing in the stewardship of the Canyon we all “own.” This implies a responsibility to ensure the well-being of the Canyon as a natural wonder for the benefit of those who come after us.

Is there any better rationale for the focus the Friends have placed on educating grade school students for more than thirty years? Stegner would applaud; we are making an impression on our young at the optimal time in their development.

Think about your own childhood (an exercise in long-term memory for many of us). Can you identify what impressions were made on you between the ages of five and twelve that have lasted a lifetime? How would your life have been different without those impressions?

But you and I didn’t stop being impressionable when we turned thirteen. We are learners for a lifetime if we are open to the world. Judy and I have just returned from a road trip to Utah National Parks, where we saw something we hadn’t seen before: folds in the earth at Capitol Reef. We also saw exactly how the sand dunes at Coral Sands State Park are formed by a combination of the right geological formation, wind, and the softness of the Navajo Sandstone.

Of course, we could have read about these natural phenomena. But, as I wrote in 1966, after returning from circumnavigating the world on the Semester at Sea, “it is said that a picture is worth a thousand words, but being there is worth ten thousand pictures.”

Imprinting impressions, ten thousand pictures, shaping environments: these can be the results of the Friends’ education program. How many adults carry some lesson or another away from time spent in Madera Canyon? How many visitors to the website have been attracted to the Canyon by the videos posted there? What seed has been planted in the head of someone who picks up a book or brochure produced by the Friends?

Members and supporters: thanks for collaborating in ensuring that this Canyon which belongs to all of us is preserved for those who will come after us.



Looking for Leads about Leaders

A plaque awarded to the Board of Directors of the Friends of Madera Canyon in 1987 acknowledges members of the Founding Board.

Royal Meyer, President

Richard Dunsworth, Vice President

Harriet Smith, Secretary

Lewis Denny, Treasurer

Glenn Richards

Alvin Spittler

William Tener

Roger Thompson

Janice Wagner

They are nine of the twenty-six people attending the first meeting of the Friends.

What does anyone of you know about any one of these nine?

Currently, there are eleven members of the Board of Directors. Who among you, the readers, would be interested in learning more about becoming a member of the board?

The difficult work of founding the Friends was done long ago. The important work of ensuring a vibrant volunteer organization committed to the well-being of Madera Canyon continues.

Dan White
Board President

Update on Naming Benches

You can now see the displays on our website for four benches selected by donors to honor and remember loved ones and others. Go to the Friends of Madera Canyon Home Page. From the row of optional buttons, click on Donors. Then click on Dedicated Benches to view the messages and photographs. Two more are in the works and should be posted shortly.

If you are interested in naming a bench virtually online, select Ways to Help from the row of optional buttons and scroll down to Dedicated Benches. There you will find information about available benches, gift levels for naming a bench, templates for how a "page" can be formatted. There you will also find how to proceed should you want to participate.

Thanks again to our generous donors for their tributes and contributions.



Volunteer Spotlight

A Volunteer Breakfast Presentation

Rusty Lombardo

The Honor and Memory wall was dedicated in 2015 using the same granite as the Vietnam War Memorial. On the first panel, the USFS had engraved:

“This honor wall celebrates the FoMC (est 1987) and their partnership with the CNF. We honor the work and dedication of these volunteers, as well as the memory of others who have been memorialized here by relatives and loved ones because of their love of this special place”

Today at this breakfast, we celebrate the Spring class of honorees. Friends who have given so much of their time to pursue our mission. Let me introduce you to them.

Bob deFeyter is a “best friend forever”, a lifetime member, a volunteer for 6+ years, and has spent hundreds of hours. He’s been a tireless volunteer. Activities include the Board of Directors, VIS, Monday Clean Up aka Preservation & Maintenance (he’s the current committee chair), Trail Maintenance, and Restoration. Bob is a full-time resident of Green Valley.



Bob deFeyter

Bob Pitcher is also a “best friend forever,” a continuous volunteer for 5+ years and hundreds of hours, including serving on the 2020-25 Board of Directors, serving as Secretary, contributing editor to Chatter, monthly bird reports, Hawk Watch, By-laws rewrite, chair of the Protection Initiative, and author and editor of the History of Madera Canyon rewrite for next year’s 40th Anniversary edition. Bob commutes from Marana because he places such value on the preservation and stewardship of Madera Canyon.

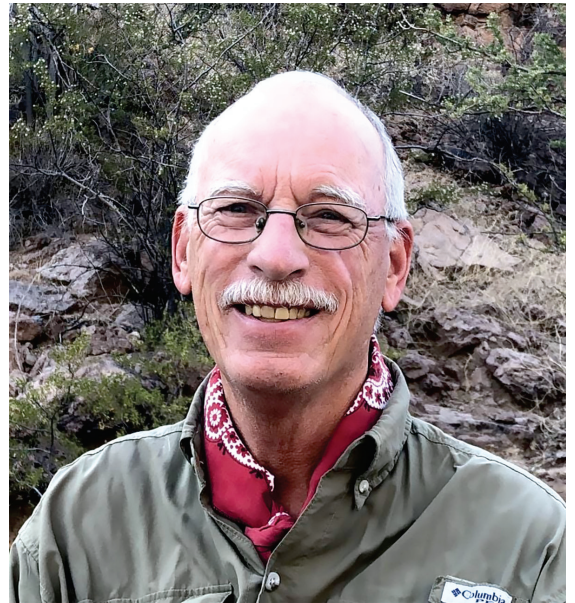


Bob Pitcher



Dave DeGroot started as a docent in 2018 and has been a volunteer for 8+ years. To quote Doug, “is one of the ‘super docents’ that is irreplaceable.” Dave commutes from N. Tucson and always shows up. In fact, he only missed one 4th-grade walk-in in 8 years!

Dave also volunteers for all the special high school, scouting, and homeschool group field trips. He is constantly studying and learning about the canyon, an effective and innovative educator on the trail and a tireless environmental advocate for Madera Canyon & Santa Ritas.



Dave DeGroot

Perhaps less visible on the trails but prominent behind the scenes is your Treasurer, Pat Holmes. Pat has held that position since 1/21 and will serve at least through this year, if not longer. As President at the time, I can vouch for the time she has put into the conversion from the old accounting system, getting us through an IRS audit, and keeping us in compliance with the Arizona Corporation Commission. She works with our CPA to prepare taxes, serves on the budget committee, and prepares monthly and annual financial statements. Pat is a resident of Green Valley.



Pat Holmes



The Birding Page

Spring Warblers in Madera

Bob Pitcher

Spring migration is an exciting time for birders all over the U.S. So many species appearing after their winter break in the warm South, hurrying to claim territories and build nests, or hurrying on through to places north. It all happens quickly – birds and birders can resemble each other at this season in their focused energy.

Where I grew up – in northeast Illinois – and where I lived for decades after that – in northern Virginia, spring migration most of all meant the return of warblers. There are effectively no wintering warblers in northern Illinois, and at most two or three species in northern Virginia. Then, suddenly in late April and the first half of May, you may see thirty species. For at least a short time, warblers seem to fill the woods and hedgerows, often in mixed flocks.

These little active birds are all in the *Parulidae* family of the New World. They're all of a size – five to six inches long – and shape – slim with sharp, pointed bills. Each kind has its distinctive song and its own plumage, generally brighter in the male, subdued in the nest-sitting females. Each is distinctively patterned and colored, most often in shades of green and yellow on white with black highlights. Some are dark or light blue, a few show shades of orange.

Warblers are insect eaters. One finds them wherever the bugs are. Some species specialize in ground-feeding, some stay in treetops, some hunt near marshy or wet places, some in overgrown fields, some in deeper woods. Some nest on the ground, most in trees, a few are cavity-nesters.

Mine was a birding family anyhow, but I was hooked on birds one early evening in May, looking out our kitchen window after supper with my parents, marveling at the variety of warblers – occasionally other birds, but mostly warblers – in the budding white oaks at the edge of the yard. We took turns with the family binoculars, and had Peterson's *Field guide to the Birds* close at hand. Years later, now in the East, warbler fever continued: on a good May morning I could see twenty species in a few hours along the C & O Canal.

In the West, there are fewer species of warbler. In most places, one regularly sees perhaps a dozen. A few more are regularly found in Madera Canyon, however, and some of these are highly colorful southwestern specialties. Here, I'll quickly go through the fourteen warbler species we can generally see here. In taxonomic order, they are:

The *Leiothlypis* Warblers: the Orange-crowned (Figure 1), Lucy's, Nashville, and Virginia's Warbler (respectively, *L. celata*, *L. luciae*, *L. ruficapilla*, and *L. virginiae*). These are small birds, even for warblers, without showy plumage. The Orange-crowned, in particular, is an unobtrusive green-yellow all over; one hardly ever sees its orange crown. It likes to stay under cover, and favors wetter spots: along the lower stretches of Madera Creek, say. The Orange-crowned winters here and migrates north to nest. The others in this genus all reappear here in spring, Lucy's and Virginia's nest here, the Nashville goes farther north. The Lucy's is a bird of desert scrub, pearl-gray overall, with rufous under the tail and, in the male, a cap of the same color. It's the smallest American warbler, and one of the few that nests in cavities. Arriving back in Southeast Arizona mid-March, the first Lucy's is a sure sign of spring. The Virginia's and Nashville are similar in size and color to the Lucy's, but with increasing yellow markings – on the breast and under the tail in the Virginia's, and generally in the Nashville, which also has a gray head. Virginia's and Nashville have obvious eye-rings. The Virginia's



keeps mostly to higher elevations than Lucy's, chaparral slopes or the steeper hillsides in Madera. The Nashville comes back through in the fall on its way south, favoring high elevations on its return trip, low in spring.

Genus *Geothlypis*: MacGillivray's Warbler (*G. tolmiei*) (Figure 2). MacGillivray's is a chunky, gray-hooded warbler, otherwise greenish above and yellow below. It stays on the ground or low in shrubbery, mostly out of sight. But it's as active as other warblers, and its movement often gives it away. Instead of a full eye-ring, this bird has a pair of bright white eye-arcs that don't quite go all the way round. MacGillivray's goes farther north to breed, though there's a small nesting population on top of Mt. Graham, only a bit higher than Old Baldy.



The *Setophaga* Warblers: the Northern Yellow, Yellow-rumped, Grace's, Black-throated Gray, Townsend's, and Hermit Warblers (Figure 3) (respectively, *S. aestiva*, *S. coronata*, *S. graciae*, *S. nigrescens*, *S. townsendi*, and *S. occidentalis*). *Setophaga* is an enormous genus. Many of the familiar bright warblers of the East and Midwest are *Setophagas*. We have six here. The first four nest in the Canyon, and the remaining two go on north. The Northern Yellow Warbler has recently been split from its chestnut-headed relative, the Latin American Mangrove Warbler. The Northern Yellow is found continent-wide and is one of the most familiar of warblers. It's essentially entirely yellow, the male more strongly so. The male sings incessantly. Yellows are found high and low, but require wet spots, either running or standing water. The Yellow-rumped found here is almost entirely the Audubon's subspecies, the eastern counterpart subspecies is the Myrtle Warbler. This is the only common warbler in the winter in Arizona, found high and low, wherever it doesn't get too cold, and often in substantial numbers. It's another sign of spring when the Yellow-rumped *leave*, letting other migrant warblers have a chance at the insects. Yellow-rumped nest high up in the Canyon, though in numbers much reduced from their winter population. A male Yellow-rumped in breeding plumage is actually a fine sight, with white flashes in the wings and a bright yellow throat and rump – less reverent birders may refer to them as Butter-butts. Even for warblers, Yellow-rumps are active, often catching bugs in short flights as well as picking through foliage high or low.



Grace's Warbler is much more of a specialist, staying for the most part in Ponderosas or other pines. They can be hard to see. They seem frequently to come down to bathe and drink in Madera Creek, though, and can be picked out in the trees when one hears their simple trilled call. The Black-throated Gray Warbler is found mostly in smaller trees or bushes. It is all black and white stripes, but with a bright yellow spot in front of its eyes that is more noticeable than one would think, and diagnostic. So is its song, a short emphatic phrase it gives over and over. The Black-throated Gray winters here in small numbers. It sticks to low elevations then, moving higher in spring.

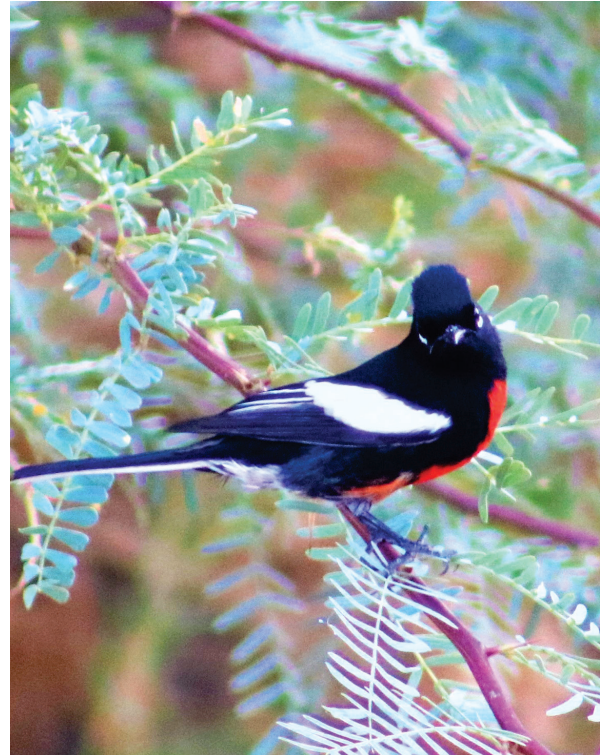
The Townsend's and Hermit Warblers are very closely related, and the Townsend's is said to be swamping the Hermit by interbreeding. Both are extremely pretty little birds, the Townsend's with a beautiful yellow and black facial pattern, the Hermit with a head all lemon-yellow, the rest of it black and white. One can usually find one or two Townsend's in the winter in the Canyon, but they move north in the spring, along with all those that wintered farther south. Hermits come through in May on their way to northwestern Evergreen Forests.

The *Cardellina* Warblers: The Wilson's and Red-faced Warbler (*C. pusilla* and *C. rubrifrons*). Wilson's



Warbler is small for a warbler, even more active than most, and a particularly bright yellow all over, with a small black cap. A few winter in Southeast Arizona, but not as high up as the Canyon. Overall, they are said to be the most abundant migrant through Arizona in both spring and fall. They nest farther north. Wilson's looks rather like a lot of other warblers, but the Red-faced is *sui generis*, as far as looks go. Its body is strongly patterned in black, white, and gray, and it has a red face. The song is a conversational twitter, often repeated. While few warblers are really shy, the Red-faced seems even more confiding than most. Red-faced Warblers are found high up in the Canyon and are reasonably common in mixed pine-oak woods. This is a favorite of mine. When I go up the Carrie Nation Trail, my day is made if I see a Red-faced Warbler or two.

Genus *Myioborus*: The Painted Redstart (*M. pictus*). This is my favorite of all the warblers, a predilection I must share with thousands of other birdwatchers. This beautiful little bird is mostly a jet black, with flashes of white in wings and tail, and a gorgeous red underneath. It seems to show off and pose for an observer, coming close, spreading its tail and wings and turning this way and that. Redstarts are common nesters in Madera Canyon. Surveys have found that nesting Redstarts along Madera Creek and its tributary streams are spaced only some hundred feet apart. A few remain in the Canyon in the winter. And Redstarts sing, loudly and often, all year round. Finally, like the Red-faced Warblers, the Painted Redstart is not found much beyond southern and central Arizona.



And that's it for the usual warblers in Madera – only fourteen species. The Common Yellowthroat is also found in this part of the world, but only in marshes and along permanent streams, features the Canyon doesn't have. Two more species, formerly considered to be among the warblers, for lack of anywhere else to put them, are the Olive Warbler and the Yellow-breasted Chat. Both have now been put in families of their own. The Olive Warbler is found year-round in the upper Canyon, more commonly in the warmer months. The Chat needs running water, but a few seem to check out the lower Creek every year – when it's running – but then go back down along the Santa Cruz River, where they're very common.

So much for the usual warblers. But Madera Canyon is Madera Canyon: some two dozen unusual warblers have also been reported here, about twenty stray representatives of eastern species, some almost annually, like the Black-and-White Warbler, some much more rarely. And then there are the Mexican strays that show up maybe once in a couple of decades. The Slatred Redstart, the Crescent-chested, Rufous-capped, and Fan-tailed Warblers, and the Tropical Parula have all been reported in the Canyon. You never know what you may find here.

Figure 1. Orange-crowned Warbler, *Leiothlypis celata*. From illustrations of the warblers of North America National Geographic 1917.

Figure 2. MacGillivray's Warbler, *Geothlypis tolmiei* from Illustrations the Warblers of North America 1907.

Figure 3. Hermit Warbler, *Setophaga occidentalis*. Birds of Humboldt Canyon Parulidae of Santa Cruz County Arizona. Photo by Alan Schmierer

Figure 4. The Painted Red Start. Photo by Kayla Brown, BLM.



Warblers Made a Significant Contribution to Understanding Ecology

Robert MacArthur's 1958 study of spruce-woods warblers in Maine provided seminal evidence for resource partitioning, demonstrating that five closely related species coexisted by foraging in different areas of the same trees and using distinct techniques. This work illustrated that, contrary to the competitive exclusion principle, species with similar needs can avoid competition by dividing resources, such as specific tree heights or insect types.

Key Contributions to Ecological Understanding

- **Spatial Niche Separation:** MacArthur (1958) observed that species like the Blackburnian and Black-throated Green warblers fed in different parts of the conifer canopy (top vs. middle) and on different sides of branches, minimizing direct competition.
- **Foraging Behavioral Differences:** The warblers showed specialized behaviors—some fed on wing insects, others gleaned from branch tips, and some navigated the trunk. These behaviors were strongly linked to subtle differences in their physical characteristics.
- **Validation of Coexistence Theory:** This study provided a concrete, empirical example of how species can share a habitat, transforming the study of competition from theoretical models to field-based observation.
- **Evolutionary Implications:** Later studies using modern techniques like fecal metabarcoding have largely supported that these behavioral, spatial, and foraging differences, which are shaped by evolutionary competition, are central to how these birds avoid competing for the same food.
- **Limitations to Niche Theory:** More recent studies (e.g., from 2020-2025) suggest that while behavior is partitioned, the actual diet (the insects consumed) might overlap more than originally thought, suggesting the partitioning is more about where and how they look for food rather than what they eat.

• Core Findings on Warbler Behavior

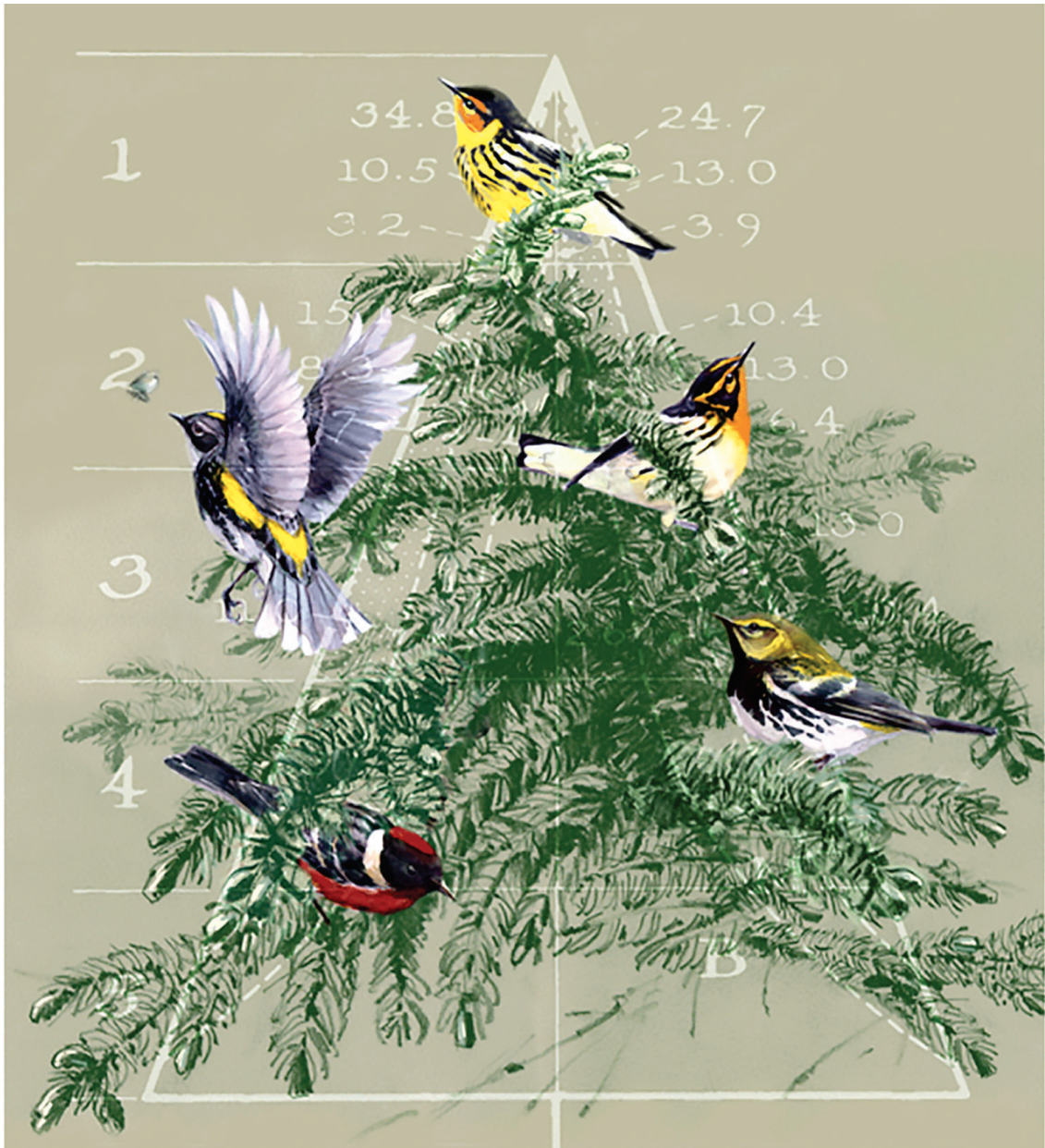
- **Yellow-rumped Warblers:** Frequently hawked insects from the air.
- **Black-and-White Warblers:** Foraged along the trunk and large branches, similar to a nuthatch.
- **Cape May Warblers:** Concentrated their activity on the tree tips.

This classic, yet continuously updated study remains a cornerstone for understanding how competitive pressures drive the evolution of specialized behaviors, allowing for the coexistence of similar species.

References

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A classic figure from Robert MacArthur's 1958 paper in Ecology, illustrated with the five warblers he meticulously observed for the study. Clockwise from bottom, a bay-breasted (*Dendroica castanea*), myrtle (*D. coronata*), Cape May (*D. tigrina*), blackburnian (*D. fusca*), and black-throated green (*D. virens*) warblers. Michael Kaspari commissioned Deborah Kaspari to create this mixed media work for publication in the October 2008 issue of ESA's Bulletin. CC-BY-SA

From MacArthur RH. 1958. Population ecology of some warblers of northeastern coniferous forests. Ecology. 1958, 39(4):599-619.



Building the Partnerships That Protect Madera Canyon

Madera Canyon is one of southeastern Arizona's most treasured natural wonders — a birding mecca, a hiking haven, and a living classroom tucked into the Santa Rita Mountains. Protecting and stewarding this remarkable place is not a task any single organization can accomplish alone. At Friends of Madera Canyon (FOMC), we believe deeply that we are stronger together. May 2026 is a moment to celebrate the partnerships that sustain the canyon — and to look ahead at the exciting collaborations on the horizon.

Our Cornerstone Partners

U.S. Forest Service — Coronado National Forest. Our partnership with the U.S. Forest Service is the bedrock of everything FOMC does. As stewards of Coronado National Forest, the Forest Service manages the land and regulations that govern Madera Canyon, while FOMC brings volunteer energy, community fundraising, and on-the-ground support. Together, we fund and maintain trailhead facilities, support habitat restoration, and coordinate visitor education programs. This relationship is a model of how federal land managers and local nonprofits can work hand-in-hand to deliver more for the land and the public than either could achieve independently.

Green Valley Recreation (GVR) Hiking Club. The GVR Hiking Club has been a cherished partner and a steady source of engaged, passionate visitors to Madera Canyon. Club members are among our most dedicated trail walkers, docents, and volunteer trail stewards. Their enthusiasm for the canyon brings new faces to our events and their membership amplifies our community voice. We are grateful for every boot on every trail they help us care for.

Youth Naturalist Programs. Inspiring young people to love and protect the natural world is one of the most powerful investments we can make in Madera Canyon's future. FOMC is proud to be deepening relationships with several outstanding youth programs in our region:

Sahuarita Unified School District (SUSD) Biotech Program. SUSD's Biotech Program is cultivating the next generation of scientists right here in our community. Madera Canyon offers an unparalleled living laboratory for student field research, species identification, and ecological study. We look forward to welcoming Biotech students into the canyon for hands-on learning experiences that connect classroom science to real-world conservation.

Ironwood Tree Experience. Ironwood Tree Experience has a remarkable track record of connecting underserved youth with the natural world through transformative outdoor education. Their mission to foster environmental stewardship in young people resonates deeply with our own. Together, we can open the wonders of Madera Canyon to a broader and more diverse community of young naturalists.

Boy Scouts & Girl Scouts. Scouting has a proud tradition of building environmental stewardship and outdoor skills in young people. Madera Canyon is an ideal setting for merit badge work, Eagle Scout and Gold Award service projects, and nature education programs. We welcome Scout troops to partner with FOMC on trail stewardship, habitat restoration, and citizen science initiatives that leave a lasting legacy in the canyon.

Green Valley/Sahuarita Area Chamber of Commerce. Madera Canyon is an economic driver for our region.



Partnering with the Chamber helps us tell that story — connecting conservation with sustainable local tourism and business vitality.

Santa Rita Lodge. No business in Madera Canyon is more intertwined with the canyon's identity than the Santa Rita Lodge. For decades, this beloved birding lodge has welcomed visitors from across the globe, introducing countless people to the wonders of southeastern Arizona. Our partnership with Santa Rita Lodge helps us connect with birders and nature travelers who may be visiting the canyon for the first time, turning one-time guests into lifelong supporters of our mission. The lodge is also a vital hub for information-sharing and a generous community partner during FOMC events and campaigns.

Tucson Bird Alliance. Madera Canyon is one of the premier birding destinations in North America, attracting visitors from around the globe to witness its extraordinary avian diversity. The Tucson Bird Alliance — formerly known as Tucson Audubon Society — shares our commitment to bird conservation and habitat protection across southern Arizona. A deeper partnership with the Alliance opens the door to coordinated bird monitoring, joint programs for beginning and experienced birders alike, and a stronger collective voice for the Sky Island habitats that migratory and resident species depend on. This is a natural alliance in every sense of the word.

Outslope Trail Solutions. Great trails don't happen by accident — they are built and maintained by people with specialized skills, tools, and dedication. Outslope Trail Solutions brings professional trail construction and stewardship expertise that complements FOMC's volunteer-driven maintenance efforts. Partnering with Outslope means we can tackle more complex trail work, extend the life of our existing infrastructure, and ensure that every hiker who sets foot in Madera Canyon enjoys a safe, well-crafted trail experience. This is exactly the kind of hands-on partnership that makes a tangible difference on the ground.

Partnerships on the Horizon

We are actively cultivating relationships with several organizations whose missions align powerfully with our own. We look forward to deepening our collaboration with each of them in the months ahead.

Santa Rita Experimental Range. Managed by the University of Arizona, the Santa Rita Experimental Range is one of the oldest continuously operating rangeland research sites in the United States — and it sits right in our backyard. A partnership with the Experimental Range offers extraordinary potential for collaborative science, long-term ecological monitoring, and connecting rangeland health with the watershed and wildlife habitat that Madera Canyon depends on. We look forward to exploring how our organizations can share data, coordinate land stewardship, and engage the public in understanding this remarkable landscape.

Rotary Club of Green Valley. Rotary's commitment to community service and local leadership makes them a natural partner for FOMC. We envision collaborating on volunteer workdays, youth nature education initiatives, and community fundraising events that draw on Rotary's extensive regional network. Service above self — it's a value we share.

Santa Cruz National Heritage Area. The cultural and natural heritage of the Santa Cruz Valley is inseparable from the landscapes we protect. A partnership with the Santa Cruz Heritage Alliance opens doors to connecting our conservation work with the rich human history of this region — from Indigenous land stewardship to Spanish colonial routes to 20th century ranching traditions. Together, we can offer visitors a richer, more complete story of this remarkable place.

Tubac Nature Center. As a neighbor in the Santa Cruz Valley, Tubac Nature Center shares our passion for environmental education and connecting people with southern Arizona's extraordinary biodiversity. A formal partnership would allow us to cross-promote programs, coordinate school outreach, and create a seamless corridor of nature-based experiences stretching from Tubac to the top of the Santa Ritas.



Borderlands Restoration Network. Borderlands Restoration Network brings deep expertise in native plant restoration, wildlife corridors, and community-based conservation across the U.S.-Mexico borderlands. Their work on habitat connectivity and revegetation aligns naturally with FOMC's stewardship mission in Madera Canyon. A partnership could accelerate restoration projects, expand our native plant nursery capacity, and strengthen the ecological resilience of the canyon in the face of climate change.

Wild AZ. This spring, FOMC and Wild AZ joined forces for Earth Day 2026 — and the result was something special. Together, we brought volunteers, nature lovers, and community members to Madera Canyon for a day of celebration, education, and hands-on stewardship. The energy and enthusiasm that Wild AZ brought to the event reminded us how much more we can accomplish when aligned organizations work side by side. We look forward to building on this Earth Day partnership and finding new ways to collaborate on public outreach, wildlife awareness, and connecting Arizonans with the wild places in their own backyard.

Who Else Should We Connect With?

Building a strong partnership network is an ongoing, community-driven process — and we want to hear from you. Do you have a connection, a suggestion, or a warm introduction to offer? Our member and volunteer relationships will help us grow and become more resilient!

Do you have a partnership idea or a connection to share?

I'd love to hear from you. Reach out via executivedirector@friendsofmaderacanyon.org and help shape the future of Madera Canyon.

Madera Canyon belongs to all of us — the birds, the oaks, the mountain streams, and the communities of people who love them. By growing a robust network of partners, we ensure that love is organized, resourced, and effective. Thank you for being part of this family. We are, indeed, stronger together.

I'd love to hear from you. Reach out via executivedirector@friendsofmaderacanyon.org and help shape the future of Madera Canyon. Do you have a partnership idea or a connection to share?

With gratitude,
Kristin Wisneski-Blum
Executive Director, Friends of Madera Canyon



No, baby rattlesnakes are not more dangerous than large adults.

Snakes are the most used symbol in today's cultures as well as in prehistoric times. And their biological traits are partially responsible. Snakes appear suddenly and disappear just as rapidly. Snakes shed their skin and reveal a new skin below. Some species produce large litters of young or large numbers of eggs, expressing a high fertility rate. Some species feign death to confuse a predator. Venomous snakes and can kill prey with a bite that delivers venom but little trauma to the victim. A situation that provides challenges to the non-scientific mind. In addition to beliefs that originated in the distant past, there are relatively recent snake myths (Crump, 2015).

The idea that newborn rattlesnakes are more dangerous than adults is likely to be less than 100 years old. It is a common question I get asked when I give snake talks.

Baby rattlesnake bites are less dangerous than bites from adult rattlesnakes, according to a new study from Loma Linda University that summarizes the origin, transmission, and prevalence of the longstanding myth that baby rattlesnake bites are more dangerous.

The basis for the myth lies in the idea that baby rattlesnakes have not learned to control the release of their venom (as adults can) and therefore neonate snakes release all of their venom when biting. This idea is refuted by the Hayes and Morris (2026) study. The belief has led “to negative consequences, including misinformed risktaking by those encountering snakes, unwarranted fear among snakebite victims, and inappropriate care delivered by misinformed or patient/family pressured medical professionals.

“This is an easily defanged myth that has generated dread, panic, and real-life consequences,” said William Hayes, professor of biology at Loma Linda University School of Medicine and the study's lead researcher. “Ample evidence demonstrates that baby rattlers, like adults, can control their venom expulsion, the adults possess and deliver far more venom when biting, and the adults cause substantially more severe symptoms in snakebite victims.” Bites from baby rattlesnakes still constitute a serious emergency requiring immediate medical attention, Hayes said, with antivenom as the only effective treatment. JCM

References

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Two neonate Western Diamondbacks coiled together. JCM



Disputed State Land Sale

A recent sale of Arizona State Trust Land to a mining company is being challenged in court over alleged violations of state and federal law. On April 29, 2026, the Arizona State Land Department sold 160 acres of trust land to Copper World Inc., a subsidiary connected to proposed mining operations near the Santa Rita Mountains. One day later, a lawsuit was filed seeking to void the sale, arguing that the legally required public notice procedures were not followed.

The lawsuit was filed on April 30, 2026, in Pima County Superior Court by the Save the Scenic Santa Ritas Association (SSSR) and nearby resident Cathleen McGrath. The complaint is a Verified Statutory Special Action that asks the court to rescind the auction and declare the sale illegal and void.

Alleged Notice Violations

According to the complaint, the Arizona State Land Department failed to comply with strict notice requirements that govern the sale of State Trust Land. The plaintiffs argue that these requirements are mandatory and that even substantial errors invalidate an auction.

The lawsuit identifies three primary failures:

First, the auction was advertised for ten weeks as being held at the Herbert K. Abrams Public Health Center. The auction took place more than four miles away at an Arizona Department of Transportation office. No legally required ten-week notice was ever published for the correct location.

Second, all public notices listed an incorrect parcel number one that does not exist in the State Land Department's system. The incorrect number prevented the public and potential bidders from locating the parcel file and conducting proper due diligence.

Third, the published notices listed conflicting auction times, with some starting at 9:30 a.m. and others at 11:00 a.m. The plaintiffs argue that this inconsistency alone violates the requirement that auction notices be clear and accurate.

Laws Cited in the Lawsuit

The complaint relies on several legal authorities, including the federal Enabling Act, Article X of the Arizona Constitution, and Arizona Revised Statutes §§ 37-- 237 and 37-- 249(B). These laws require strict compliance with public notice rules and provide that any sale made without proper notice is null and void and must be rescinded.

Arizona case law cited in the complaint reinforces this standard, stating that any disposition of State Trust Land not made in substantial conformity with the Enabling Act is invalid.

Requested Relief

The plaintiffs are asking the court to void the land sale, issue a declaration that the auction violated the Public Auction Laws, and award attorneys' fees and costs. They argue that the notice failures were fundamental, not technical, and undermined the legal protections intended to safeguard public trust lands and their beneficiaries, including Arizona public schools.



The position of FoMC on Mining

In our Strategic Plan 2023, the Friends of Madera Canyon stated as a specific goal: "To oppose Copper World/Hudbay, which is a threat to the physical well-being of residents of the region and a desecration of the Santa Rita Mountain Range, a unique Sky Island." That continues to be the position of the Friends.

We regularly follow the work of the Save the Scenic Santa Ritas organization which has been a leader in efforts to stop the development of the CopperWorld/Hudbay project. If you are interested in up-to-date information published by SSSR, we urge you to go to. (<https://scenicsantaritas.org/>).

It is important to note that the Friends are not opposed to mining, a significant player in Arizona state history. We are, though, sensitive to our environment and committed to stewardship of Madera Canyon, the Santa Rita Mountains and the Santa Cruz valley. There is factual evidence to support the danger of the Copper World mine to air, water, land subsidence, pollution and the elimination of certain flora and fauna.

The Friends of Madera Canyon has, as a major purpose, the education of the public regarding matters that can impact the well-being of the Canyon. We urge you to stay informed on this important matter."



Ants and Scorpion Co-evolution?



Coevolution between ants and scorpions involves complex, specialized relationships ranging from parasitic interactions to unique phoretic (hitching a ride) behaviors. Recent research indicates some scorpion species have evolved to live within ant nests, exploiting their environment. The scorpion in the photo is most likely *Chihuahuanus* (= *Vaejovis*) *coahuilae*. The ants are of unknown identity. They were photographed near Portal, Arizona. JCM

The co-evolution between these two arthropods does not seem to have been described. Exactly what the scorpion does for the ants, or what the ants do for the scorpion remains to be studied. However, note the ants inspecting the scorpion. After this photo was taken the scorpion entered the ant nest. The blue-green color of the scorpion results from using a UV light to take the photo.

