

# THE ARIZONA WILDLIFER

2020 Issue 3

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Summer Edition

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## The President's Message



AZTWS President Andrew Jones with his son Eli.

Over the past two months, The Wildlife Society has published two messages highlighting the importance of promoting diversity and equity at the National level [1; 2]. Specifically, TWS President Gary White and the Executive Board have identified the importance of all Chapter members learning about TWS's current diversity, equity, and inclusion resources, initiatives, programs, and communities ([wildlife.org/dei](http://wildlife.org/dei)). Additionally, members are encouraged to learn about opportunities for engagement through the [Ethnic and Gender Diversity Working Group](#). The Executive Board also plans to develop a Black Lives Matter symposium for the TWS Annual Conference, during which members will be able to hear from those who live with fear and face consequences of institutional discrimination both in everyday life and within the wildlife profession.

As current President of the Arizona Chapter of The Wildlife Society, it is my aim to heed the goal set forth by the parent society that all of us should honestly and devotedly work toward empowering and elevating Black, Indigenous, and People of Color in the wildlife profession. As a Board, we will contribute to building an inclusive profession in which we celebrate and support Black, Indigenous, and People of Color in our professional field. One of the things I think that AZTWS does best is offer support and professional development opportunities to Chapter members through our [Continuing Education Grants](#), [Techniques Workshop](#), [Bioblitz](#) facilitation, and organization of the [Joint Annual Meeting](#). I believe AZTWS can be most effective as an ally by bringing these resources to under-represented groups. Over the prior two Board meetings, we have discussed how to best contribute Chapter resources to making room for and elevating under-represented voices in the wildlife field.

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## Presidents Message cont...

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As a Board and a Chapter, we will do the following:

- Elevate under-represented voices in our newsletter: *The Arizona Wildlifer*. This obviously includes seeking out articles written by people who have a unique voice to share. However, a key aspect of allyship is not to create more work for the folk whose voices are often ignored; therefore, it is our intention to seek out existing articles, viewpoints, and resources to publish in the *Wildlifer* to present new perspectives to our membership.
- Traditionally, the bulk of our membership is comprised of state- and federal-level agency personnel as well as members of academia. Recently, we have discussed implementation strategies to increase membership beyond our traditional base. This will include efforts to reach out to a diverse set of groups and provide 1-year gift memberships.
- Already, our Continuing Education Committee considers under-represented individuals and groups when reviewing grant applications. Chairperson Pedro Chavarria is currently working to reach out to new groups who may be unaware of this resource.
- Use our social media accounts to highlight organizations and individuals who give voice to those who have not always been heard within the conversation.

The Arizona Chapter of The Wildlife Society will work to ensure that all are welcome, heard, and respected in the wildlife profession. I encourage you to contact me or the AZ-TWS Board if you have concerns, advice, or questions.

Sincerely,

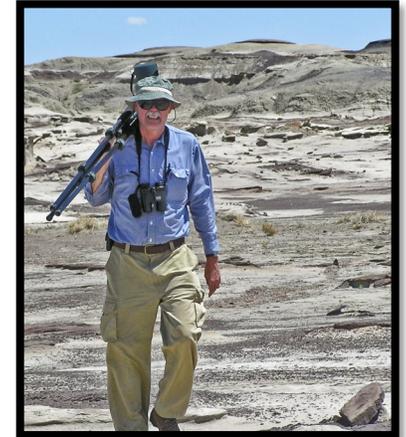
Andrew Jones  
AZTWS Chapter President

## Regional News:

### Southwest Section Tracks

By Jim Ramakka  
Southwest Section Representative

By now you all have seen the June 4 announcement that the in-person 2020 Annual Meeting of TWS in Louisville, KY, has been suspended and will be replaced by a [virtual conference](#). TWS Council has been monitoring the potential impacts of the COVID-19 pandemic as they have evolved since our March meeting in Omaha, NE. During that meeting and in subsequent conference calls, we asked CEO Ed Thompson and TWS staff to examine potential conference scenarios including changing dates, down scaling conference size, and outright cancellation. Based on the resulting projections and our discussions focusing on the health and safety of our members as well as the financial impacts to our Society, Council made the difficult, but necessary, decision to suspend this year's live conference.



Financial impacts of an outright cancellation would have resulted in a financial loss to TWS of approximately \$600,000—primarily due to cancellation penalties, lost vendor and sponsorship revenue, and no income from registration fees. Thanks to the conservative approach to our finances implemented in the past few years, TWS could absorb that impact. However, it would be a significant financial hit to the Council Action Fund, the Permanent Reserve Fund, and potentially affect funding of discretionary programs. Fortunately, Ed Thompson was able to negotiate a resolution with the conference venue and hotel that avoided cancellation fees and penalties by re-scheduling the 2023 Conference to Louisville.

Although all of us on Council are disappointed that we won't be meeting with the membership in person this Fall, we know that TWS Staff will do an excel-

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lent job of coordinating a worthwhile virtual experience. Although still under development, the virtual experience will give students and professionals opportunities to share the latest developments in the field via technical session webinars, workshops, and poster sessions. [see [page 13](#) for the conference advertisement]

Also, like the rest of the world, we have all have been following the cultural upheaval facing our nation. The Wildlife Society’s June 3 [message to the membership](#) reaffirms our commitment to diversity and inclusivity while urging our members to listen, learn, and do more to help in the continuing evolution of our organization and the profession as a whole. If you have not yet, please read that message and consider how you can contribute to those efforts to strengthen and diversify the wildlife profession.

As we enter summer, we are in a period of economic and societal uncertainty that I recently heard described as a “Lifequake.” Anyone who has survived a major earthquake can relate to that analogy—your life changes in ways you never expected and there is an element of dread as you wonder what the aftershocks might bring. Meanwhile, life and world events continue on around you. The environmental issues we were facing before our present situation still exist. Congress will continue to consider legislation and make budget decisions of great importance to our natural resources. The Wildlife Society will continue the policy engagement efforts described by TWS President Gary White and past president Tom Franklin in their Leadership Letter in the [May/June 2020 issue of The Wildlife Professional](#). Chapter and Section Conservation Affairs Committees will continue to play a vital role in those efforts.

Although none of us yet know the full extent of the long term economic and sociopolitical impacts we may face, TWS Council will continue to explore potential avenues for assisting working professionals, students, and early career professionals in weathering the storm. Our academic colleagues will continue to train the next generation of wildlifers. TWS members in the agencies and private sector will continue to be available to advise and mentor. Stay engaged; take care of yourselves, your family, friends, and colleagues; and we will all get through this together.

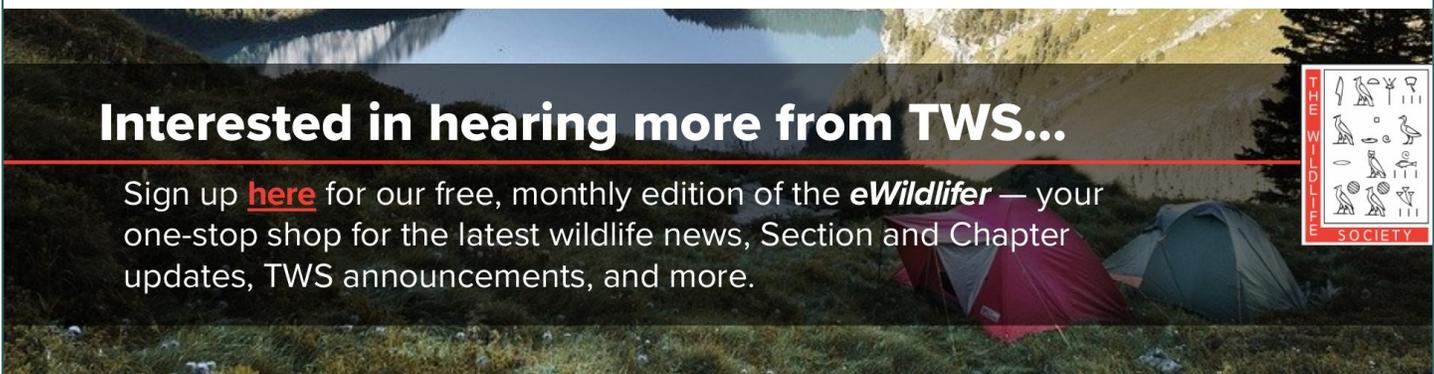
As always, please feel free to contact me with any issues or concerns you would like to have brought before Council.

Jim Ramakka, CWB®  
Southwest Section Representative  
Email: [j\\_ramakka@msn.com](mailto:j_ramakka@msn.com)  
Phone: 505-486-2746

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## Interested in hearing more from TWS...

Sign up [here](#) for our free, monthly edition of the **eWildlifer** — your one-stop shop for the latest wildlife news, Section and Chapter updates, TWS announcements, and more.



# Our Neck of The Woods...

## A Note for Recreational Speckled Rattlesnake Enthusiasts

*By Bryan Hughes,  
Owner, Rattlesnake Solutions, LLC*

*In Arizona, the foresummer is a particularly challenging time for desert species trying to avoid brutal summer heat. A relatively new and unexpected challenge comes in the form of recreational herpetologists (i.e., “herpers” seeking glimpses and photographs of favorite fauna), who may not be aware of the potentially devastating impact coming from well-intentioned visits to sensitive sites. This is a note to those on the search for Speckled Rattlesnakes (i.e., “specks”); a favorite target of many visiting reptile herpers.*

This note is not aimed at any one person or group but is to address a common trajectory that plays out again and again. If this is you: listen up. *This isn't criticism; this is to help you see more snakes in the future and progress at what you love to do.*

If you find groups of Speckled Rattlesnakes (*Crotalus pyrrhus*) or other species, sometimes together, in small groups on your hikes, it is one of the most exciting feelings you can have. I remember very well the season when things

finally started to feel like it all made sense and I could find specks at will any morning.

But something happened to those spots, and I want to talk about it so you can avoid making the same mistakes that I did—and that many of us make early on. You don't have to listen, of course, but I guarantee that if you do, both you and the snakes will benefit.



SOUTHWESTERN SPECKLED RATTLESNAKE  
*Crotalus pyrrhus*

MARICOPA COUNTY, ARIZONA  
2019

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The microhabitats that low-desert rattlesnakes choose for aestivation (i.e., summer refugia) and gestation sites (i.e., reproductive dens) is very specific. You can have a giant group of hillsides and ravines that all boil down to a handful of small holes where they gather to stay cool and safe throughout the hottest part of the year. These sites may be one of many they rotate between, but sometimes it may be just one, especially in areas where hikers and development have limited the snakes' options.

These summer sites are the hinge on which their entire lives revolve. They are every bit as sensitive and critically important as winter dens for snakes in cooler environments. They are easily impacted and can be destroyed by what may seem like nothing.

### **How this is going to go:**

This year, you're going to see so many specks—it's going to be amazing, tons of photos, lots of learning, so many great experiences, etc. You'll note the locations and feel like everything is finally starting to come together into a greater understanding of it all.

*You'll invite some friends...close ones you trust, of course...life is good.*

You will return to check on these sites a few times a week, sometimes even the next day. You hook the snakes out if they start to retreat and pose them up for some great close-up photographs—they crawl off just fine, what's the harm? You come home and post those photos right away on social media so the world can see.

*Sometimes you can't make it and your friends go without you. Sometimes they invite friends as well... close ones they trust, of course.*

But next year, you will come back to those sites only to see a handful of the snakes you saw before. Maybe it's a bad year...perhaps the moon phase? Is the humidity too low? Who knows.... You'll keep visiting those sites hoping for a different result, but nothing changes. You spend most of your free time visiting old sites instead of exploring new ones. You still see great things, but not as great as last year! You do start to notice more footprints in that wash, though, maybe a discarded Gatorade bottle on the ground. Oh well, next year will be better.

Another year passes and now the weather and moon must really be bad because there are hardly any snakes at all in these spots. Where did they go? Perhaps there is one snake deep in shed at one of them, but where are the others? There are now unrecognized footprints in the wash every time you go. You start seeing familiar rocks in photos posted in social groups and forums from friends of friends of friends. You start seeing snakes you recognize on Instagram photos. Herping starts to feel frustrating. And you can't decide whether or not to explore for new spots or go check the old ones and hope something is happening.

Then next year, the site is dead. Occasionally a random snake is there, but it's nothing like what it was a few years ago. The last time you went there, too, you ran into a couple of unknown out-of-state guys who heard this was a good place.

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**So now your choice will either be to evaluate what happened or to carry on and repeat this process.**

The dopamine response we all develop when seeing and sharing rattlesnake experiences is strong. To ignore it is like ordering a pizza and, as soon as it arrives, throwing it in the fridge and going to bed hungry. But repeating mistakes can make evaluating our actions in the field—and potential impact to invaluable habitat—nearly impossible. Submitting to the dopamine limelight is also the biggest enemy to having repeat encounters—it is important to reconsider strategies if herping is to advance beyond a series of random events.

**Here's what can happen to the snakes when well-intentioned herpers interact with them:**

Small stress events, even ones that we don't always notice (e.g., getting a close-up cell-phone picture and the snake never tongue-flicks), build up. There are numerous in-depth studies of stress-response in several species of rattlesnakes (specks aren't one of those, yet). Those repeated stress events cause snakes to change their behavior. Sometimes that means they'll spend more time under bushes and hidden from view, so you walk past more of them instead of observing the wide-open ambush positions you're used to. But with these low-desert snakes, they tend to leave entirely. They may end up at a different aestivation area. Sometimes that site isn't as good as the one they originally selected, and sometimes that has negative consequences for the snake, up to and including death.

A single stress event or managed events that are spaced out may adequately deter negative effects. However, there are exceptions. Rattlesnakes can die at surprisingly lower than assumed high temperatures given the summer climate they occur in. Once their body temperature gets into the 105–110°F range, they are on death's door. Even if they crawl away seemingly fine, they might not recover. On hot nights, specks will sit out until they are only a few degrees shy of their upper terminal temperature (i.e., thermal maximum), then make a beeline for cover. If you are buzzed (i.e., rattled at) during an encounter, then hinder the snake for a 20-minute photo session before letting it crawl away to cover, you very well may have killed that snake without knowing it. If the place they retreat to after the encounter is not suitable to survive a 110°F+ inferno for the day, it's dead.



SOUTHWESTERN SPECKLED RATTLESNAKES  
*Crotalus pyrrhus*

MARICOPA COUNTY, ARIZONA  
2019

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TIGER RATTLESNAKE  
*Crotalus tigris*

SOUTHWESTERN SPECKLED RATTLESNAKE  
*Crotalus pyrrhus*

PHOENIX, AZ  
2019

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Would you visit a Timber Rattlesnake (*C. horridus*) den and hook snakes out of crevices to photograph? Would you pull them out in the coldest days of winter and pose them on open ice for a half-hour photo shoot and let them crawl off into the snow? Would you flip every rock in a stream for Hellbender Salamanders (*Cryptobranchus alleganiensis*) and pose them in the sun before releasing them into the sand? Would you dig an Eastern Massasauga (*Sistrurus catenatus*) out of a crawfish burrow for photos and leave it in the sun? Of course

not! These are ridiculous actions that we know have consequences. For whatever reason, the nature of critical microhabitat for hot-desert species is largely missing from the herper lexicon.

*Posting your images to social media or other sites can also lead to less ethical herpers visiting these sites, potentially causing overcollection or habitat destruction.*

There is an unfortunate and prominent dark side to herping. From the lucrative black-market trade of illegally collected reptiles to simply uncaring individuals willing to tear habitat apart to encounter a prized “lifer,” herping has deep-rooted issues. This is itself a topic of controversy worthy of a much longer article than this. It would be accurately stated, however, that the social circles of even the most ethical herpers undeniably include well-known poachers.

Beyond social tolerance of unethical and often illegal activities, many absolutely well-intentioned reptile enthusiasts are simply unaware of the potentially negative consequences of interaction with the environment. As I often put it: if I were to clone myself, I’d still not divulge the location of sensitive sites to my clone. A hundred well-intentioned boots are just as destructive as a single pair worn by an infamous poacher.

It might be that the perceived abundance of rattlesnakes in Arizona makes it harder to see consequential actions. It could be that, despite rattlesnakes in general being one of the most well-studied vertebrates on the planet, what they do when temperature reach 110°F is poorly documented. It could be that they are common animals in common places, so people simply don’t care if they are negatively affected. It could also be—and this is what I assume to be unfortunately true in many cases—that the potential for damage is known, but the draw for the excitement of experience and sharing make it less important. I am sure we have all seen specks posed in the open on rocks where the shadow positions reveal the time of day by herpers who are experienced to know better. I can only guess why this feels acceptable. Maybe it’s because they never see the results, other than the die-off of

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aestivation sites each year. If that's just chalked up to "must be a bad year," as it tends to be, the lesson is never learned personally. Unfortunately, that mess is apparent to those who look for it.

The points that I have made have already been well-documented and eventually published. I am working with collaborators on a research project in a few areas that are often herped. We set out to learn about where and when snakes use different microhabitats. As research progresses, however, the regretful picture of just how quickly well-intentioned herpers can kill off crucial habitat is emerging. I hate it, but it's right there and can't be ignored. Once an area is discovered by herpers and visited frequently, it changes dramatically. Compared to similar sites that are either not herped or herped at spaced intervals to manage stress, frequently repeated visits by groups of well-intentioned herpers is among the primary reasons sites are destroyed, third only to development and transient use.

Single or rare stress events, even if substantial, seem to have negligible impact. **Limiting visits to a sensitive site to just a handful a year can mitigate the negative issues I've described here.** It's an investment. You're trading dopamine for future encounters.

Social media has exacerbated abuse by both well- and ill-intentioned groups. When the location—and even the timing in many cases—of sensitive information is shared, the results are apparent. When you see that your Instagram buddy just killed it in the Arizona Sky Islands...who doesn't start making their own plans for the following weekend? That Instagram buddy has 10,000 followers—you're not the only one making those same plans. This process can quickly turn a meadow into a parking lot. All of this is optional and can be avoided by simply paying attention to when and what content is posted.

Members of Arizona-themed herper social media groups/forums—who go overboard on how and where people herp—often have a bad reputation. Even if you disagree with how they deliver it, try to see the underlying message. Arizona is one of the herping hotspots of the world. Many members who seem over the top in their discussion of herping norms are coming from a position of watching sensitive sites be decimated each year.

All of this is why it seems you can't so much as post a cell-phone shot of a snake here in Arizona without a bunch of old-timers coming out of the woodwork to tell you you're doing it wrong. The fact is they are right, but they need to put it in a better package. Let's be honest about all this: we're connected because we like reptiles, not because we're all aligned on a social level.

**So I'm asking you to try this. Next time you see a speck in a wash, ask yourself these questions:**

- Do you want to see this snake again? Is this more enjoyable as a one-off experience or as an observation spot to visit for a lifetime?
- Is my understanding and sharing this experience better as a piled serpent stress-ball or as numerous future observations and hundreds of photographs of what this snake actually does?
- Is approaching this snake up close for a cell-phone shot worth it? Is what I am doing hurting or helping? Is my photograph worth the possible death of this snake?

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- Is it worth it to post that photo the moment I get home? Is the experience less enjoyable if I wait until after aestivation season to do it?

If you don't think that people can triangulate your position based on a telephone pole and a dirt road in the background, you're wrong...and thanks for the site.

If you think that a snake wasn't bothered by you because it didn't tongue-flick after that close-up cell-phone shot, come back in ten minutes and see where it's at.

If you don't think that hundreds of people planning AZ monsoon trips, some much less well-intentioned or ethical as you, aren't watching every move you make and every photo you post, be aware that they are.

If you value the experience of visiting specks at the sites you've found, please consider all of this. Or disregard, if you prefer. Just remember it in a few years when that speck honey-hole seems to have dried up. Guess what: it's not the full moon.

\* \* \* \* \*



Avocets, ibis, sandpipers, and stilts on a wetland sand bar near Willcox, AZ, with a sunset storm approaching from the Dos Cabezas and Chiricahua mountains. Credit B. Blais.

## Candid Critters of the Catalinas: Mountain Lion Scrape Behaviors

By David F Dean,  
DVM, PhD, Ret.

My hobby is using wildlife camera traps to capture the wildlife of the Santa Catalina Mountains north of Tucson on video. Presently, I have six cameras in the field. I have a presentation of my videos entitled *Candid Critters of the Catalinas* that I show to interested groups around Tucson. It's a lot of fun.



I was looking for a scrape to put a camera, there was a mountain lion looking for a camera to put a scrape. And he found me first!

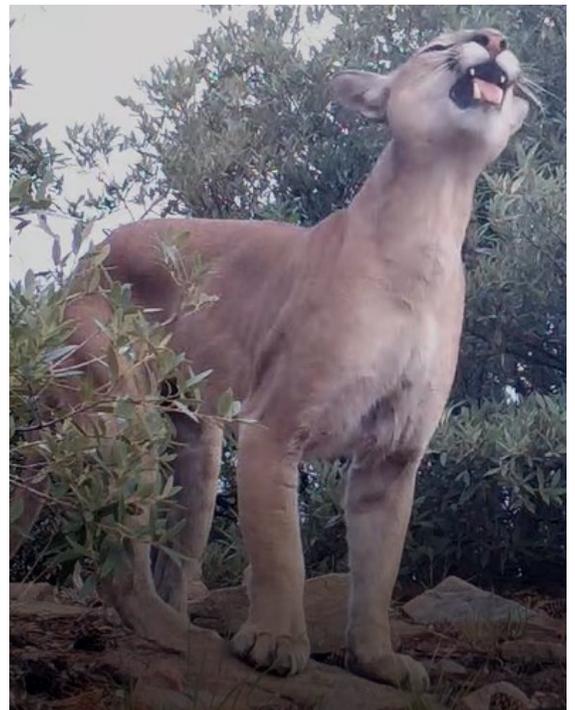
Shown here are several screenshots from a series of videos captured last summer (2019) that feature activity at the site of a mountain lion scrape. The first video clip in the sequence is of a dominant male lion making the scrape, and that is followed by a photograph of the scrape. Next, a subdominant male comes along and later, a female in heat who urinates on the scrape [*a sign she may be receptive to breeding*]. Finally, the dominant male returns and produces a Flehmen Display [*curling back the upper lip to better interpret scent signals with the vomeronasal organ*] in response to the scent of the female's urine.

[Editor's note: David welcomes anyone to [contact him](#) about the images, videos, or other candid critters of the Catalinas, especially mountain lions. Videos of the mountain lion scrape sequences can be found on David's Vimeo page [here](#).]



Mountain lion looks around at a scrape site (above); a male sniffs the scrap (left). Credit David Dean.

I had been looking for a scrape [*scratched bits of earth that mountain lions use to scent communicate*] to set a camera on for some time. Then one day when checking a camera that had been in place for a few weeks—to my astonishment—there was a scrape directly in front of it. So it's as if while



Male mountain lion performing the Flehmen response behavior to the scrape scents. Credit David Dean.

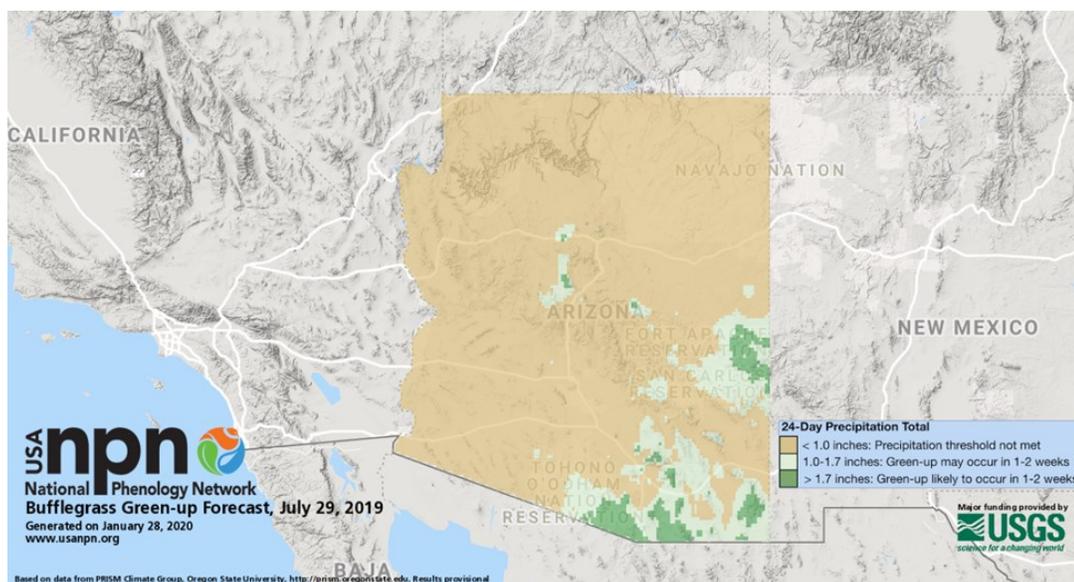
# This Summer, Buffelgrass Greenness Forecasts Give a Leg Up on Management

*Erin Posthumus,*  
*USA National Phenology Network*

Buffelgrass (*Pennisetum ciliare*, *Cenchrus ciliaris*) is an invasive grass that impacts native desert plant and animal communities in the southwestern United States. It outcompetes native plants and creates substantial fire risk in ecosystems that are not adapted to large-scale intense burning.

Last year, the USA National Phenology Network created a “Buffelgrass Pheno Forecast” map ([usanpn.org/data/forecasts/Buffelgrass](https://usanpn.org/data/forecasts/Buffelgrass)) to aid managers to more efficiently time buffelgrass herbicide treatment during the summer monsoon. The Forecast is based on known precipitation thresholds for triggering green-up to a level at which management actions are most effective (e.g., at least 50% greenness; [Wallace et al. 2016](#)). Starting at the end of June, the maps are updated daily and predict green-up one to two weeks into the future.

By signing up for the Buffelgrass Pheno Forecast, you will receive weekly emails on Monday mornings, including predictions of where buffelgrass is currently green, based a 24-day window of accumulated precipitation, as well as where buffelgrass will green up in the next 1–2 weeks.



This map shows locations where green-up was expected within 1–2 weeks as of July 29, 2019. The tan color indicates locations where precipitation thresholds are not yet met; light green indicates locations where green up may occur in 1–2 weeks for some locations that require a lower threshold; and dark green indicates locations where green up is likely to occur in 1–2 weeks in locations that require a higher threshold.

We invite you to give us your feedback on the accuracy of these maps by reporting your observations of buffelgrass green-up at your location at [buffelgrass.usanpn.org](https://buffelgrass.usanpn.org). We will include this link in each of our weekly emails. Your feedback will help to improve these forecasts.

You can also register your site in the USA-NPN’s plant and animal phenology data collection program, [Nature’s Notebook](#), to make repeated long-term observations of buffelgrass green-up, flowering, and fruiting. We recommend this method for locations where you will not be immediately treating or removing buffelgrass.

We welcome any feedback you have on our notifications. Email Erin Posthumus at [erin@usanpn.org](mailto:erin@usanpn.org).

# Gartersnakes Documented as Source of Predation on New Mexico Meadow Jumping Mice

By Jennifer L. Zahratka, Carol L. Chambers, and Jose G. Martinez-Fonseca,  
School of Forestry, Northern Arizona University

[Editor's note: A similar version of this submission was originally published in the peer-reviewed journal *Herpetological Review* 51(2):361–362, available [here](#)]

The wandering gartersnake (*Thamnophis elegans vagrans*) is a common, medium-sized snake species that kills its prey by constriction. Several subspecies of *T. elegans* are known to feed on a variety of prey, including slugs, leeches, tadpoles, fish, lizards, snakes, birds, and small mammals. The New Mexico meadow jumping mouse (NMMJM; *Zapus hudsonius luteus*), a federally endangered subspecies listed under the U.S. Endangered Species Act, is a small-bodied mouse known to be a riparian obligate that prefers tall and diverse herbaceous vegetation in areas of the southwestern United States.



(Above) New Mexico meadow jumping mouse from Apache-Sitgreaves National Forest, credit Jordyn Glad-den; (Right) wandering gartersnake with ingested NMMJM within day nest. Credit Matthew Voorhees.

In the morning hours of 3 October 2017, in southwestern Colorado, we found a *T. e. vagrans* that had predated a radio-collared female NMMJM (MSB 325322, Fig. 1A). The transmitter on the jumping mouse led us to the snake under a rubber rabbitbrush (*Ericameria nauseosa*) about 10 m from a perennial creek; the consumed jumping mouse was in its stomach. We estimated the snake was ca. 75 cm total length.

Late evening on 29 September 2019, on the Apaches-Sitgreaves National Forests in eastern Arizona, we found another *T. e. vagrans* predation of a radio-collared NMMJM from inside its day nest (MSB 329202; Fig. 1B and 1C). We captured the snake and placed it in a cloth bag; the snake regurgitated the prey and was released unharmed.

These findings document predation of the federally endangered New Mexico meadow jumping mouse by a common species of gartersnake that co-occurs in riparian habitat throughout the NMMJM range.

We thank Jonathon Dunnun from Museum of Southwestern Biology and Gregory Schneider from Museum of Vertebrate Zoology at the University of Michigan for providing voucher numbers for specimens and photos. We thank Jordyn Glad-den and Matthew Voorhees for field assistance and photographs.



## Updates from TWS—Annual Conference



The Wildlife Society's Annual Conference goes virtual in 2020! We may be seeing you through a computer screen, but we are committed to creating the most valuable and engaging educational and networking experience possible, with the same robust scientific program and added benefits. In fact, we're quite excited about all of the new possibilities that a virtual conference opens up for you. See you in September!

All TWS members can [register now](#) for just \$100—a savings of \$200 off the nonmember rate. Early registration is open now through August 15. After August 15, the members rate will increase to \$125.

Attendees can expect opportunities for the following:

- Individualized discussion boards, live video chats and panel discussions, virtual workshops and training opportunities, Working Group meetings, student activities, and networking opportunities.
- Hundreds of on-demand video and interactive digital poster presentations through symposia and contributed paper sessions.
- Conference-wide discussion boards for networking and engagement.
- Virtual exhibit hall with all sponsors and exhibitors, including live drop-in or scheduled interaction.
- Full access to the virtual conference platform for six months following the conference, including all program content, discussion boards, social feed, networking lounges, exhibit hall, etc.

Details are available on the [conference website](#).

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### North American Rabbits Face a Deadly Virus

The hemorrhagic virus has infected in domestic rabbits since 2018, and it's now spreading in wild populations. Story originally [published in Smithsonian Magazine](#). Credit Gary Clark via Wikimedia Commons under CC BY-SA 4.0.

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## Continuing Education Grants



AZTWS offers \$2,500 annually in Continuing Education Grants to its members (professionals, graduate and undergraduate students) to support education and career goals. Grant requests should not exceed \$500 per application and only one grant is awarded per person, per year. Grants are limited to current Chapter members only; membership dues are \$6/year. Join or renew [here](#).

Applications can be submitted at any time and will be reviewed quarterly by the Continuing Education Committee. Applicants will be notified within 30 days of the Committee’s review. The Committee evaluates applications based on your explanation of how the activity will enhance your career development, your financial need, your efforts to obtain supplemental funding, and your involvement in Chapter activities. AZTWS encourages applicants from under-represented individuals and groups.

**Submit Your  
Application [Online](#)**

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Want to share your Arizona wildlife stories and perspectives? Please consider submitting **articles, stories, project updates, events, and pictures** for upcoming newsletters! AZTWS welcomes all contributors.

### *The Arizona Wildlifer Deadlines*

<u>Issue</u>	<u>Deadline</u>
<b>Fall 2020</b>	<b>Sep 18, 2020</b>
<b>Winter 2021</b>	<b>Dec 18, 2020</b>

Email submissions at any time to [aztwseditor@gmail.com](mailto:aztwseditor@gmail.com).