Echoes from the Canyon is a regular publication of the Sabino Canyon Volunteer Naturalists (SCVN).

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Winter Activities

For more information on any event or presentation check out our **Event Calendar**.

- **Sabino Canyon Bird and Nature Walk:** 1st and 3rd Sundays 8:00–10:30 a.m. Meet at the Visitor Center.
- **Saguaro - A Desert Giant Walk:** Sundays 10:00–11:00 a.m. Meet at the Visitor Center.
- **Plant and Bird Walk:** Tuesdays 8:30–11:00 a.m. Meet at the Visitor Center.
- **Intro to Sabino's Geology and Nature Walk:** Tuesdays 8:30–11:00 a.m. Meet at the Visitor Center.
- **Mt Lemmon Nature Hike:** 1st and 3rd Wednesdays 9:00 a.m.–1:00 p.m. See calendar for meetup location.
- **Sabino Canyon Geologic Features:** Thursdays 8:30–11:00 a.m. Meet at the Visitor Center.
- **Panning for Garnets:** Thursdays 10:00 a.m.–12:00 p.m. Check website on Thursday morning to confirm both location and time.
- **Let's Explore Sabino Hike:** 2nd and 4th Fridays 8:30 a.m.–12.00 p.m. Meet at the Visitor Center.
- **Friday Trail Hike:** 1st and 3rd Fridays 8:00 a.m.–12:00 p.m. See calendar for meetup location and varying times depending on meetup location.
- **Hydrogeology Hike:** 1st and 3rd Saturdays 9:00 a.m.–12:00 p.m. Meet at the Visitor Center.
- **Family Fun Hike:** Saturday 10:00 a.m.–12:00 p.m., February 28. Meet at the Visitor Center

Educational Presentations

All presentations are located at the Visitor Center.

- **Quail Corner for Kids:** 2nd and 4th Sundays 9:00–11:00 a.m.
- **Skulls and Pelts, Wildlife of Sabino Table:** Tuesdays 9:30 a.m.–12:30 p.m.
- **Ancient Cultures Table:** Fridays 9:00–11:00 a.m., January 16 and 30, February 6, 13, and 27. Saturdays 1:00–3:00 p.m. January 24, February 21 and 28.
- **Ask a Naturalist Table:** Saturdays 10:00–11:00 a.m.
- **Stop 1 Chat:** Saturdays 10:00 a.m –12:00 p.m., January 17 and 24, February 7 and 21. See calendar for the day's topic.
- **Mountain Lions: Apex Predators of the Santa Catalina Mountains:**Tuesday, January 20, 1:30 p.m. in the Javelina Room at the Sabino Canyon Visitor Center. Seating is limited, so come early.

Sabino Canyon Christmas Bird Count

Naturalist Kathy

On December 19, birders were out in force to participate in the Catalina Mountains section of the long running Christmas Bird Count. Traditionally, on Christmas day, hunters would try and shoot as many species of fur and feathered animals as they could, at times decimating some species populations. Finally, in 1900, ornithologist Frank Chapman suggested taking a bird census instead of killing birds, and this idea has lead to 126 years of Christmas Bird Counts! The first Christmas Bird Count had 27 participants, included 25 different count circles (a count circle is 15 miles in diameter), and yielded just 90 species. Today, 21 countries participate, which includes 2,693 count circles and over 83,000 participants.

The day was clear, with a few scattered clouds, for this year's Sabino Canyon Christmas Bird Count. Thirty-four species were recorded for that day, and a surprise rarity, a Chestnut-sided Warbler, made an appearance along with many of the 'regulars'. Listed below are the birds noted on this year's count.

Mourning Dove	Gila Woodpecker	Broad-billed Hummingbird
Cactus Wren	Ladder-backed Woodpecker	Anna's Hummingbird
Verdin	Phainopepla	Costa's Hummingbird
Gambel's Quail	American Kestrel	Curved-bill Thrasher
House Finch	Loggerhead Shrike	Northern Mockingbird
Hutton's Vireo	Black-tailed Gnatcatcher	White-crowned Sparrow
Pyrrhuloxia	Black-throated Sparrow	Lesser Goldfinch
Abert's Towhee	Northern Cardinal	Ash-throated Flycatcher
Canyon Towhee	Greater Roadrunner	Ruby-crowned Kinglet
Common Raven	Hermit Thrush	Woodhouse's Scrub-Jay
Rufous-winged Sparrow		Yellow-rumped Warbler
Orange-crowned Warbler		Chestnut-sided Warbler

Unmasking the Mountain Lion's Crucial Role

Naturalist Cathy

Mountain lions are found at all elevations in the Santa Catalina Mountains, and as apex predators, they play a key role in maintaining the ecological health of the range. How do they play that role? What are some interesting facts about their biology?

Please join us on Tuesday, January 20 at 1:30 in the Javelina Room in the Visitor Center for a presentation by SCVN Naturalist David, titled "Mountain Lions: Apex Predators of the Santa Catalina Mountains."

This presentation is free and open to the public, as well as to SCVN members and the current training class. Seating is limited.

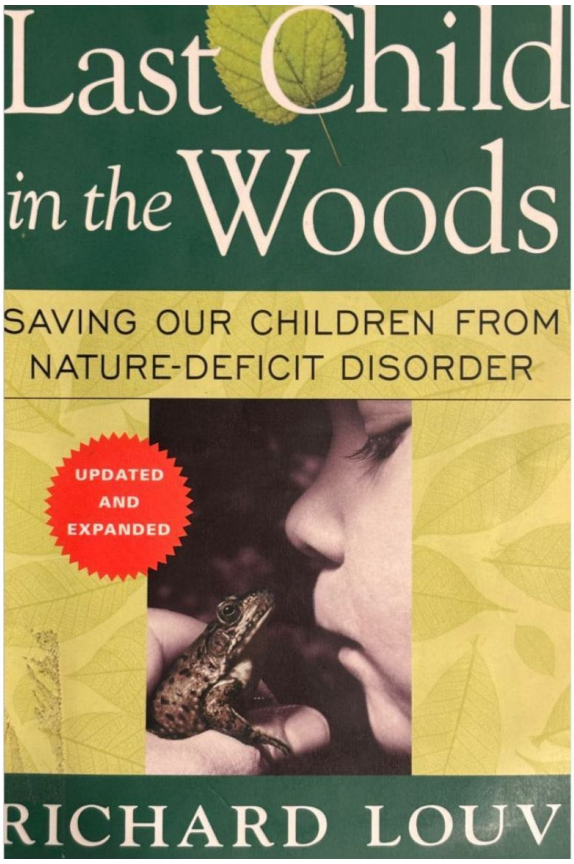
David is a retired biology professor and for years captured video of Santa Catalina wildlife. It's not hyperbole to say his presentations are famous among SCVN members.

Photo above was taken by David's trail camera.

Book Review
Last Child in the Woods: Saving our Children from Nature-Deficit Disorder

By Richard Louv

Review by Naturalist Rebecca, SCVN Librarian



In *Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder*, Richard Louv explores how modern children have become increasingly disconnected from nature compared to previous generations. Where children once spent unstructured time outdoors—climbing trees, building forts, and exploring natural environments—today's children often grow up in carefully controlled suburban developments with limited access to wild or natural spaces.

The book argues that overdevelopment, homeowners' association restrictions, safety-driven playground designs, and a highly litigious society have drastically reduced children's opportunities for free outdoor play. As a result, children spend more time indoors, often engaged with screens rather than nature.

Louv presents research linking this loss of natural exposure to negative impacts on children's physical and mental health. Studies show increases in prescriptions for antidepressants, antipsychotics, and ADHD medications, alongside rising rates of anxiety, depression, and obesity. Conversely, children who live in rural areas or near natural environments demonstrate fewer behavioral disorders and improved emotional well-being.

The book also challenges assumptions about organized sports and technology, suggesting that they cannot replace the benefits of unstructured outdoor play. Louv highlights innovative solutions such as green city planning in Europe, where neighborhoods are designed with accessible natural spaces that benefit both children and adults.

Finally, Louv discusses the growing role of faith-based environmentalism, where spiritual connections to nature inspire greater commitment to land conservation. Spiritual awakenings in nature may be key to more investment in protecting land, as scientists are urgently appealing to the religious community to commit to preserve the environment. He concludes that saving the environment requires protecting an essential "indicator species": children who experience nature

firsthand may develop a lifelong connection to the natural world.

eBook and audiobook available at Pima County Library.

The Misunderstood Desert Mistletoe

Naturalist Kathy

Birds love it, insects love it, as well as some mammals; humans–not so much. Desert mistletoe, *Phoradendron californicum*, the medusa–like clump growing in many of our desert leguminous trees, like velvet mesquite and foothills palo verde, is an unsettling sight for many. It's believed to be a parasite that sucks the life out of a tree before eventually killing it.

That fear is unwarranted, because desert mistletoe is a hemiparasite, meaning half parasite. It does attach to a host plant, using its hausteria (roots) to draw in nutrients and water, but it also possesses chlorophyll and can makes its own food through photosynthesis. Healthy trees seem to be able to co-exist with desert mistletoe—and why would it want to kill its benefactor?

The phainopepla, *Phainopepla nitens*, is a bird found only in the lower Southwest and depends on desert mistletoe berries for its survival during the winter. It has a special digestive system that allows the seeds to pass through unscathed, ultimately deposited on the branch of a host species. Basically, the phainopepla is planting its own future food source.

Desert mistletoe is the larval host plant for the great purple hairstreak butterfly, *Atlides halesus,* and a food source for many desert pollinators. Its dense cover provides a good nesting site for birds, as well as a safe hiding place for small mammals and reptiles. Some animals will forage on its scaly leaves.

Desert Mistletoe is dioecious, meaning one plant will produce male flowers, and another plant (of the same species) will produce female flowers. The leaves are scale–like and its tiny, yellow–green, fragrant flowers bloom from late January through March.

A great analogy, posted by Dr. J. Soule on her website, *Gardening with Soule*, sums up the life of desert mistletoe: "Basically they work for a living, but they live in someone else's house and don't pay rent."

Check out this link to read more about the positives of desert mistletoe: Tortolitaalliance.com.

Desperately SeekingTarantulas
The Secret Sex Life (Secret to Humans, Not toTarantulas)
Of a Very Hairy Spider

Naturalist Trainee Brent

Both sexes of the Arizona blond tarantula—the most common tarantula in Arizona—take eight to ten years to become sexually mature. Peak mating season is August to October.

During mating season, males will leave their burrows and wander in search of females, who remain near their burrow. The males molt one last time, revealing their tibial hooks and enlarged pedipalps.

Tibial hooks (or tibial spurs) are hook-like structures on the front legs of a mature male tarantula. He uses these hooks to hold the fangs of the female securely away from him while mating. Pedipalps are forward appendages used for feeding, sensing, and transferring sperm during mating. Tibial hooks and enlarged pedipalps are a sign the male tarantula is mature.

Before embarking on their final journey, males create a fine web, place sperm in it, and then move the sperm to their pedipalps. Males use their pedipalps to place sperm into the genitals of a receptive female, while using tibial hooks for protection from the female. He will quickly try to flee to avoid being eaten after mating.

A fertilized female places her silken egg sac in the burrow and plugs the entrance with soil. Eggs can take from three to 12 weeks to hatch, depending on temperature and other factors. Commercial breeders usually take the egg sac away from the mother, as it might become her next meal before the spiderlings hatch.

Mature tarantula burrows have entrances about the diameter of a quarter and typically are 12 inches deep. These spiders usually stay in their original burrow for life, expanding the burrow as needed. Tarantulas rarely venture beyond a few meters from their burrow to feed.

Locating a burrow is easiest during the daytime. Look for a small hole typically one-half inch to three-fourths of an inch in diameter and usually clear of dirt around the hole. Mice and other critters often have a pile of dirt surrounding the hole, so look for a relatively clean dig. If you are lucky, you may see legs in the hole, but most likely you will need to venture out at night to see the tarantula near the burrow entrance. A flashlight is needed, and most tarantulas will duck into their

burrow before you can get close. Watch your target burrow carefully as you approach; some seem to get spooked from ten feet or more away, but you might get as close as three feet to others.

Pictures below show one burrow before and after plugging by the female, plus other burrows that did not close after mating season. Another picture shows expelled dirt after the burrow was enlarged. A burrow may be plugged for days during molting or for weeks when a nursery.

I doubt I will see the spiderlings emerge. They will likely disperse at night, and I expect to only find the open burrow. Tarantulas like temperatures above 75F and will usually seal their burrow to keep temperatures above 60F when they shift to a dormant state. I will be watching as temperatures rise after winter.

Click on these photos for better viewing. Top two photos show a tarantula burrow before mating season and after mating season when the opening is plugged. The bottom two show tarantulas in their burrows. All photos were take in Brent's yard and may help you identify the arachnid at your own home. (Photos by Brent)

This article was based on information from UA Cooperative Extension, Arizona-Sonora Desert Museum, and AZCentral.com.

Echoes from the Canyon is published monthly except July and August by members of the Sabino Canyon Volunteer Naturalists. If you are interested in learning about the Sabino Canyon Volunteer Naturalist program or about educating the public and/or children in learning about the flora and fauna of this unique riparian environment of the Sonoran Desert, please visit https://sabinonaturalists.org/join-us/

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